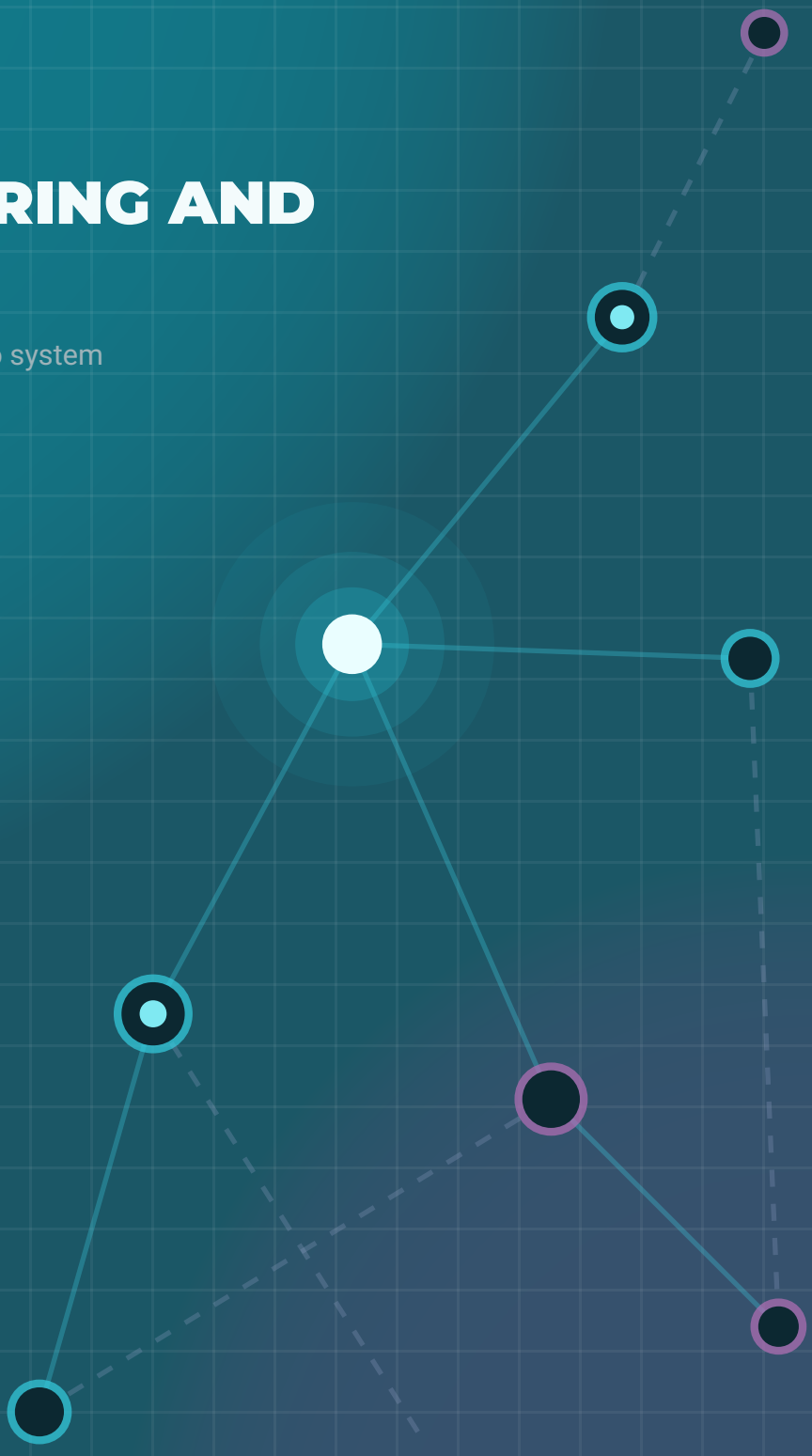
Viindoo

EBOOK · DEMO HANDBOOK

MANUFACTURING AND ASSEMBLY

92 hands-on lessons on the demo system



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HOW TO USE THIS HANDBOOK

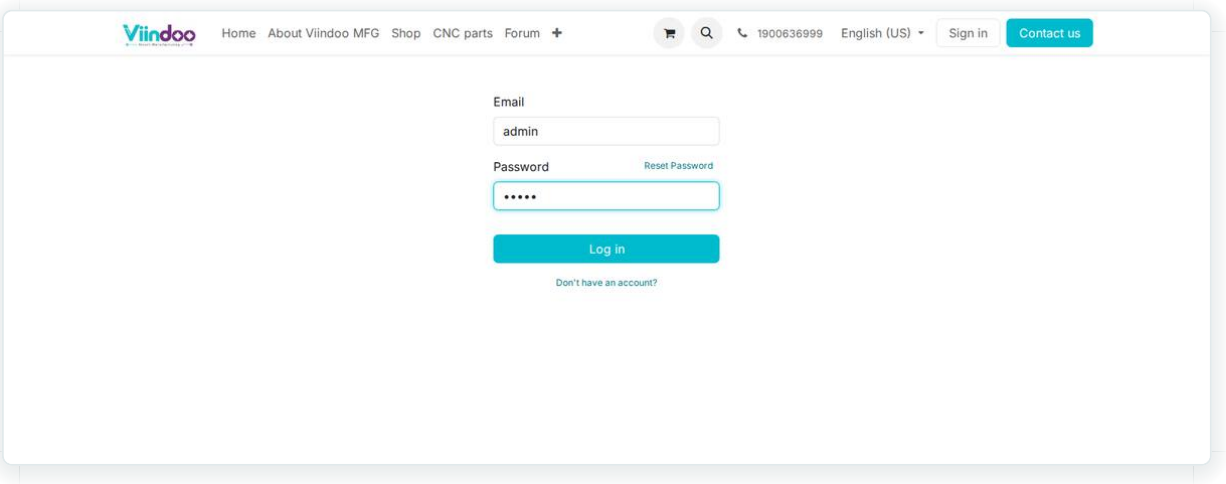
The demo system: https://sanxuat18.viindoo.cloud - account `admin`, password `admin`, company **Công ty Cổ phần SX Viindoo**.

This handbook is written so that your company can **click through everything yourself** on the demo system of an electric-vehicle assembly workshop (the models Veras, Mira, Bella E, Aura, Nova and Lumi). Each step has four parts: what to do, the path from the menu, a real screenshot, and what you **should see** after clicking, so you can tell for yourself whether you did it right. The place to click is circled in orange on the screenshot.

Step 0 - Log in

Open https://sanxuat18.viindoo.cloud/web/login, type `admin` in the **Email** box, type `admin` in the **Password** box, and click **Log in**. The system may open in Vietnamese; to change the display language to English, click your user name in the top right corner, choose **My Preferences**, and change **Language**.

> *Path:* `https://sanxuat18.viindoo.cloud/web/login`

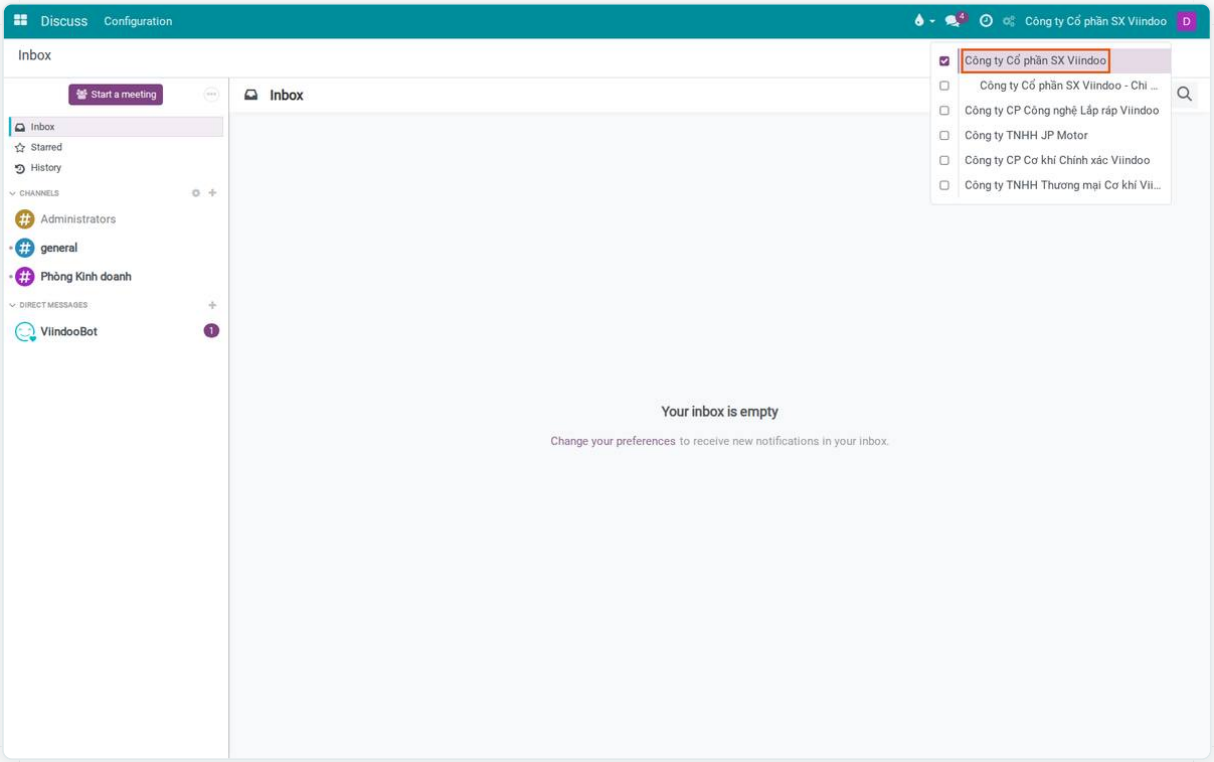


What you should see: after you click, the system opens the **Discuss** screen; the top right corner shows the name of the company you are working in. If a message asks you to change the default password, click the x to close it; the demo system is shared, so do not change the password.

Step 1 - Choose the right company

Click the company name in the top right corner, then click the words **Công ty Cổ phần SX Viindoo** (click the name, do not tick the square box).

> *Path:* **top bar, right corner: the company selector**

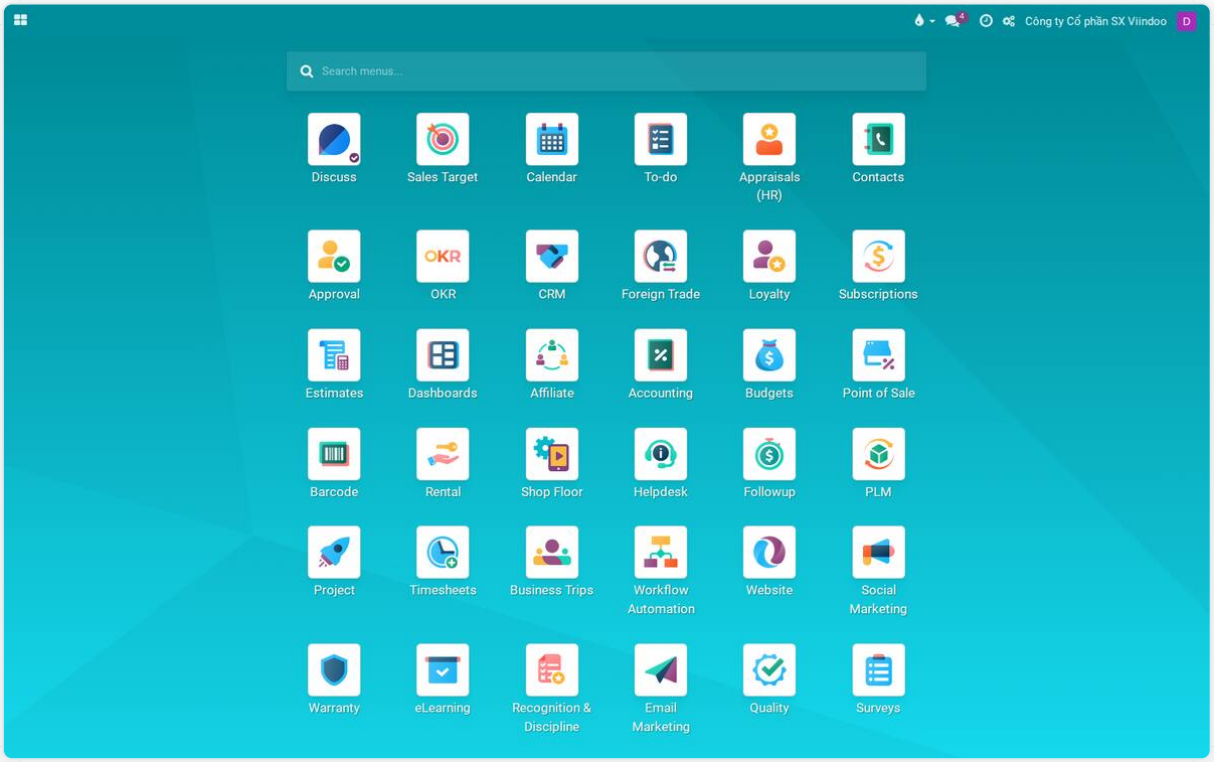


What you should see: the top right corner changes to **Công ty Cổ phần SX Viindoo**. The demo system holds six sample companies that share one system; every lesson in this handbook is done in this company only. If you work in another company by mistake, the product categories, pricelists and accounts will not match the handbook.

Step 2 - Open the application screen

Click the grid icon in the top left corner.

> *Path:* **top bar, left corner: the apps icon**



What you should see: the application tiles (scroll down to see all of them). The handbook uses **Sales**, **Purchase**, **Inventory**, **Manufacturing**, **Shop Floor**, **Quality**, **PLM**, **Maintenance**, **Warranty**, **Repairs**, **Approval** and **Accounting**. The search box at the top lets you type the name of a menu to jump straight to the screen you want.

The most important rule: your company creates its own documents

Many people use the demo system at the same time. For that reason the handbook **never tells your company to open an existing document and edit it**. In each lesson your company creates a new document (a sales order, a purchase order, a manufacturing order, a payment...) from the master data that is already there: products, bills of materials, pricelists, vendors, work centers. The documents your company creates belong to your company alone. Lessons that only read reports create nothing.

The figures in the reports (stock, receivables and payables, profit and loss, number of orders) change every day because many people work on the system. The handbook gives fixed figures only for documents that a lesson creates itself; for reports, it shows how to read them.

Which part for which role

On the demo system every role shares the account `admin`, which has enough rights to open every screen, **Settings** included. In a real implementation each role has its own account (see the lesson *User roles and access rights*).

Role	Read first	Read next
Business owner, director	Lesson 1; Part XII. Accounting and costing (financial statements, product cost); Reference and appendices	Part VIII. Sales and distribution (profit by sales channel)
Chief accountant, general accountant	Part I. General configuration; Part XII. Accounting and costing	Part IV. Purchasing and import (import costs), Part V. Warehouse and quality (stock books S10, S11, S12), Part VII. Subcontracting (subcontracting settlement)
Cost accountant	Part XII. Accounting and costing (cost of an order, work in progress, cost allocation)	Part II. Manufacturing engineering (work centers, hourly rates), Part VI. Shop floor production (actual hours on the shop floor)
Process engineer	Part II. Manufacturing engineering	Part XI. Approvals (approval of bills of materials)
Production planner	Part III. Production planning	Part IV. Purchasing and import, Part VI. Shop floor production
Purchasing, import-export	Part IV. Purchasing and import	Part VII. Subcontracting, Part XI. Approvals
Storekeeper, quality controller	Part V. Warehouse and quality	Part VI. Shop floor production
Workshop manager, team leader	Part VI. Shop floor production	Part X. Equipment maintenance
Sales, dealer care	Part VIII. Sales and distribution	Part IX. Warranty and repairs
Warranty, repairs	Part IX. Warranty and repairs	Part V. Warehouse and quality (lots, serial numbers)
Maintenance	Part X. Equipment maintenance	Part VI. Shop floor production
Approver	Part XI. Approvals	-

What your company needs and the part that answers it

Need	Part	Lesson
See one vehicle from the dealer's order to the frame-number lookup	-	Lesson 1
Prices apply automatically at the distributor, dealer and store level	Part VIII. Sales and distribution	Sales configuration: customer channels, pricelists, payment terms, credit limits, From quotation to payment for a dealer

Need	Part	Lesson
Sell for export in USD	Part VIII. Sales and distribution	Export order in USD
One vehicle line with many colors on one bill of materials	Part II. Manufacturing engineering	Two-level bill of materials: one BoM for several colours
Change a bill of materials under control and with approval	Part II. Manufacturing engineering, Part XI. Approvals	Engineering change orders (PLM), Submitting a bill of materials for approval
Know at once which components are short and buy them	Part IV. Purchasing and import	Check material availability and buy the shortfall for a manufacturing order
Buy from foreign vendors in a foreign currency	Part IV. Purchasing and import	Import purchase order in a foreign currency
Import duty, freight and customs fees in the cost of goods	Part IV. Purchasing and import	Import costs in inventory cost
No stock receipt before the quality check	Part V. Warehouse and quality	A failed incoming inspection blocks the receipt
Repeated defects by vendor	Part V. Warehouse and quality	Quality alerts viewed by vendor
Sell spare parts from the shared warehouse without taking the line's components	Part V. Warehouse and quality	Reserving components for the line when spare parts share the warehouse
Plan from a forecast, reorder automatically	Part III. Production planning	Master production schedule from a forecast, Reordering rules (make to stock)
Team leader records start, finish and line stops on a tablet	Part VI. Shop floor production	Running the shop floor: start, record labor, stop the machine
One frame number and engine number for each vehicle	Part VI. Shop floor production	Quality checks on the line, recording consumption, assigning the chassis number and closing the order
Outsource work and settle materials	Part VII. Subcontracting	Settle materials with the subcontractor
A dealer reports a fault and the frame number gives the vehicle history	Part IX. Warranty and repairs	Look up a chassis number to get a vehicle's history
Scheduled machine maintenance, report a broken machine at the workshop	Part X. Equipment maintenance	Report a breakdown on the shop floor and handle it

Need	Part	Lesson
Cost of each order and each vehicle by cost item	Part XII. Accounting and costing	*Cost of one order when it is completed*, *Production cost report*
Bring depreciation and workshop payroll into the end-of-period cost	Part XII. Accounting and costing	*Allocate production costs to completed orders*
Record work in progress at the end of the period	Part XII. Accounting and costing	*Post work in progress at the end of the period*
Bank reconciliation, tax reports, financial statements under Circular 99	Part XII. Accounting and costing	*Reconcile the bank statement*, *Value added tax*, *Financial statements B01-DN, B02-DN, B03-DN*

How many reports and print templates the system has

67 report and analysis screens have an entry on the menu, for the business processes in this handbook; **60 printable document templates**.

How they were counted: the list of reports was taken from the demo system itself (menus with the word "Report" or "Analysis", and the print templates), then filtered by two conditions. First, only the 11 applications that Công ty Cổ phần SX Viindoo uses in the handbook were kept: Sales, Purchase, Inventory, Manufacturing, Quality, PLM, Approval, Maintenance, Warranty, Repairs and Accounting; the human resources, website, point of sale and CRM applications were dropped because the handbook does not teach them. Second, a report that opens from two menus is counted once: 75 menu entries minus 8 duplicates (five stock books S10, S11, S12 and two stock-in and stock-out lists that exist in both Inventory and Accounting; the Production Cost Report that exists in both Manufacturing and Accounting; the Subcontracting Report that exists in both Purchase and Accounting; the Purchase Analysis that has two entries), which leaves 67.

Application	Report entries on the menu	Listed in full in
Accounting	33	Part XII. Accounting and costing, lesson *Catalog of accounting reports and print templates*
Inventory	13	Part V. Warehouse and quality
Sales	6	Part VIII. Sales and distribution
Manufacturing	6	Part VI. Shop floor production
Approval	5	Part XI. Approvals
Quality	3	Part V. Warehouse and quality
Purchase	3	Part IV. Purchasing and import
Maintenance	2	Part X. Equipment maintenance
Repairs	2	Part IX. Warranty and repairs

Application	Report entries on the menu	Listed in full in
Warranty	1	Part IX. Warranty and repairs
PLM	1	Part II. Manufacturing engineering
Total	**75 entries, 67 different reports**	

Besides the menu there are reports that open from a button on a document: **Overview** and **Cost Analysis** on a manufacturing order, **BoM Overview** on a bill of materials, and the **Traceability Report** on a lot or serial number.

Print templates are counted in the same scope: 60 of the 96 templates in the whole system (leaving out the templates of human resources, payroll, point of sale, loyalty, affiliates, fleet and projects, and the layout previews). The financial statements, general ledger, partner reports and tax reports have the **PDF** and **XLSX** buttons at the top left; the production cost report has **Export XLSX**; the pivot-style analysis screens can be downloaded from the table itself; the books in the form of the Ministry of Finance have **Print Pdf** and **Print Excel**. A print template opens from the gear icon > **Print** on each document.

01 ONE VEHICLE THROUGH THE WHOLE CHAIN: FROM THE DEALER'S ORDER TO CHASSIS NUMBER LOOKUP

About 45 minutes. By the end of this lesson your company has gone through a complete cycle of an assembly business on documents it created itself: take a dealer's order for one vehicle at the correct dealer price, see which components are short and buy them from an overseas vendor in a foreign currency, put import tax, freight and fees into the cost, inspect the goods before they enter stock, assemble the vehicle on the shop floor screen, attach the chassis and engine numbers, read the cost of the vehicle, deliver it to the dealer, invoice it, and look the chassis number up to see the full history of the vehicle.

The lesson goes through five stages. Each stage is expanded into a part of its own later in the handbook; this lesson follows the main road only.

Stage	What happens	Steps	Time
1	Quote the dealer on the dealer pricelist, confirm the order for one vehicle	1 - 3	5 minutes
2	Components that are short against the bill of materials, bought from an overseas vendor in a foreign currency	4 - 6	6 minutes
3	Receive the components: quality check first, then receipt into stock, import tax, freight and fees added to the cost	7 - 16	14 minutes

Stage	What happens	Steps	Time
4	Assemble on the shop floor screen, attach the chassis number, check chassis and engine numbers, close the order	17 - 25	11 minutes
5	Vehicle cost, delivery to the dealer, invoice, chassis number lookup	26 - 33	8 minutes

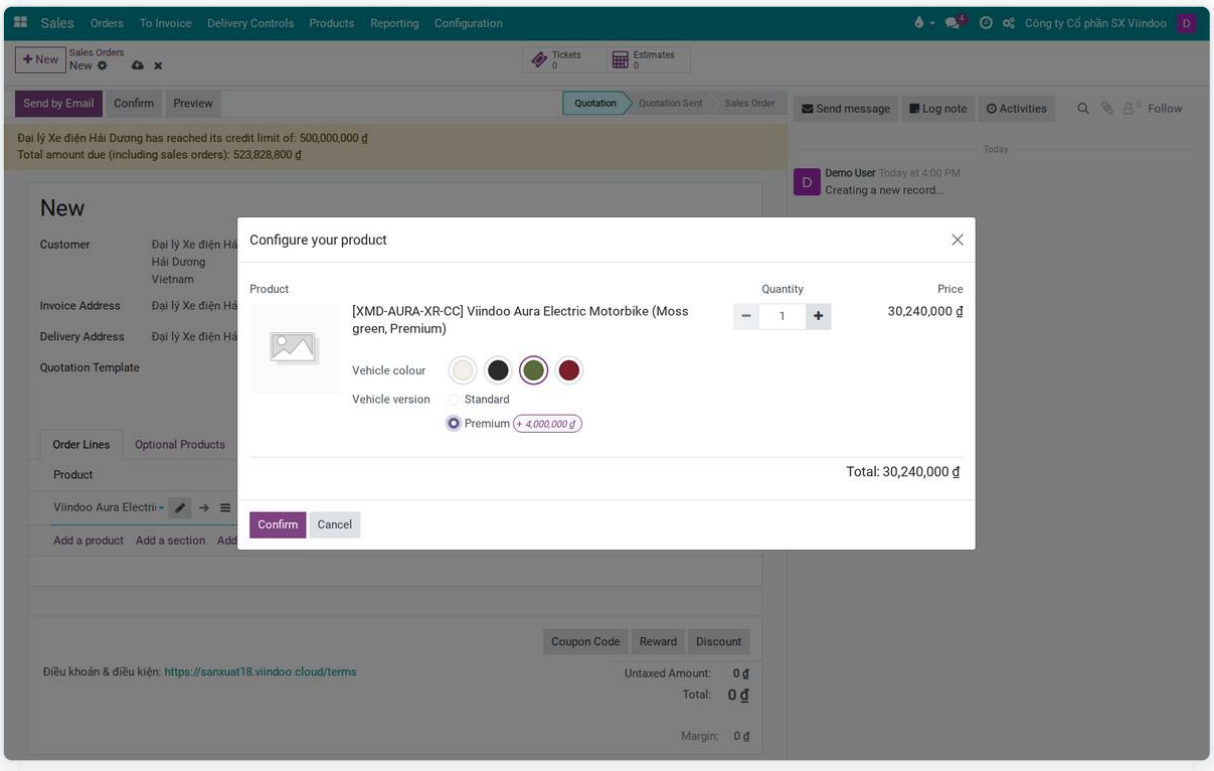
Every step runs in the company "Công ty Cổ phần SX Viindoo", warehouse "Nhà máy Yên Mỹ" (Yen My Factory). When you open a path, check that the top right corner shows this company.

The document numbers in this lesson (S04396, NM1/MO/01282, P01269...) come from the trial run made while writing the handbook. When your company follows the lesson, the system issues new numbers. The amounts of the sales order and the purchase order will be the same if you choose exactly as the lesson says; the converted foreign-currency amounts follow the exchange rate of the day your company does it, and the average cost and labour hours follow the minutes actually clocked, so they will differ a little.

Step 1 - Create a quotation for the dealer and choose the vehicle model

Open the list of quotations and click **New**. In the **Customer** box type and choose **Đại lý Xe điện Hải Dương**. Click **Add a product**, type `Aura`, and choose **Viindoo Aura Electric Motorbike**. In the **Configure your product** dialog, choose the colour **Moss green** (the third round swatch) and the version **Premium**, then click **Confirm**.

> *Path:* `Sales > Orders > Quotations`



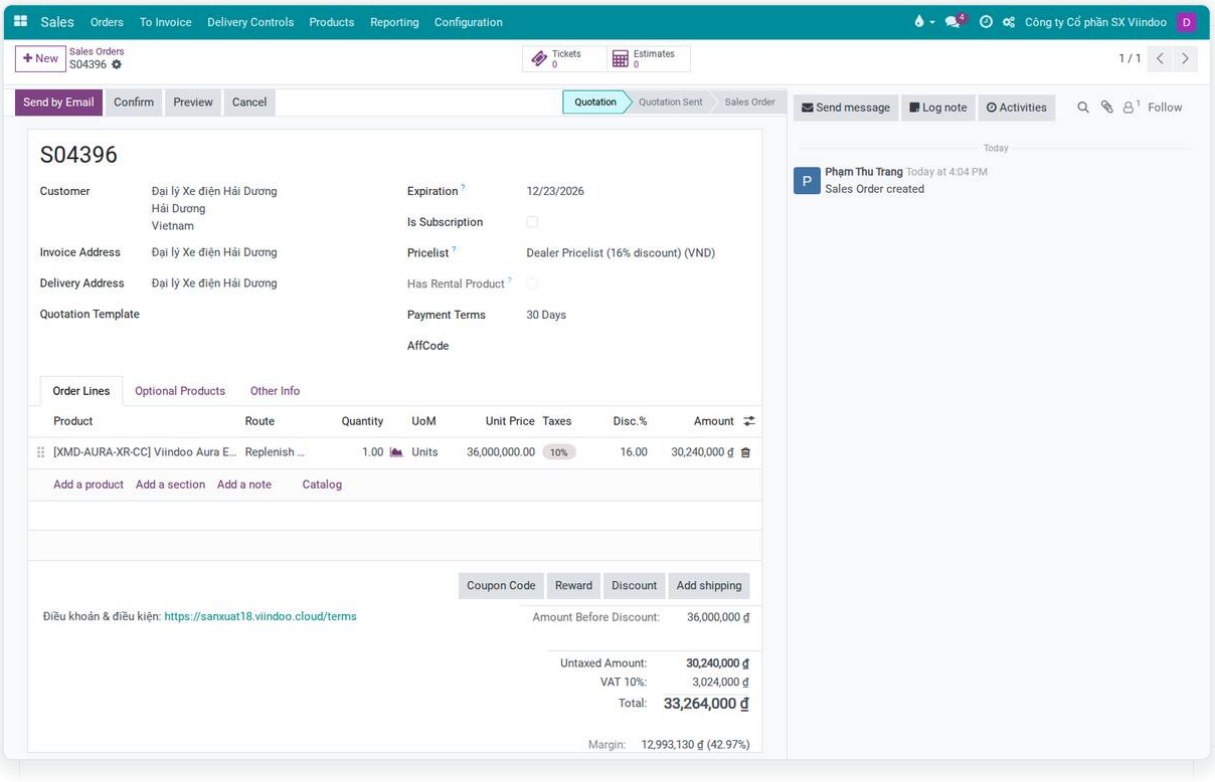
What you should see: as soon as you choose the customer, the **Pricelist** box changes by itself to **Dealer Pricelist (16% discount) (VND)** and **Payment Terms** to **30 Days** - the salesperson does not have to remember which dealer gets which price. In the configuration dialog the vehicle code changes to **[XMD-AURA-XR-CC] Viindoo Aura Electric Motorbike (Moss green, Premium)**, the Premium version adds **4,000,000** VND, and the price shows **30,240,000** VND.

> **One vehicle line, many colours, one bill of materials.** The Aura comes in four colours and two versions, which is eight vehicle codes, but there is only one bill of materials. The bill picks the right painted plastic body kit for the colour and the right motor, controller and battery for the version.

Step 2 - Make the vehicle line to order and save the quotation

The order lines table does not show the route column yet. Click the column settings icon at the end of the table header row and tick **Route**. On the vehicle line, click the **Route** cell and choose **Replenish on Order (MTO)**. Click **Save** (the cloud icon next to the quotation number).

> *Path:* on the quotation you just created, the **Order Lines** tab (`Sales > Orders > Quotations`)



What you should see: the vehicle line has **Unit Price** 36,000,000.00 (list price 32 million plus 4 million for the Premium version), **Disc.%** 16.00 and **Amount** 30,240,000 VND. At the bottom of the quotation: **Amount Before Discount** 36,000,000 VND, **Untaxed Amount** 30,240,000 VND, **VAT 10%** 3,024,000 VND, **Total** 33,264,000 VND. The quotation gets a new number, for example **S04396**. If

the table is crowded and you cannot see the **Disc.%** column, switch off the two delivery date columns with the same column settings button.

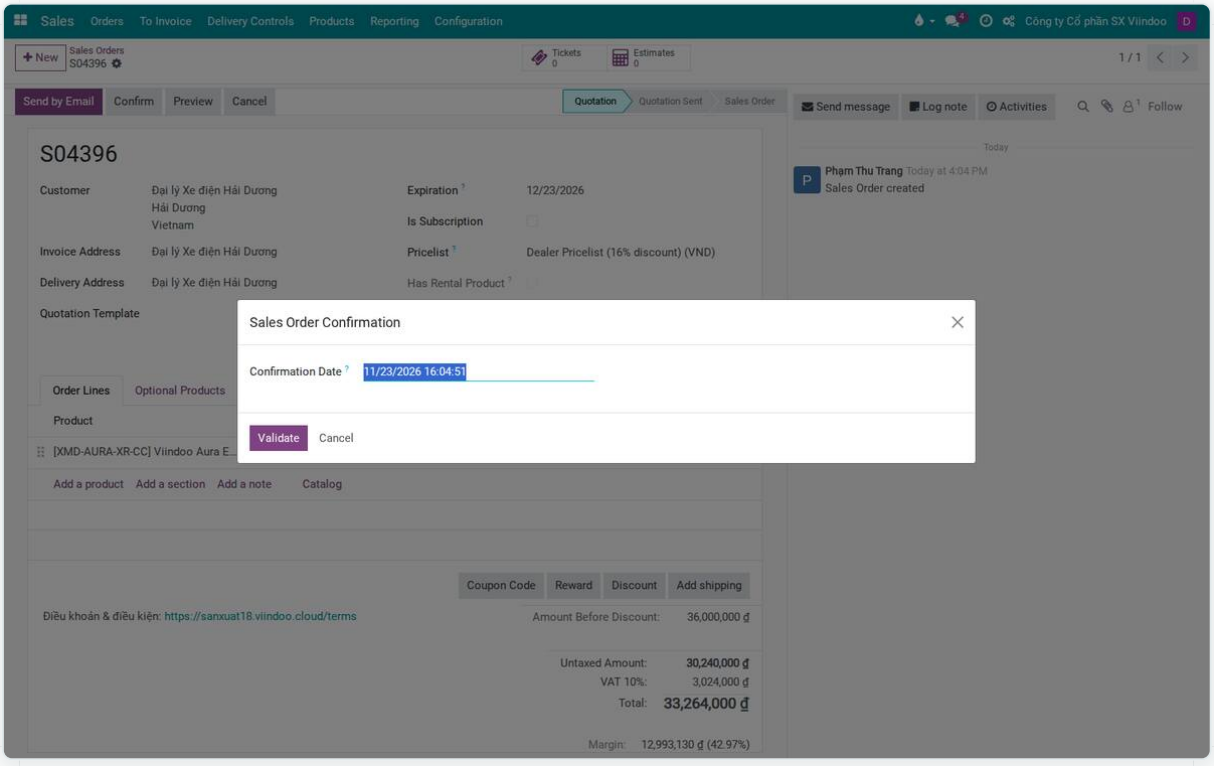
> **Why choose the to-order route:** the Aura has the **Manufacture** route. When you add **Replenish on Order (MTO)** to the line, the system, on confirmation, opens a manufacturing order of its own for this dealer's vehicle at once and links it to the order. Without it, the order takes a vehicle that is already in stock; if no vehicle is in stock, the planner creates the order from the **Replenishment** screen (see Part III. Production planning).

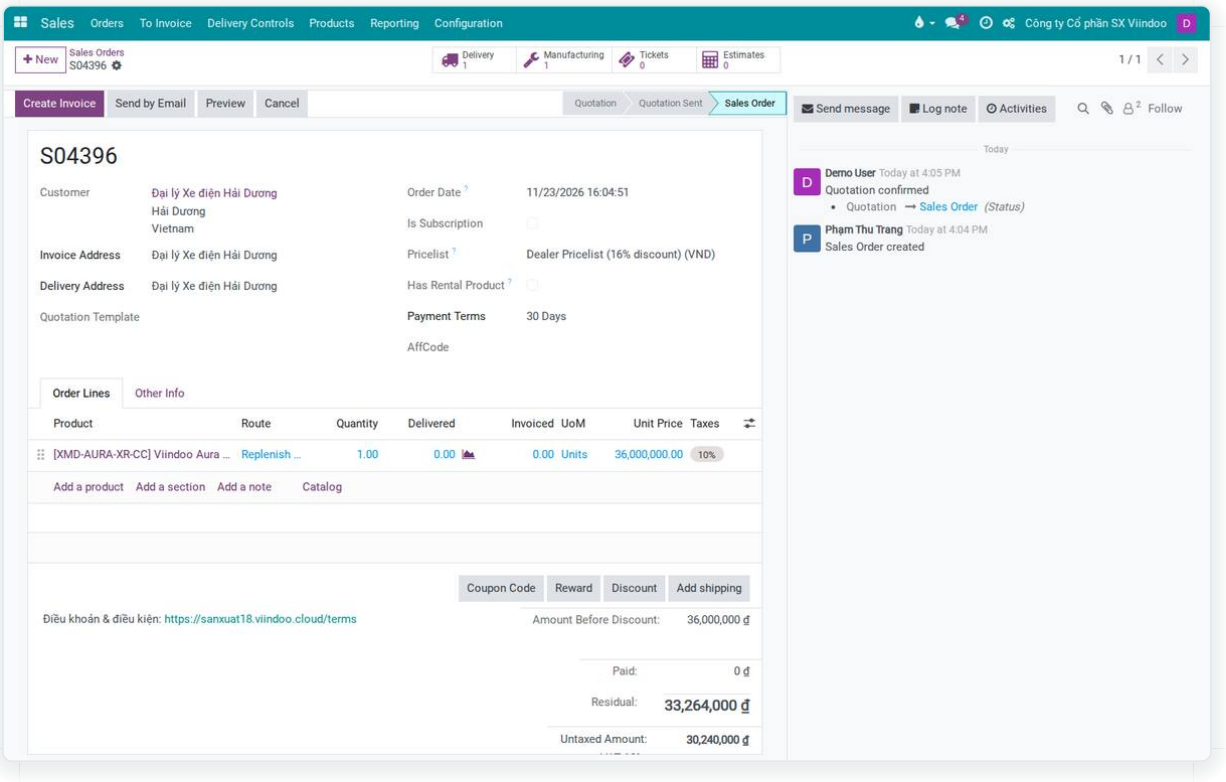
Step 3 - Confirm the order

> *Path:* still on the screen of the previous step (`Sales > Orders > Quotations`)

Click **Confirm**. The **Sales Order Confirmation** dialog shows the **Confirmation Date** box already filled with the current time; click **Validate** in the dialog.

> *Path:* on quotation S04396 (`Sales > Orders > Quotations`)



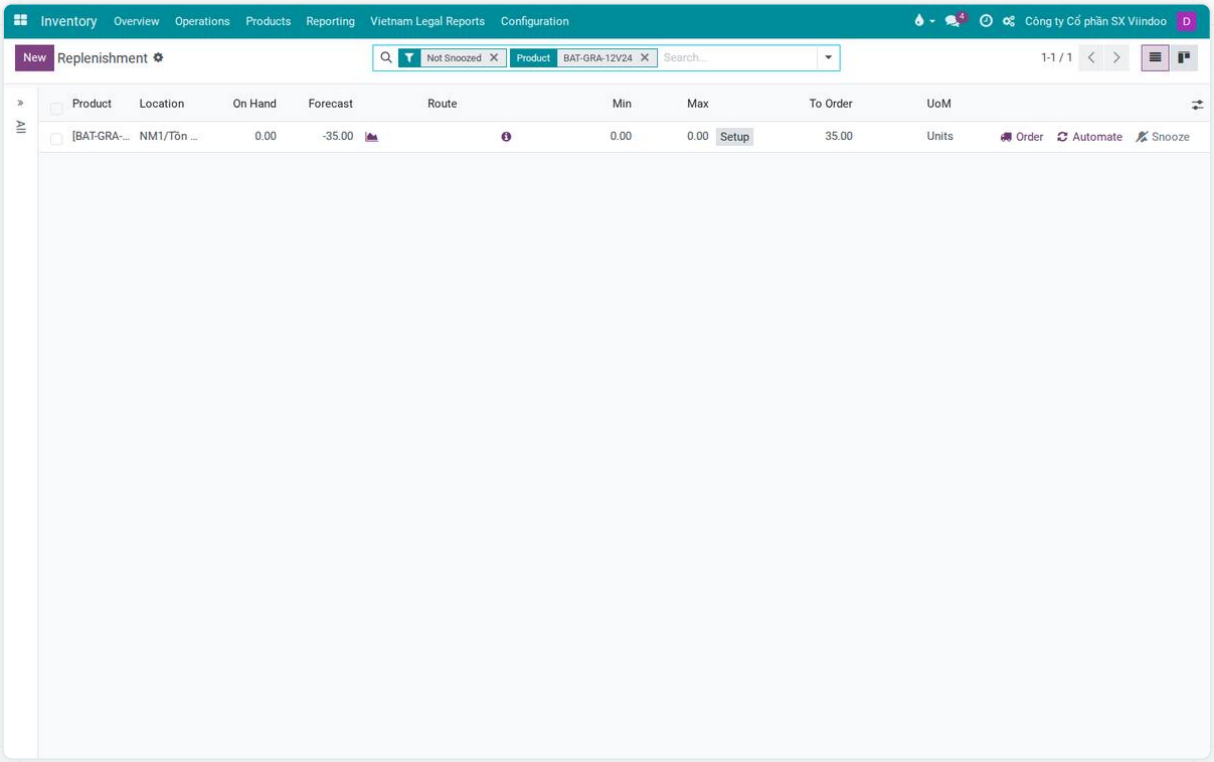


What you should see: the status bar moves to **Sales Order** and the **Create Invoice** button appears. Two new smart buttons appear at the top: **Delivery 1** (the delivery to the dealer) and **Manufacturing 1** (the order that assembles this vehicle). The dealer's order has become work for the shop floor without anyone copying anything by hand.

Step 4 - See which components are short

Click the **Manufacturing** button on the order to open the order just created (for example **NM1/MO/01282**). The order is **Confirmed**, has three operations and 19 component lines. The system has also created a **Pick Components** transfer (the **Transfers** button on the order) that moves the components from the warehouse to the pre-production area. To see which components are short against all waiting demand, open the **Replenishment** screen and search for the component you want to check by its code, then press Enter.

> *Path:* `Inventory > Operations > Procurement > Replenishment`



What you should see: the row of a short component has a negative **Forecast** (for example -35.00) and **To Order** greater than 0 (35.00); at the right of the row are the **Order**, **Automate** and **Snooze** buttons. A negative forecast means that, after counting all waiting demand, the warehouse does not have enough of that component. The 72V hub motor of this lesson is the same kind of case: it is a component imported from China, and when it is short its row looks like this one.

> The stock figures on this screen change from day to day because other orders on the demo system also take components. If the motor is not short when your company does the lesson, carry on with steps 5 - 16 to see the import flow; the order will take the motor that is in stock. The surest way to know what your own order is still missing is to open the **Pick Components** transfer of the order: any row whose **Quantity** column is still 0 is a row for which stock could not be reserved. In the trial run, besides the motor, the **Lithium Battery 60V-30Ah** was also short (the battery was in stock but sitting in the receiving area waiting to be put away for something else); one battery was bought from **Nhà cung cấp linh kiện lẻ** (the retail components vendor) in exactly the way of steps 5 - 11 and 15, and then the pick transfer reserved it by itself.

Step 5 - Create the purchase order for the motors from the overseas vendor

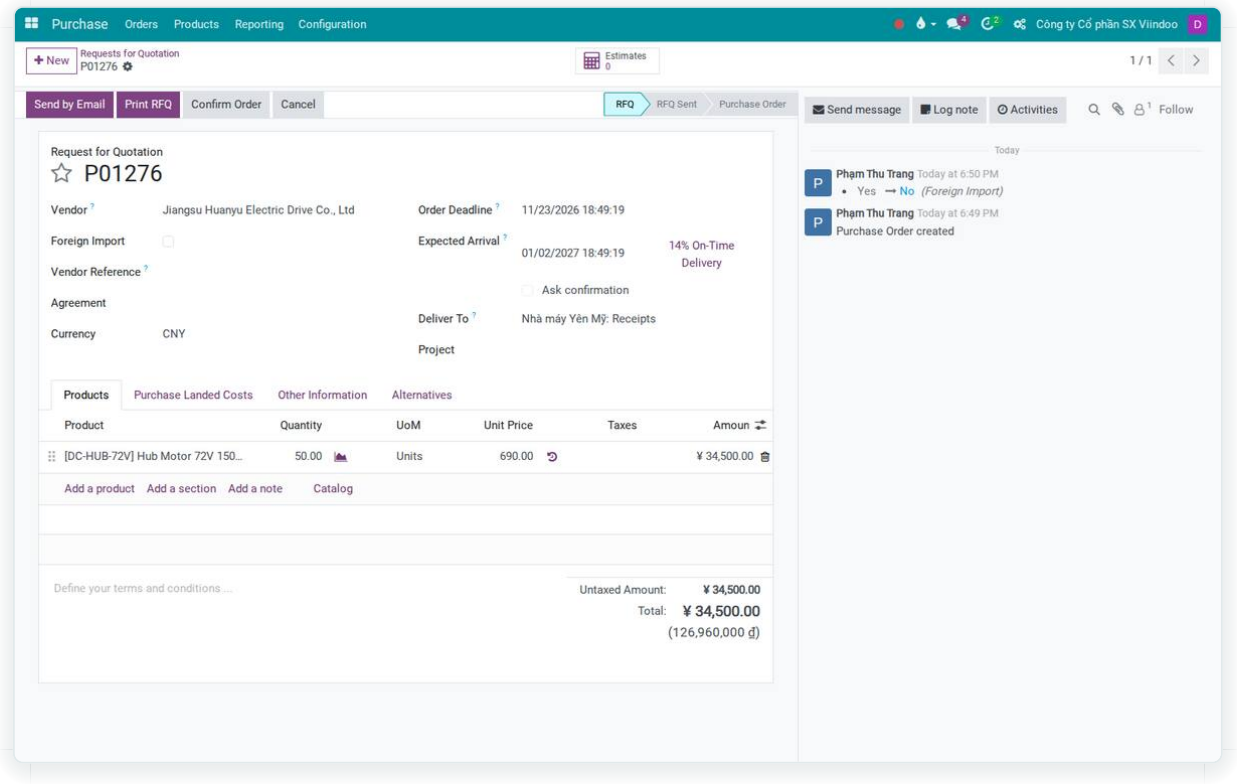
Open the list of requests for quotation and click **New**. Fill in:

Box	What to enter
Vendor	**Jiangsu Huanyu Electric Drive Co., Ltd**

Box	What to enter
Foreign Import	the system ticks it by itself when you choose an overseas vendor; **untick** it so that **Deliver To** changes to **Nhà máy Yên Mỹ: Receipts** - in this lesson the goods are received straight into the factory warehouse
Currency	choose **CNY**
Product line	click **Add a product**, type `DC-HUB-72V`, choose the 72V hub motor; **Quantity** 50
Taxes on the line	click the tax cell and remove the **10%** tag

Click **Save**.

> *Path:* `Purchase > Orders > Requests for Quotation`



What you should see: the motor line takes **Unit Price** 690.00 and the vendor's own product code **[HY-HM72-1500-12]** from the vendor pricelist by itself; **Total** ¥ 34,500.00, and the line below converts it to Vietnamese dong (126,960,000 VND in the trial run). **Expected Arrival** is automatically 40 days ahead, following the delivery lead time declared for this vendor.

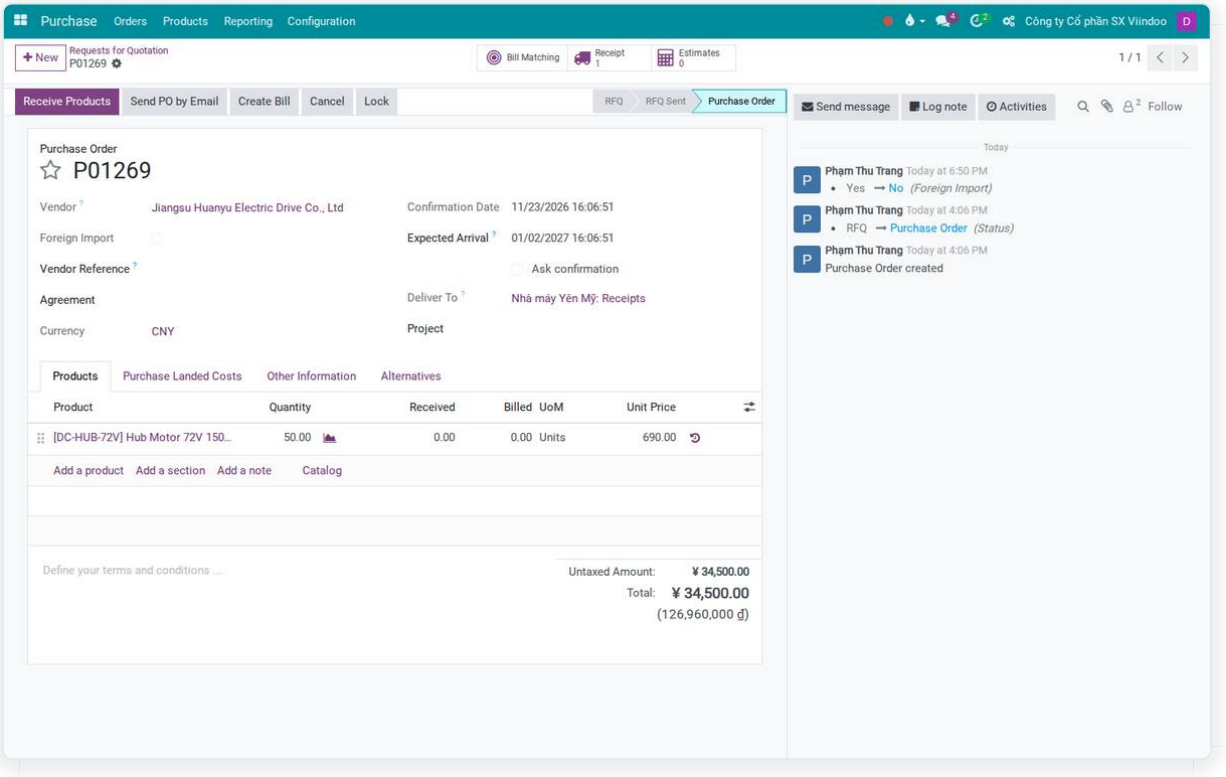
> **Why 50 units:** this vendor only accepts orders of 50 units or more. If you order fewer, the system takes the price of a domestic vendor that sells in small quantities. **Why remove the 10% tax:** an overseas vendor does not issue a Vietnamese VAT invoice; import tax is added to the cost in step 13, and the VAT on imported goods is settled at customs.

Step 6 - Confirm the purchase order

> *Path:* still on the screen of the previous step (`Purchase > Orders > Requests for Quotation`)

Click **Confirm Order**, then click **Validate** in the **Purchase Order Confirmation** dialog.

> *Path:* on request for quotation P01269 (`Purchase > Orders > Requests for Quotation`)

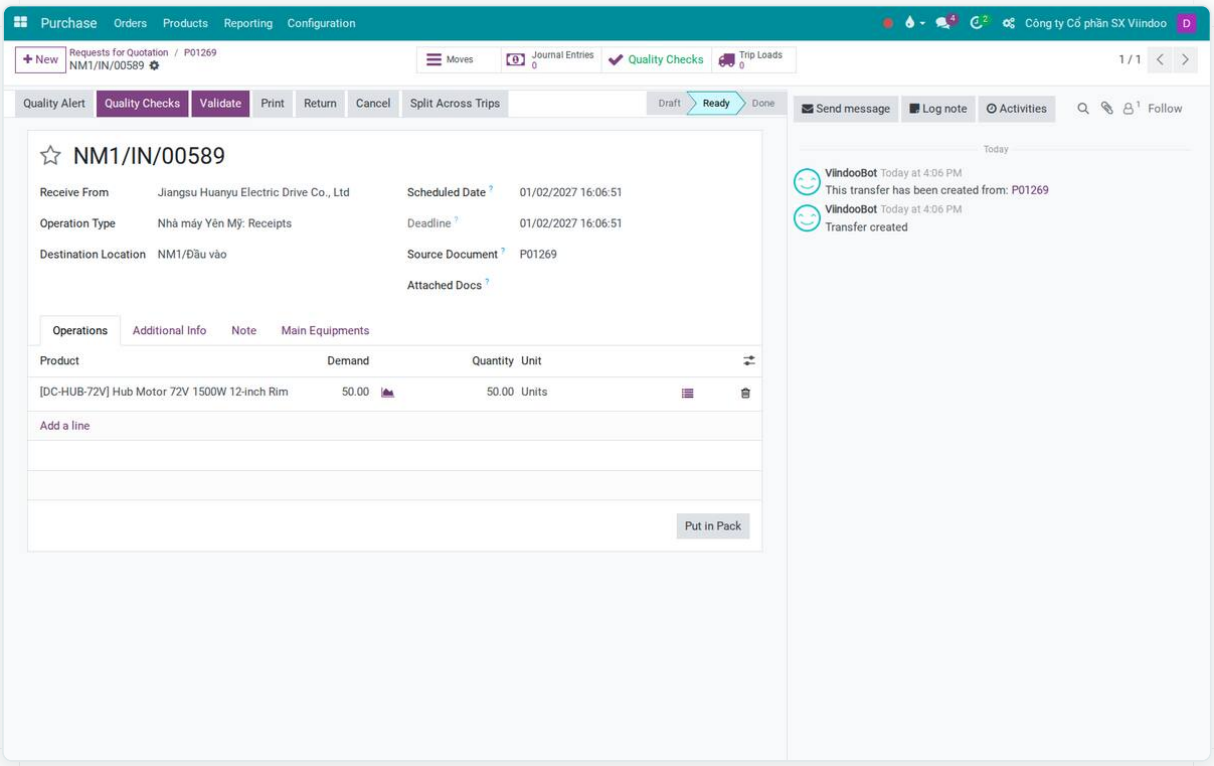


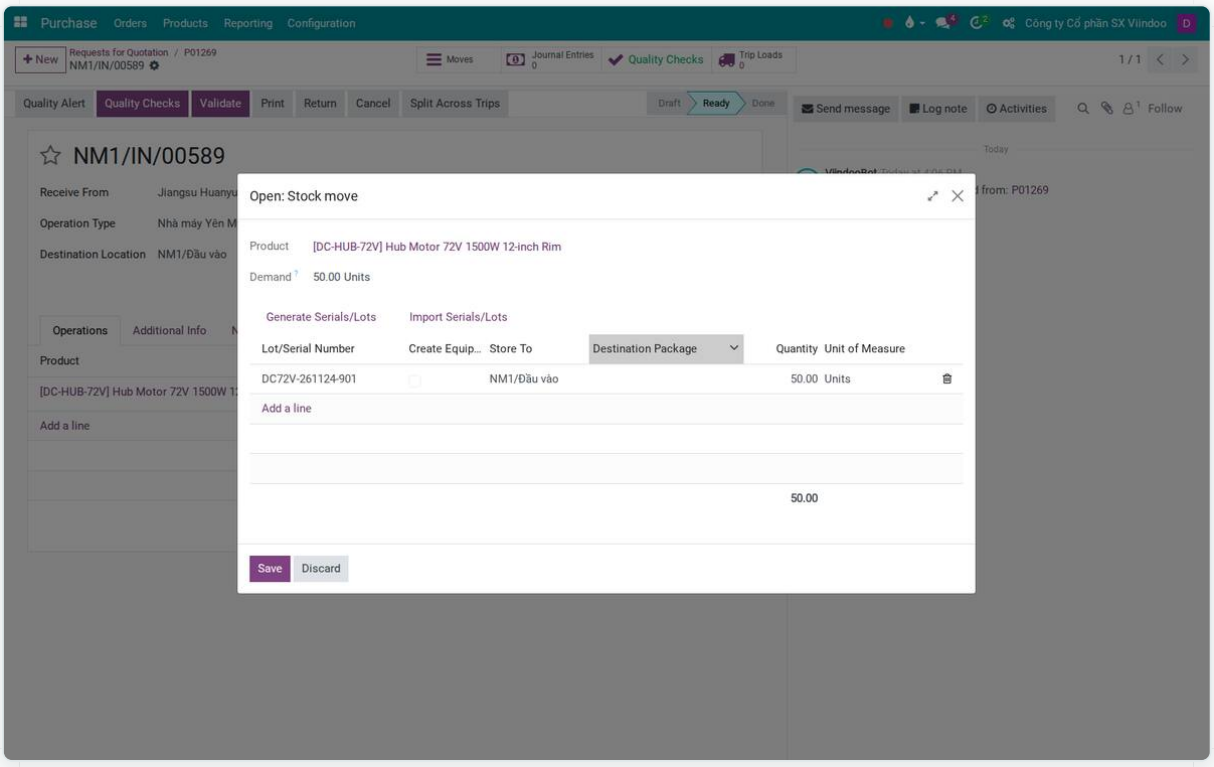
What you should see: the status changes to **Purchase Order**, the **Confirmation Date** box holds the time you just clicked, and a **Receipt 1** smart button appears at the top (next to **Bill Matching**); the button bar now has **Receive Products** and **Create Bill**. The motor line shows 50.00 **Quantity**, **Received** 0.00, **Billed** 0.00 and **Unit Price** 690.00, with **Total** ¥ 34,500.00 and the amount in dong (126,960,000 VND) below it. The order is confirmed directly, with no approval step. Purchase orders can be put through approval by value; for how to set it up and who approves, see Part XI. Approvals.

Step 7 - Open the receipt and enter the motor lot number

Click the **Receipt** button on the purchase order. On the motor line, click the list icon at the end of the line. In the **Open: Stock move** dialog, click the **Lot/Serial Number** cell of the existing line, type the lot number printed on the package, for example `DC72V-261124-901`, and click **Save**.

> *Path:* purchase order P01269 > **Receipt** button (`Purchase > Orders > Requests for Quotation`)





What you should see: receipt **NM1/IN/00589** with **Operation Type Nhà máy Yên Mỹ: Receipts**, **Destination Location NM1/Đầu vào** (NM1/Input), status **Ready**, and the motor line with **Demand** 50.00 **Units**. At the top there is a purple **Quality Checks** button: the system created a check for the

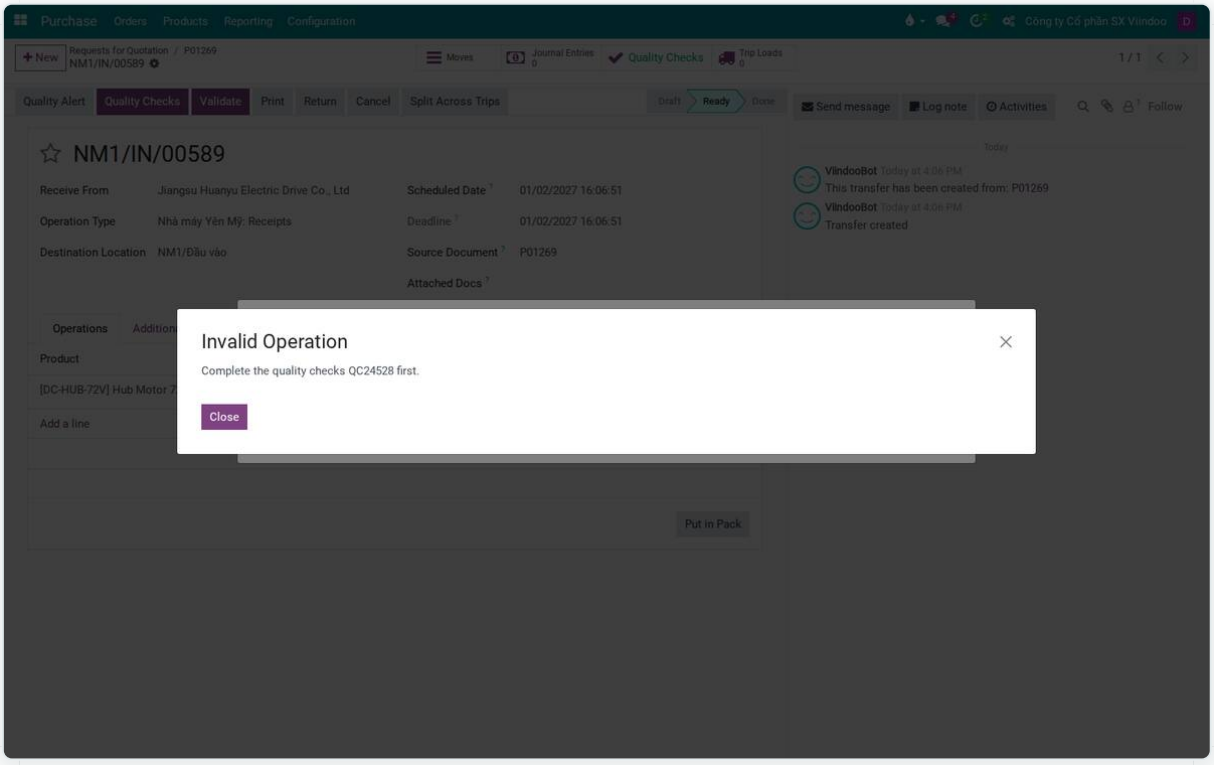
motors as soon as the receipt was created. In the lot dialog (columns **Lot/Serial Number**, **Store To**, **Quantity**, **Unit of Measure**), one line of 50.00 carries the lot number you just typed and **Store To NM1/Đầu vào**.

Step 8 - Try to receive the goods before the check

> *Path:* still on the screen of the previous step (`Purchase > Orders > Requests for Quotation`)

Click **Validate**. A dialog asks for the transfer date (the system allows back-dating if you record a document of an earlier day); leave it as it is and click **Validate**.

> *Path:* on receipt NM1/IN/00589 (`Purchase > Orders > Requests for Quotation`)



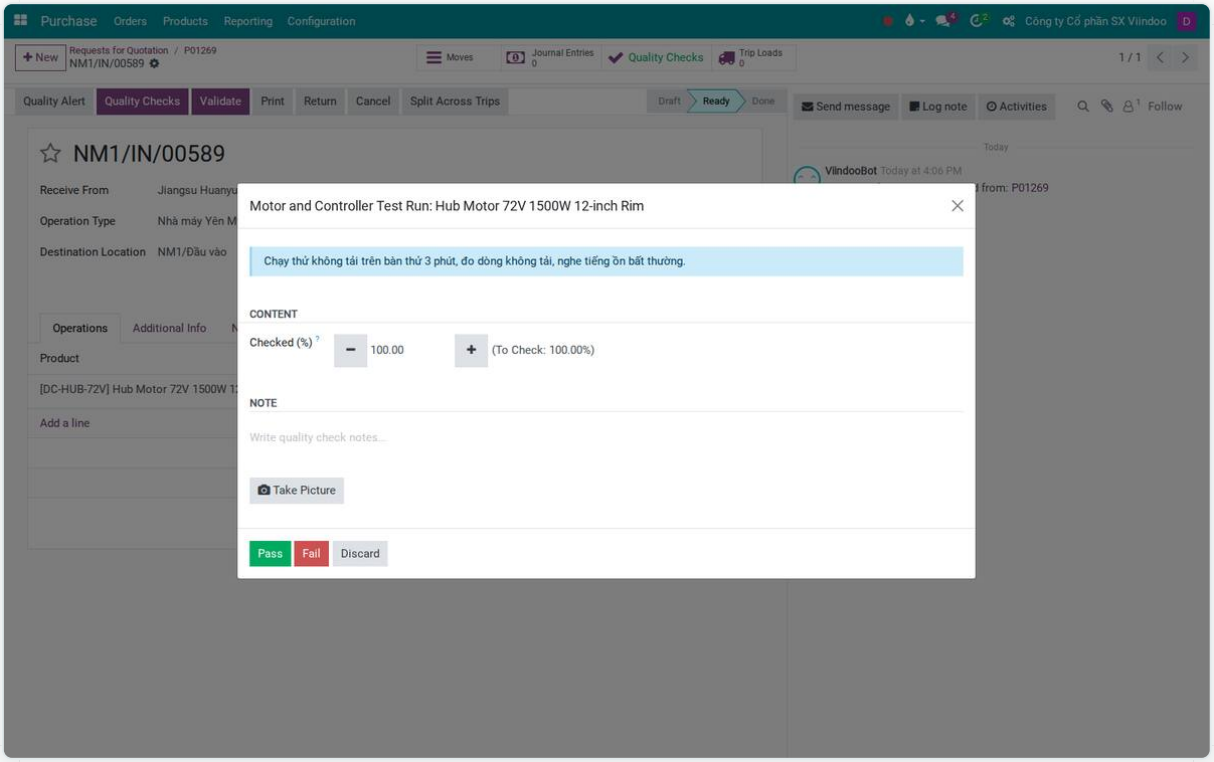
What you should see: an **Invalid Operation** dialog with the line **Complete the quality checks QC24528 first.** The receipt stays **Ready**, and no motor has entered stock. Click **Close**, then click **Cancel** in the date dialog still waiting behind it. This is what the introduction video says: no check, no receipt into stock.

Step 9 - Do the incoming quality check

> *Path:* still on the screen of the previous step (`Purchase > Orders > Requests for Quotation`)

Click the **Quality Checks** button on the button bar. Read the check instruction in the blue box, then click **Pass**.

> *Path:* on receipt NM1/IN/00589 (`Purchase > Orders > Requests for Quotation`)



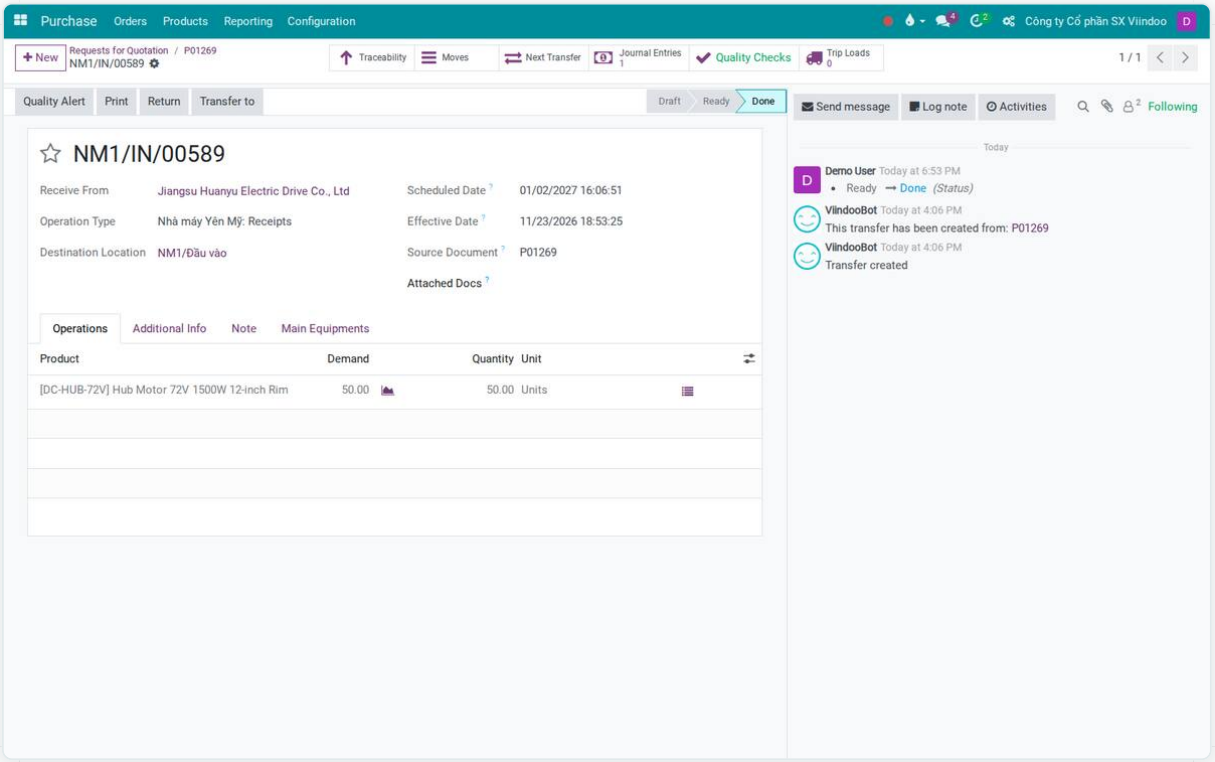
What you should see: the dialog **Motor and Controller Test Run: Hub Motor 72V 1500W 12-inch Rim** with the instruction text in the blue box (written in Vietnamese on the demo system: a no-load run on the test bench for 3 minutes, measure the no-load current, listen for abnormal noise), the **Checked (%)** box at 100.00 with "(To Check: 100.00%)", a **Note** area and a **Take Picture** button; the buttons at the bottom are **Pass**, **Fail** and **Discard**. After you click **Pass**, the **Quality Checks** button disappears from the button bar. If you click **Fail**, the goods cannot enter stock, and you can create a quality alert straight from the receipt (see Part V. Warehouse and quality).

Step 10 - Receive the motors into stock

> *Path:* still on the screen of the previous step (`Purchase > Orders > Requests for Quotation`)

Click **Validate**, then **Validate** in the transfer date dialog.

> *Path:* on receipt NM1/IN/00589 (`Purchase > Orders > Requests for Quotation`)



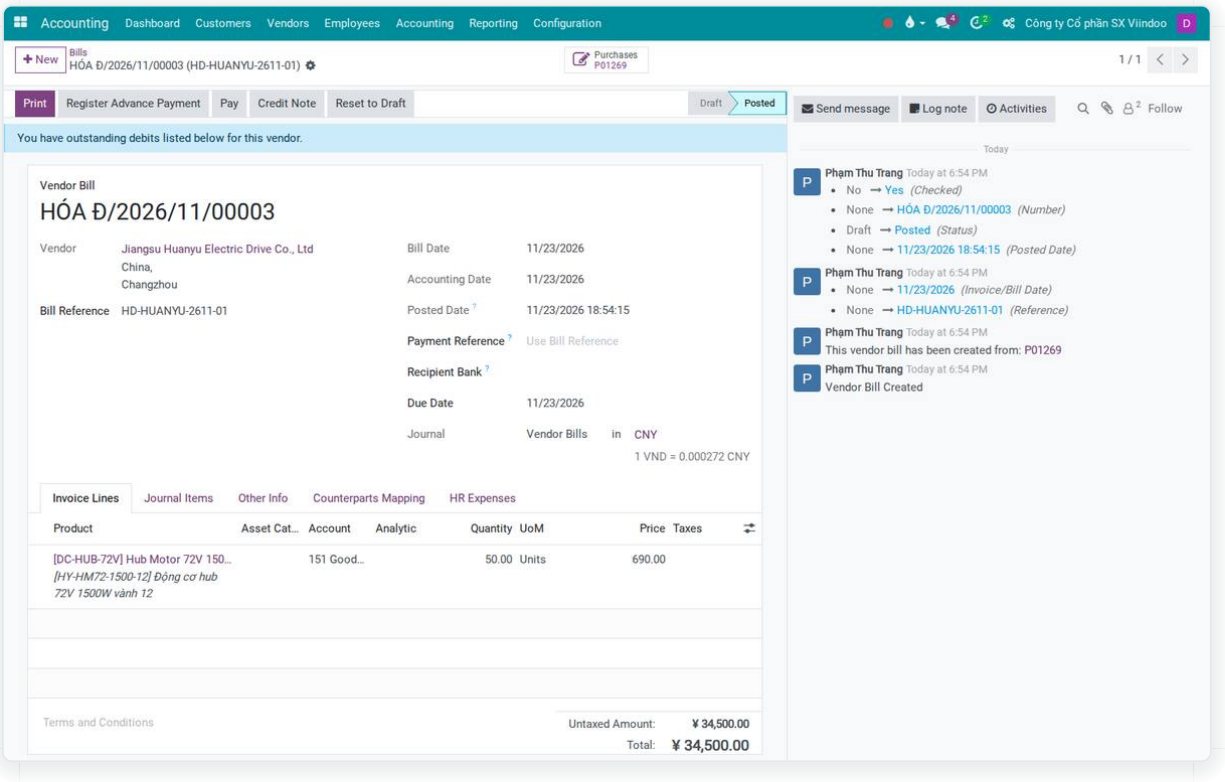
What you should see: the status is **Done** (shown on the status bar **Draft**, **Ready**, **Done**), and the **Effective Date** box holds the time you just clicked. At the top appear **Traceability**, **Moves**, **Next Transfer** and **Journal Entries 1** (the entry that raises the stock value at the purchase price converted to dong).

Step 11 - Record the bill of the components vendor

This lesson records tax, freight and fees with a landed cost document, supported by two bills: the goods bill from the overseas vendor and the freight and fees bill from the forwarder.

Open the motor purchase order again and click **Create Bill**. On the draft bill, fill in **Bill Date** and **Bill Reference** according to the bill you received, click **Save**, then click **Confirm**.

> *Path:* `Purchase > Orders > Purchase Orders` > P01269



What you should see: a **Vendor Bill** for **Jiangsu Huanyu Electric Drive Co., Ltd**, the journal records in **CNY**, the motor line is 50 x 690.00 with **Account 151 Goods in transit**; after you confirm, it has a number starting with **HÓA Đ/** (the code of the Vendor Bills journal; for example HÓA Đ/2026/11/00003) and the status **Posted**. The receipt of step 10 already posted Debit 152 / Credit 151; the bill posts Debit 151 / Credit 331. When the bill uses the same exchange rate as the day of receipt, account 151 for this shipment returns to zero (in the trial run: 126,960,000 VND on both sides).

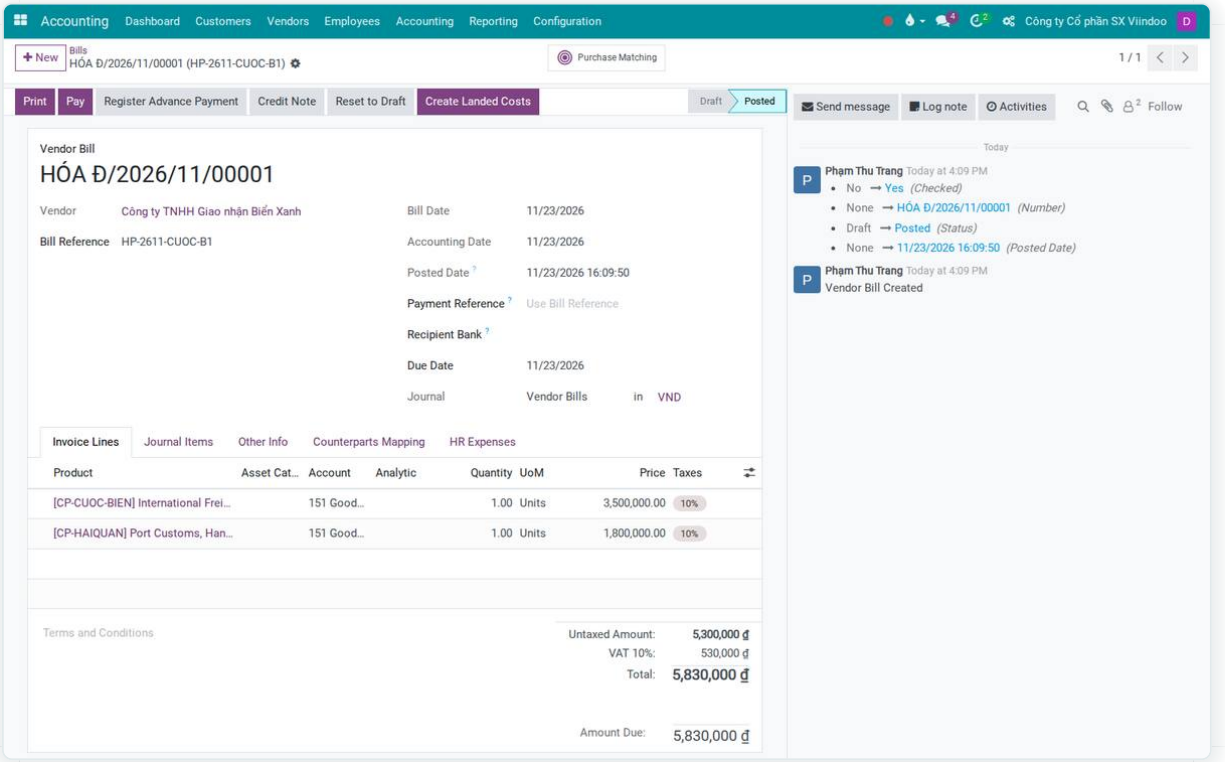
Step 12 - Record the freight and fees bill of the forwarder

Open the list of vendor bills and click **New**. Fill in **Vendor Công ty TNHH Giao nhận Vận tải Hải Âu**, **Bill Reference** and **Bill Date**. Click **Add a line** twice:

Product	Price
[CP-CUOC-BIEN] International Freight (Sea)	3,500,000
[CP-HAIQUAN] Port Customs, Handling and Storage Fees	1,800,000

Leave the tax of each line as on the bill you received. Click **Save**, then **Confirm**. The figures above are examples.

> *Path:* `Accounting > Vendors > Bills`

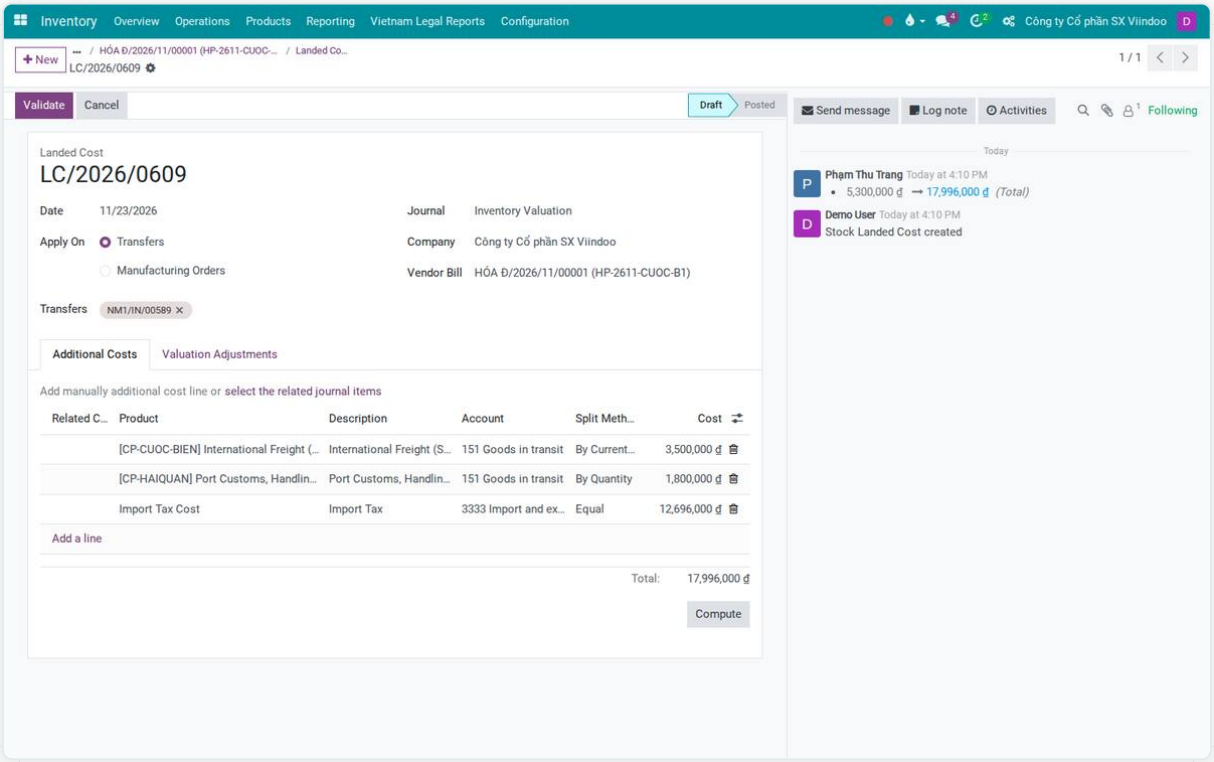


What you should see: a **Vendor Bill** with both lines taking **Account 151 Goods in transit** by themselves because the products are landed cost products; **Untaxed Amount** is the sum of the two lines (5,300,000 VND), plus **VAT 10%** of 530,000 VND, **Total** 5,830,000 VND. After you confirm, the status is **Posted** and the **Create Landed Costs** button is on the button bar.

Step 13 - Create the landed cost from the bill and add the import tax

On the bill you just posted, click **Create Landed Costs**. On the landed cost document that opens, **Apply On** is **Transfers**; in the **Transfers** box choose the motor receipt of step 10. In the **Additional Costs** tab, click **Add a line**: **Product Import Tax Cost**, **Cost** 12,696,000 (10% of the shipment value on the customs declaration), and in the **Account** box of this line choose **3333 Import and export duties payable**. Click **Save**.

> *Path:* forwarder's bill > **Create Landed Costs** (`Accounting > Vendors > Bills`)



What you should see: a document **LC/2026/...** in **Draft**, the **Vendor Bill** box pointing back to the forwarder's bill, **Journal Inventory Valuation**, the freight and fee lines already filled in with account **151 Goods in transit** (the **Additional Costs** tab has the columns **Product**, **Description**, **Account**, **Split Method** and **Cost**), and the **Import Tax Cost** line carrying account **3333 Import and export duties payable**; **Total** 17,996,000 VND, with the **Compute** button below it.

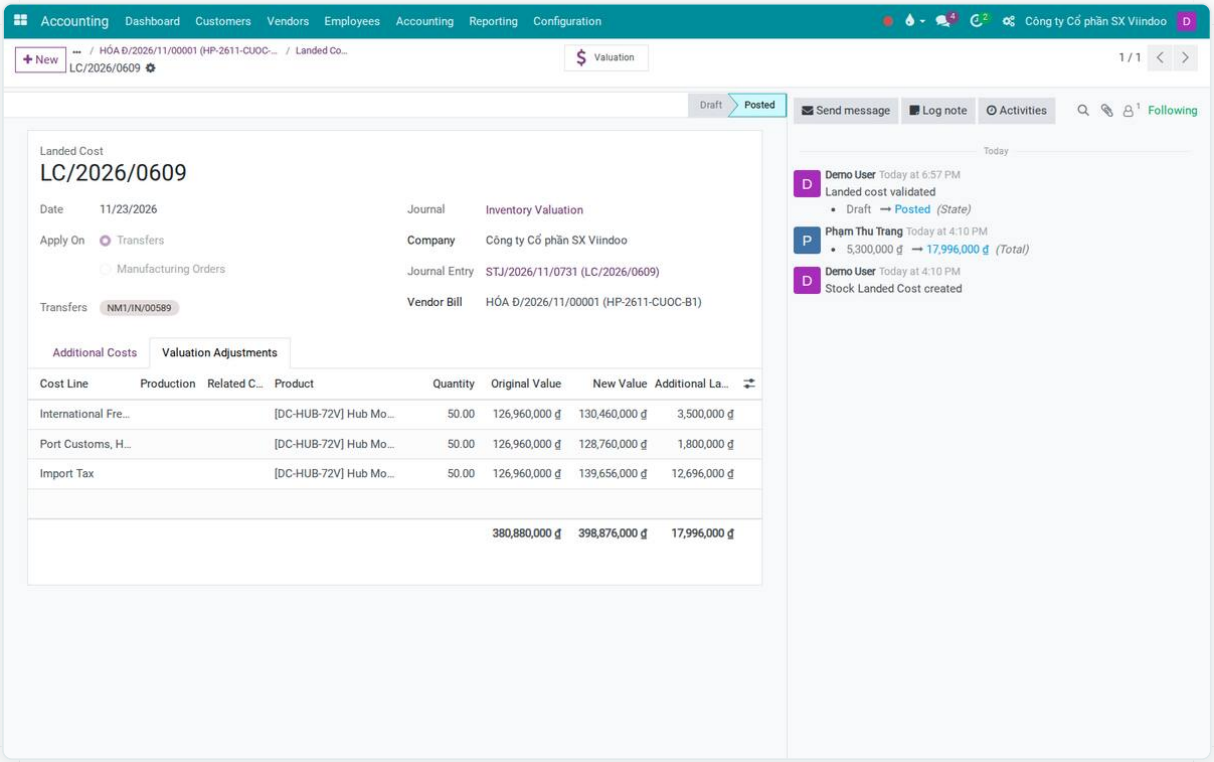
> **Why the import tax uses 3333:** import tax is an amount payable to the state budget according to the customs declaration, and there is no vendor bill for it. If you leave the default account 151, account 151 would be credited with nothing posted against it.

Step 14 - Compute and post the landed cost

> *Path:* still on the screen of the previous step (`Accounting > Vendors > Bills`)

Click **Compute**, open the **Valuation Adjustments** tab to see how the cost is split across the components, then click **Validate**.

> *Path:* on the landed cost document you just created (`Accounting > Vendors > Bills`)

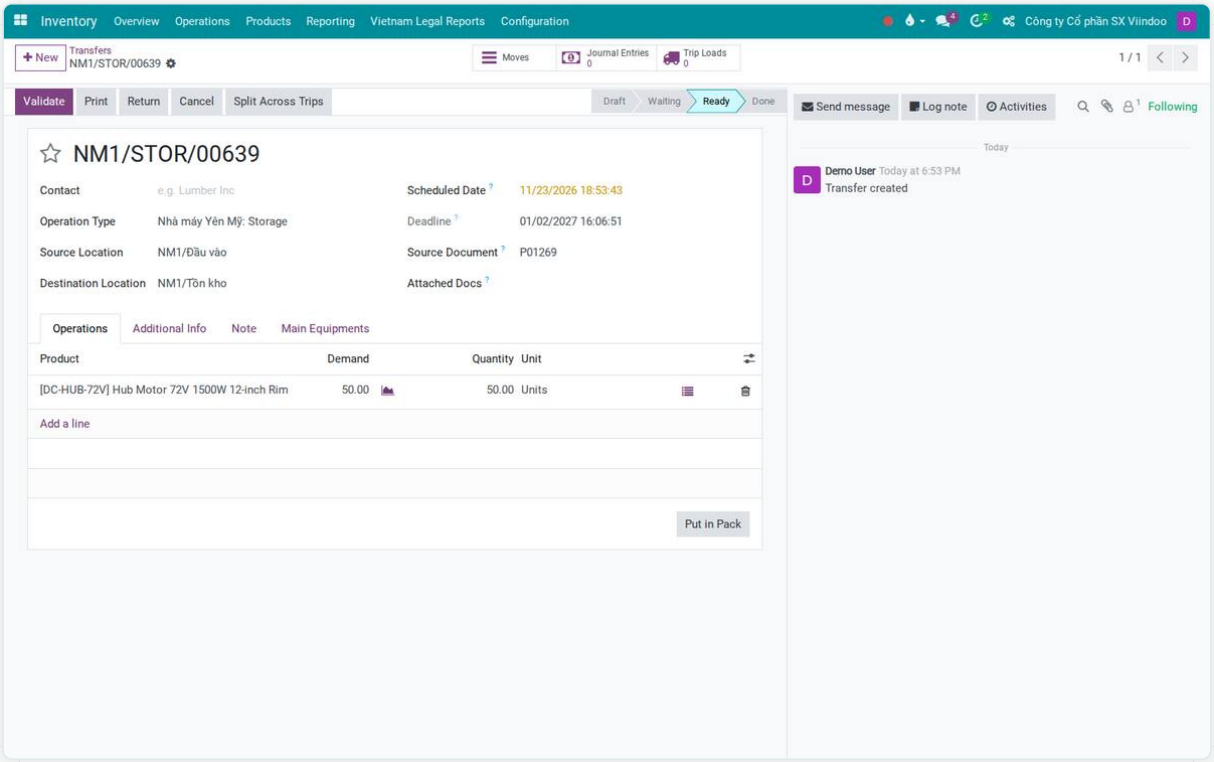


What you should see: the status is **Posted**, the **Journal Entry** box holds the number of the entry (for example **STJ/2026/11/0731**), and a **Valuation** smart button appears at the top. The **Valuation Adjustments** tab has three lines for **[DC-HUB-72V]**, each with **Quantity** 50.00 and an **Additional Landed Cost** of 3,500,000 VND, 1,800,000 VND and 12,696,000 VND; the **Cost Line** column carries the names of the cost lines (International Freight, Port Customs and Import Tax). The total is 17,996,000 VND, so each motor carries almost 360 thousand dong of extra import cost: **Original Value** 126,960,000 VND becomes **New Value** 130,460,000, 128,760,000 and 139,656,000 VND on the three lines. (The **Original Value** and **New Value** columns on the total row, 380,880,000 and 398,876,000 VND, are the sum of the three lines and mean nothing by themselves.) The entry: Debit 152 17,996,000; Credit 151 5,300,000 (matching the forwarder's bill); Credit 3333 12,696,000. The average cost of the motor rises accordingly: motors fitted into vehicles later carry this share of cost too. For the calculation and the entries in detail, see Part XII. Accounting and costing.

Step 15 - Put the motors away into stock

Go back to the motor receipt (the breadcrumb at the top, or `Inventory > Operations > Transfers > Receipts`) and click the **Next Transfer** button. On the **Storage** transfer that opens, click **Validate**, then **Validate** in the date dialog.

> *Path:* the motor receipt > **Next Transfer** button (`Inventory > Operations > Transfers > Receipts`)

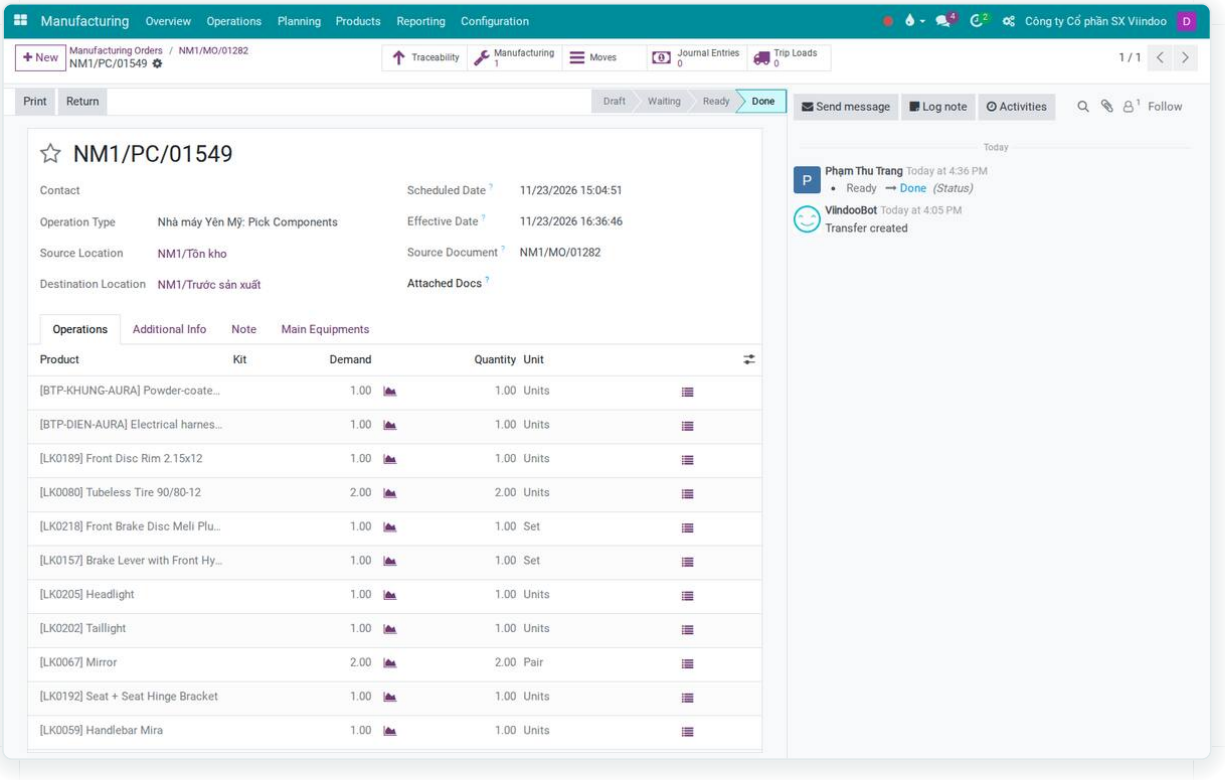


What you should see: a transfer **NM1/STOR/00639** with **Operation Type Nhà máy Yên Mỹ: Storage**, **Source Location NM1/Đầu vào** (NM1/Input) and **Destination Location NM1/Tồn kho** (NM1/Stock), 50 motors; the status is **Ready** and, after you validate, **Done**. The Yen My factory receives goods in two steps: it receives into the input area for inspection, and only then puts the goods onto the shelves.

Step 16 - Issue the components to the line

Open the manufacturing order again (the **Manufacturing** button on the sales order, or find it in the list of manufacturing orders) and click the **Transfers** button to open the **Pick Components** transfer. Click **Validate**, then **Validate** in the date dialog.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your order > **Transfers** button

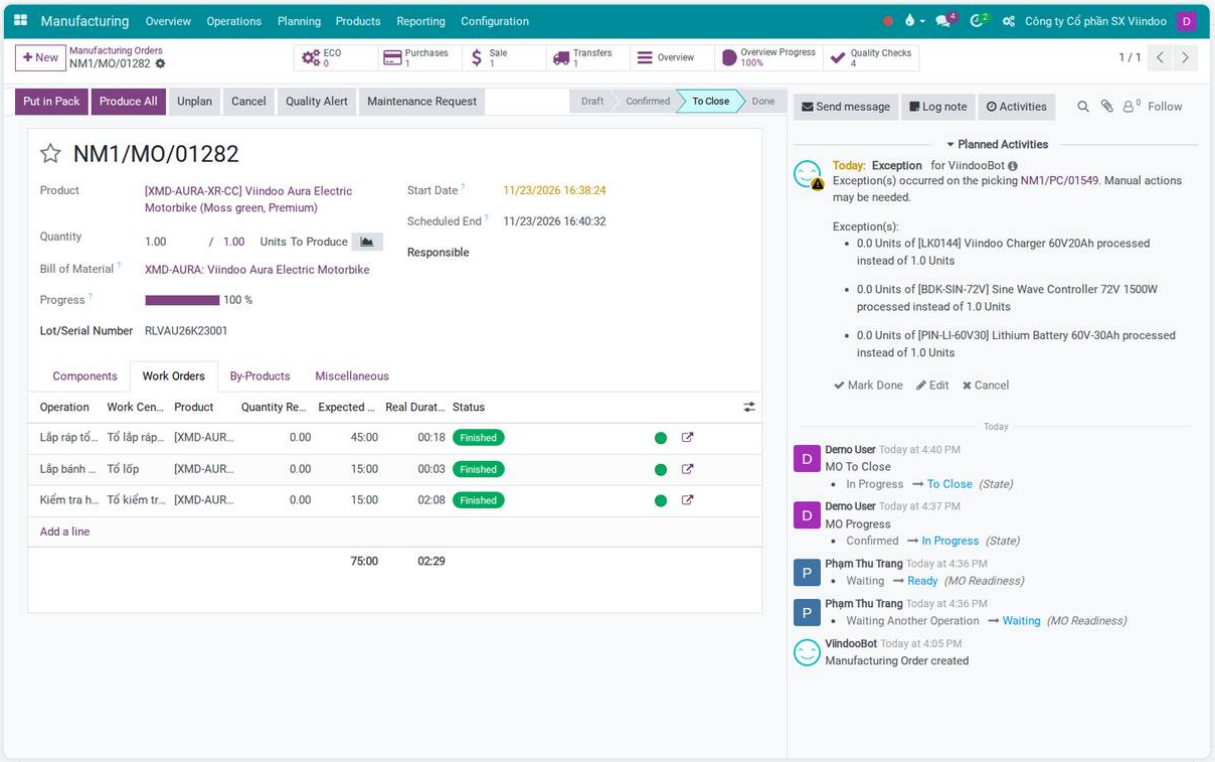


What you should see: before you validate, the transfer is **Ready** (with the **Check Availability** and **Validate** buttons), **Operation Type Nhà máy Yên Mỹ: Pick Components**, **Source Location NM1/Tồn kho** and **Destination Location NM1/Trước sản xuất** (NM1/Pre-production), and every line has its **Quantity** equal to its **Demand** - including the motor just received: the system reserved one motor from the new lot for this order by itself. After you validate, the transfer is **Done** and the components are in the pre-production area. The storekeeper handles one document for the whole vehicle.

Step 17 - Look at the manufacturing order before it goes to the line

Open the manufacturing order and open the **Work Orders** tab.

> *Path:* `Manufacturing > Operations > Manufacturing Orders`



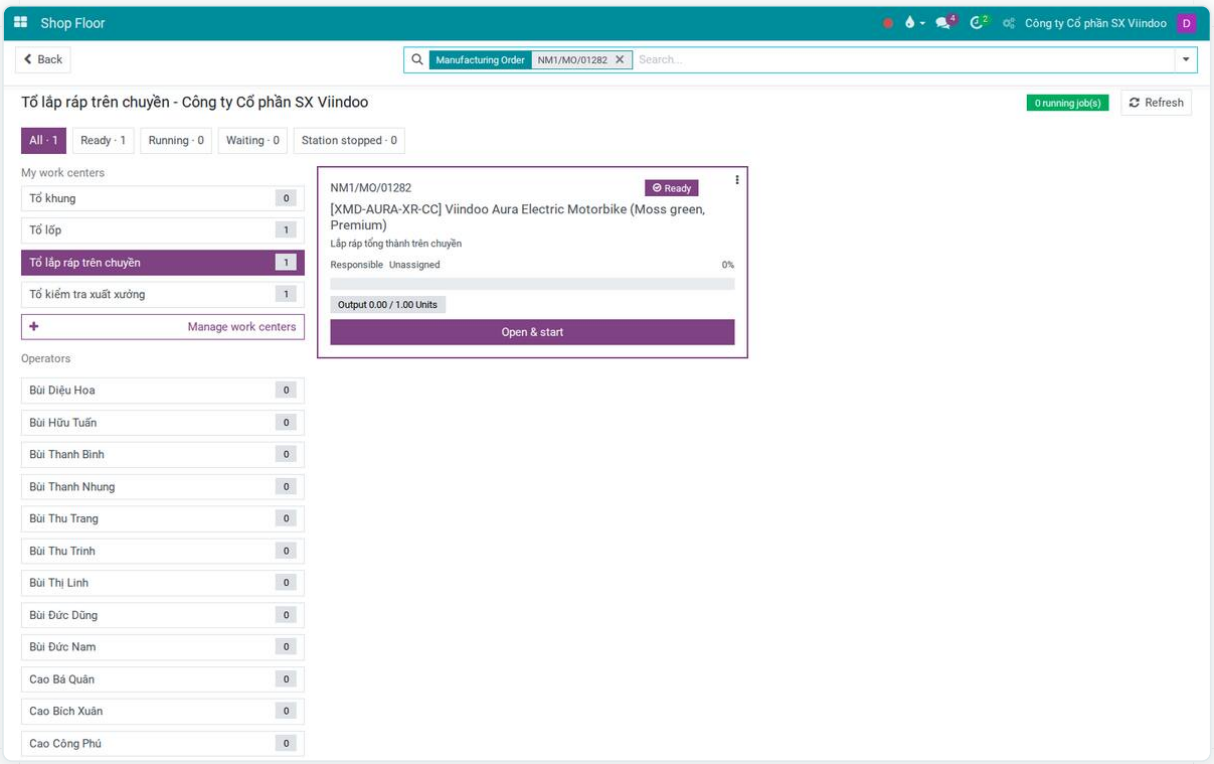
What you should see: Component Status reads **Available** once the components are picked. The tab has the columns **Operation**, **Work Center**, **Product**, **Quantity**, **Expected Duration**, **Real Duration** and **Status**, with three operations: **Lắp ráp tổng thành trên chuyền** (line assembly of the complete unit; 45 minutes expected, work center **Tổ lắp ráp trên chuyền** (Line Assembly Team), **Ready** for its team once the components are picked), **Lắp bánh xe, phanh** (wheel and brake fitting; 15 minutes, **Tổ lốp** (Tyre Team)) and **Kiểm tra hoàn thiện, đóng số khung** (final inspection and chassis stamping; 15 minutes, **Tổ kiểm tra xuất xưởng** (Outgoing Inspection Team), with a **Quality Checks** tag) - the last two are in **Waiting for another WO**. The **Quality Checks 4** smart button tells you that this vehicle goes through four checks before its order is closed.

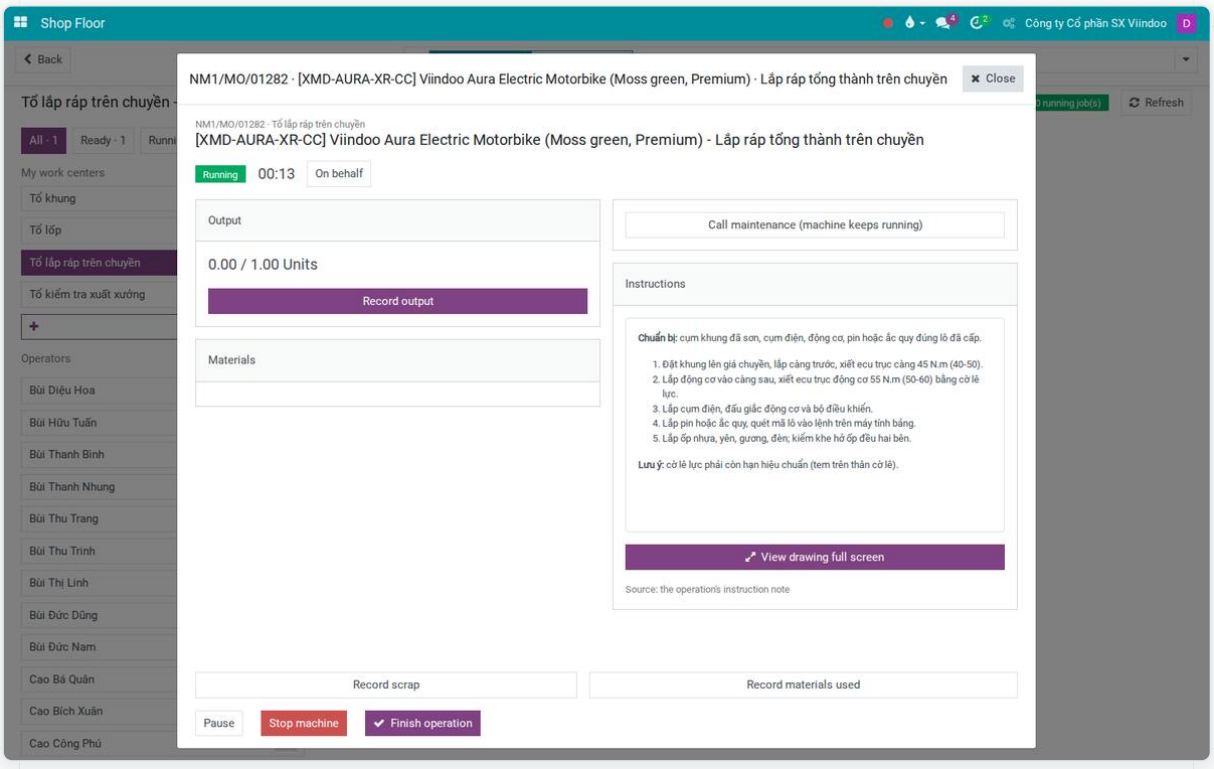
Step 18 - Run the first two operations on the shop floor screen

> *Path:* still on the screen of the previous step (`Manufacturing > Operations > Manufacturing Orders`)

Open the shop floor screen. In the left column, under **My work centers**, choose **Tổ lắp ráp trên chuyền**; type the order number (for example `01282`) in the search box and press Enter. On the order card, click **Open & start**. Let the clock run for a while (the team leader doing real work), then click **Finish operation**. Do the same with **Tổ lốp** for the operation **Lắp bánh xe, phanh**.

> *Path:* **Shop Floor** (a separate app on the home screen, used on a tablet at the line)





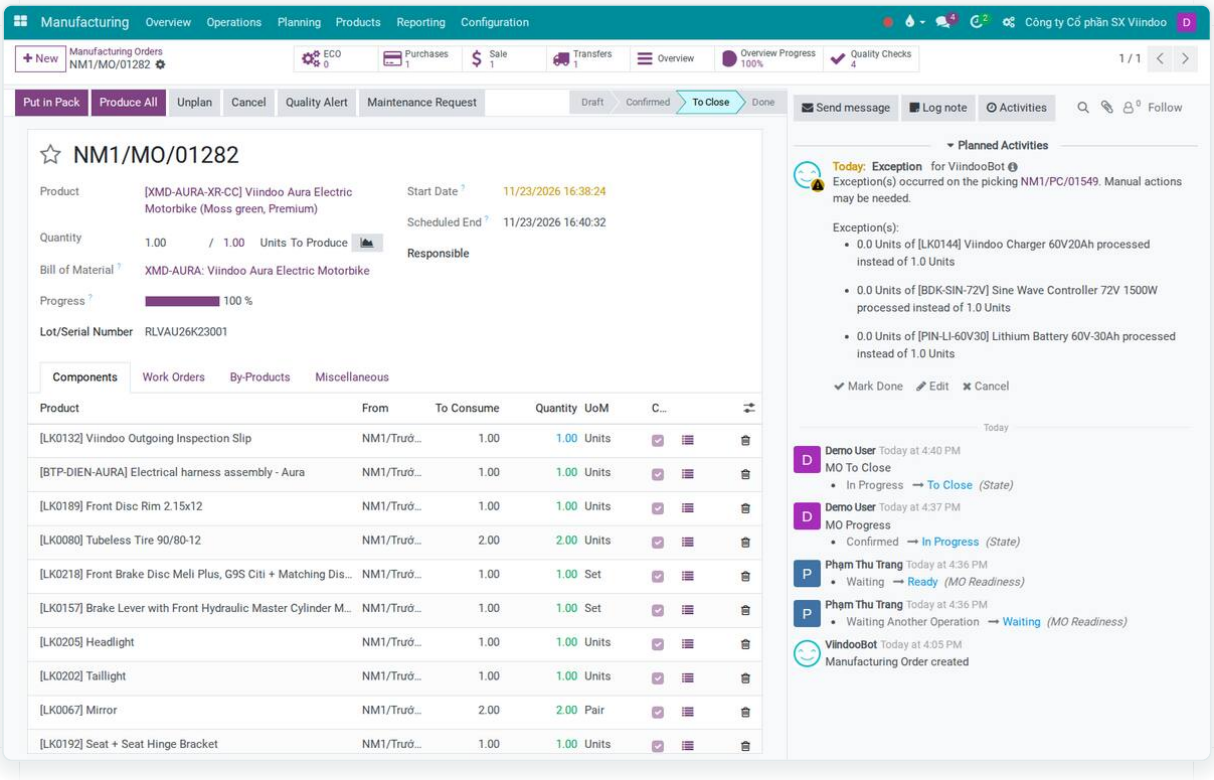
What you should see: the screen is titled with the work center and your company; the filters at the top are **All**, **Ready**, **Running**, **Waiting** and **Station stopped**. The order card shows the order number, the label **Ready**, the product, the operation name **Lắp ráp tổng thành trên chuyền**, **Responsible Unassigned**, **0%** and **Output 0.00 / 1.00 Units**. When you click **Open & start**, the operation screen opens with the label **Running**, a clock counting every second and an **On behalf** button; it has an **Output** block (**0.00 / 1.00 Units** with **Record output**), a **Materials** block, an **Instructions** block (the instruction text is written in Vietnamese on the demo system) and **Call maintenance (machine**

keeps running). At the bottom there are **Record scrap** and **Record materials used**, and **Pause**, **Stop machine** (stops the line and asks for a reason) and **Finish operation**. After you finish, the card disappears from this team and the next operation moves to **Ready** at the next team. The real hours of each operation are recorded to calculate the cost.

Step 19 - Enter the chassis number on the order

The chassis number stamped on the vehicle is the serial number of the vehicle in the system. Open the manufacturing order, click the **Lot/Serial Number** box, type the chassis number that was stamped, for example `RLVAU26K23001`, choose the line **Create "RLVAU26K23001"**, then click **Save**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your order



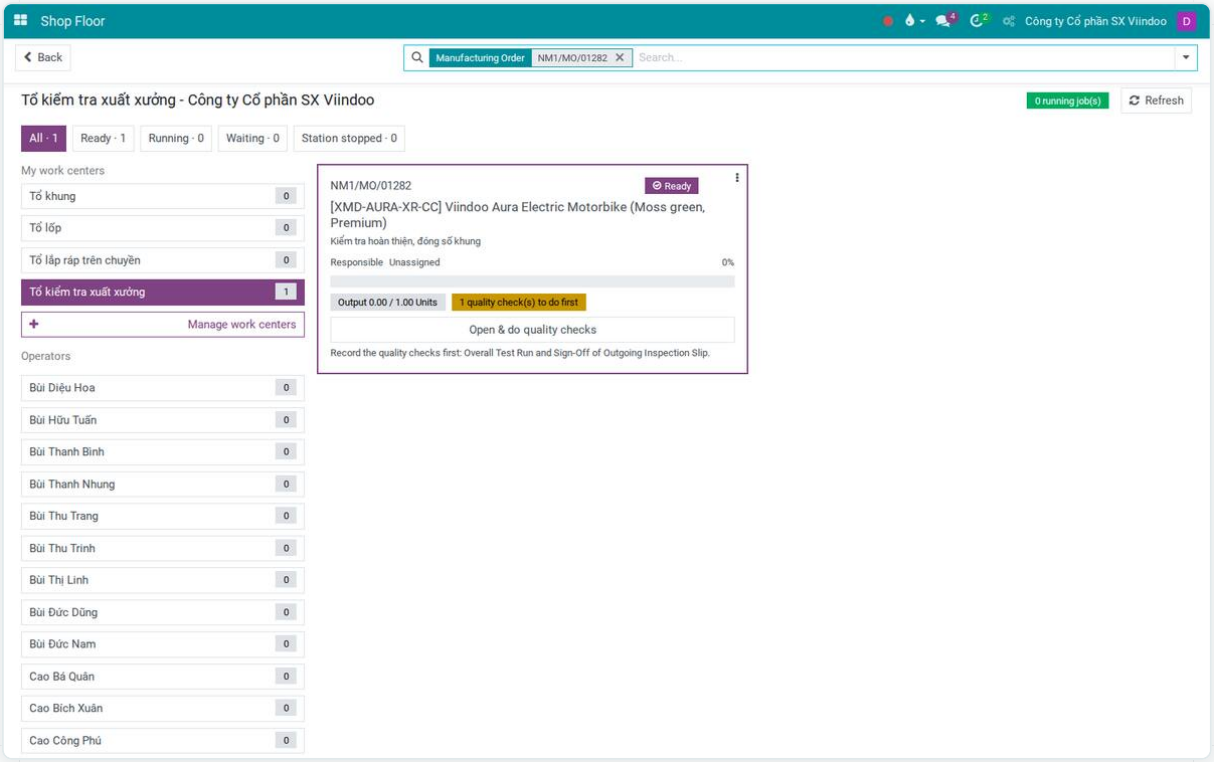
What you should see: the **Lot/Serial Number** box shows the chassis number you typed, the **Components** tab lists each component with its **To Consume** and **Quantity**, and the order is already being worked on, so its status has moved on from **Confirmed**. The shop floor screen also has an **Auto-generate lot** button, but that button issues a number from the default numbering sequence (like `0000004`), not in the chassis number format; that is why this lesson types the chassis number directly on the order.

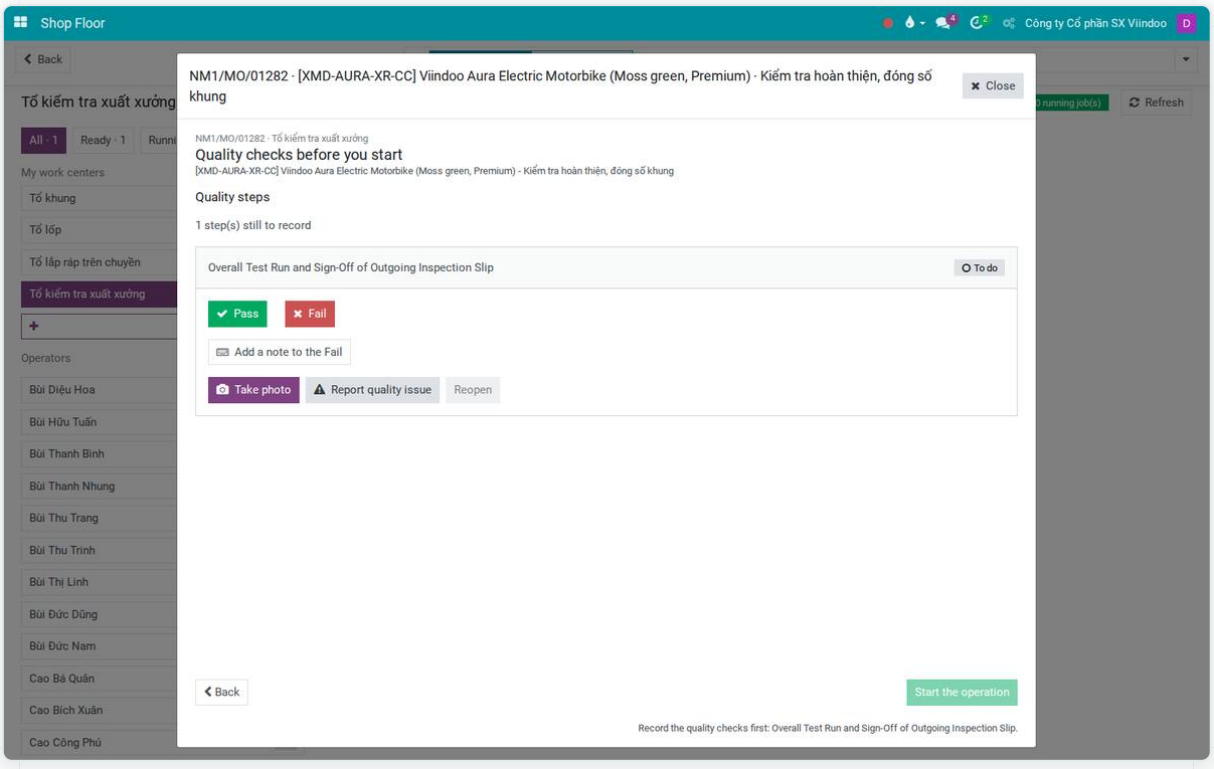
Step 20 - Do the check before the last operation

Go back to the shop floor screen, choose **Tổ kiểm tra xuất xưởng** and find the order. The order card has no start button; it has an **Open & do quality checks** button instead. Click it. On the

Quality checks before you start screen, on the line **Overall Test Run and Sign-Off of Outgoing Inspection Slip** click **Pass**, then click **Start the operation**.

> *Path:* **Shop Floor** > **Tổ kiểm tra xuất xưởng**





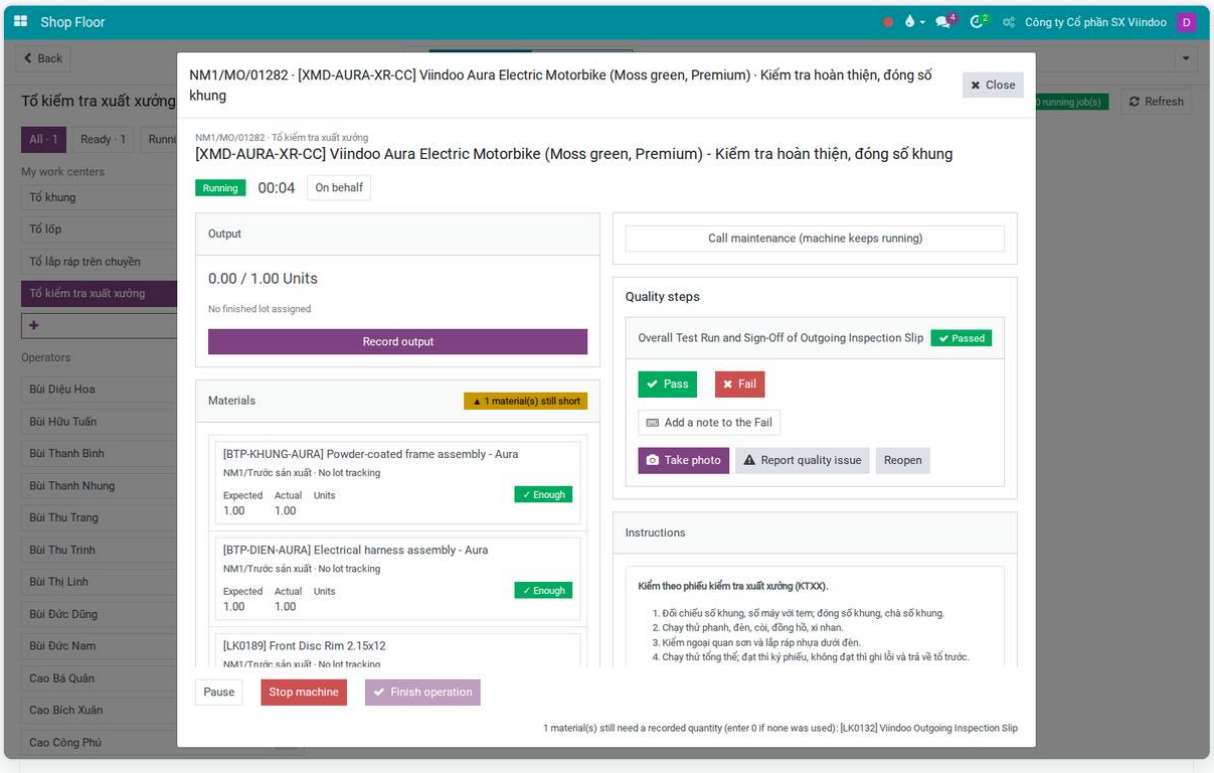
What you should see: the order card (status **Ready**, **Output 0.00 / 1.00 Units**) has a yellow label **1 quality check(s) to do first** and a reminder line **Record the quality checks first: Overall Test Run**

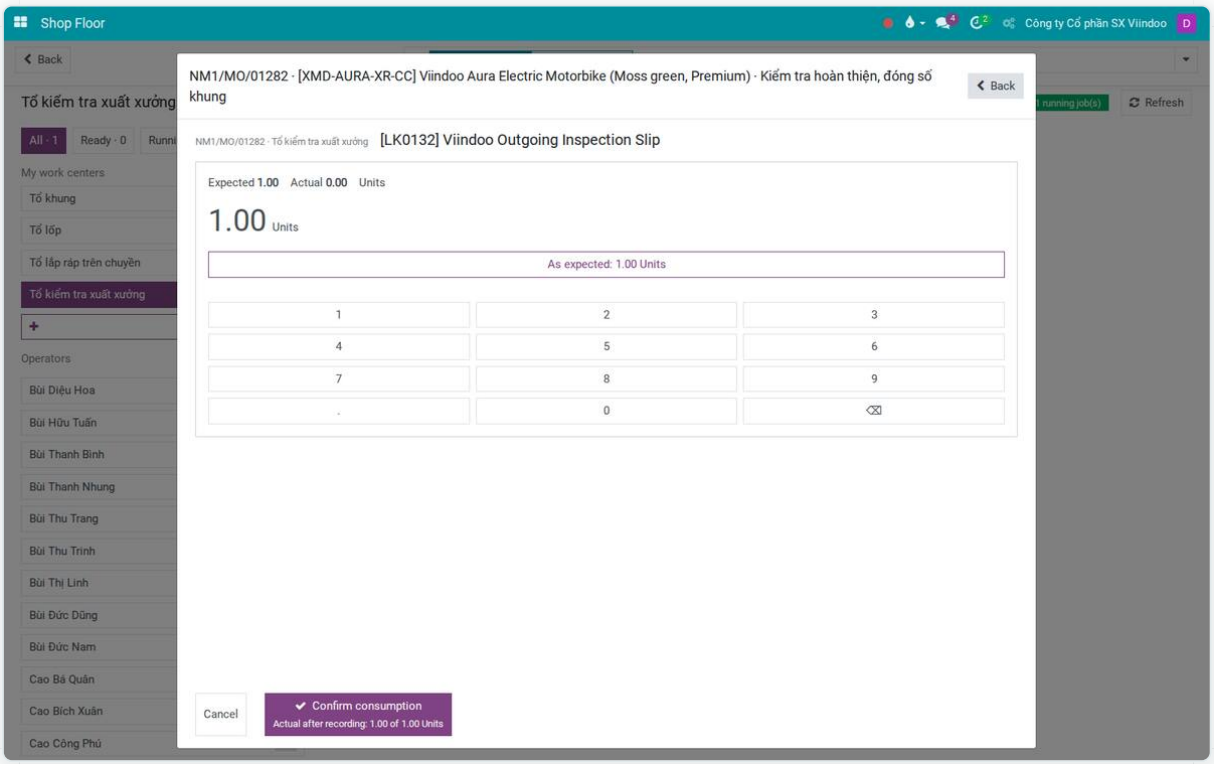
and Sign-Off of Outgoing Inspection Slip. On the next screen, under **Quality steps**, the text **1 step(s) still to record** and the step with the label **To do** and the buttons **Pass**, **Fail**, **Add a note to the Fail**, **Take photo**, **Report quality issue** and **Reopen**. The **Start the operation** button is greyed out until you click **Pass**; after that the operation moves to **Running**.

Step 21 - Record the outgoing inspection slip that was used

On the operation screen, the **Materials** block carries the label **▲ 1 material(s) still short**, and **Finish operation** is greyed out with the line "1 material(s) still need a recorded quantity (enter 0 if none was used)". Scroll down to the line **[LK0132] Viindoo Outgoing Inspection Slip** (**Actual** 0.00, label **Not recorded yet**) and click that line. On the number pad, click **As expected: 1.00 Units**, then click **Confirm consumption**. Click **Back** to return to the operation.

> *Path:* the operation screen **Kiểm tra hoàn thiện, đóng số khung** (**Shop Floor**)



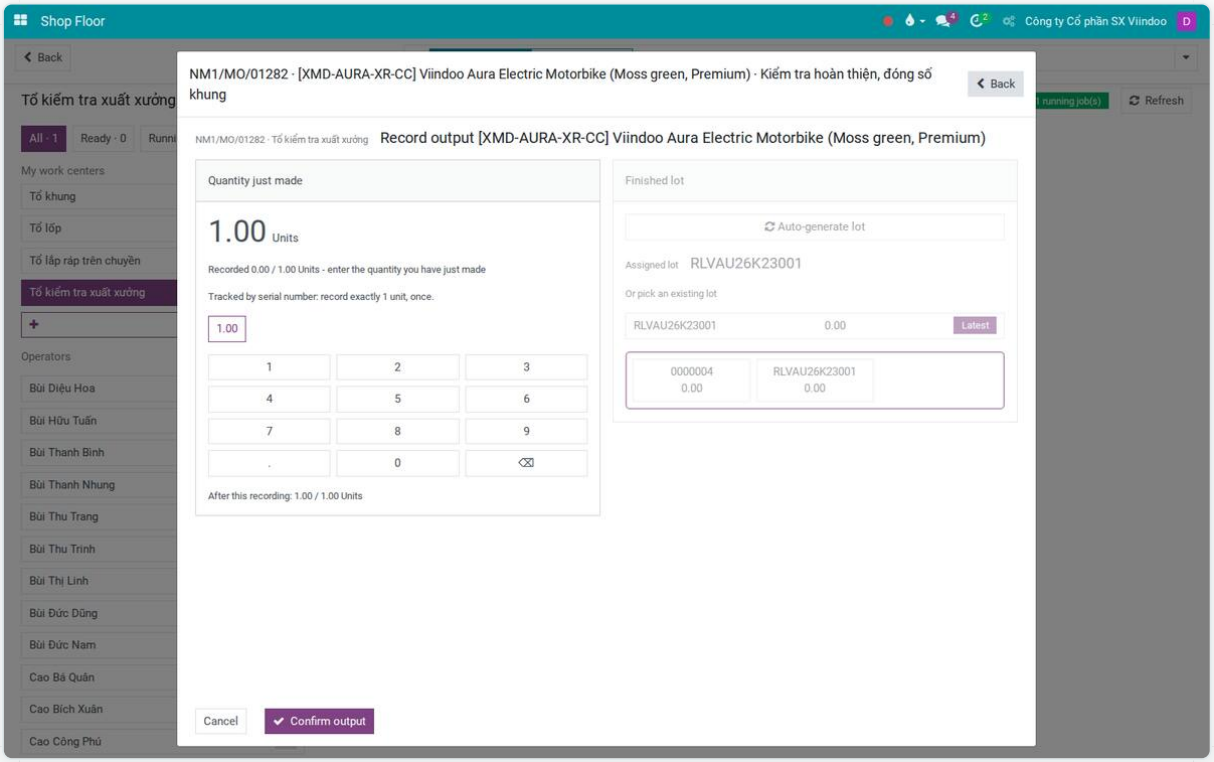


What you should see: the **Materials** block lists each component with its location, **Expected** and **Actual**, and the label ✓ **Enough** once recorded; the lot-tracked components show their lot number, and **[DC-HUB-72V] Hub Motor 72V 1500W 12-inch Rim** carries the lot number recorded when the motors were received. The number pad shows **Expected 1.00**, **Actual 0.00** and the **Confirm consumption** button (with "Actual after recording: 1.00 of 1.00 Units"). After you record, the inspection slip line has **Actual** 1.00 and the label ✓ **Enough**, and the label **1 material(s) still short** is gone. The team leader records the quantity really used right at the line; if the usage differs from the bill of materials, type the actual quantity. The **Quality steps** block on the same screen shows the step you passed in step 20 with the label **Passed**.

Step 22 - Record the finished vehicle with its chassis number

Click **Record output**. Under the line **Tracked by serial number: record exactly 1 unit, once.** click the **1.00** cell. Check that the **Finished lot** block shows **Assigned lot RLVAU26K23001**, then click **Confirm output**. Click **Back to the operation**.

> *Path:* the operation screen **Kiểm tra hoàn thiện, đóng số khung** (**Shop Floor**)

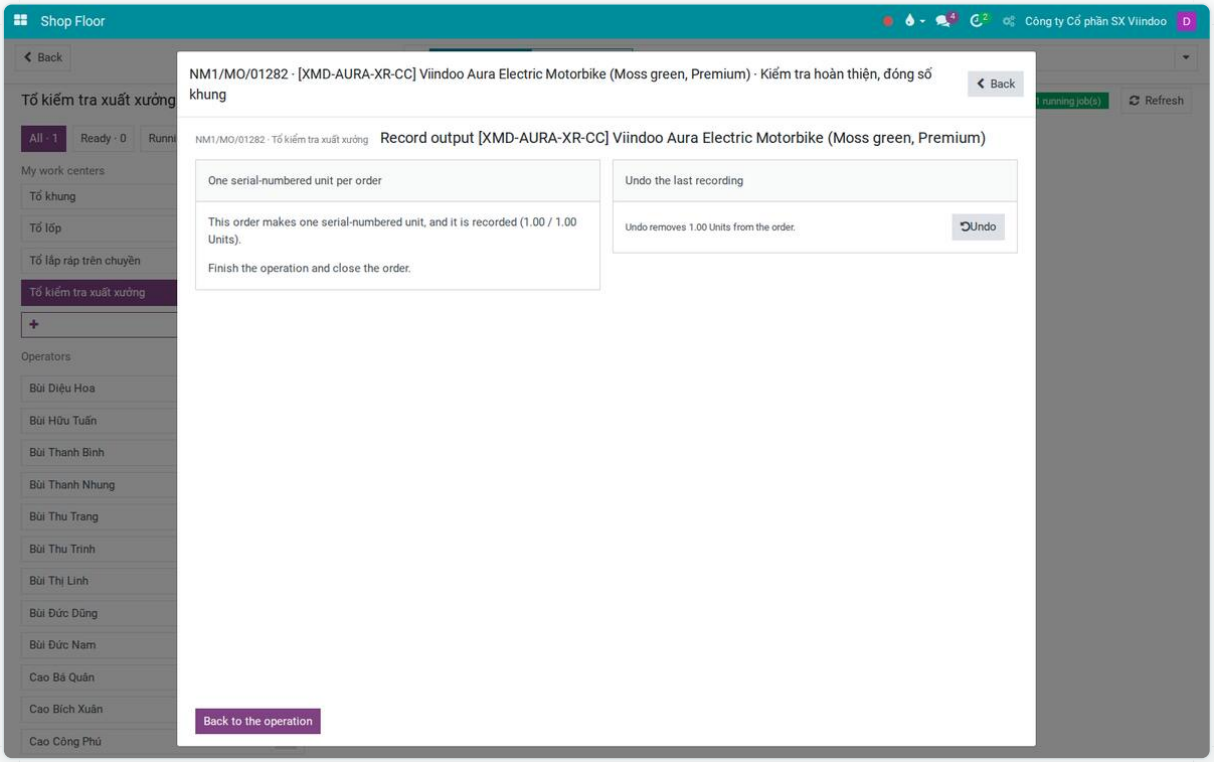


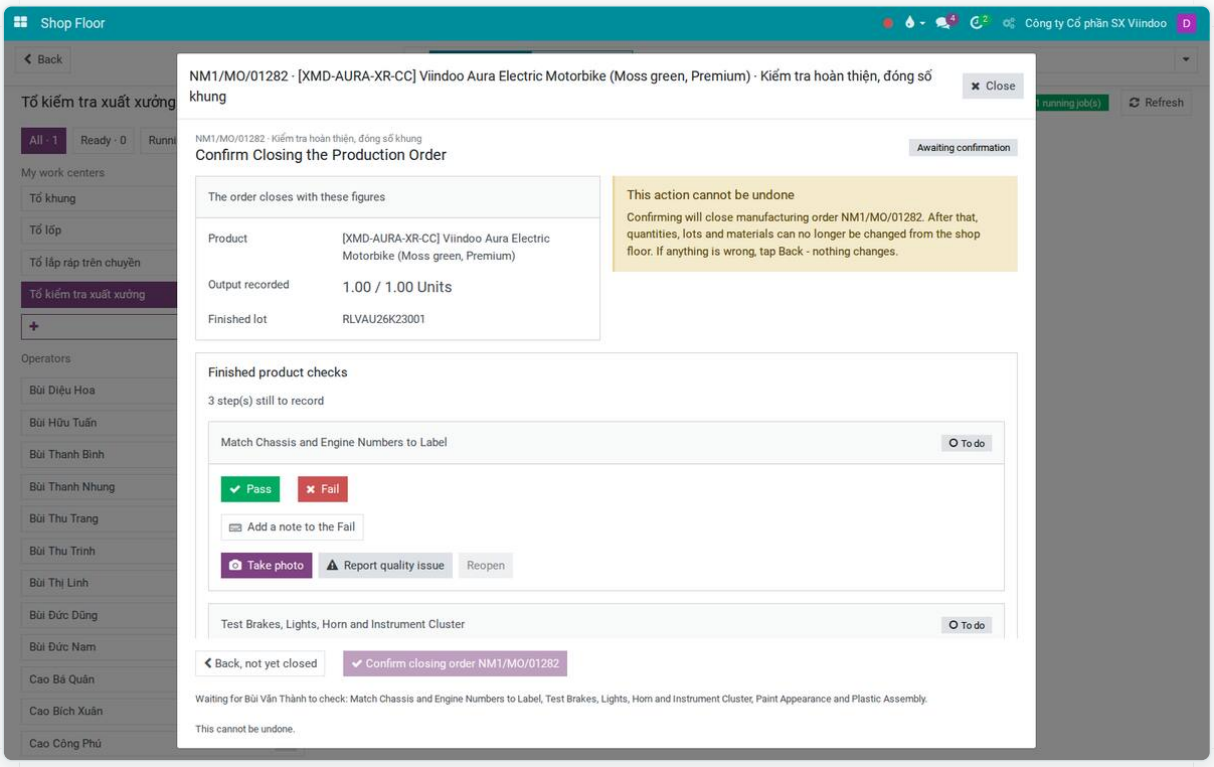
What you should see: on the **Record output** screen the left block **Quantity just made** shows **1.00 Units**, "Recorded 0.00 / 1.00 Units" and "After this recording: 1.00 / 1.00 Units"; the right block **Finished lot** shows the **Auto-generate lot** button, the **Assigned lot** and the list under **Or pick an existing lot**. After you confirm, the screen shows **One serial-numbered unit per order** ("This order makes one serial-numbered unit, and it is recorded (1.00 / 1.00 Units)") and an **Undo the last recording** block with an **Undo** button in case you recorded by mistake. Back on the operation screen you see **Output 1.00 / 1.00 Units** and the finished lot.

Step 23 - Finish the operation

Click **Finish operation**.

> *Path:* the operation screen **Kiểm tra hoàn thiện, đóng số khung** (**Shop Floor**)



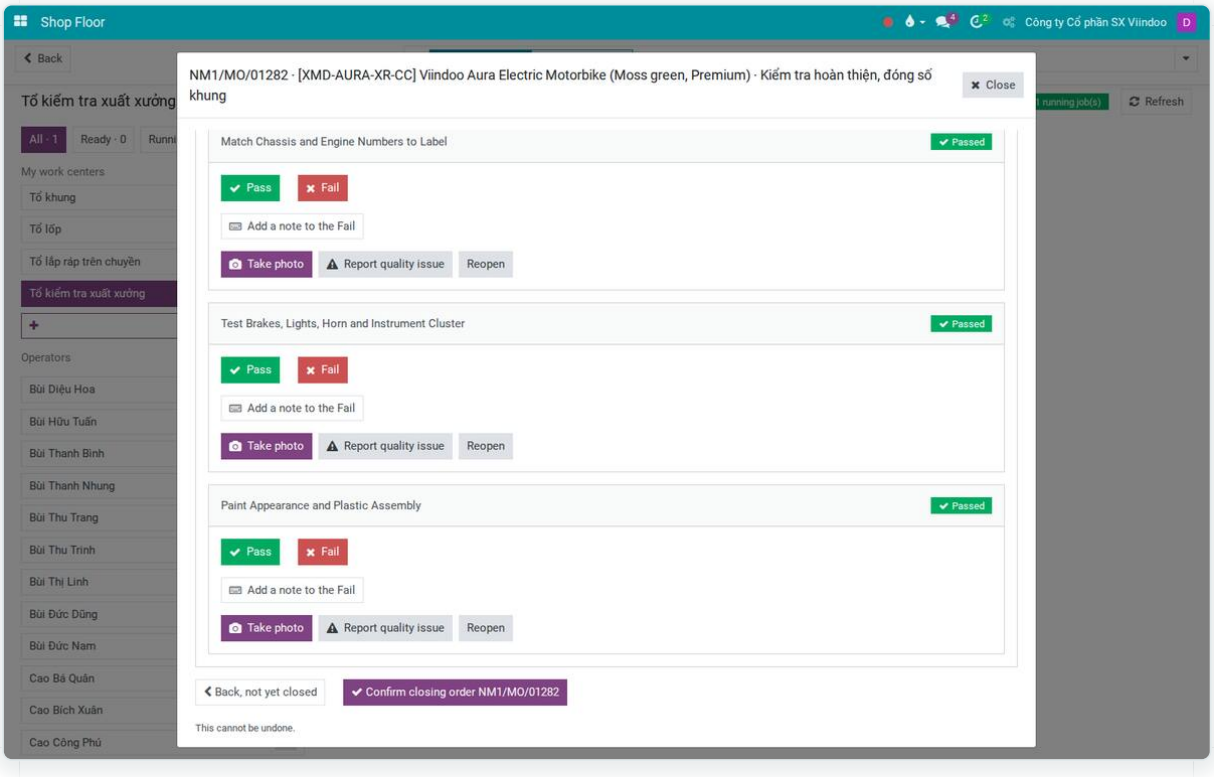


What you should see: because this is the last operation, the system opens the **Confirm Closing the Production Order** screen at once, with the label **Awaiting confirmation**, a block **The order closes with these figures** (**Product**, **Output recorded 1.00 / 1.00 Units** and **Finished lot RLVAU26K23001**), a warning **This action cannot be undone** and a block **Finished product checks** with **3 step(s) still to record**. The **Confirm closing order NM1/MO/01282** button is still greyed out; the last line says the screen is waiting for the inspector to record the result ("Waiting for ... to check: ...").

Step 24 - Check the chassis and engine numbers and close the order

Compare the chassis and engine numbers on the vehicle with the label, then click **Pass** on the line **Match Chassis and Engine Numbers to Label**. Do the same with **Test Brakes, Lights, Horn and Instrument Cluster** and **Paint Appearance and Plastic Assembly**. Click **Confirm closing order NM1/MO/01282**.

> *Path:* the **Confirm Closing the Production Order** screen (**Shop Floor**)



What you should see: each check line has a green **Passed** label at its right corner; the **Confirm closing order** button lights up. After you click it, the screen says **Order closed with 1.00 Units produced.** If a step is **Failed**, the inspection team adds a note (**Add a note to the Fail**), takes a photo, or clicks **Report quality issue** to create an alert, and the step can be reopened with **Reopen**; these three check points are set to block when they fail, so the order cannot be closed until the problem is handled (see Part VI. Shop floor production).

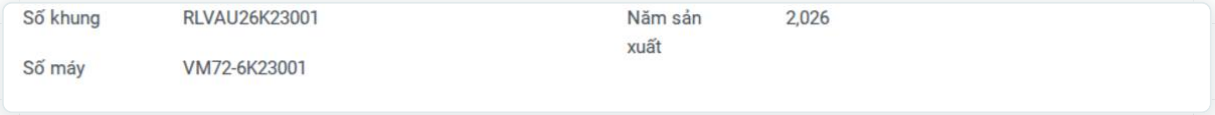
> **This action cannot be undone:** after the order is closed, quantities, lots and materials can no longer be changed from the shop floor screen. If anything is wrong, click **Back, not yet closed** before you confirm.

Step 25 - Record the chassis and engine numbers on the vehicle's record

Open the serial number record of the vehicle: on the manufacturing order click the value of the **Lot/Serial Number** box, or search for the chassis number in the list of lot/serial numbers. Fill in

the three boxes that belong to the vehicle (they are properties of the record, and their labels are in Vietnamese on the demo system): **Số khung** (chassis number) `RLVAU26K23001`, **Số máy** (engine number), the number stamped on the motor, for example `VM72-6K23001`, and **Năm sản xuất** (year of manufacture) `2026`. Click **Save**.

> *Path:* `Inventory > Products > Lots / Serial Numbers` > your lot

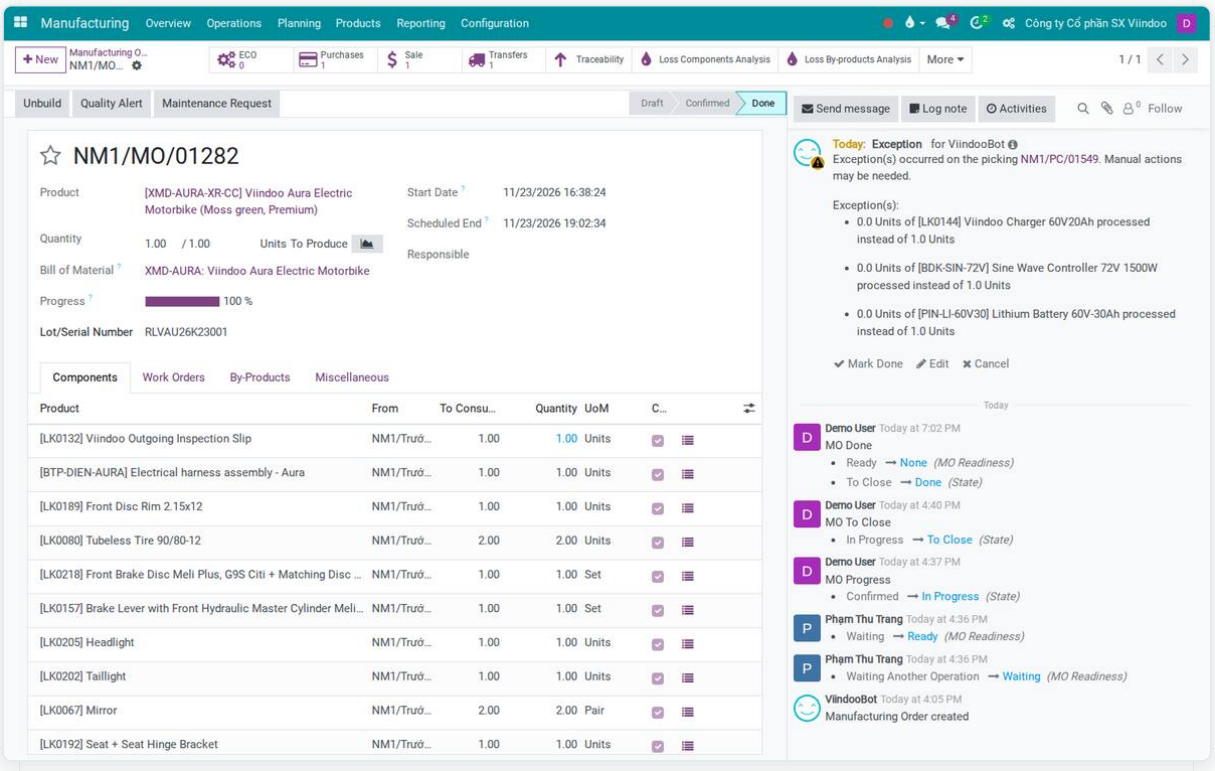


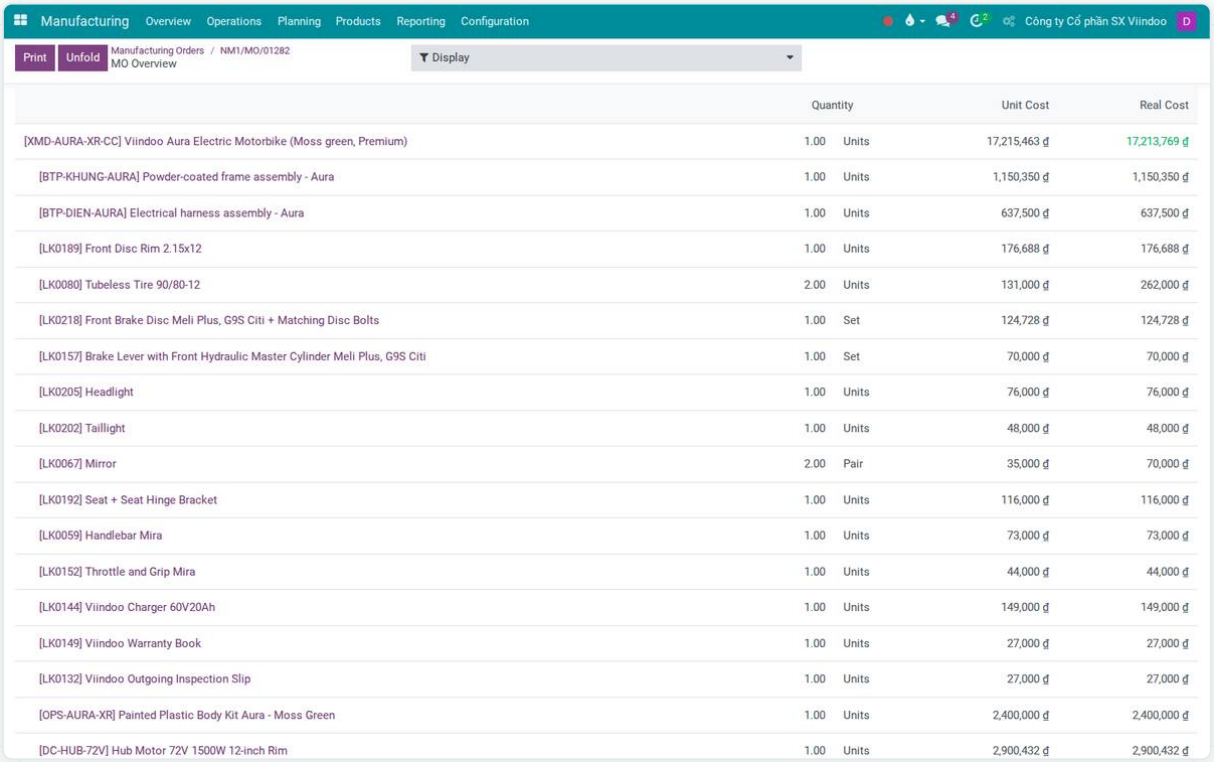
What you should see: the three boxes show the values you just typed (the year appears with a thousands separator, **2,026**). From now on, a dealer or a warranty workshop who searches by chassis number gets this vehicle (step 33). The lot number of the imported motor does not have to be typed by hand: the system recorded it when the motor was fitted in step 21.

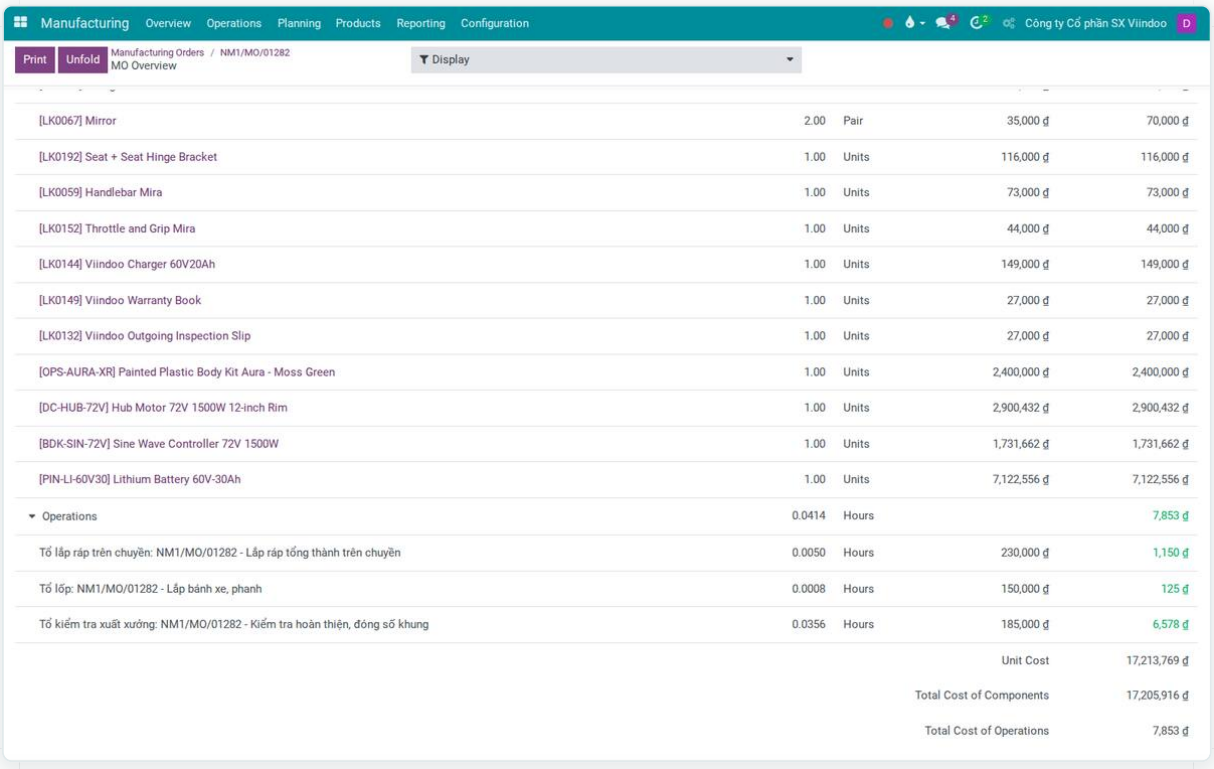
Step 26 - Read the vehicle cost on the order overview

Open the manufacturing order. On the row of smart buttons, click **More**, then choose **Overview**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > NM1/MO/01282 > **More** > **Overview**







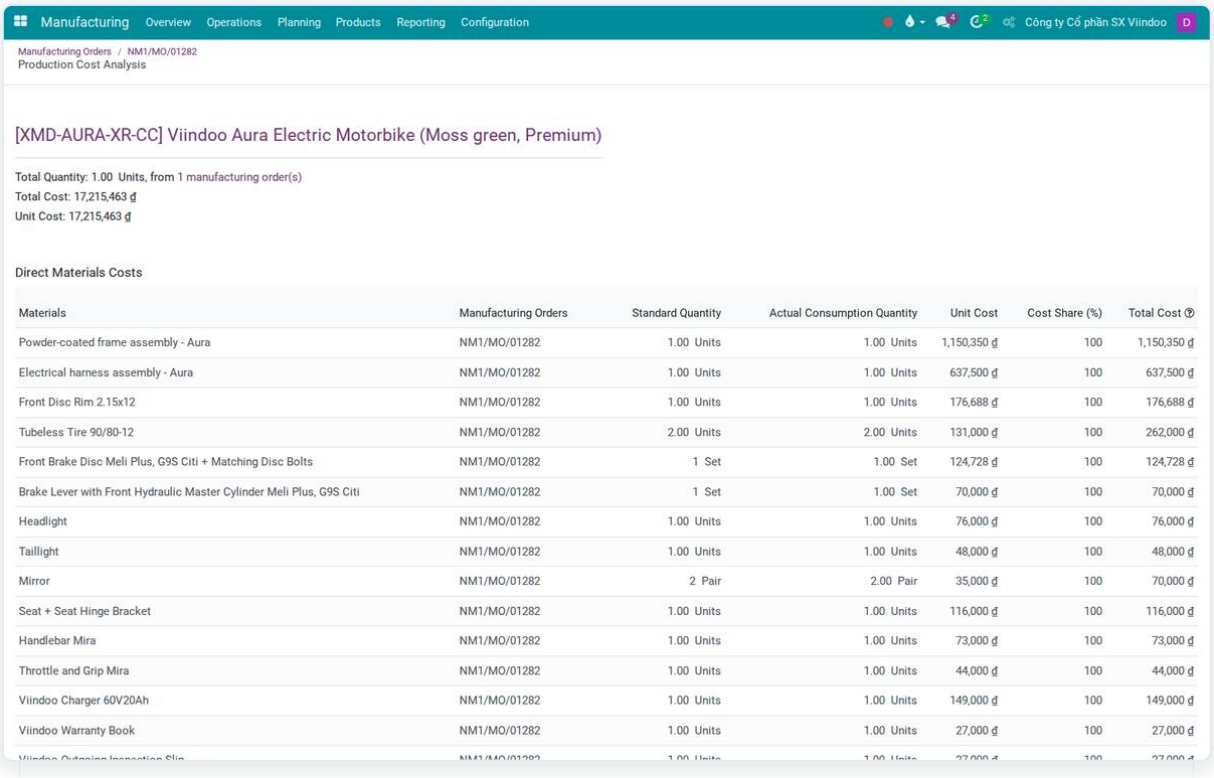
What you should see: the order is **Done** (status bar **Draft**, **Confirmed**, **Done**), **Progress** 100 %, and on the **Components** tab the **Quantity** column equals **To Consume** on every row. The **MO Overview** screen (with the **Print**, **Unfold** and **Display** controls) has the columns **Quantity**, **Unit Cost** and **Real Cost**: the first row is the vehicle itself (Unit Cost 17,215,463 VND, Real Cost 17,213,769 VND in the trial run), followed by every component with its cost; the row **[DC-HUB-72V] Hub Motor 72V 1500W 12-inch Rim** carries the motor's average cost, which includes the import costs added by landed costs (2,900,432 VND in the trial run). Scroll to the bottom to see the **Operations** group

(0.0414 hours, 7,853 VND) with the real hours of each team multiplied by the team's hourly rate (for example **Tổ lắp ráp trên chuyền** (Line Assembly Team) 230,000 VND per hour), then **Unit Cost**, **Total Cost of Components** (17,205,916 VND) and **Total Cost of Operations** (7,853 VND). The labour hours in this lesson are small because the operations only ran for a few minutes; in a real workshop the hours are the time the team really works.

Step 27 - See the cost by cost item

On the order, click **More**, then choose **Cost Analysis**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > NM1/MO/01282 > **More** > **Cost Analysis**



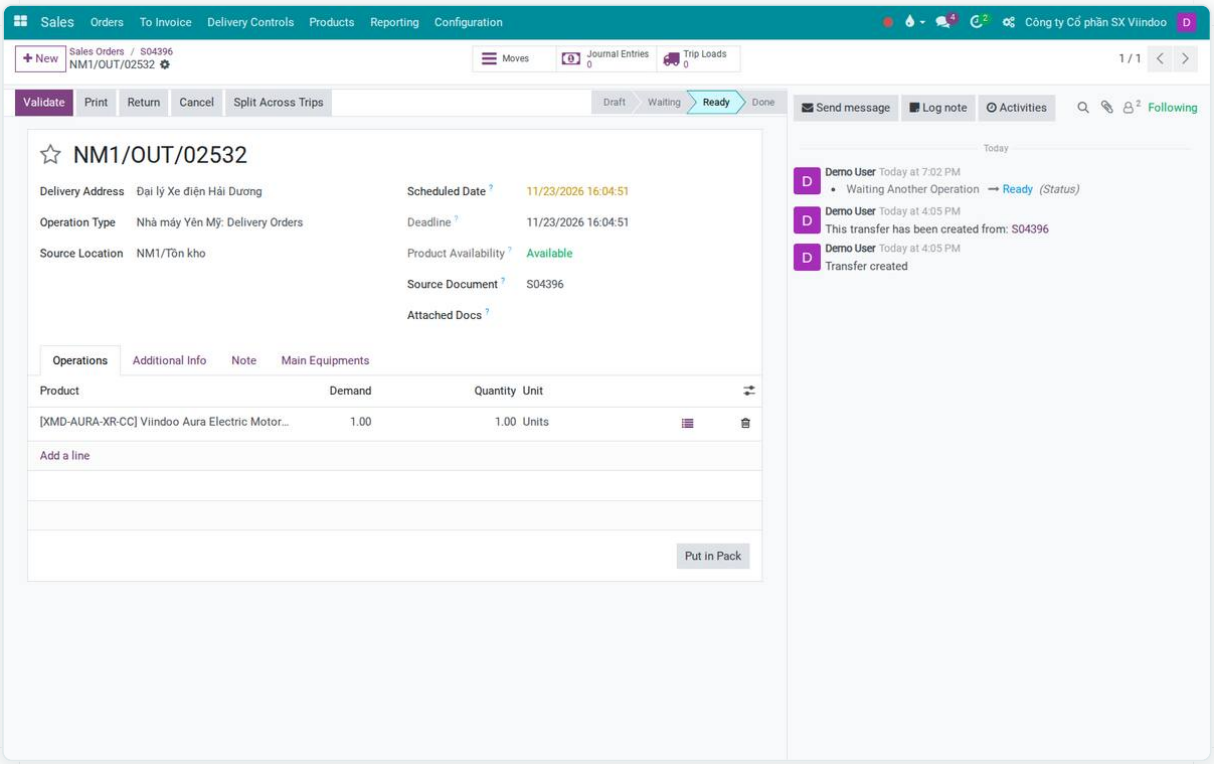
Materials	Manufacturing Orders	Standard Quantity	Actual Consumption Quantity	Unit Cost	Cost Share (%)	Total Cost
Powder-coated frame assembly - Aura	NM1/MO/01282	1.00 Units	1.00 Units	1,150,350 ₫	100	1,150,350 ₫
Electrical harness assembly - Aura	NM1/MO/01282	1.00 Units	1.00 Units	637,500 ₫	100	637,500 ₫
Front Disc Rim 2.15x12	NM1/MO/01282	1.00 Units	1.00 Units	176,688 ₫	100	176,688 ₫
Tubeless Tire 90/80-12	NM1/MO/01282	2.00 Units	2.00 Units	131,000 ₫	100	262,000 ₫
Front Brake Disc Meli Plus, G9S Citi + Matching Disc Bolts	NM1/MO/01282	1 Set	1.00 Set	124,728 ₫	100	124,728 ₫
Brake Lever with Front Hydraulic Master Cylinder Meli Plus, G9S Citi	NM1/MO/01282	1 Set	1.00 Set	70,000 ₫	100	70,000 ₫
Headlight	NM1/MO/01282	1.00 Units	1.00 Units	76,000 ₫	100	76,000 ₫
Taillight	NM1/MO/01282	1.00 Units	1.00 Units	48,000 ₫	100	48,000 ₫
Mirror	NM1/MO/01282	2 Pair	2.00 Pair	35,000 ₫	100	70,000 ₫
Seat + Seat Hinge Bracket	NM1/MO/01282	1.00 Units	1.00 Units	116,000 ₫	100	116,000 ₫
Handlebar Mira	NM1/MO/01282	1.00 Units	1.00 Units	73,000 ₫	100	73,000 ₫
Throttle and Grip Mira	NM1/MO/01282	1.00 Units	1.00 Units	44,000 ₫	100	44,000 ₫
Viindoo Charger 60V20Ah	NM1/MO/01282	1.00 Units	1.00 Units	149,000 ₫	100	149,000 ₫
Viindoo Warranty Book	NM1/MO/01282	1.00 Units	1.00 Units	27,000 ₫	100	27,000 ₫

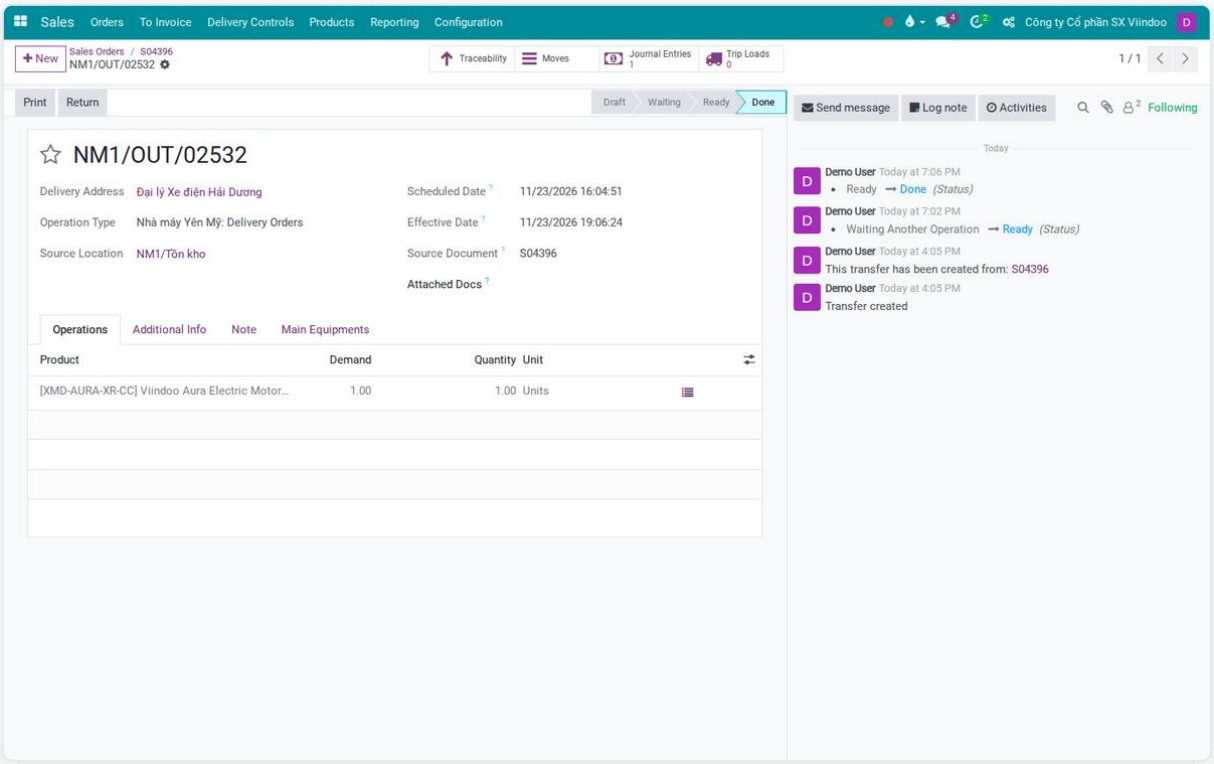
What you should see: the page **Production Cost Analysis** starts with the product, then **Total Quantity: 1.00 Units, from 1 manufacturing order(s)**, **Total Cost:** and **Unit Cost:** (17,215,463 VND in the trial run). Below are three cost items: **Direct Materials Costs** (a table with the columns **Materials**, **Manufacturing Orders**, **Standard Quantity**, **Actual Consumption Quantity**, **Unit Cost**, **Cost Share (%)** and **Total Cost**), **Direct Labor** and **Manufacturing Overheads** by operation. This is the figure posted to finished goods stock: the entry that closes the order posts Debit 155 / Credit 154 for exactly this **Total Cost**. The **Overview** screen in step 26 prices operations at the team's hourly rate, so its real cost may differ from this figure by a few thousand dong (17,213,769 VND against 17,215,463 VND here); the figure used for accounting is the one on **Cost Analysis**. For the calculation and the entries in detail, see Part XII. Accounting and costing.

Step 28 - Deliver the vehicle to the dealer

Open sales order S04396 and click the **Delivery** button. On the delivery transfer (operation type **Nhà máy Yên Mỹ: Delivery Orders**), click **Validate**, then **Validate** in the date dialog.

> *Path:* `Sales > Orders > Orders` > S04396 > **Delivery** button



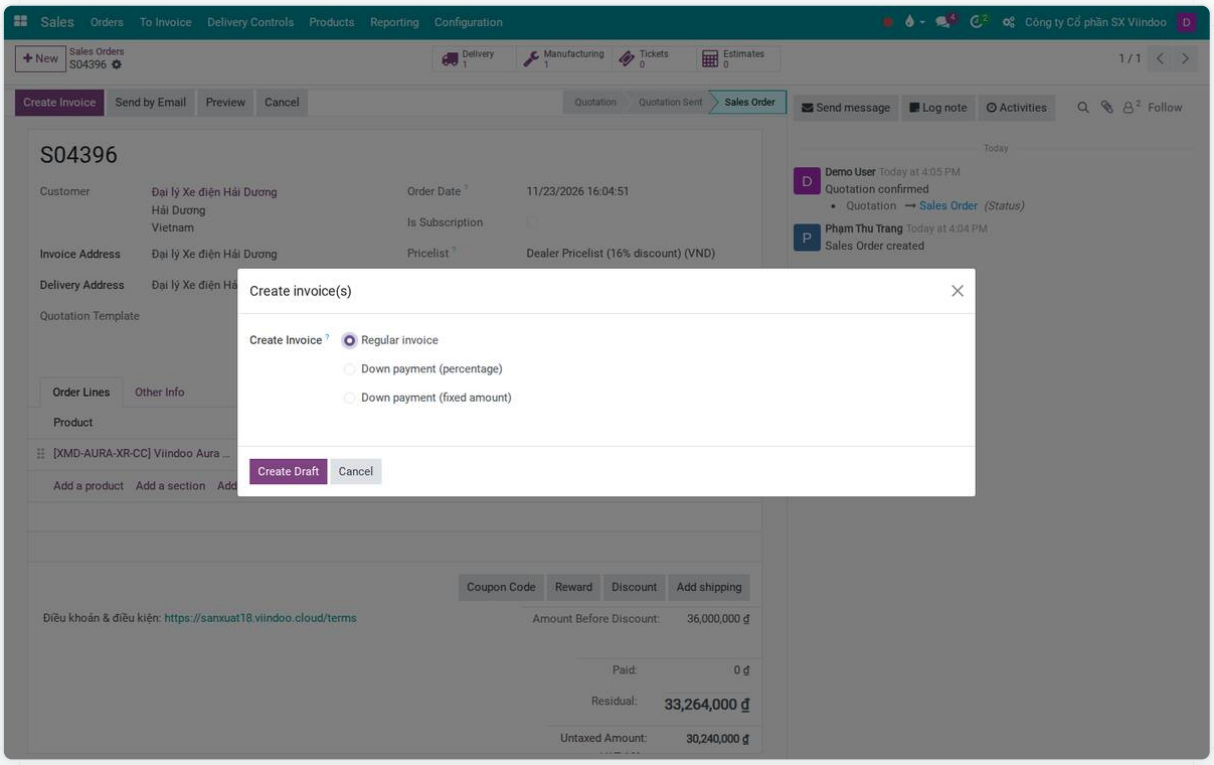


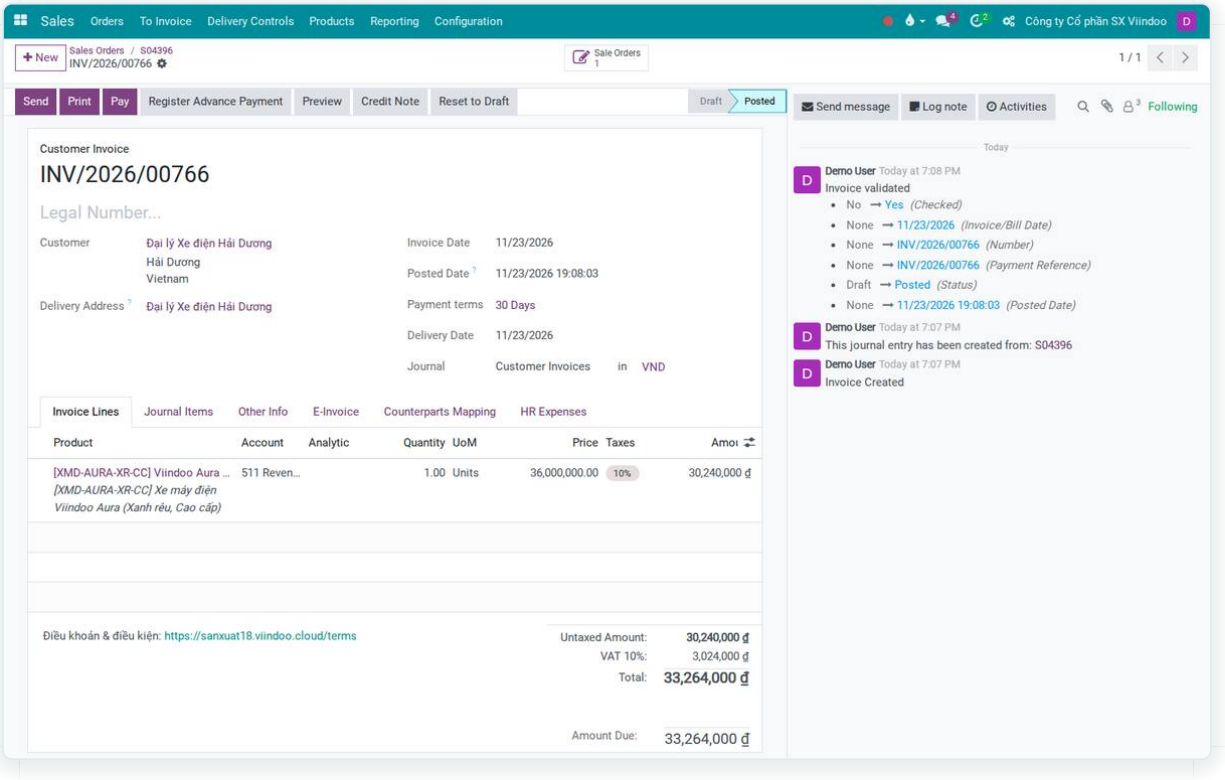
What you should see: before you validate, the transfer **NM1/OUT/...** has **Delivery Address Đại lý Xe điện Hải Dương**, **Source Location NM1/Tồn kho**, **Product Availability Available** and the status **Ready**: the vehicle with chassis number RLVAU26K23001 was reserved for this order the moment the manufacturing order closed. After you validate, the transfer is **Done**, the **Effective Date** box holds the time you clicked, and **Traceability**, **Moves** and **Journal Entries** buttons appear at the top.

Step 29 - Invoice the dealer

Go back to the sales order and click **Create Invoice**. In the **Create invoice(s)** dialog, keep **Regular invoice** and click **Create Draft**. On the draft invoice, click **Confirm**.

> *Path:* `Sales > Orders > Orders` > your order



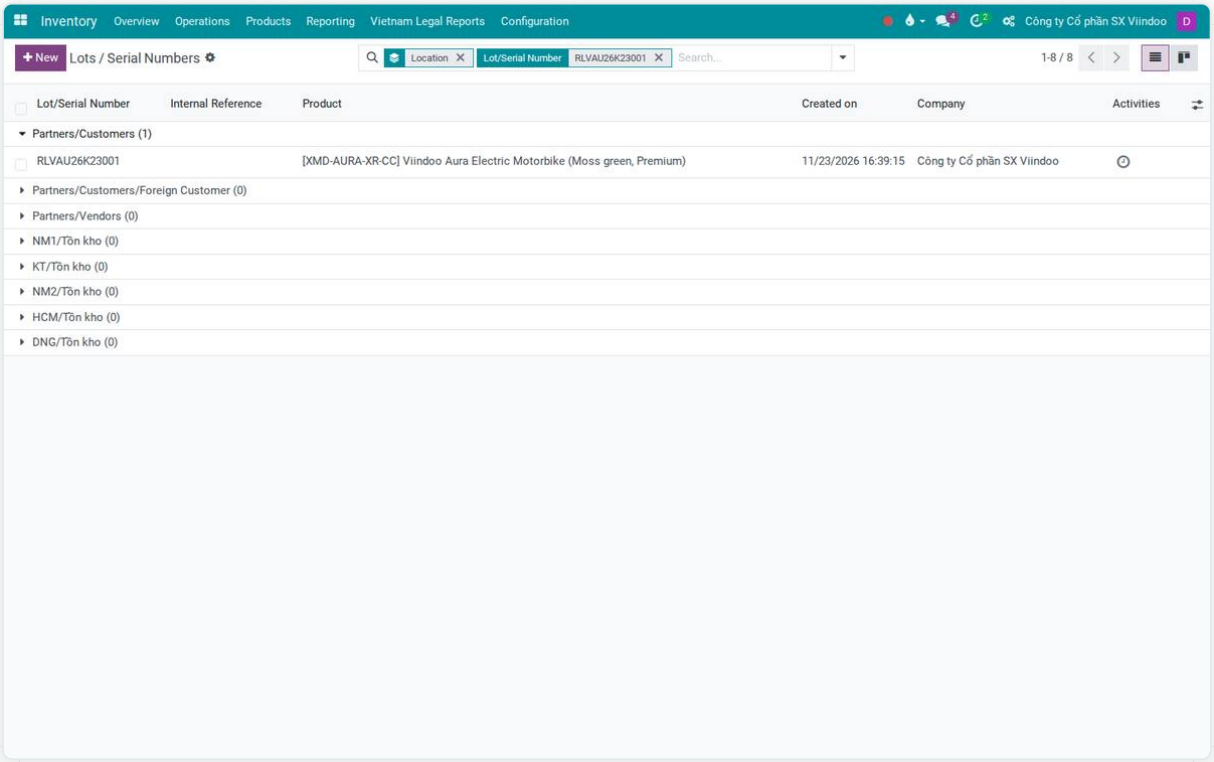


What you should see: the dialog has the **Create Invoice** choices **Regular invoice**, **Down payment (percentage)** and **Down payment (fixed amount)**. The invoice is a **Customer Invoice** with the vehicle line, **Price** 36,000,000.00, **Taxes** 10% and **Amount** 30,240,000 VND (the 16% dealer discount is already applied), **VAT 10%** 3,024,000 VND, **Total** 33,264,000 VND, **Payment terms** 30 Days and **Journal Customer Invoices** in VND; after you confirm, it has a number **INV/2026/...** and the status **Posted**, and **Amount Due** shows 33,264,000 VND. The dealer's receivable rises accordingly.

Step 30 - Look up the chassis number

Open the list of lot/serial numbers, type `RLVAU26K23001` in the search box and press Enter. The list is grouped by location; click the group **Partners/Customers (1)** to open it.

> *Path:* `Inventory > Products > Lots / Serial Numbers` (the same list is also at `Warranty > Lot/Serial Numbers`)



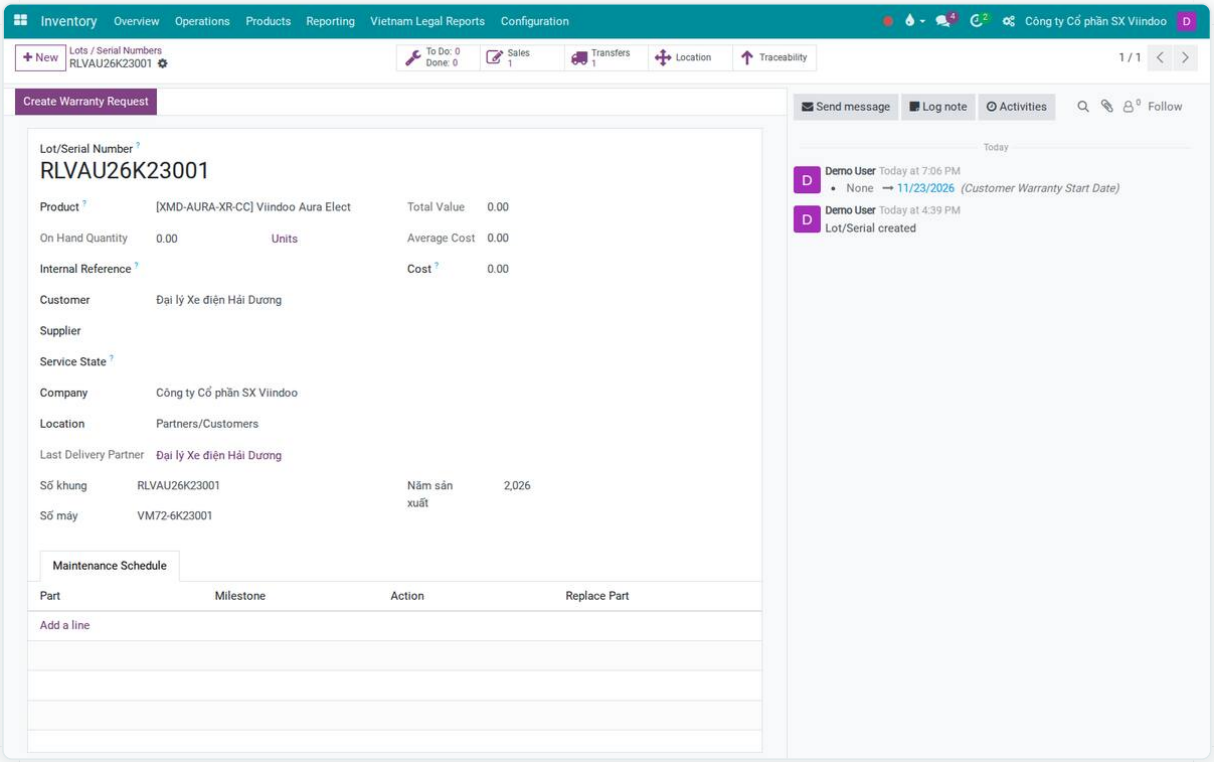
What you should see: exactly one row **RLVAU26K23001**, with the product **[XMD-AURA-XR-CC] Viindoo Aura Electric Motorbike (Moss green, Premium)**, in the group **Partners/Customers** - the vehicle has left the warehouse and gone to the customer.

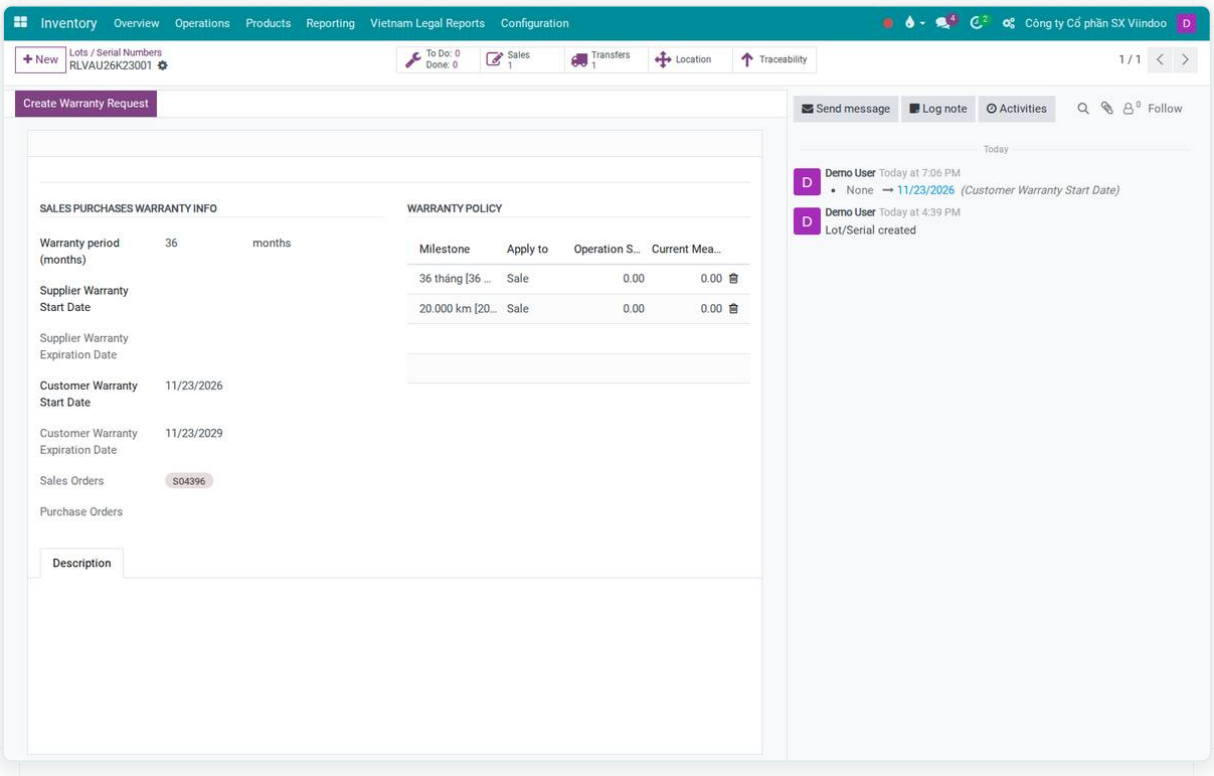
Step 31 - Open the vehicle record and the warranty deadline

> *Path:* still on the screen of the previous step (`Inventory > Products > Lots / Serial Numbers`)

Click the row of the chassis number. Scroll down to the **Sales Purchases Warranty Info** block.

> *Path:* list of lot/serial numbers > your chassis number (`Inventory > Products > Lots / Serial Numbers`)





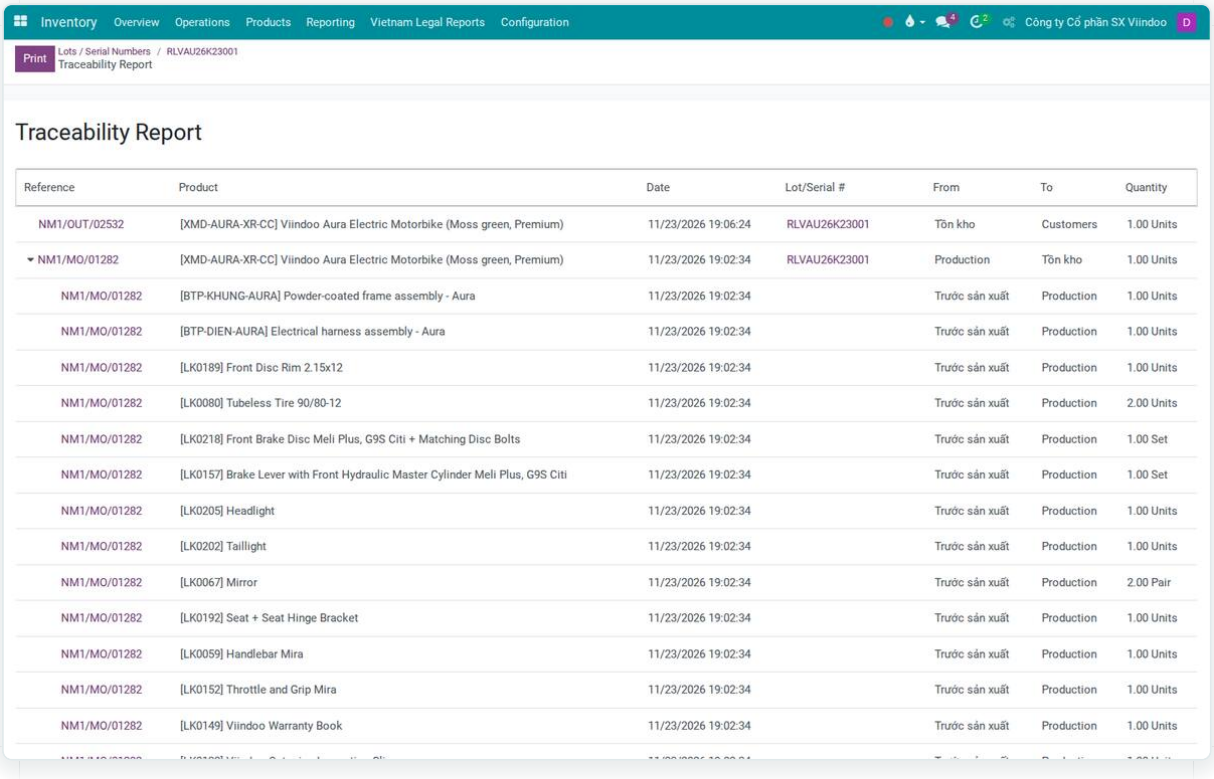
What you should see: Customer and **Last Delivery Partner** are **Đại lý Xe điện Hải Dương**, **Location** is **Partners/Customers**; **Số khung** and **Số máy** are as recorded in step 25. The smart buttons at the top include **Sales 1**, **Transfers 1**, **Location** and **Traceability**. In the warranty block: **Warranty period (months)** 36, **Customer Warranty Start Date** is the delivery date of the vehicle (11/23/2026 in the trial run), **Customer Warranty Expiration Date** is exactly three years later (11/23/2029), **Sales Orders** S04396; the **Warranty Policy** table (columns **Milestone**, **Apply to**, **Operation Start**, **Current Measurement**) has two milestones, **36 tháng [36 Months]** and **20.000 km [20000 km]**.

The warranty deadline is calculated when the vehicle is delivered; nobody has to enter it. At the top there is a **Create Warranty Request** button - when the dealer reports a defect, the warranty request is opened from this very record (see Part IX. Warranty and repairs).

Step 32 - Trace the vehicle back to its component lots

Click the **Traceability** button at the top of the record. On the report, click the arrow in front of the row **NM1/MO/01282** to open the components of the vehicle.

> *Path:* record RLVAU26K23001 > **Traceability** (`Inventory > Products > Lots / Serial Numbers`)

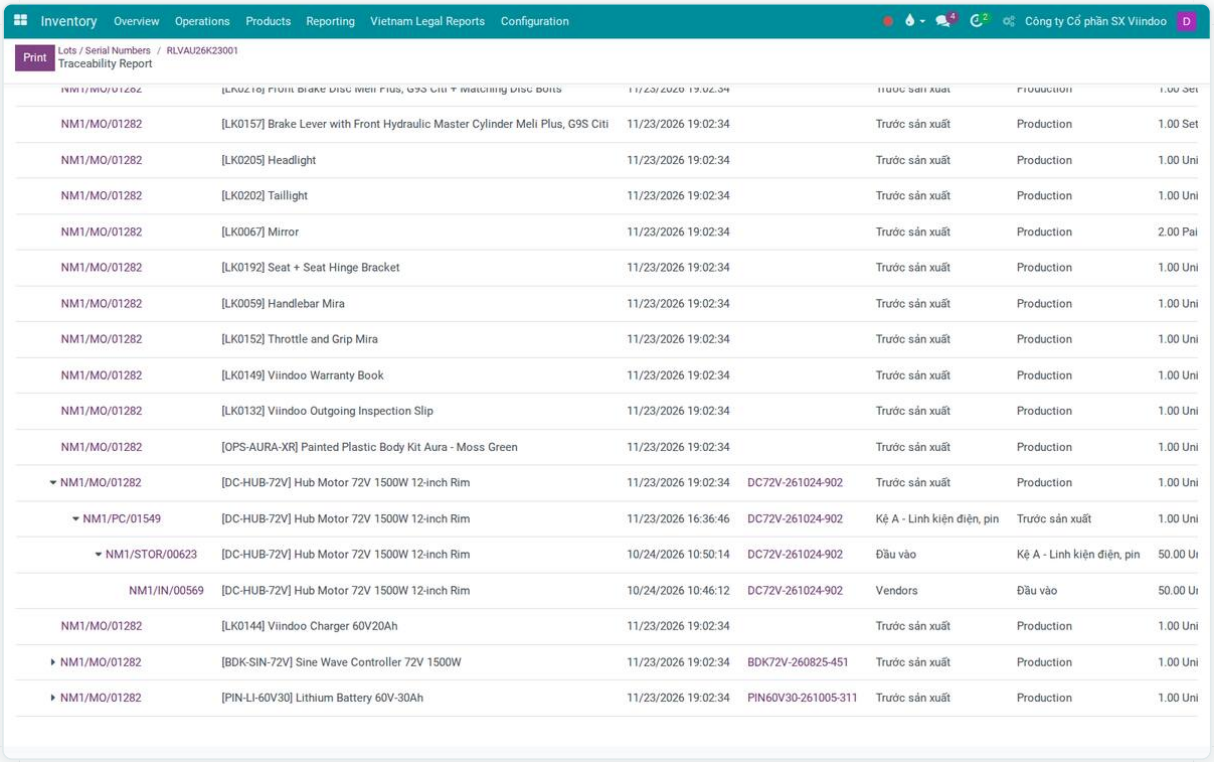


What you should see: the **Traceability Report** has a delivery row **NM1/OUT/02532** (from **Tồn kho** (Stock) to **Customers**) and an order row **NM1/MO/01282** (from **Production** into **Tồn kho**). When you open the order, you see all 19 components fitted into the vehicle, each with a quantity.

Step 33 - Trace the motor lot back to the vendor

Scroll to the bottom of the report. On the row **[DC-HUB-72V] Hub Motor 72V 1500W 12-inch Rim** (see its lot in the column **Lot/Serial #**), click the arrow in front of the row; repeat with the new rows that open until no arrow is left.

> *Path:* on the **Traceability Report** of RLVAU26K23001 (`Inventory > Products > Lots / Serial Numbers`)



NM1/MO/01282	[LK0157] Brake Lever with Front Hydraulic Master Cylinder Meli Plus, G9S Citi	11/23/2026 19:02:34		Trước sản xuất	Production	1.00 Set
NM1/MO/01282	[LK0205] Headlight	11/23/2026 19:02:34		Trước sản xuất	Production	1.00 Uni
NM1/MO/01282	[LK0202] Taillight	11/23/2026 19:02:34		Trước sản xuất	Production	1.00 Uni
NM1/MO/01282	[LK0067] Mirror	11/23/2026 19:02:34		Trước sản xuất	Production	2.00 Pai
NM1/MO/01282	[LK0192] Seat + Seat Hinge Bracket	11/23/2026 19:02:34		Trước sản xuất	Production	1.00 Uni
NM1/MO/01282	[LK0059] Handlebar Mira	11/23/2026 19:02:34		Trước sản xuất	Production	1.00 Uni
NM1/MO/01282	[LK0152] Throttle and Grip Mira	11/23/2026 19:02:34		Trước sản xuất	Production	1.00 Uni
NM1/MO/01282	[LK0149] Viindoo Warranty Book	11/23/2026 19:02:34		Trước sản xuất	Production	1.00 Uni
NM1/MO/01282	[LK0132] Viindoo Outgoing Inspection Slip	11/23/2026 19:02:34		Trước sản xuất	Production	1.00 Uni
NM1/MO/01282	[OPS-AURA-XR] Painted Plastic Body Kit Aura - Moss Green	11/23/2026 19:02:34		Trước sản xuất	Production	1.00 Uni
NM1/MO/01282	[DC-HUB-72V] Hub Motor 72V 1500W 12-inch Rim	11/23/2026 19:02:34	DC72V-261024-902	Trước sản xuất	Production	1.00 Uni
NM1/PC/01549	[DC-HUB-72V] Hub Motor 72V 1500W 12-inch Rim	11/23/2026 16:36:46	DC72V-261024-902	Kệ A - Linh kiện điện, pin	Trước sản xuất	1.00 Uni
NM1/STOR/00623	[DC-HUB-72V] Hub Motor 72V 1500W 12-inch Rim	10/24/2026 10:50:14	DC72V-261024-902	Đầu vào	Kệ A - Linh kiện điện, pin	50.00 Ur
NM1/IN/00569	[DC-HUB-72V] Hub Motor 72V 1500W 12-inch Rim	10/24/2026 10:46:12	DC72V-261024-902	Vendors	Đầu vào	50.00 Ur
NM1/MO/01282	[LK0144] Viindoo Charger 60V20Ah	11/23/2026 19:02:34		Trước sản xuất	Production	1.00 Uni
NM1/MO/01282	[BDK-SIN-72V] Sine Wave Controller 72V 1500W	11/23/2026 19:02:34	BDK72V-260825-451	Trước sản xuất	Production	1.00 Uni
NM1/MO/01282	[PIN-LI-60V30] Lithium Battery 60V-30Ah	11/23/2026 19:02:34	PIN60V30-261005-311	Trước sản xuất	Production	1.00 Uni

What you should see: the three lot-tracked components (motor, controller, battery) show their lot number right on the row. The motor lot traces back to the chain **NM1/PC/...** (picked for the line), **NM1/STOR/...** (put away, 50 units), **NM1/IN/...** (from **Vendors** into **Đầu vào** (Input), 50 units) - that is, back to the motor's receipt and its purchase order, the lot of 50 motors imported from Jiangsu Huanyu in stages 2 and 3. If that motor lot later turns out to be defective, open the lot record of the motor (`Inventory > Products > Lots / Serial Numbers`) and click **Traceability**: the report lists every manufacturing order that took motors of this lot, and from there each vehicle.

> **Three questions of an assembly business, answered on one vehicle:** where the money is (the motor cost already includes tax, freight and fees; the vehicle cost separates materials from labour hours), which component lots the vehicle is made of and where it is now (traced from the chassis number), and who bought it at what price (the order and the invoice follow the dealer pricelist). The following parts go deeper into each stage: configuration, every status, exception cases and reports.

PART I. GENERAL CONFIGURATION

This part answers the question: how is the company's system set up - the company, the accounting regime, the currencies, which feature groups are switched on, how product categories connect to the accounting accounts, and who may do what. The chief accountant and the person in charge of implementation read it first; the later parts have their own configuration chapters for their own processes. This part is read-only: do not change the configuration (the demo system is shared).

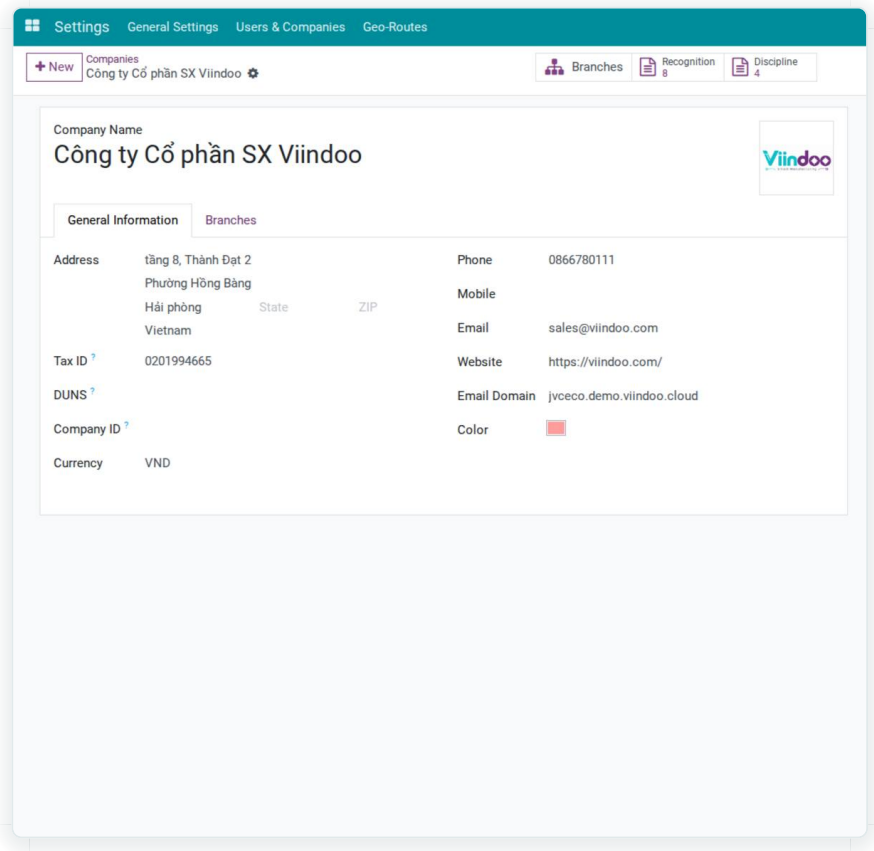
02 THE COMPANY, THE ACCOUNTING REGIME AND THE CURRENCIES

About 10 minutes. By the end of this lesson your company knows which chart of accounts the company applies, which currencies it uses, and why the cost of goods is recorded at the moment of delivery.

Step 1 - See the company profile

Open the list of companies and click **Công ty Cổ phần SX Viindoo**.

> *Path:* `Settings > Users & Companies > Companies`

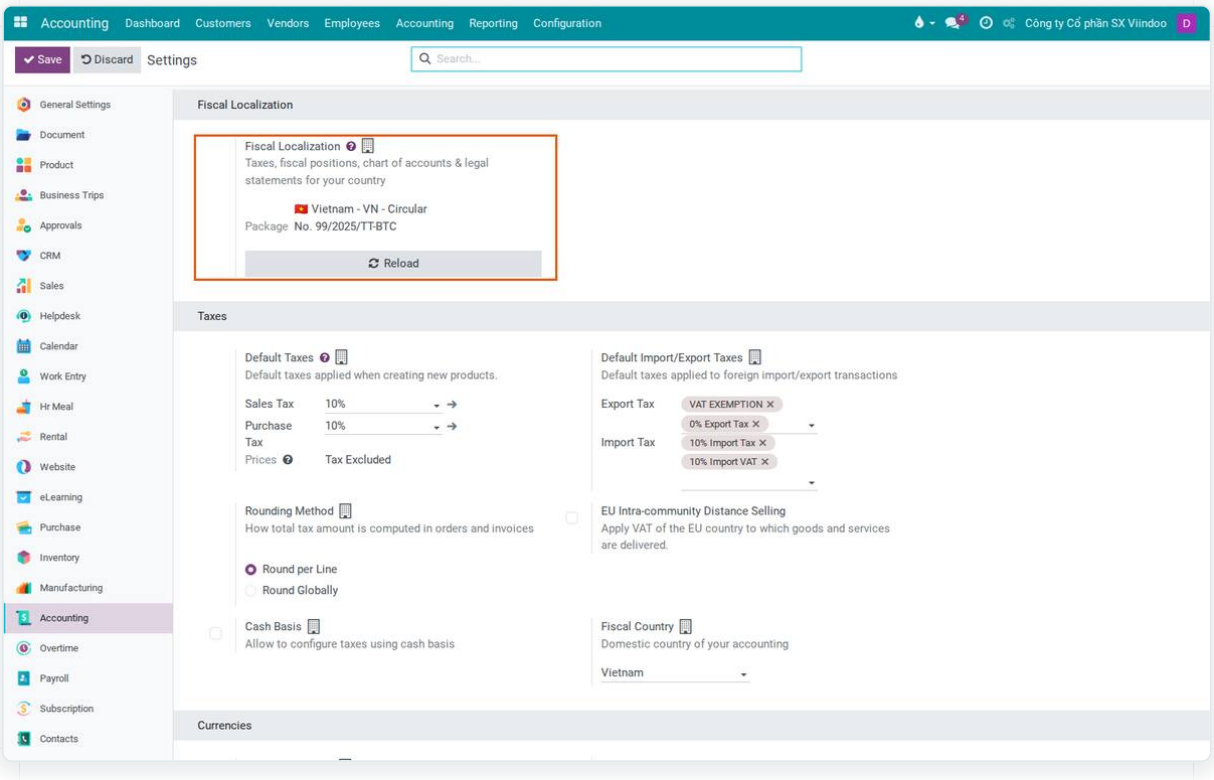


What you should see: the name **Công ty Cổ phần SX Viindoo**, an address in Hải Phòng, **Tax ID** 0201994665, **Currency** VND, and the tab **Branches**. This is the information printed on invoices, receipt and payment vouchers and the financial statements.

Step 2 - See the localization package and the chart of accounts in use

Open the accounting settings page.

> *Path:* `Accounting > Configuration > Settings`

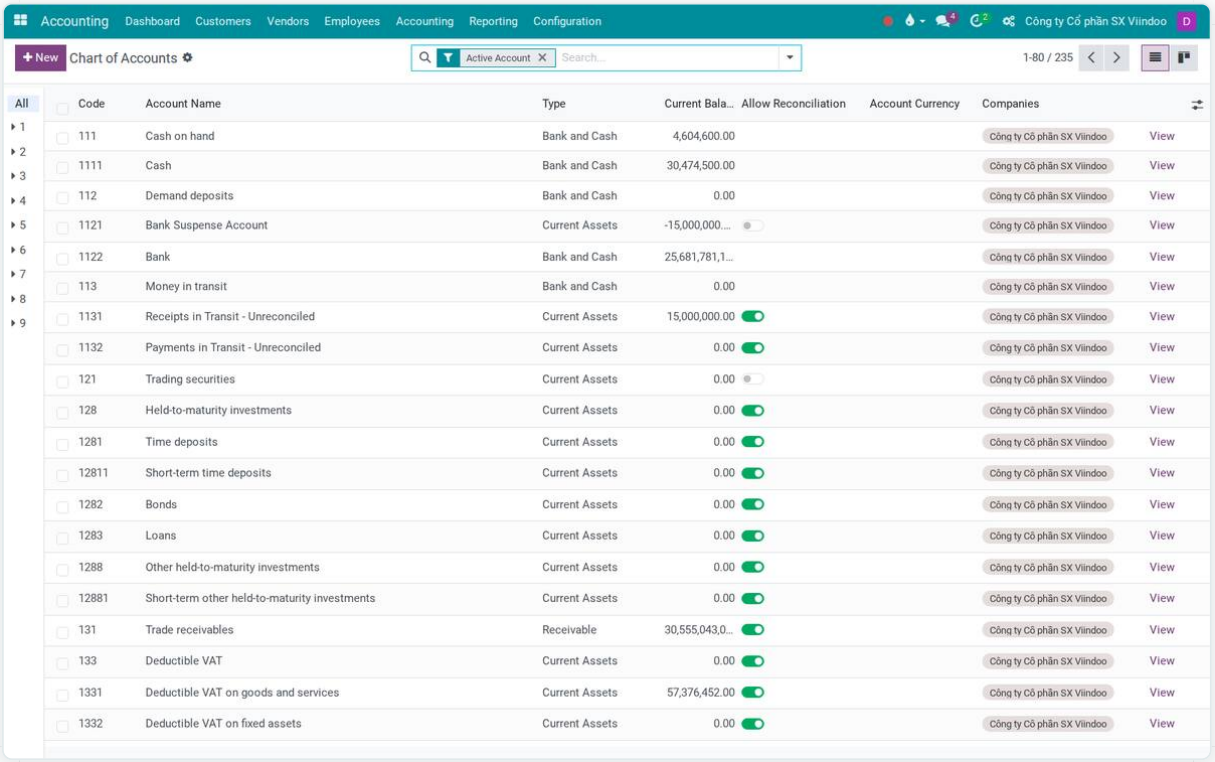


What you should see: the section **Fiscal Localization** shows the **Package** Vietnam - VN - Circular No. 99/2025/TT-BTC: the chart of accounts, taxes and statutory reports under Circular 99/2025/TT-BTC. Just below is **Default Taxes** (sales 10%, purchase 10%) and **Default Import/Export Taxes** (import tax 10%, VAT on imported goods). The system has two packages for Vietnam: Circular 99 and Circular 133; small and medium enterprises choose the Circular 133 package when they set up.

Step 3 - See the chart of accounts

Open the list of accounts.

> *Path:* `Accounting > Configuration > Accounting > Chart of Accounts`

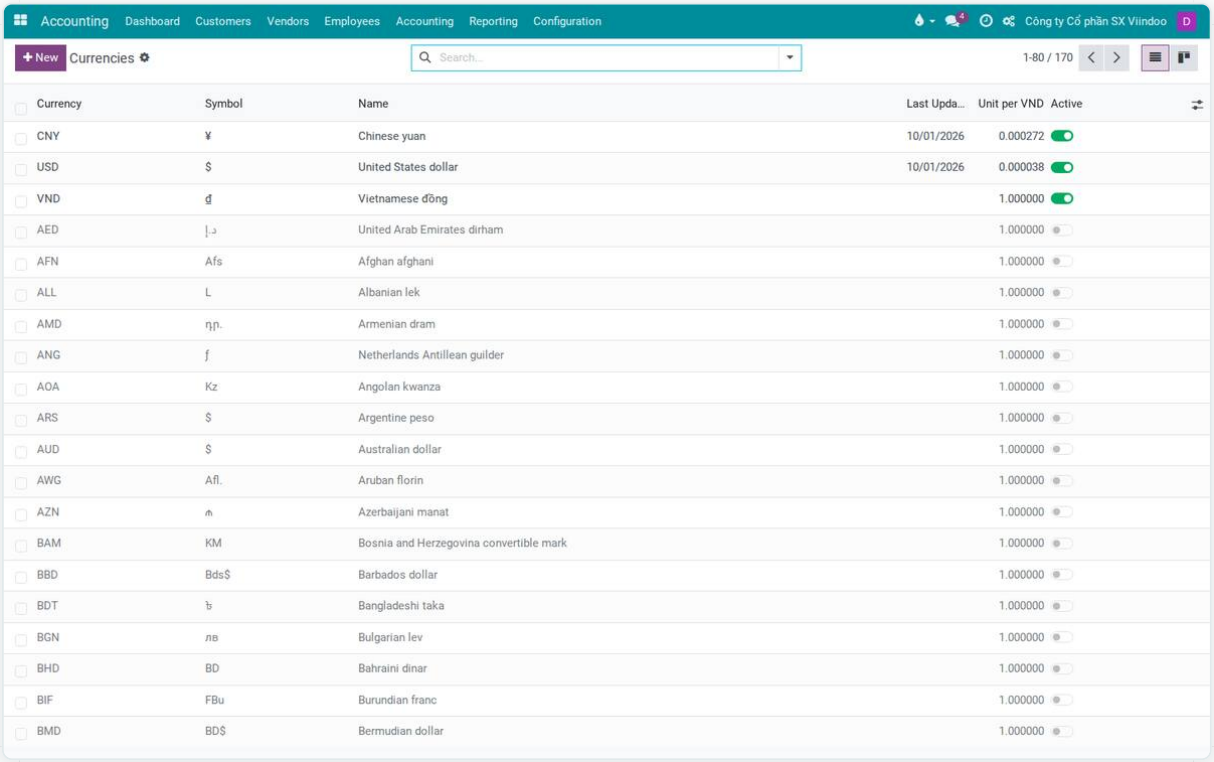


What you should see: 235 active accounts, with codes following Circular 99 (111, 1122, 1131, 1132, 131, 152, 154, 155, 331, 511, 621, 622, 627, 632...), and the columns **Type** and **Current Balance**. The level-1 accounts are grouped in the left column; click a number from 1 to 9 to filter by type.

Step 4 - See the currencies in use

Open the list of currencies.

> *Path:* `Accounting > Configuration > Accounting > Currencies`



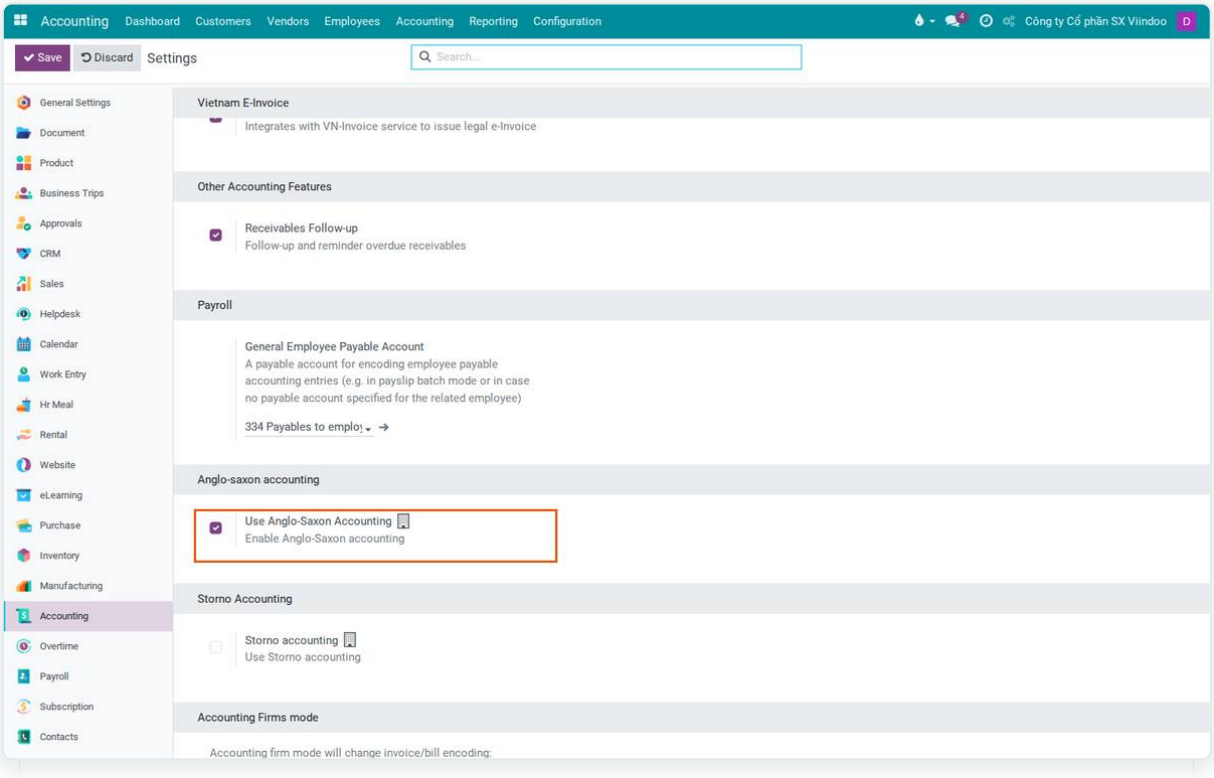
Currency	Symbol	Name	Last Upda...	Unit per VND	Active
CNY	¥	Chinese yuan	10/01/2026	0.000272	
USD	$	United States dollar	10/01/2026	0.000038	
VND	₫	Vietnamese đồng		1.000000	
AED	د.إ	United Arab Emirates dirham		1.000000	
AFN	Afs	Afghan afghani		1.000000	
ALL	L	Albanian lek		1.000000	
AMD	դր.	Armenian dram		1.000000	
ANG	ƒ	Netherlands Antillean guilder		1.000000	
AOA	Kz	Angolan kwanza		1.000000	
ARS	$	Argentine peso		1.000000	
AUD	$	Australian dollar		1.000000	
AWG	Afl.	Aruban florin		1.000000	
AZN	₼	Azerbaijani manat		1.000000	
BAM	KM	Bosnia and Herzegovina convertible mark		1.000000	
BBD	Bds$	Barbados dollar		1.000000	
BDT	৳	Bangladeshi taka		1.000000	
BGN	лв	Bulgarian lev		1.000000	
BHD	BD	Bahraini dinar		1.000000	
BIF	FBu	Burundian franc		1.000000	
BMD	BD$	Bermudian dollar		1.000000	

What you should see: three currencies with the **Active** switch on: **VND** (the main currency), **USD** (export sales and imported components) and **CNY** (Chinese vendors), with **Last Update** and **Unit per VND**. The rates on the demo system are assumed figures updated on 01/10/2026 (1 USD = 26,250 VND, 1 CNY about 3,680 VND); the setting **Automatic Currency Rates Update** is off.

Step 5 - See how the cost of goods is recorded

On the accounting settings page, scroll down to the section **Anglo-saxon accounting**.

> *Path:* `Accounting > Configuration > Settings`



What you should see: the box **Use Anglo-Saxon Accounting** is ticked. This means the cost of goods is recorded at the moment the goods leave the warehouse for the customer (Debit 632 / Credit 155 or 152), and the sales invoice records only revenue and tax. A manufacturer should keep this on: the cost of goods matches the number of vehicles delivered, whatever day the invoice is issued.

The rest of the accounting regime:

Item	Current setting	Where
Fiscal year	Ends on 31/12 every year	`Accounting > Configuration > Settings`, section **Fiscal Periods**
Lock date	30/06/2026: nobody can edit a document dated before it	`Accounting > Accounting > Lock Dates`
Taxes	20 taxes: deductible VAT (purchases), output VAT (sales) at 0%, 5%, 8%, 10% and VAT EXEMPTION; import tax, VAT on imported goods, export tax	`Accounting > Configuration > Accounting > Taxes`
Journals	Customer Invoices, Vendor Bills, Bank, Cash, Inventory Valuation, Default Landed Cost Journal, Import-Export Tax Journal, Employee Payroll, Assets, Miscellaneous Operations, Exchange Difference	`Accounting > Configuration > Accounting > Journals`

Item	Current setting	Where
E-invoice	The Vietnam e-invoice integration is on (Viettel S-Invoice, VN-Invoice)	`Accounting > Configuration > Settings`, section **Vietnam E-Invoice**

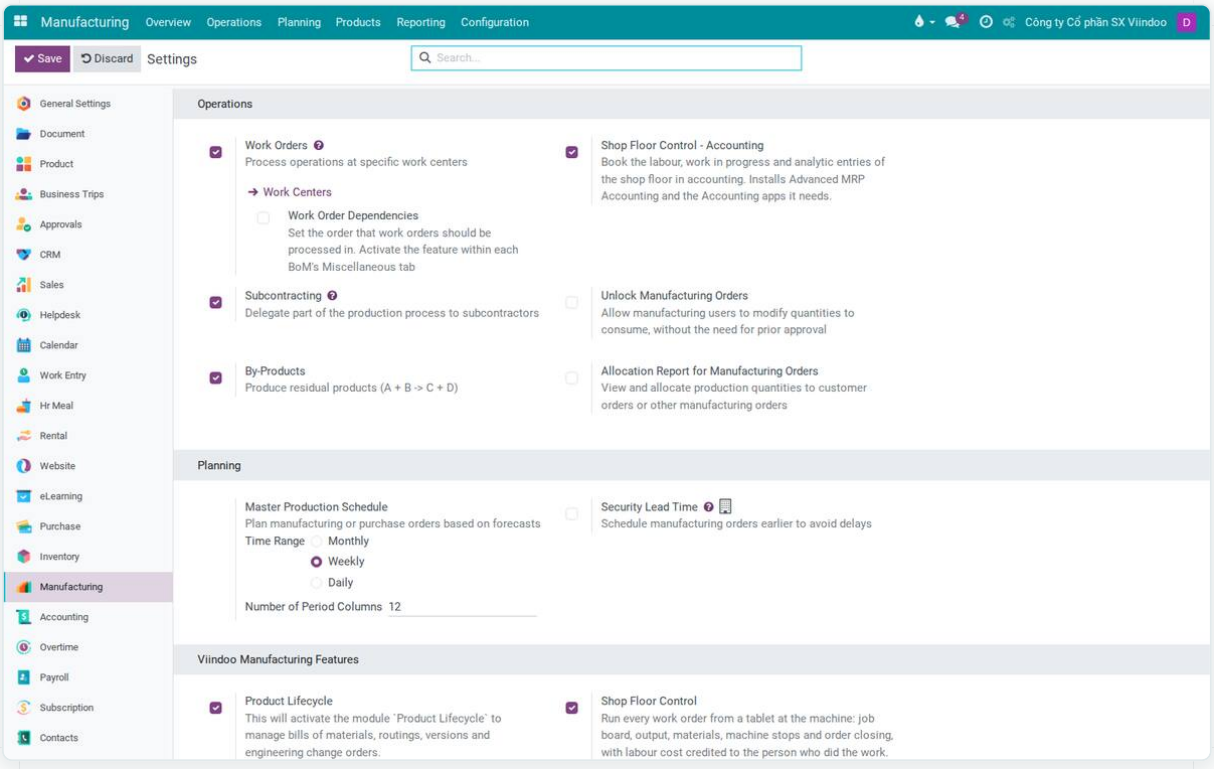
03 THE FEATURE GROUPS THAT ARE SWITCHED ON

About 10 minutes. By the end of this lesson your company knows which features the company uses and what is lost if one is switched off. Switching a feature on or off is a tick box in **Settings**, not additional development.

Step 1 - Open the manufacturing settings

Open the settings page of Manufacturing.

> *Path:* `Manufacturing > Configuration > Settings`

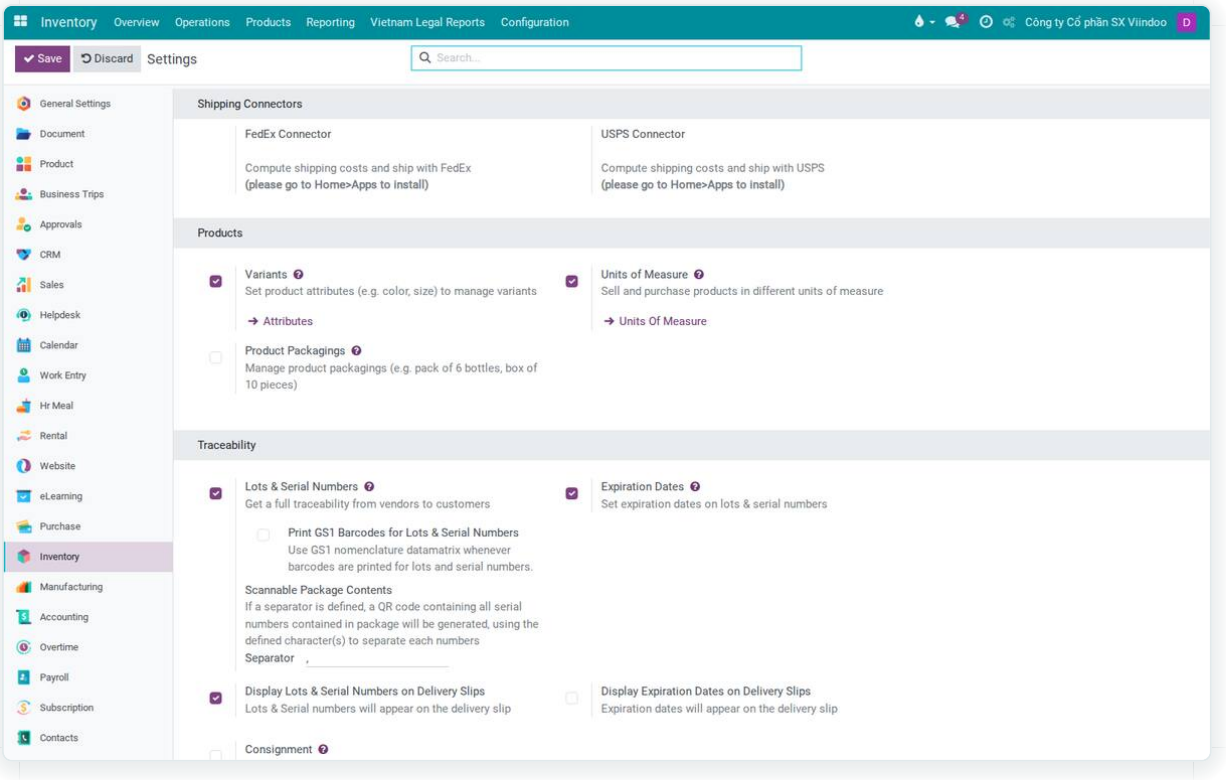


What you should see: the ticked boxes **Work Orders**, **Subcontracting**, **By-Products**, **Master Production Schedule** (**Time Range Weekly**, **Number of Period Columns** 12) and **Product Lifecycle**. The left column is the list of applications; click a name to see the settings of that application.

Step 2 - Open the inventory settings

Open the settings page of Inventory and scroll down to the section **Traceability**.

> *Path:* `Inventory > Configuration > Settings`



What you should see: the boxes ticked are **Variants**, **Units of Measure**, **Lots & Serial Numbers**, **Expiration Dates** and **Display Lots & Serial Numbers on Delivery Slips**.

The table below gathers the features that are on for the whole company, read from the **Settings** page of each application.

Feature	What it is on for	What is lost if it is off
Circular 99/2025/TT-BTC package	Chart of accounts, taxes, forms B01-DN, B02-DN, B03-DN, books S03a, S03b, S10, S11, S12 under the Ministry of Finance	Your company would build the accounts and statutory reports by hand
Anglo-Saxon accounting	Cost of goods recorded at delivery	Cost of goods is recorded only when the invoice is issued; a vehicle delivered without an invoice has no cost of goods yet
Currency exchange difference entry	Automatically records exchange gain or loss when a foreign-currency invoice is paid	The accountant calculates and records the exchange difference by hand

Feature	What it is on for	What is lost if it is off
Sales credit limit	A warning when a sales order exceeds the dealer's credit limit	Sales does not know the dealer has exceeded the limit
Asset management	Fixed asset cards, automatic monthly depreciation, book S23-DN	Depreciation must be recorded by hand every month
Management accounting, budget management	Track cost and revenue by department and project; compare with budget	Only figures by account, none by department
Bank statement import (CSV, XLSX)	Load a statement for reconciliation	Every bank transaction line must be typed by hand
Vietnam e-invoice	Issue e-invoices through a service provider	Invoices must be issued in other software and typed back in
Landed costs	Add import duty, freight and customs fees to the value of components	The cost of imported components lacks these items
Manufacturing accounting, landed costs for manufacturing	The cost of an order includes materials and labor hours; production costs are allocated to completed orders	A finished product has only material cost; depreciation and workshop payroll do not reach the product cost
Work orders	Operations, work centers, actual hours, hourly rates	No labor hours in the cost, no scheduling by team
Subcontracting	Hire an outside unit to do part of the work, supply materials, settle	Subcontracting must be tracked outside the system
By-products	One order yields several products, cost split by ratio	By-products cannot be recorded
Master production schedule	Plan from a forecast, by week	Only orders from sales orders and reordering rules
Product Lifecycle (PLM)	Engineering change orders, bill of materials versions	Editing a bill of materials has no history and no approval
Manufacturing progress management, standard consumption, standard consumption analysis	Order progress, standard consumption, the standard quantity column on cost analysis	Actual cannot be compared with the standard
Manufacturing quality management, Maintenance	Check points on the line, maintenance requests for machines	Vehicles that have not been checked cannot be blocked; maintenance cannot be called from the workshop

Feature	What it is on for	What is lost if it is off
Past-dated manufacturing, past-dated inventory operations	Backdate the completion date of an order and the date of a stock transfer	Every document is dated today; forgotten documents cannot be entered afterwards
Lots & Serial Numbers, Expiration Dates	One frame number per vehicle; components by lot	Cannot trace which vehicle was made from which lot
Multi-step routes, storage locations	Main warehouse, area before production, picking components for the line	Only one stock location, cannot separate goods waiting for assembly
Variants, Units of Measure	One model in many colors; buy by set, sell by unit	One separate product per color
Pricelists, discounts, margin	Price by dealer level, discount on the line, margin on the order	Sales must calculate the price by level by hand
Purchase agreements	Blanket orders, compare several quotations	Quotations from vendors cannot be compared
Approval (flexible approval flow, approval of purchases, production, supply, subcontracting, engineering change...)	Approval requests for each type of document	Approval by message, with no trace

Two boxes that are **off** are worth knowing:

- **Automatic Stock Accounting** (section **Stock Valuation** in the accounting settings) is off. This box only opens the default journal and default stock accounts of the company. Real automatic valuation is set on each product category (next lesson): the categories of components, semi-finished goods and finished electric vehicles all have **Inventory Valuation** = **Automated**, so they still create stock entries.
- **Default Work Center Expense Account** (section **MRP Accounting**) is empty. A new work center will not be offered account 627 by default; the person who creates it must choose it (see Part XII. Accounting and costing, lesson *Costing accounting and bank configuration*).

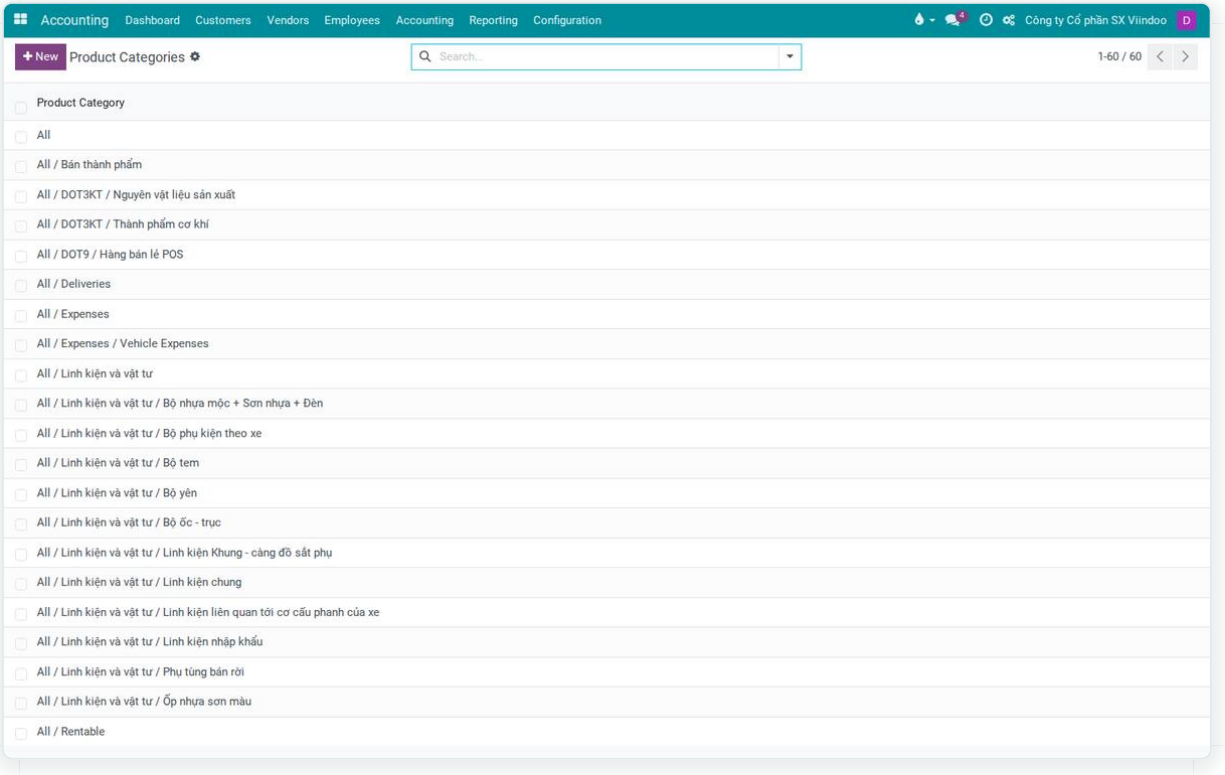
04 PRODUCT CATEGORIES AND ACCOUNTING ACCOUNTS

About 20 minutes. By the end of this lesson your company can read how each product category costs a stock issue and which account it posts to, and knows the traps when creating a new category. The product category decides which accounts a component received into stock, issued to the line, or sold will pass through; set wrongly, the financial statements are wrong even though every document looks right.

Step 1 - Open the list of product categories

Open the list of categories.

> *Path:* `Accounting > Configuration > Management > Product Categories` (also at `Inventory > Configuration > Products > Product Categories`)



What you should see: 60 categories, arranged as a tree (All / Linh kiện và vật tư / ...). The category list is shared by the six sample companies on the demo system; the categories Cơ khí (Mechanical), Thiết bị điện tử (Electronic equipment) and DOT3KT serve other companies and have no product of Công ty Cổ phần SX Viindoo (except one product in Cơ khí / Vỏ tủ điện (Electrical cabinet shells)).

The table below lists every category that has products of the company, read directly on the form of each category. The number of products is the number directly in that category (child categories are not added).

Table A - Costing method, inventory valuation, routes

Category	Products	Costing Method	Inventory Valuation	Routes
All	60 (18 stocked)	Standard Price	Manual	-

Category	Products	Costing Method	Inventory Valuation	Routes
All / Bán thành phẩm (Semi-finished goods)	6	Average Cost (AVCO)	Automated	-
All / DOT9 / Hàng bán lẻ POS (Retail goods for the point of sale)	10	Average Cost (AVCO)	Automated	-
All / Deliveries	1	Standard Price	Manual	-
All / Expenses	1	Standard Price	Manual	-
All / Expenses / Vehicle Expenses	5	Standard Price	Manual	-
All / Linh kiện và vật tư (Components and materials)	11	Average Cost (AVCO)	Automated	Buy
... / Bộ nhựa mộc + Sơn nhựa + Đèn (Raw plastic sets, painted plastic and lamps)	52	Average Cost (AVCO)	Automated	Nhà máy Yên Mỹ: Supply Products from Kho Tổng
... / Bộ phụ kiện theo xe (Accessory set per vehicle)	18	Average Cost (AVCO)	Automated	Nhà máy Yên Mỹ: Supply Products from Kho Tổng
... / Bộ tem (Decal set)	4	Average Cost (AVCO)	Automated	Nhà máy Yên Mỹ: Supply Products from Kho Tổng
... / Bộ yên (Saddle set)	5	Average Cost (AVCO)	Automated	Nhà máy Yên Mỹ: Supply Products from Kho Tổng
... / Bộ ốc - trục (Bolt and axle set)	1	Average Cost (AVCO)	Automated	Nhà máy Yên Mỹ: Supply Products from Kho Tổng
... / Linh kiện Khung - càng đồ sắt phụ (Frame, fork and auxiliary iron components)	9	Average Cost (AVCO)	Automated	Nhà máy Yên Mỹ: Supply Products from Kho Tổng
... / Linh kiện chung (Common components)	102	Average Cost (AVCO)	Automated	Nhà máy Yên Mỹ: Supply Products from Kho Tổng
... / Linh kiện liên quan tới cơ cấu phanh của xe (Components of the vehicle's brake mechanism)	10	Average Cost (AVCO)	Automated	Nhà máy Yên Mỹ: Supply Products from Kho Tổng

Category	Products	Costing Method	Inventory Valuation	Routes
... / Linh kiện nhập khẩu (Imported components)	0	Average Cost (AVCO)	Automated	Nhà máy Yên Mỹ: Supply Products from Kho Tổng
... / Phụ tùng bán rời (Spare parts sold separately)	50	Average Cost (AVCO)	Automated	-
... / Ốp nhựa sơn màu (Painted plastic body panels)	13	Average Cost (AVCO)	Automated	-
All / Rentable	1	Standard Price	Manual	-
All / Saleable / Courses	2	Standard Price	Manual	-
All / Saleable / PoS	3	Standard Price	Manual	-
All / Thành phẩm xe điện (Finished electric vehicles)	18	Average Cost (AVCO)	Automated	Manufacture
Cơ khí / Vỏ tủ điện	1	Standard Price	Manual	-
Hồ sơ đăng kiểm (Registration dossiers)	1	First In First Out (FIFO)	Manual	-
Thành phẩm xe điện (hàng đặt) (Finished electric vehicles, made to order)	3	First In First Out (FIFO)	Manual	Replenish on Order (MTO), Manufacture

"..." stands for "All / Linh kiện và vật tư". The category All / Saleable has 0 products directly and is configured like All / Saleable / PoS.

Table B - The accounts of each category

Category	Stock Valuation Acc.	Stock Input Acc.	Stock Output Acc.	Production Acc.	Expense Account	Income Account
All; Deliveries; Expenses; Vehicle Expenses; Rentable; Saleable; Courses; PoS; Cơ khí / Vỏ tủ điện; Hồ sơ đăng kiểm (Registration dossiers); Thành phẩm xe điện (hàng đặt) (Finished electric vehicles, made to order)	156	151	632	154	632	511
All / Bán thành phẩm (Semi-finished goods)	155	154	154	154	632	511
All / DOT9 / Hàng bán lẻ POS (Retail goods for the point of sale)	152	151	15691	154	632	511
All / Linh kiện và vật tư (Components and materials) and its 11 child categories	152	151	632	154	632	511
All / Thành phẩm xe điện (Finished electric vehicles)	155	154	632	154	632	511

Every category has **Income Refund Account** = 521, **Expense Refund Account** = 632 and **Stock Journal** = Inventory Valuation; **Price Difference Account**, **Downpayment Account**, **Income Recurring Account** and **Expense Recurring Account** are left empty.

What the account codes mean

Code	Name on the system	Used for
151	Goods in transit	The intermediate account between the vendor bill and the stock receipt; import duty
152	Raw materials	The value of components and materials in stock
154	Work in progress	The value sitting in manufacturing orders
155	Finished goods	The value of finished vehicles and semi-finished goods in stock

Code	Name on the system	Used for
156	Merchandise inventory	The default of the account package for categories not set separately
15691	POS Goods Sold - Reconciliation (dot9)	A separate account for the retail goods category sold in stores
511	Revenue from sales and services	Revenue
521	Revenue deductions	Returned goods, discounts
627	Manufacturing overhead	Labor hours of a work center when an order is completed
632	Cost of goods sold	The cost of goods at delivery

Costing method and inventory valuation

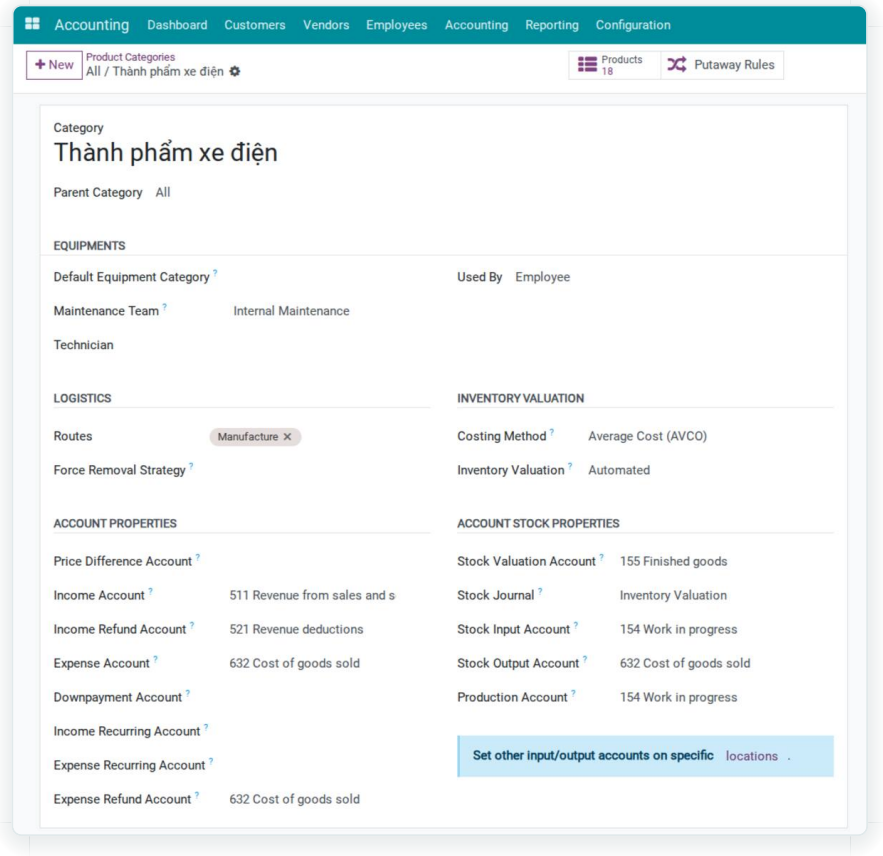
Choice	Meaning	Consequence if chosen wrongly
Standard Price	Every receipt and issue uses one fixed price set on the product	Components bought at different prices are still issued at the same price; the cost of a vehicle does not reflect the real purchase price; the difference piles up in a separate account
First In First Out (FIFO)	Issue at the price of the lot received first	Suits goods with lots and expiry dates; for components received continuously the cost swings with the lot
Average Cost (AVCO)	Issue price = the average price after each receipt	The method the company uses for components, semi-finished goods and finished electric vehicles; steady cost, easy to reconcile
Inventory Valuation = Automated	Each stock transfer creates a journal entry at once	Correct for stocked goods; the accounting books and the stock books always agree
Inventory Valuation = Manual	A stock transfer creates no journal entry; the accountant records it at period end	If Manual is left on stocked goods, the stock value on B01-DN does not match the stock, and cost of goods 632 shows no figure at delivery

A practical note on the demo system: the category **All** (the default category when a new product is created without choosing one) has Standard Price and Manual, account 156; the two categories **Thành phẩm xe điện (hàng đặt)** and **Hồ sơ đăng kiểm** have FIFO and Manual. Stocked products in these three categories create no stock entries.

Step 2 - Open the category of finished electric vehicles

Click the line **All / Thành phẩm xe điện** (finished electric vehicles).

> *Path:* `Accounting > Configuration > Management > Product Categories` > **All / Thành phẩm xe điện**

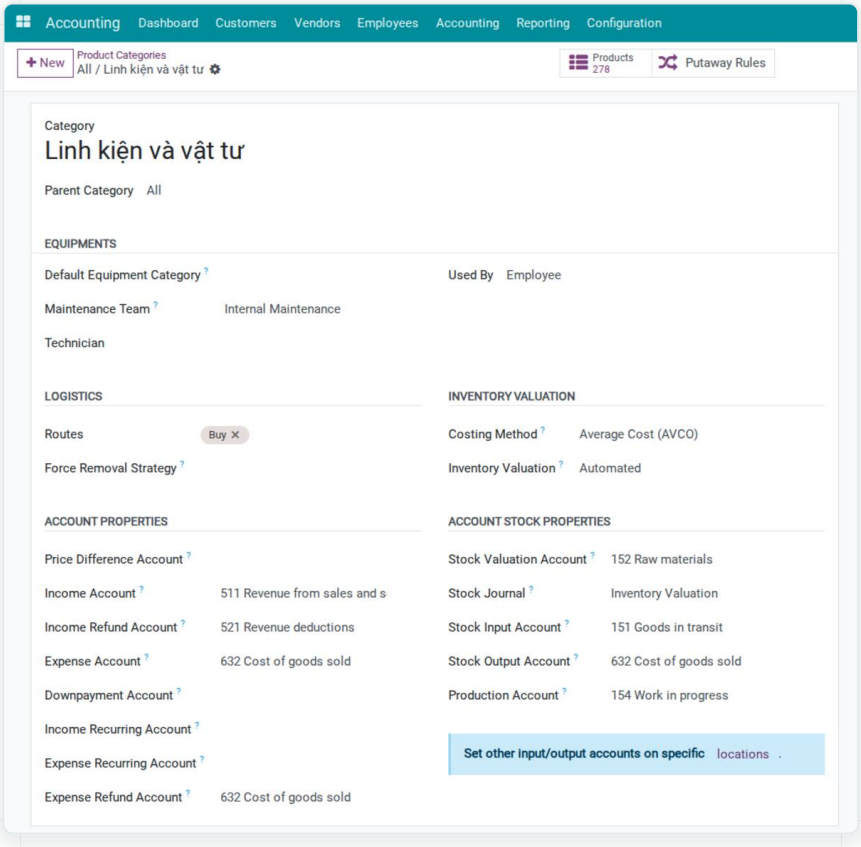


What you should see: Routes = Manufacture; **Costing Method** = Average Cost (AVCO); **Inventory Valuation** = Automated; **Stock Valuation Account** 155, **Stock Input Account** 154, **Stock Output Account** 632, **Production Account** 154, **Expense Account** 632, **Income Account** 511. The **Products** button at the top shows 18 products.

Step 3 - Open the category of components and materials

Go back to the list and click the line **All / Linh kiện và vật tư** (components and materials).

> *Path:* `Accounting > Configuration > Management > Product Categories` > **All / Linh kiện và vật tư**



What you should see: Routes = Buy; AVCO, Automated; **Stock Valuation Account** 152, **Stock Input Account** 151, **Stock Output Account** 632, **Production Account** 154, **Expense Account** 632. The **Products** button shows 275 products (child categories included).

Comparing the two categories

Field	Finished electric vehicles	Components and materials	Why they differ
Routes	Manufacture	Buy	A missing vehicle creates a manufacturing order; a missing component creates a request for quotation
Stock Valuation Account	155 Finished goods	152 Raw materials	The correct inventory line under Circular 99
Stock Input Account	154	151	A vehicle enters stock from a manufacturing order; a component enters stock from the vendor bill
Stock Output Account	632	632	When sold, both go to the cost of goods; a component issued to an order goes through 154 thanks to the production account, not through the stock output account

Field	Finished electric vehicles	Components and materials	Why they differ
Production Account	154	154	Materials into the order and finished goods out of the order both post against 154

The real account flow, read from the general ledger

The entries below were read from the general ledger of the demo system, created after the current configuration took effect; the document numbers are given so your company can open them again and check at `Accounting > Accounting > Journal Entries`.

Process	Entry the system creates	Sample document
Vendor bill for components	Debit 151, Debit 1331 / Credit 331	HÓA Đ/2026/10/00008
Import duty, VAT on imported goods	Debit 151 / Credit 3333; Debit 1331 / Credit 33312	CDJ/2026/09/0013, CDJ/2026/09/0014
Receive components into stock	Debit 152 / Credit 151	STJ/2026/10/0754 (NM1/IN/00559)
Import costs allocated to components	Debit 152 / Credit 151	ITLC/2026/09/0010 (LC/2026/0581)
Issue components to a manufacturing order	Debit 154 / Credit 152	STJ/2026/10/0791 (NM1/MO/01220)
Semi-finished goods fed into a vehicle order	Debit 154 / Credit 155	NM1/MO/01219 (a Lumi vehicle): frame assembly 1,119,995, electrical assembly 664,022 (STJ/2026/10/0801, STJ/2026/10/0803)
Labor hours when an order is completed	Debit 154 / Credit 627	STJ/2026/10/0797 (NM1/MO/01220 - Nhân công, i.e. labor)
Receive finished and semi-finished goods	Debit 155 / Credit 154	STJ/2026/10/0794 (NM1/MO/01220, frame assembly 1,093,300); STJ/2026/10/0820 (NM1/MO/01219, Lumi vehicle 9,004,864 = materials 8,967,005 + labor 6,437 + overhead 31,422; labor hours STJ/2026/10/0821 Debit 154 / Credit 627 37,860)
Deliver a vehicle to a dealer	Debit 632 / Credit 155	STJ/2026/10/0782 (NM1/OUT/02517)

Process	Entry the system creates	Sample document
Sales invoice for a vehicle	Debit 131 / Credit 511, Credit 33311 (plus a pair Debit 632 / Credit 632 that cancel each other)	INV/2026/00737
Allocate production costs to a completed order	Debit 155 / Credit the expense account; for vehicles already sold: Debit 632 / Credit 155	STJ/2026/09/2634 (LC/2026/0604)
Work in progress at period end	Debit 154 / Credit 152, Credit 627; reverses itself the next day	the work-in-progress entry of NM1/MO/01244
Collect from a customer through the bank	Debit 1131 / Credit 131; at reconciliation: Debit 1122 / Credit 1131	PBNK1/2026/00979, BNK1/2026/01080
Scrap components in production	Debit 632 / Credit 152: scrap goes straight to the cost of goods	SP/00001, frame 549,000 (Part VI. Shop floor production)
Issue spare parts for a warranty repair	Debit 154 / Credit 152: the warranty cost sits in 154, not in 632 or 641	STJ/2026/10/0841, headlight 76,000 (Part IX. Warranty and repairs)

The system **does not go through 621** when materials are issued to an order: materials post straight to Debit 154 through the **Production Account** of the category. The labor hours when an order is completed post **one** line, Credit 627 (the expense account of the work center), and do not split 622 from 627 on the entry; the split between direct labor and overhead is done on the production cost report. Account 622 has a figure only when the accountant posts payroll by department; actual payroll enters the product cost through the **Production Cost Allocation** document (Part XII. Accounting and costing).

Traps when configuring categories and accounts yourself

The traps below all make the financial statements wrong while every single document still looks right; each comes with a way to spot it early.

Trap	Consequence	How to avoid and how to spot it
Anglo-Saxon is on, but the **Expense Account** of the finished-goods category is 154	Delivering a vehicle posts Debit 632 / Credit 155, then issuing the invoice posts Debit 154 / Credit 632: the cost of goods is pushed back to 154, B02-DN loses the cost of goods and 154 swells	The expense account and the stock output account of the finished-goods category are both 632. Check: after the first sales invoice, the General Ledger of 632 must still show a figure
The **Stock Output Account** of the materials category is 621	Every issue that does not go through a manufacturing order (warranty, repairs, retail, scrap) posts Debit 621 and stays there; 621 has no line on B02-DN	Keep 632; materials for an order already go to 154 through the production account. Check: on the Trial Balance at month end, 621 returns to 0
A work center has no **Expense Account**	Labor hours fall on the expense account of the product category (632) or post Debit 154 / Credit 154; the cost has labor hours but the books have no matching 627	Set 627 on every work center before the first order. Check: the "Nhân công" (labor) entry of the first order must be Debit 154 / Credit 627
A payroll rule lacks the expense debit account	The payroll entry posts Credit 334 and then Debit 334 again; labor expense in the books is zero and profit is inflated	Attach the expense account 622, 6271, 6411 or 6421 to each department. Check: after the first payroll period, B02-DN shows selling and administrative expenses
The Circular 99 template sets the default **Stock Valuation Account** 156 for every category	Components and finished goods all post to 156 Merchandise inventory; the inventory structure on B01-DN is wrong	Change materials categories to 152 and finished and semi-finished goods to 155 as soon as the category is created
Inventory Valuation = Manual on a category with stocked goods, or a new product is created and left in the category All	A stock transfer creates no entry; the stock value in the books differs from the real stock	Every stocked product must be in an Automated category. Check: `Inventory > Reporting > Valuation` agrees with the balances of 152 and 155
Opening stock is loaded without recording the capital contribution	Assets are financed entirely by profit and equity is zero; paying a vendor makes the cash account negative	Post the capital contribution entry (Debit cash and stock / Credit 4111) before running transactions. Check: B01-DN line 411 is not zero
Receipts and payments are recorded without reconciling the bank statement	Money stays in 1131 and 1132 for good; a negative 1132 appears on B01-DN as a negative asset and B03-DN lacks cash-flow lines	Reconcile every day (Part XII. Accounting and costing, lesson *Reconcile the bank statement*). Check: at month end 1131 and 1132 hold only transactions that have not reached the statement

When your company creates a new category - checklist

The demo system is shared, so the handbook does not create a new category; in a real implementation, follow this order:

1. Create the child category under the category with the closest configuration (for example under **All / Linh kiện và vật tư**) so that it inherits the accounts.
2. Choose the **Costing Method** (AVCO for components that are bought continuously) and **Inventory Valuation** = Automated.
3. Set the **Stock Valuation Account** (152 for materials, 155 for finished goods), the **Stock Input Account**, **Stock Output Account** = 632, **Production Account** = 154, **Expense Account** = 632 and **Income Account** = 511.
4. Choose the **Routes**: Buy for bought-in goods, Manufacture for goods that have a bill of materials. A product that has a bill of materials but still has the Buy route may make the replenish button create a purchase order instead of a manufacturing order.
5. Assign the products to the category.
6. **Verify with a test transaction**: receive one unit into stock, issue it to an order, deliver one vehicle; open `Inventory > Reporting > Valuation` and `Accounting > Accounting > Journal Entries` and check that the entries match the table **The real account flow, read from the general ledger** above.

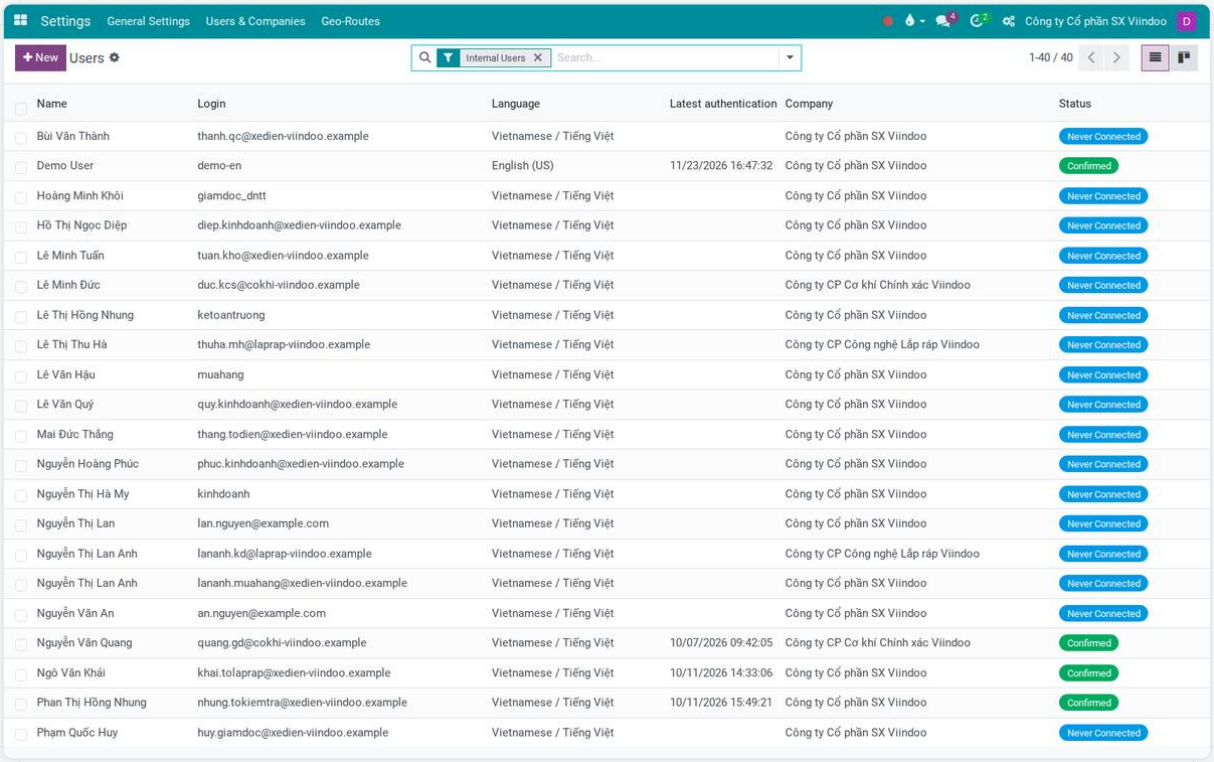
05 USER ROLES AND ACCESS RIGHTS

About 5 minutes. By the end of this lesson your company knows which access-right groups each role needs in a real implementation.

Step 1 - See the list of users

Open the list of users.

> *Path:* `Settings > Users & Companies > Users`



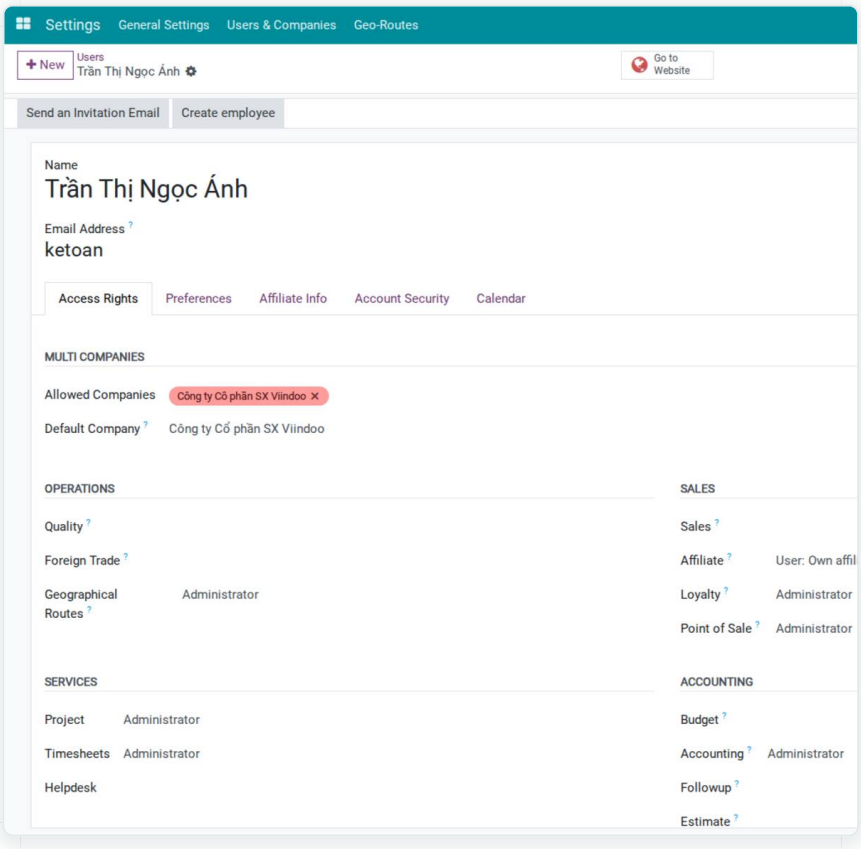
Name	Login	Language	Latest authentication	Company	Status
Bùi Văn Thành	thanh.qc@xedien-viindoo.example	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected
Demo User	demo-en	English (US)	11/23/2026 16:47:32	Công ty Cổ phần SX Viindoo	Confirmed
Hoàng Minh Khôi	giamdoc_dntt	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected
Hồ Thị Ngọc Diệp	diep.kinhdoanh@xedien-viindoo.example	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected
Lê Minh Tuấn	tuan.kho@xedien-viindoo.example	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected
Lê Minh Đức	duc.kcs@cokhi-viindoo.example	Vietnamese / Tiếng Việt		Công ty CP Cơ khí Chính xác Viindoo	Never Connected
Lê Thị Hồng Nhung	ketoantruong	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected
Lê Thị Thu Hà	thuha.mh@laprap-viindoo.example	Vietnamese / Tiếng Việt		Công ty CP Công nghệ Lắp ráp Viindoo	Never Connected
Lê Văn Hậu	muahang	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected
Lê Văn Quý	quy.kinhdoanh@xedien-viindoo.example	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected
Mai Đức Thắng	thang.todien@xedien-viindoo.example	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected
Nguyễn Hoàng Phúc	phuc.kinhdoanh@xedien-viindoo.example	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected
Nguyễn Thị Hà My	kinhdoanh	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected
Nguyễn Thị Lan	lan.nguyen@example.com	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected
Nguyễn Thị Lan Anh	lananh.kd@laprap-viindoo.example	Vietnamese / Tiếng Việt		Công ty CP Công nghệ Lắp ráp Viindoo	Never Connected
Nguyễn Thị Lan Anh	lananh.muahang@xedien-viindoo.example	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected
Nguyễn Văn An	an.nguyen@example.com	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected
Nguyễn Văn Quang	quang.gd@cokhi-viindoo.example	Vietnamese / Tiếng Việt	10/07/2026 09:42:05	Công ty CP Cơ khí Chính xác Viindoo	Confirmed
Ngô Văn Khải	khai.tolaprap@xedien-viindoo.example	Vietnamese / Tiếng Việt	10/11/2026 14:33:06	Công ty Cổ phần SX Viindoo	Confirmed
Phan Thị Hồng Nhung	nhung.tokiemtra@xedien-viindoo.example	Vietnamese / Tiếng Việt	10/11/2026 15:49:21	Công ty Cổ phần SX Viindoo	Confirmed
Phạm Quốc Huy	huy.giamdoc@xedien-viindoo.example	Vietnamese / Tiếng Việt		Công ty Cổ phần SX Viindoo	Never Connected

What you should see: 40 internal users of the six sample companies, most of them working with Công ty Cổ phần SX Viindoo, named by role (factory director, chief accountant, purchasing accountant, purchasing, planning, storekeeper, quality inspector, assembly team leader, sales, dealer care). The people's names are made up.

Step 2 - See the rights of one user

Click the name **Trần Thị Ngọc Ánh** (login `ketoan`) and open the tab **Access Rights**.

> *Path:* `Settings > Users & Companies > Users` > Trần Thị Ngọc Ánh > tab **Access Rights**



What you should see: the block **Multi Companies** with **Allowed Companies** and **Default Company**, then each application with the level of right you can choose (for example **Accounting**: Invoicing, Auditor - Readonly, Invoicing & Banks, Bookkeeper, Administrator). Some block titles on this screen are in English in both languages (OPERATIONS, SALES, ACCOUNTING...).

The rights of the sample users on the demo system are not standardized by role; in a real implementation, set the rights according to this table:

Role	Suggested rights	Handbook part
Director	Administrator of the applications they need to see; **Accounting**: Auditor - Readonly	Lesson 1, Part XII. Accounting and costing
Chief accountant	**Accounting**: Administrator	Part I. General configuration, Part XII. Accounting and costing
Accountant	**Accounting**: Bookkeeper or Invoicing & Banks	Part XII. Accounting and costing
Purchasing	**Purchase**: User; **Inventory**: User	Part IV. Purchasing and import, Part VII. Subcontracting
Production planner	**Manufacturing**: Administrator; **Inventory**: User	Part III. Production planning
Storekeeper	**Inventory**: User or Administrator	Part V. Warehouse and quality
Quality controller	**Quality**: User	Part V. Warehouse and quality, Part VI. Shop floor production

Role	Suggested rights	Handbook part
Team leader, worker	**Manufacturing**: User (using the **Shop Floor** screen)	Part VI. Shop floor production
Sales	**Sales**: User: Own Documents Only	Part VIII. Sales and distribution
Maintenance	**Maintenance**: Maintenance User	Part X. Equipment maintenance
Approver	**Approvals**: Team Approver	Part XI. Approvals

06 SELF-STUDY EXERCISE - READ THE CONFIGURATION OF A CATEGORY

About 10 minutes, no step-by-step screenshots.

1. Open the category **All / Bán thành phẩm** (semi-finished goods) (`Accounting > Configuration > Management > Product Categories`).
2. Write down the five accounts: stock valuation, stock input, stock output, production, expense.
3. Using the table **The real account flow, read from the general ledger**, write the two entries created when a frame assembly is finished (goes into stock) and when that frame assembly is fitted into a vehicle.
4. Check: open the entries of a frame-assembly order (Part XII. Accounting and costing, lesson *Cost of one order when it is completed*) and of a vehicle order (Part VI. Shop floor production) and see whether they are Debit 155 / Credit 154 and Debit 154 / Credit 155.
5. Open the category **Thành phẩm xe điện (hàng đặt)** (finished electric vehicles, made to order): explain why a vehicle in this category creates no stock entry when it is delivered.

PART II. MANUFACTURING ENGINEERING

This part answers these questions: what a vehicle is made of, at which station each part is made and how long it takes, what each hour at a station costs and which account it is posted to, how much material is lost, and how a design change is made and who approves it. The readers are the process engineer, the production manager and the cost accountant (for the stations, hourly rates and expense accounts).

Every create action in this part is done on **your company's own vehicle model** called *Zeta Electric Vehicle*, made of one frame assembly (a semi-finished product) and two colours. Your company does not have to edit anyone else's bill of materials. The lessons in Part III. Production planning reuse exactly this model, so it is best to work through the lessons in order, from the first to the last.

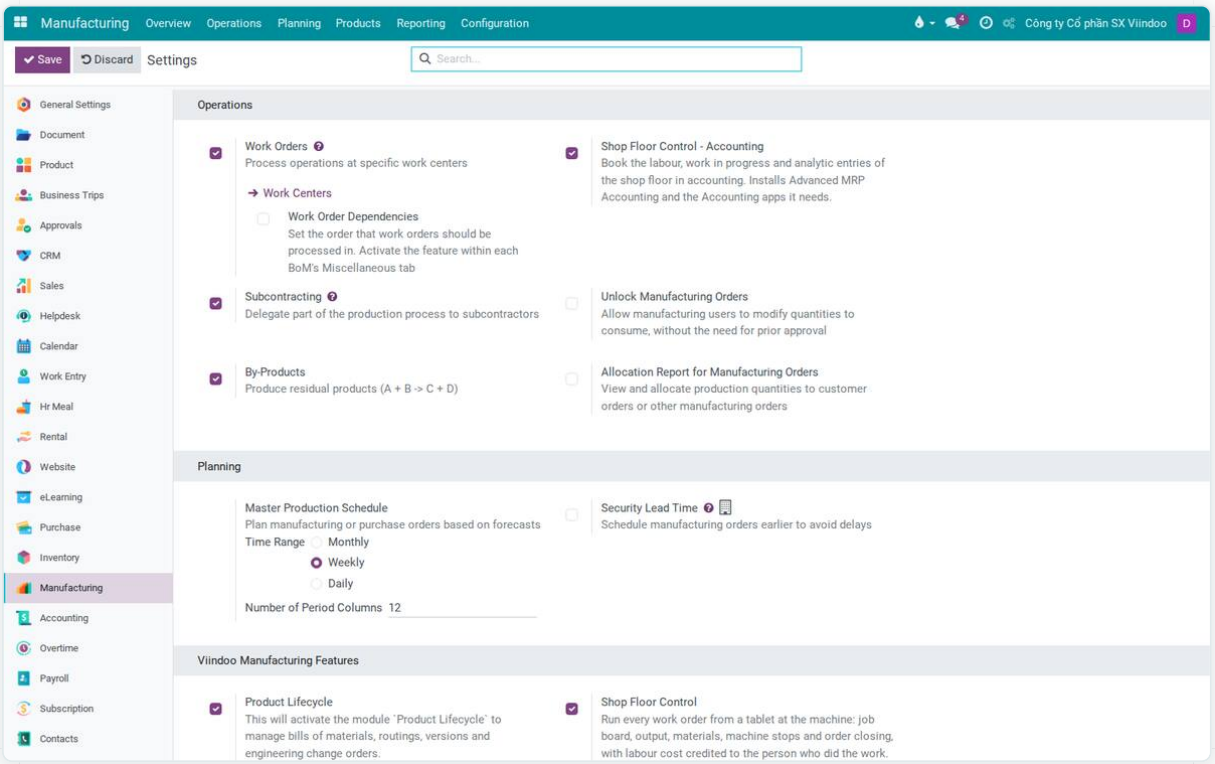
07 CURRENT MANUFACTURING ENGINEERING CONFIGURATION

About 15 minutes. By the end of this lesson your company knows which features the system has switched on for manufacturing engineering, what each feature is for and what is lost if it is switched off, how much each station charges per hour, and what an existing bill of materials looks like. This lesson is read-only; nothing is created.

Step 1 - Open the Manufacturing settings screen

Go to **Manufacturing > Configuration > Settings**. Look at the first two groups: **Operations** and **Planning**.

> *Path:* `Manufacturing > Configuration > Settings`

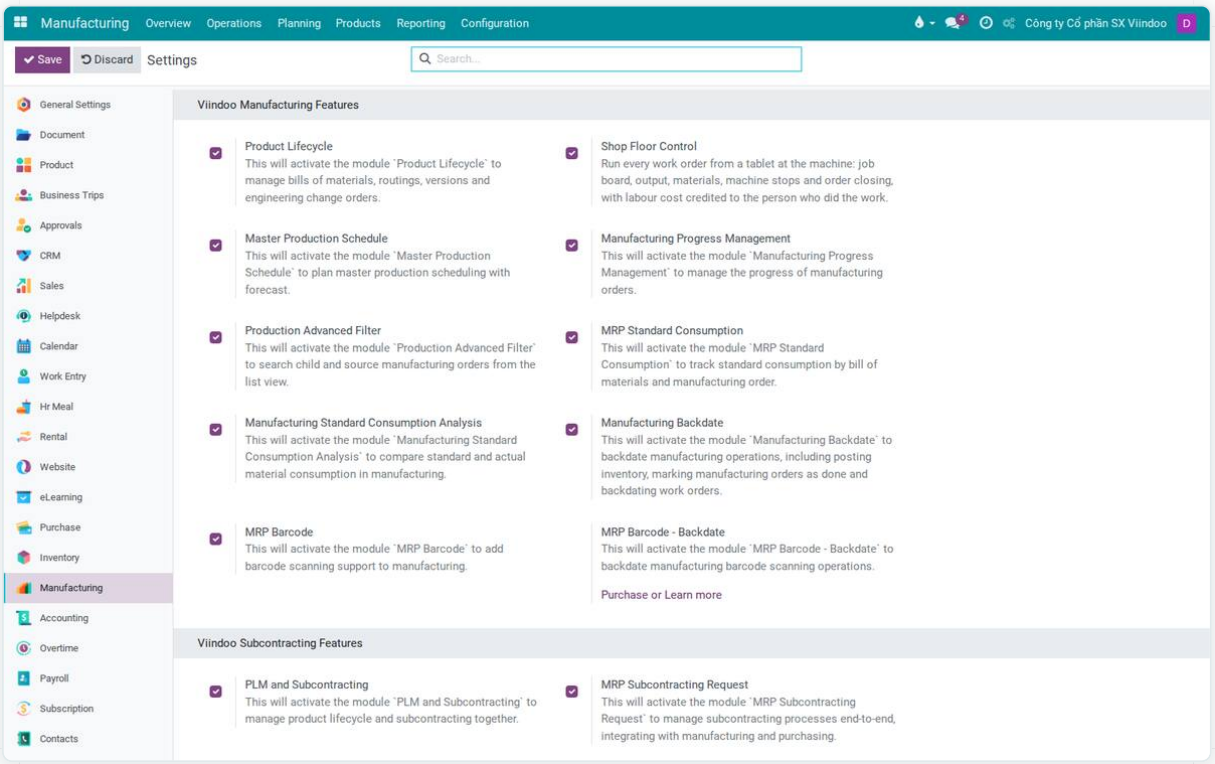


What you should see: in the **Operations** group, the **Work Orders** box is ticked (with the shortcut **Work Centers**), **Subcontracting** is ticked, **By-Products** is ticked and **Shop Floor Control - Accounting** is ticked; **Work Order Dependencies**, **Unlock Manufacturing Orders** and **Allocation Report for Manufacturing Orders** are not ticked. The **Planning** group has **Master Production Schedule** with the **Time Range** set to **Weekly** and **Number of Period Columns** equal to 12.

Step 2 - See the manufacturing features that are switched on

Scroll down to the group **Viindoo Manufacturing Features**.

> *Path:* `Manufacturing > Configuration > Settings` (scroll down to the group *Viindoo Manufacturing Features*)

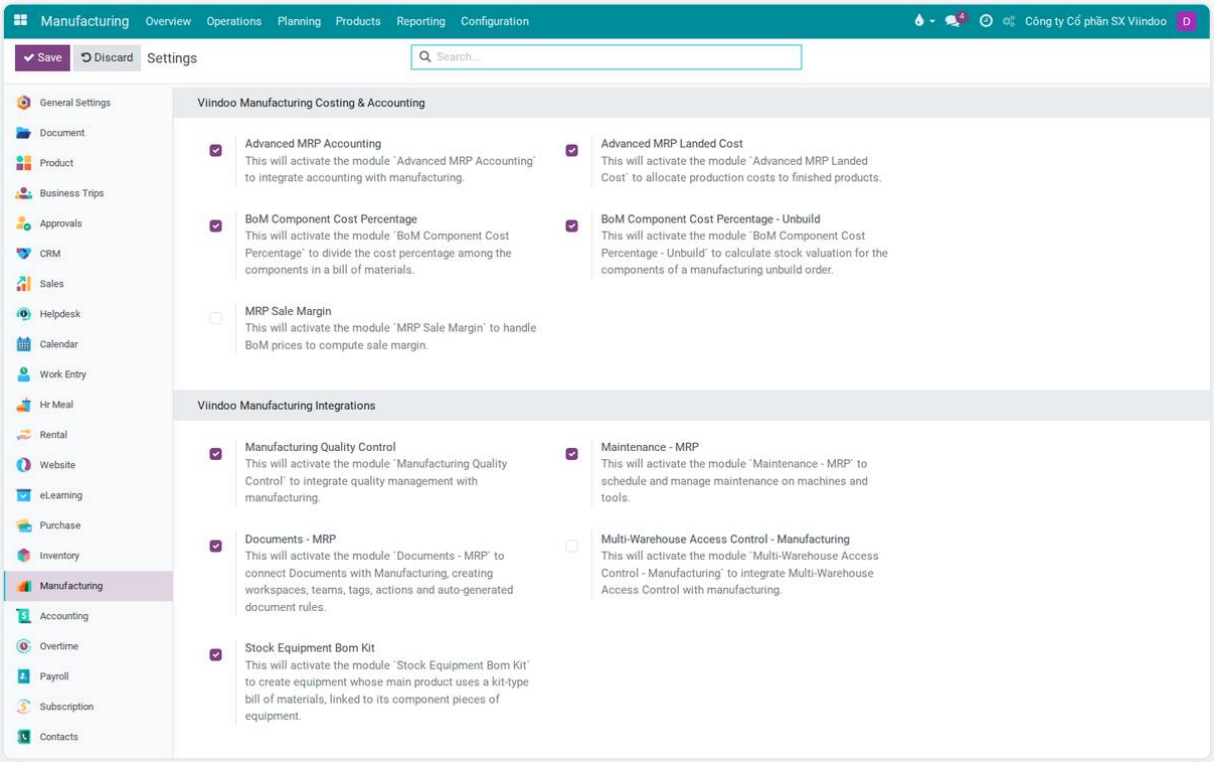


What you should see: the boxes **Product Lifecycle**, **Shop Floor Control**, **Master Production Schedule**, **Manufacturing Progress Management**, **Production Advanced Filter**, **MRP Standard Consumption**, **Manufacturing Standard Consumption Analysis**, **Manufacturing Backdate** and **MRP Barcode** are ticked.

Step 3 - See the manufacturing cost and accounting group

Scroll further down to the group **Viindoo Manufacturing Costing & Accounting**.

> *Path:* `Manufacturing > Configuration > Settings` (scroll down to the group *Viindoo Manufacturing Costing & Accounting*)



What you should see: Advanced MRP Accounting, **Advanced MRP Landed Cost**, **BoM Component Cost Percentage** and **BoM Component Cost Percentage - Unbuild** are ticked; **MRP Sale Margin** is not ticked. Below is the group **Viindoo Manufacturing Integrations**, with **Manufacturing Quality Control**, **Maintenance - MRP**, **Documents - MRP** and **Stock Equipment Bom Kit** ticked and **Multi-Warehouse Access Control - Manufacturing** not ticked.

The table below reads through all the features that belong to manufacturing engineering. The last column is the one that decides: it tells your company what is lost if a feature is switched off.

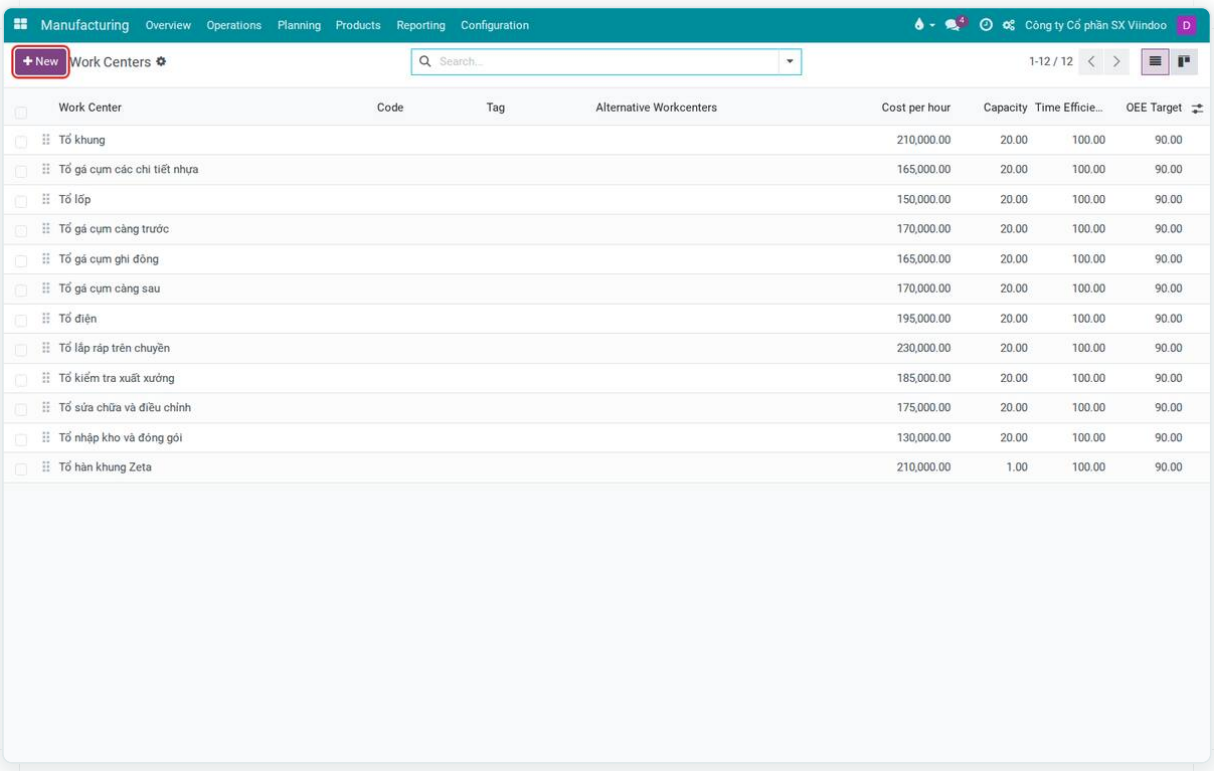
Feature (label on screen)	What it is for	What is lost if it is off
Work Orders	Splits a manufacturing order into operations done at each work center, tracks real time, schedules work	A bill of materials has no operations, there are no work-center hours in the cost, and there is no operation planning screen. **Be careful:** if you untick it and click **Save**, every existing operation is archived
By-Products	One order makes several products (A + B become C + D)	By-products cannot be declared on a bill of materials
Product Lifecycle	Manages bills of materials, routings, versions and engineering change orders	There is no PLM app and no engineering change order can be created
Master Production Schedule	Plans manufacturing orders or purchase orders from a sales forecast	There is no master production schedule screen

Feature (label on screen)	What it is for	What is lost if it is off
MRP Standard Consumption	Declares the standard quantity and the loss rate on each bill of materials line	A bill of materials line has no **Standard Quantity** and **Loss Rate** columns
Manufacturing Standard Consumption Analysis	Compares the standard with the actual consumption of each order	There is no **Loss Components Analysis** report
Manufacturing Progress Management	Tracks the progress percentage of each order	An order does not show **Progress**
Production Advanced Filter	Finds child and source orders right in the search box	The search box has no **Child MOs** and **Source MOs** options
Advanced MRP Accounting	Posts the labor and manufacturing cost entries when an order is completed	Labor hours do not go into the cost of the finished product

Step 4 - See the list of work centers

Go to **Manufacturing > Configuration > Work Centers**. Each work center is one working station of the workshop.

> *Path:* `Manufacturing > Configuration > Work Centers`



What you should see: the list of stations with the columns **Work Center**, **Code**, **Tag**, **Alternative Workcenters**, **Cost per hour**, **Capacity**, **Time Efficiency** and **OEE Target**. In the picture there are 12 lines: the 11 stations below plus *Tổ hàn khung Zeta* (Zeta frame welding team), the station created in the lesson *Work centers, operations, hourly rates and expense accounts*.

The stations that exist, with an hourly rate that is an **illustrative (assumed) figure** so that your company can see how the calculation works; it is not a real price:

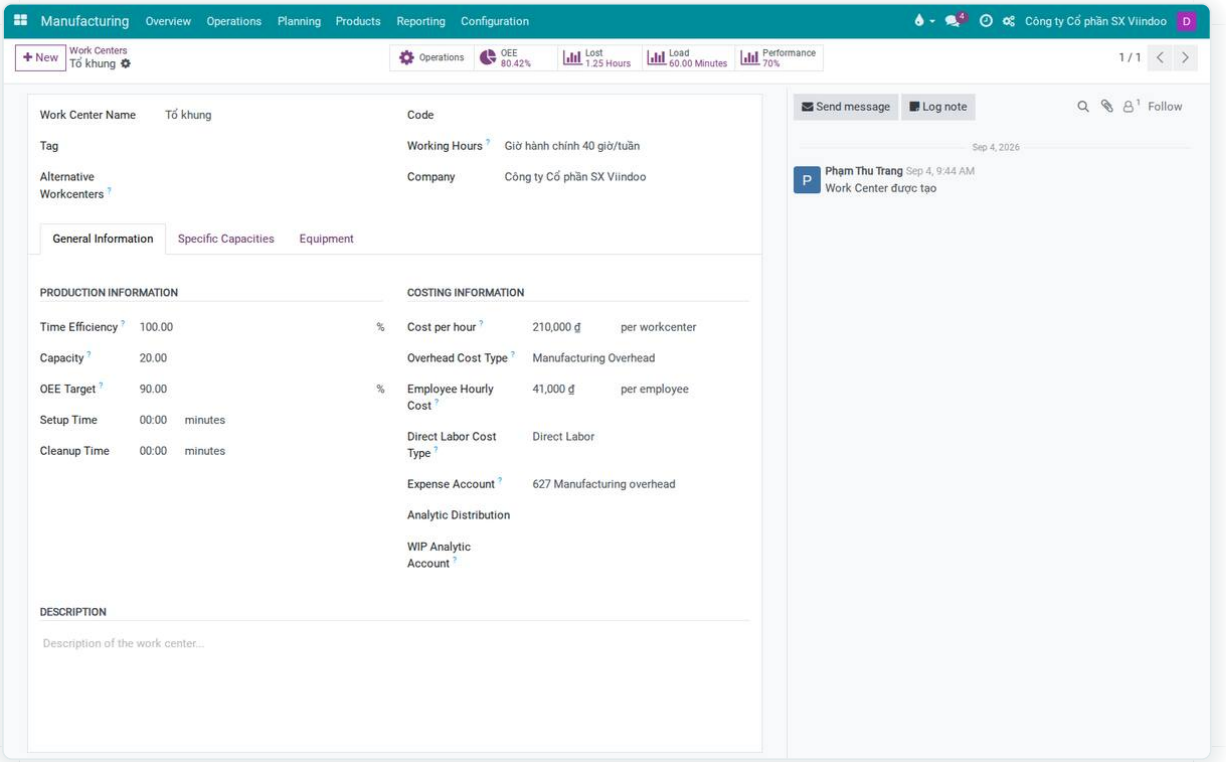
Station	Cost per hour (VND)
Tổ khung (Frame team)	210,000
Tổ gá cụm các chi tiết nhựa (Plastic parts sub-assembly team)	165,000
Tổ lốp (Tire team)	150,000
Tổ gá cụm càng trước (Front fork sub-assembly team)	170,000
Tổ gá cụm ghi đông (Handlebar sub-assembly team)	165,000
Tổ gá cụm càng sau (Rear fork sub-assembly team)	170,000
Tổ điện (Electrical team)	195,000
Tổ lắp ráp trên chuyền (Assembly line team)	230,000
Tổ kiểm tra xuất xưởng (Final inspection team)	185,000
Tổ sửa chữa và điều chỉnh (Repair and adjustment team)	175,000
Tổ nhập kho và đóng gói (Warehouse receiving and packing team)	130,000

All 11 stations use the calendar "Giờ hành chính 40 giờ/tuần" (office hours, 40 hours per week), a time efficiency of 100%, an employee hourly cost of 41,000 VND and the expense account **627 Manufacturing overhead**.

Step 5 - Open one station to read the important boxes

Click the line **Tổ khung** (Frame team).

> *Path:* `Manufacturing > Configuration > Work Centers > Tổ khung`



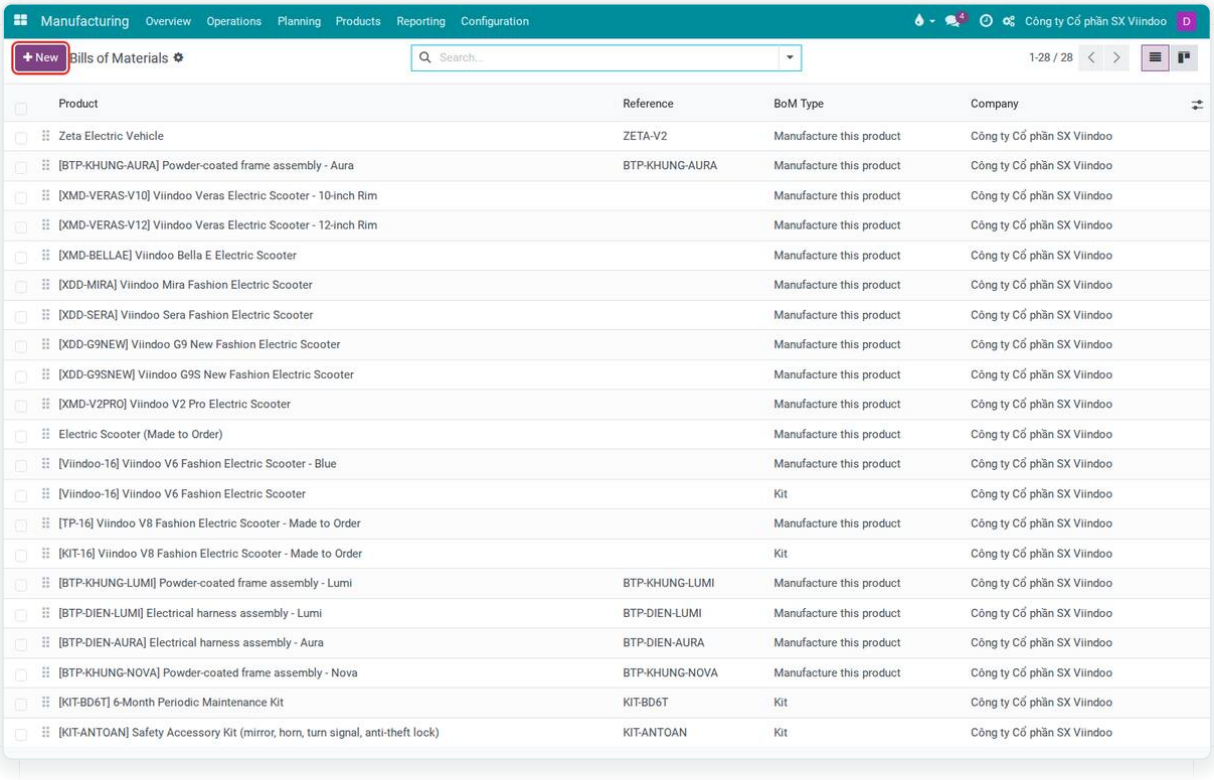
What you should see: at the top are the smart buttons **Operations**, **OEE**, **Lost**, **Load** and **Performance**. The **Costing Information** section has the **Cost per hour** for each work center, the **Overhead Cost Type** (*Manufacturing Overhead*), the **Employee Hourly Cost**, the **Direct Labor Cost Type** (*Direct Labor*) and the **Expense Account**, which is *627 Manufacturing overhead*.

The two cost boxes and the account are the technical link to accounting: when an order is completed, the real hours of an operation multiplied by the hourly rate are posted to the expense account of the station and counted in the cost of the finished product. If **Expense Account** is left empty, the system takes the expense account of the product category of the finished product (for the category *Thành phẩm xe điện* (Finished electric vehicles) that is currently 632 Cost of goods sold), which means the labor hours go straight to cost of goods sold instead of passing through manufacturing overhead. So every new station must have an account chosen (see the lesson *Work centers, operations, hourly rates and expense accounts*).

Step 6 - See the list of bills of materials

Go to **Manufacturing > Products > Bills of Materials**.

> *Path:* `Manufacturing > Products > Bills of Materials`

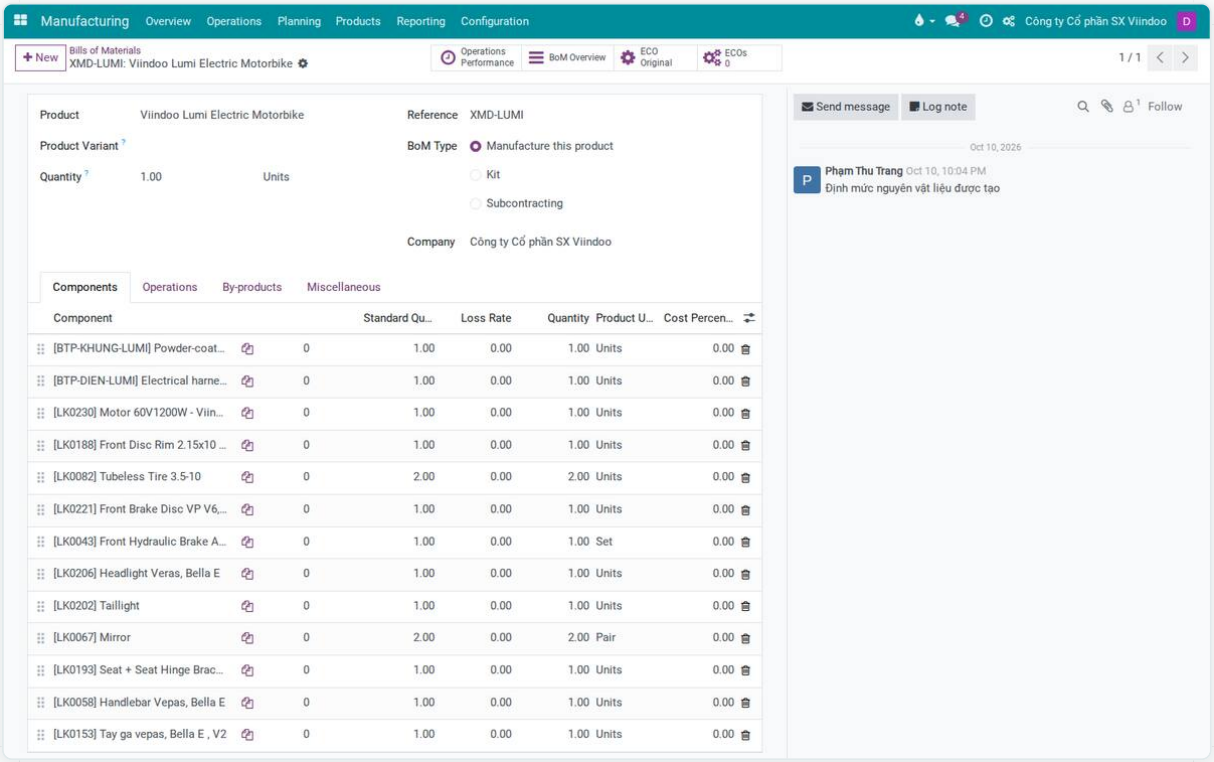


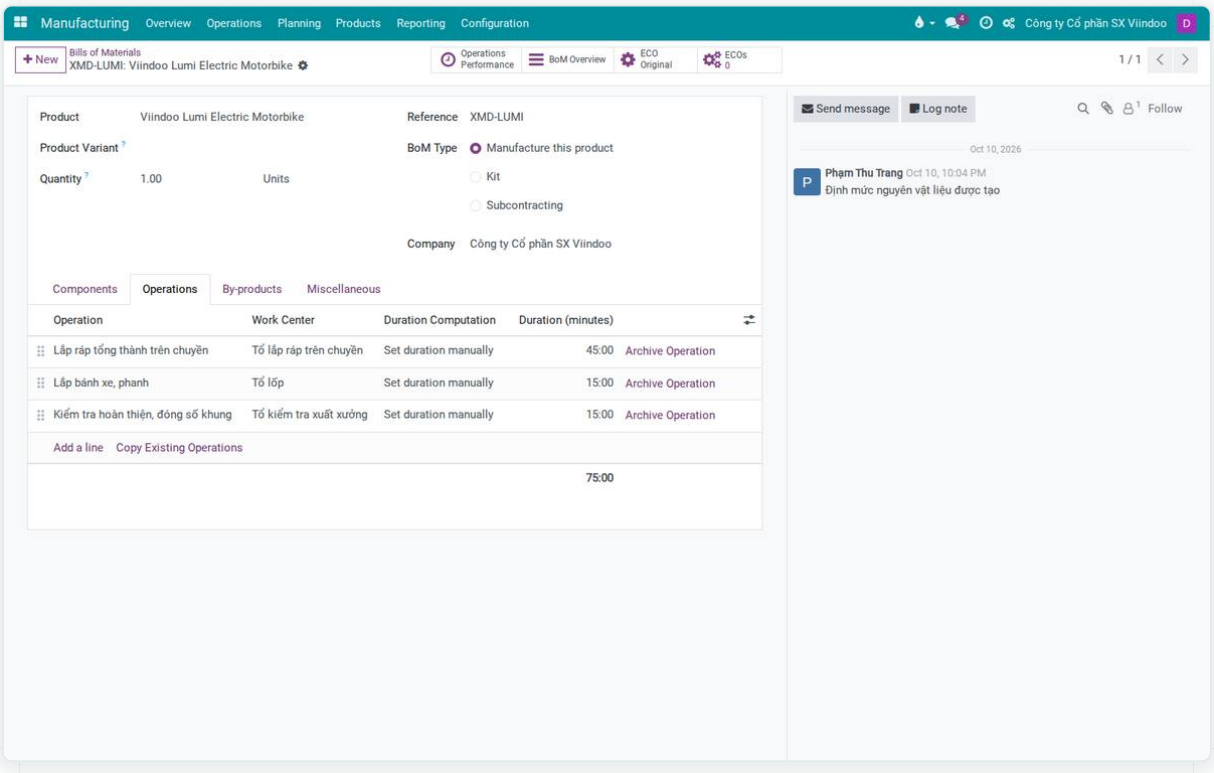
What you should see: each line is one bill of materials with the columns **Product**, **Reference**, **BoM Type** and **Company** (28 bills of materials in the picture). **BoM Type** has three kinds: *Manufacture this product* (a normal bill of materials, which creates manufacturing orders), *Kit* (the components are expanded straight into the order of the parent product and no order of their own is created) and *Subcontracting* (used for outside subcontractors).

Step 7 - Open the bill of materials of the Viindoo Lumi electric motorbike

Click the line **[XMD-LUMI] Viindoo Lumi Electric Motorbike**, then click the **Operations** tab.

> *Path:* `Manufacturing > Products > Bills of Materials > [XMD-LUMI] Viindoo Lumi Electric Motorbike`





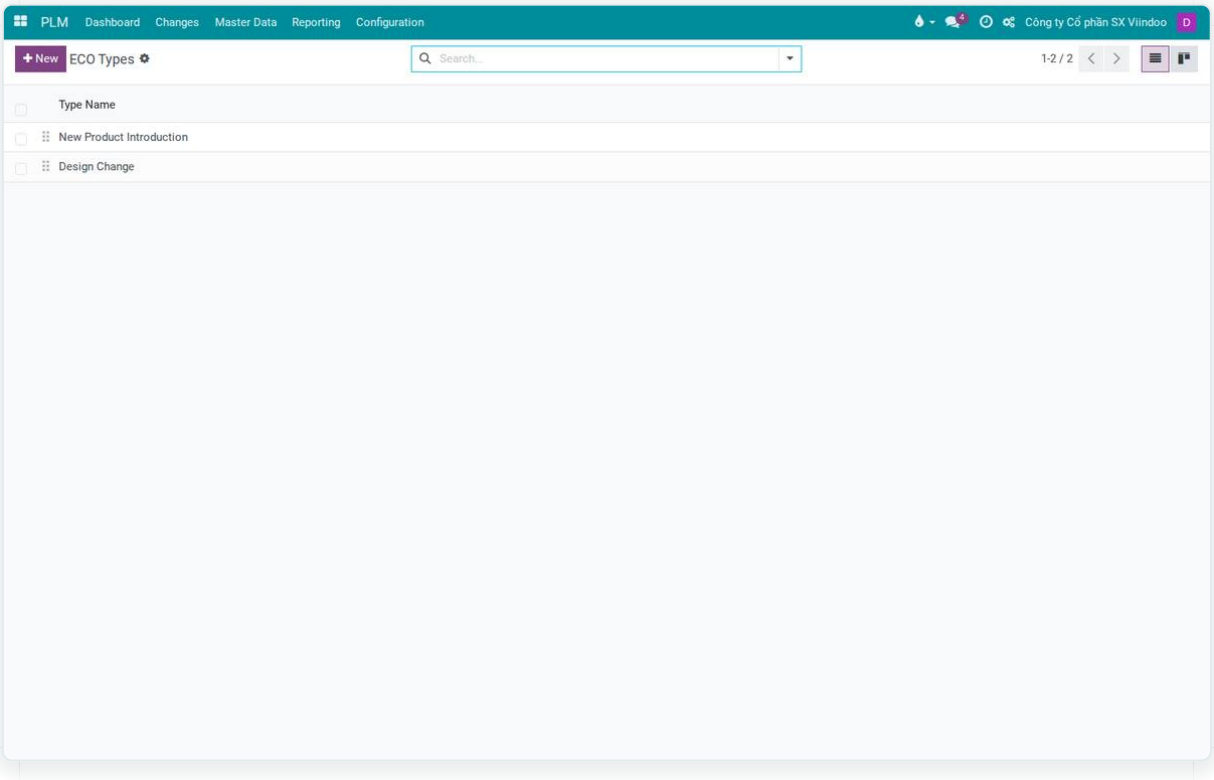
What you should see: the **Components** tab has two first lines, *Powder-coated frame assembly - Lumi* and *Electrical harness assembly - Lumi* (these are semi-finished products, each with its own bill of materials), followed by the individual components; the plastic body kit lines apply only to particular colours. The **Operations** tab has three operations: *Lắp ráp tổng thành trên chuyền* (Final assembly on the line; 45 minutes, at Tổ lắp ráp trên chuyền), *Lắp bánh xe, phanh* (Fitting wheels and brakes; 15 minutes, at Tổ lốp) and *Kiểm tra hoàn thiện, đóng số khung* (Final inspection and frame number stamping; 15 minutes, at Tổ kiểm tra xuất xưởng). These durations are illustrative

(assumed) figures; the total duration at the bottom of the table is 75:00. The top of the form has the smart buttons **Operations Performance**, **BoM Overview**, **ECO Original** and **ECOs**.

Step 8 - See the kinds of engineering change order

Go to **PLM > Configuration > ECO Types**.

> *Path:* `PLM > Configuration > ECO Types`



What you should see: the list with the column **Type Name** and two types: *New Product Introduction* and *Design Change*. Each engineering change order picks one type so that it can be counted later (see the lesson *Engineering change orders (PLM)*).

The **approval** type for a bill of materials and for an engineering change order (who approves, in which sequence) is set up in Part XI. Approvals.

08 TWO-LEVEL BILL OF MATERIALS: ONE BOM FOR SEVERAL COLOURS

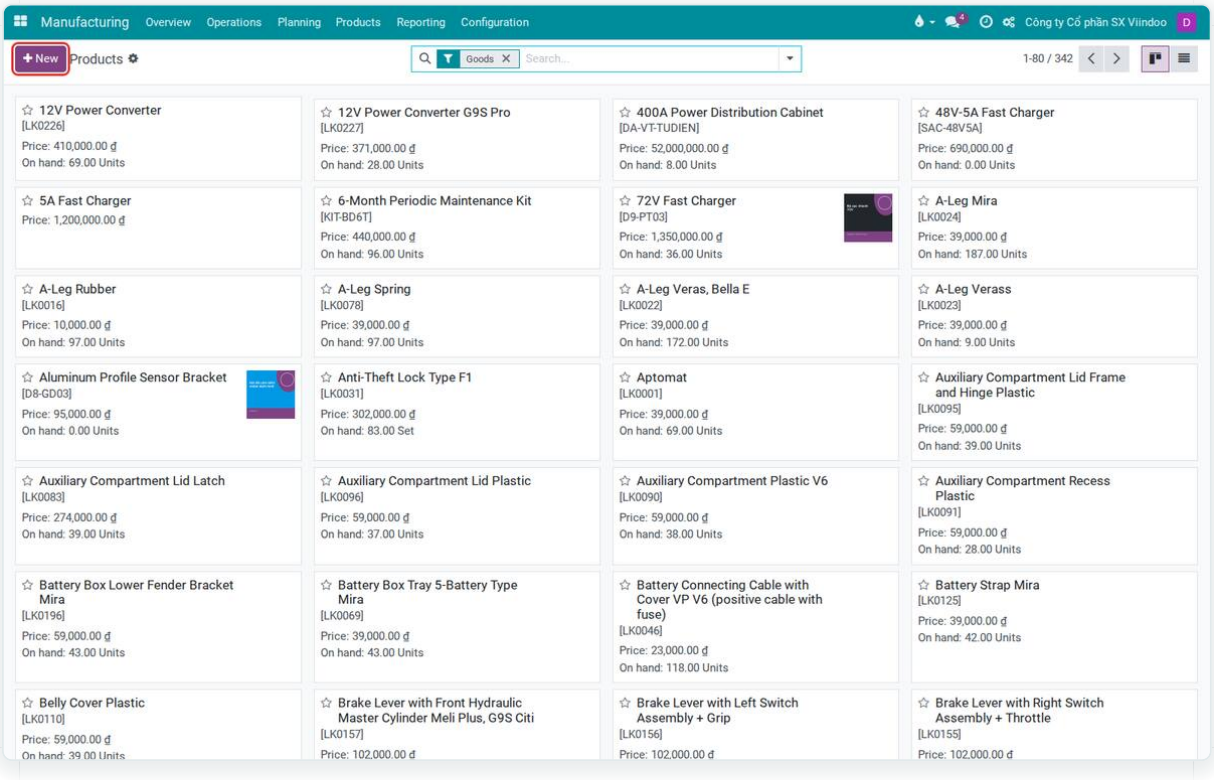
About 35 minutes. By the end of this lesson your company has a new vehicle model with two levels (the vehicle and the frame assembly), with only one bill of materials in which the plastic body kit changes by itself with the colour, and can see the whole structure and the standard cost on one screen.

Your company works from the low level up to the high level: first create the frame assembly and its bill of materials, then create the vehicle and the bill of materials of the vehicle that contains the frame assembly.

Step 1 - Open the product list

Go to **Manufacturing > Products > Products** and click **New**.

> *Path:* `Manufacturing > Products > Products`

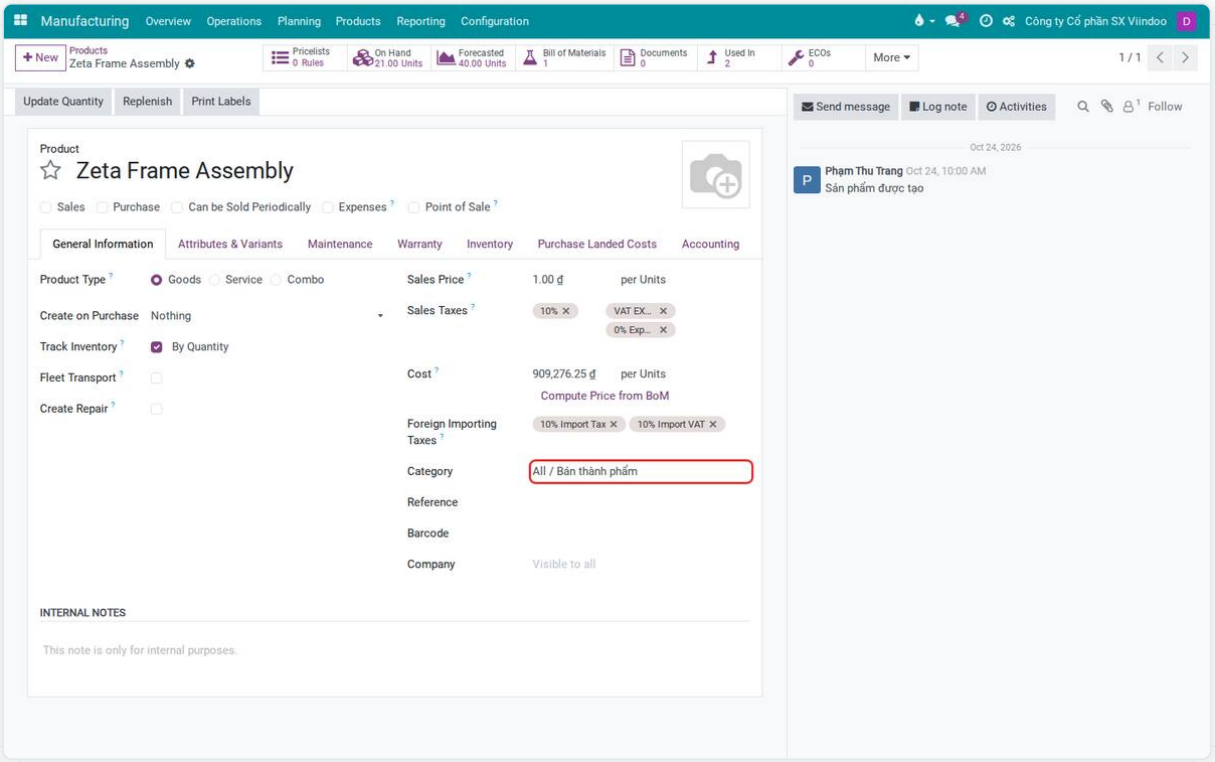


What you should see: the product list as cards; clicking **New** opens an empty product form.

Step 2 - Name the frame assembly and give it a category

Type the name **Zeta Frame Assembly**. In the **Category** box choose **All / Bán thành phẩm** (All / Semi-finished goods). Untick **Sales** and **Purchase**, because the frame assembly is made only to be fitted into the vehicle.

> *Path:* `Manufacturing > Products > Products > New`

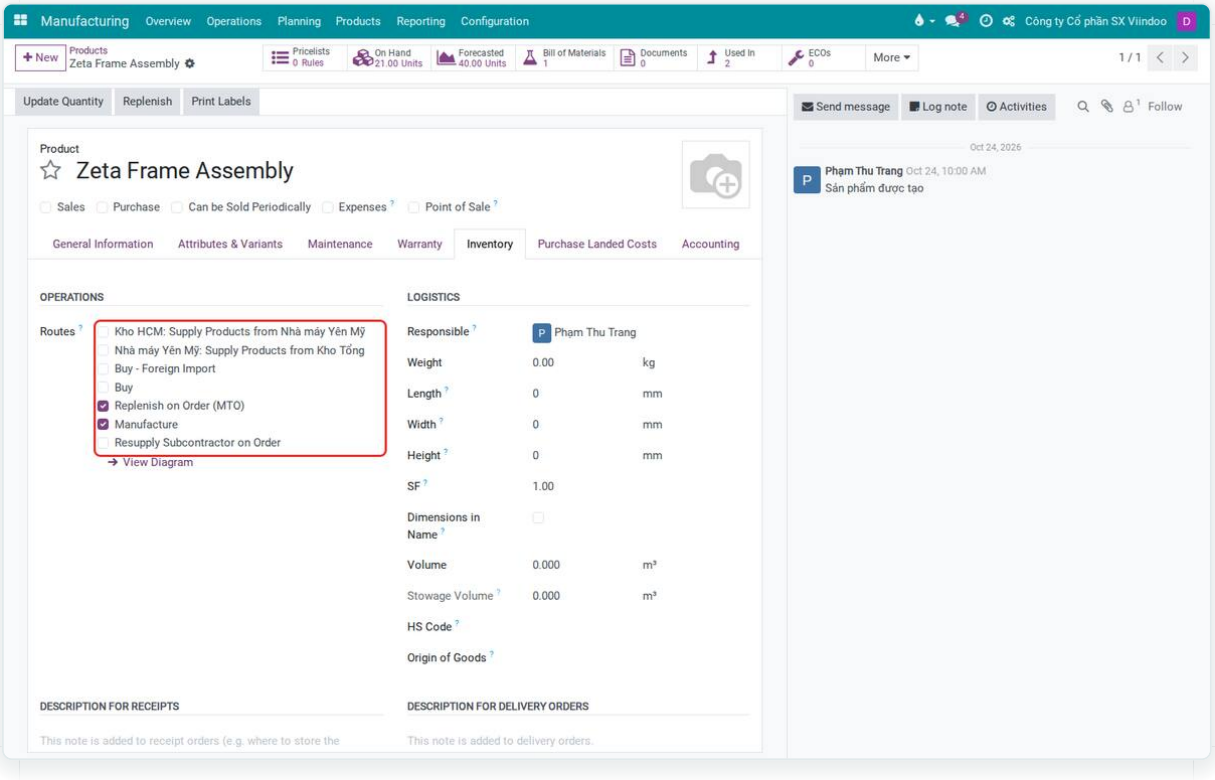


What you should see: the name *Zeta Frame Assembly*, the **Category** box is *All / Bán thành phẩm*, and the **Sales** and **Purchase** boxes are no longer ticked. The category *Bán thành phẩm* (Semi-finished goods) uses average costing and automated inventory valuation.

Step 3 - Choose the supply routes for the frame assembly

Click the **Inventory** tab. In **Routes** untick **Buy**, then tick **Manufacture** and **Replenish on Order (MTO)**. Click **Save**.

> *Path:* `Manufacturing > Products > Products > Zeta Frame Assembly > Inventory tab`

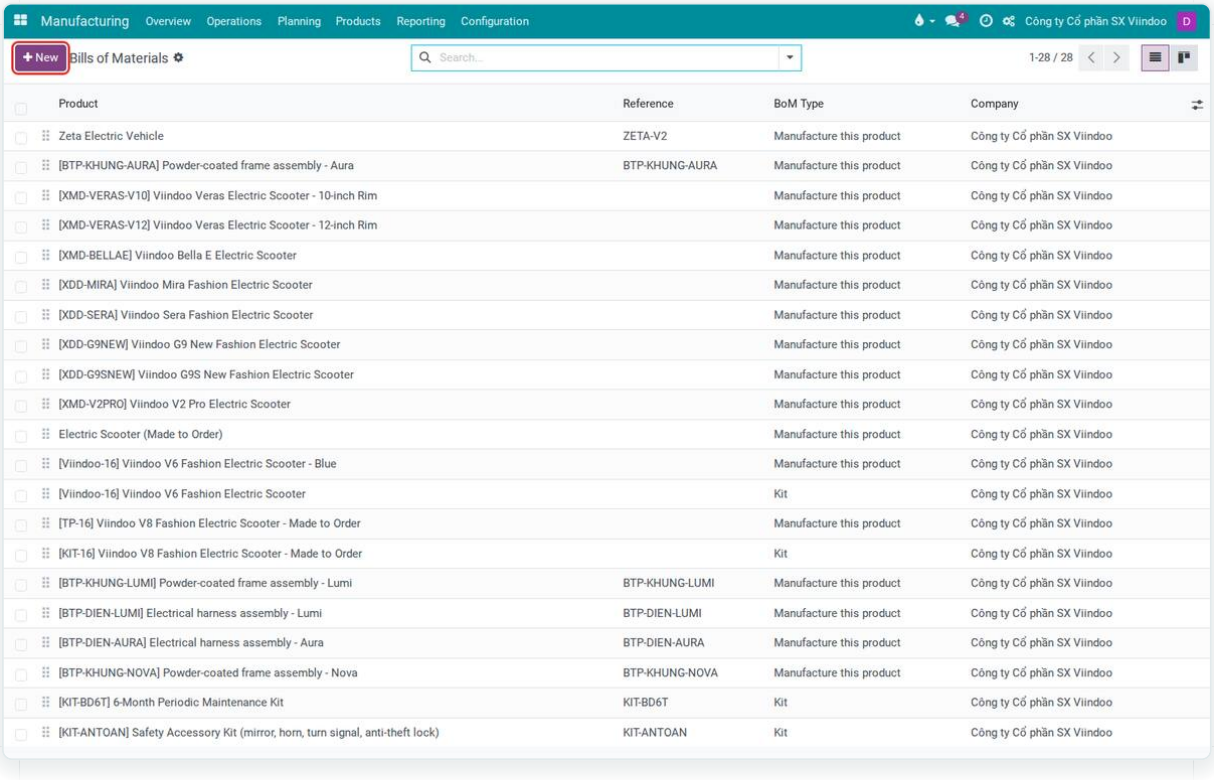


What you should see: the two routes **Replenish on Order (MTO)** and **Manufacture** are ticked and **Buy** is not. A newly created product always has **Buy** ticked, so it must be removed. The **Manufacture** route gives the frame assembly its manufacturing order; the **MTO** route makes every confirmation of a vehicle automatically create a child order for the frame assembly. If only **Manufacture** is ticked, the vehicle order can still be confirmed but the frame assembly shows *Not Available* and there is no child order.

Step 4 - Open the list of bills of materials

Go to **Manufacturing > Products > Bills of Materials** and click **New**.

> *Path:* `Manufacturing > Products > Bills of Materials`

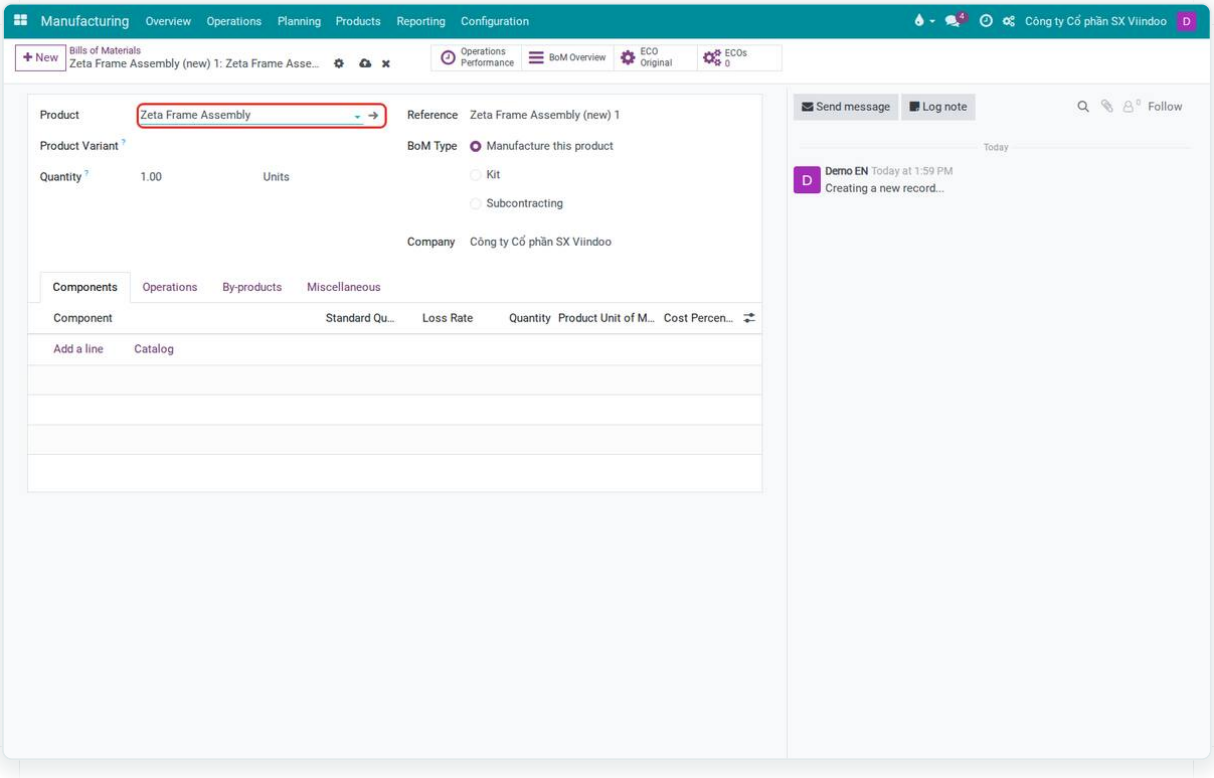


What you should see: the list of existing bills of materials; clicking **New** opens an empty bill of materials form.

Step 5 - Choose the product of the bill of materials

In the **Product** box type **Zeta Frame Assembly** and choose the suggestion line.

> *Path:* `Manufacturing > Products > Bills of Materials > New`

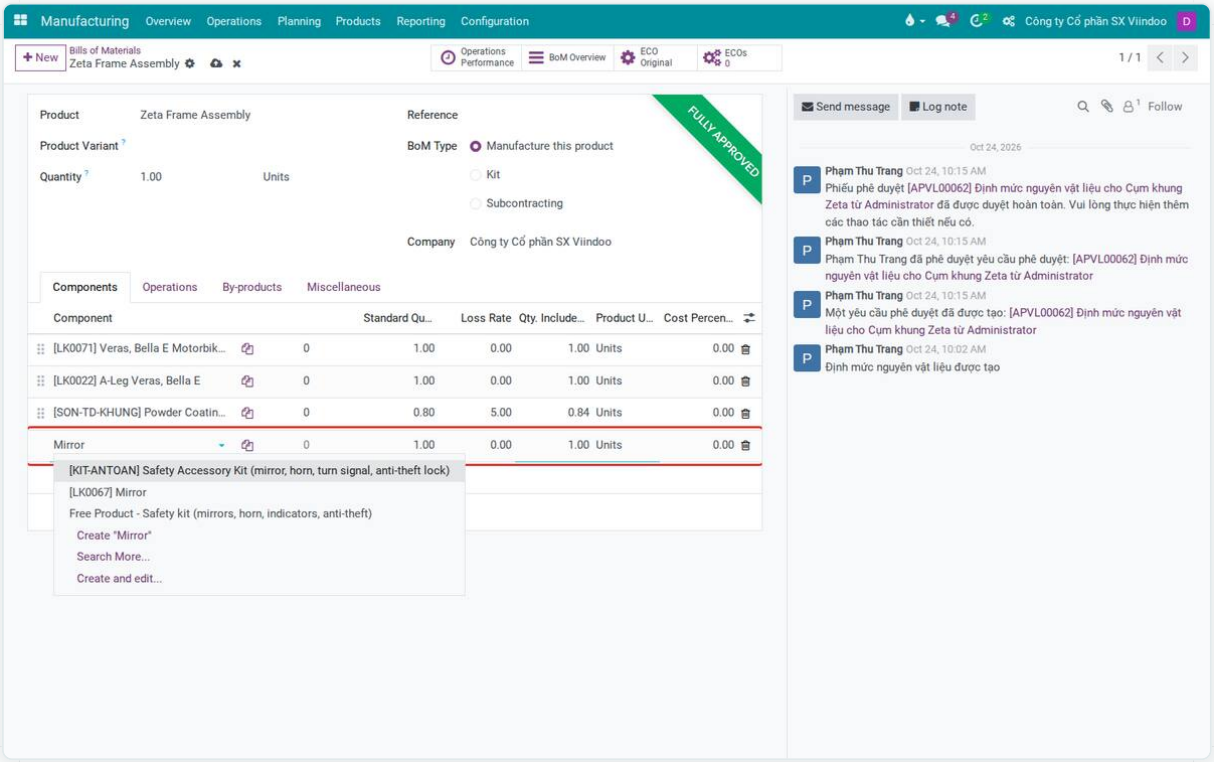


What you should see: the **Product** box is *Zeta Frame Assembly*, **Quantity** is 1.00 and **BoM Type** is *Manufacture this product*.

Step 6 - Add the components of the frame assembly

In the **Components** tab click **Add a line**. Type the component code, choose the suggestion line and enter the **Standard Quantity**. Do three lines: **LK0071** (Veras, Bella E Motorbike Frame) quantity 1; **LK0022** (A-Leg Veras, Bella E) quantity 1; and **SON-TD-KHUNG** (Powder Coating for Frame (kg)) quantity **0.8**. Type the decimal number with a decimal point (0.8), as the interface is in English.

> *Path:* `Manufacturing > Products > Bills of Materials > New > Components tab`

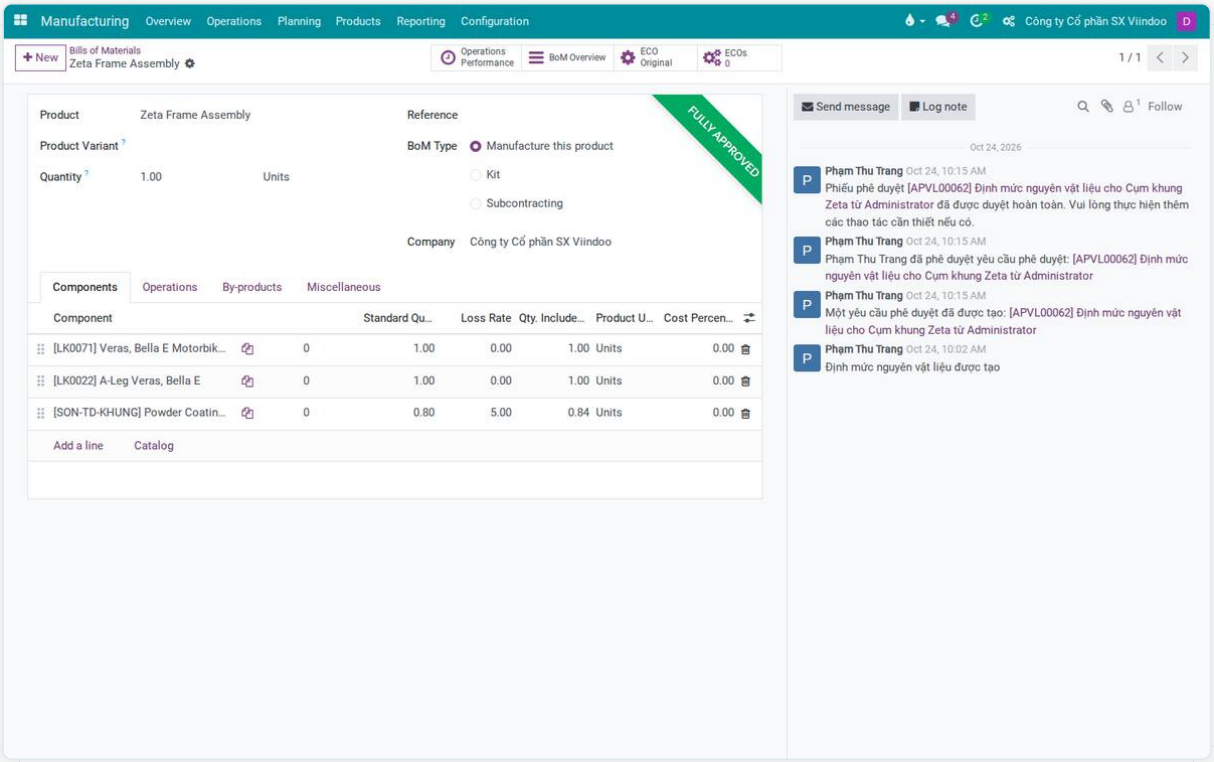


What you should see: each click on **Add a line** gives an empty line, and the **Component** box shows a list of suggestions as you type.

Step 7 - Save the bill of materials of the frame assembly

Click **Save manually** (the cloud icon with an arrow next to the name).

> *Path:* `Manufacturing > Products > Bills of Materials > Zeta Frame Assembly`

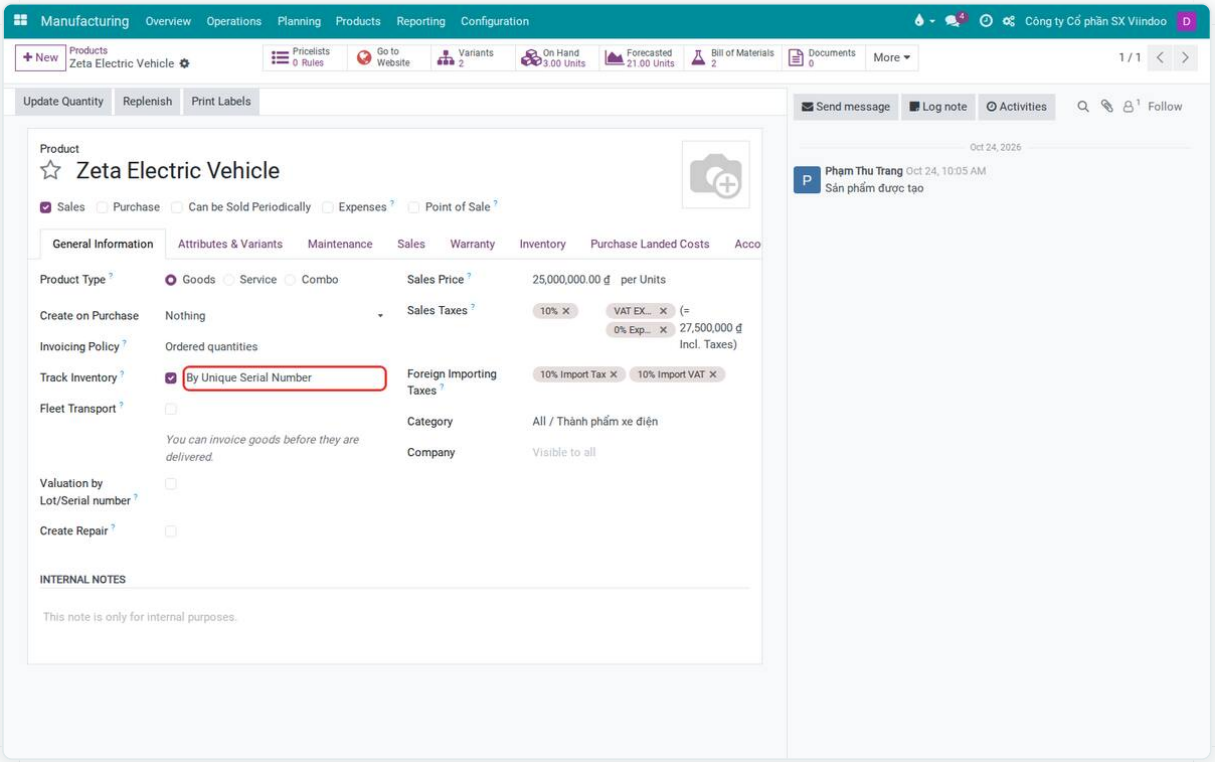


What you should see: three lines *[LK0071]* 1.00, *[LK0022]* 1.00 and *[SON-TD-KHUNG]* 0.80; on the right, the chatter records that the bill of materials was created. In the picture the powder coating line already shows **Loss Rate** 5.00 and a quantity of 0.84 including the loss, and the green ribbon **FULLY APPROVED** is there, because this bill of materials has since had its loss rate set (see the lesson *Standard consumption and loss rate*) and been approved; on your new bill of materials the **Loss Rate** is 0.00 and there is no ribbon.

Step 8 - Create the vehicle product

Go to **Manufacturing > Products > Products** and click **New**. Type the name **Zeta Electric Vehicle**, choose **Category All / Thành phẩm xe điện** (All / Finished electric vehicles), type **Sales Price** 25,000,000, tick **Track Inventory** and, in the box next to it, choose **By Unique Serial Number** (so that every vehicle has its own frame number). Untick **Purchase**; keep **Sales**. The sales price of 25 million VND is an illustrative (assumed) figure.

> *Path:* `Manufacturing > Products > Products > New`

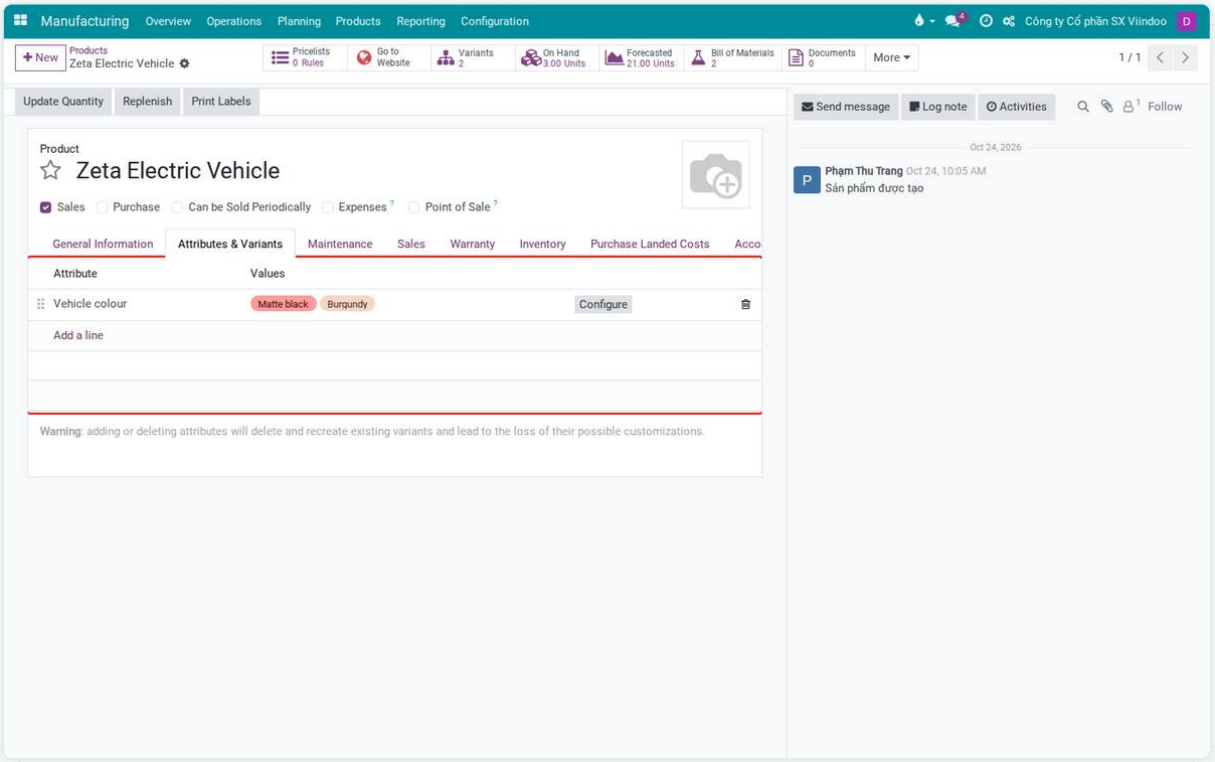


What you should see: Sales Price *25,000,000.00 VND*, **Track Inventory** is ticked and the box next to it reads *By Unique Serial Number*, **Category** is *All / Thành phẩm xe điện*, the **Sales** box is ticked and **Purchase** is not.

Step 9 - Declare the two colours

Click the **Attributes & Variants** tab, click **Add a line**. In **Attribute** choose **Vehicle colour**, in **Values** choose **Matte black** and **Burgundy**.

> *Path:* `Manufacturing > Products > Products > Zeta Electric Vehicle > Attributes & Variants tab`

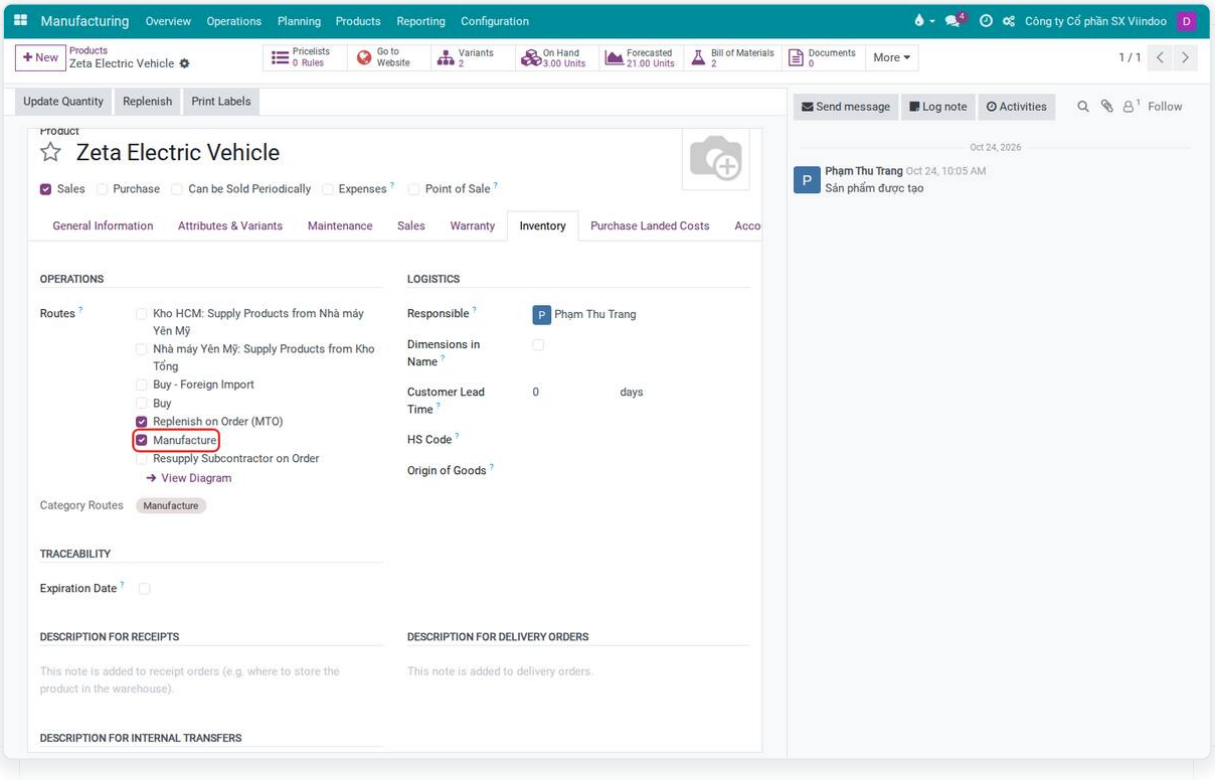


What you should see: one line *Vehicle colour* with two tags *Matte black* and *Burgundy*. After saving, the product has two variants, *Zeta Electric Vehicle (Matte black)* and *Zeta Electric Vehicle (Burgundy)*.

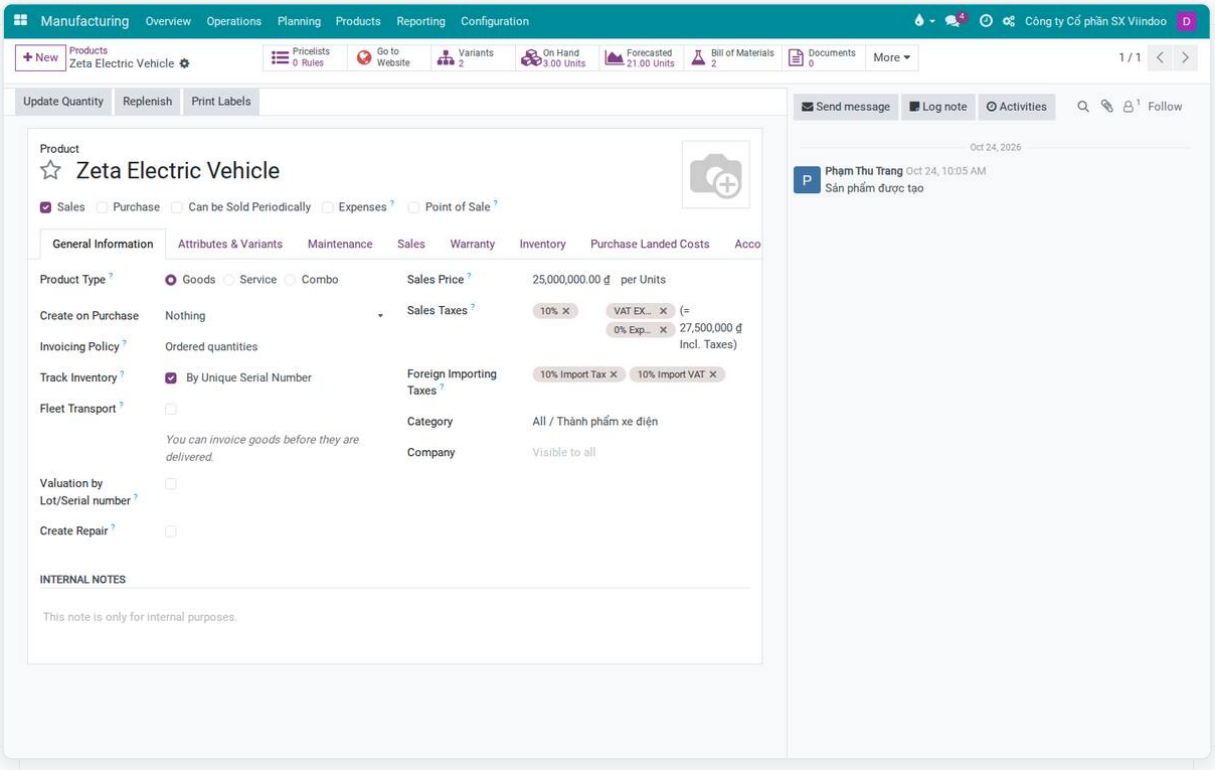
Step 10 - Choose the Manufacture route for the vehicle and save

Click the **Inventory** tab. Untick **Buy**, tick **Manufacture**. Click **Save**.

> *Path:* `Manufacturing > Products > Products > Zeta Electric Vehicle > Inventory tab`



What you should see: Manufacture is ticked and **Buy** is not. After saving, the top of the form has the smart button **Bill of Material**.

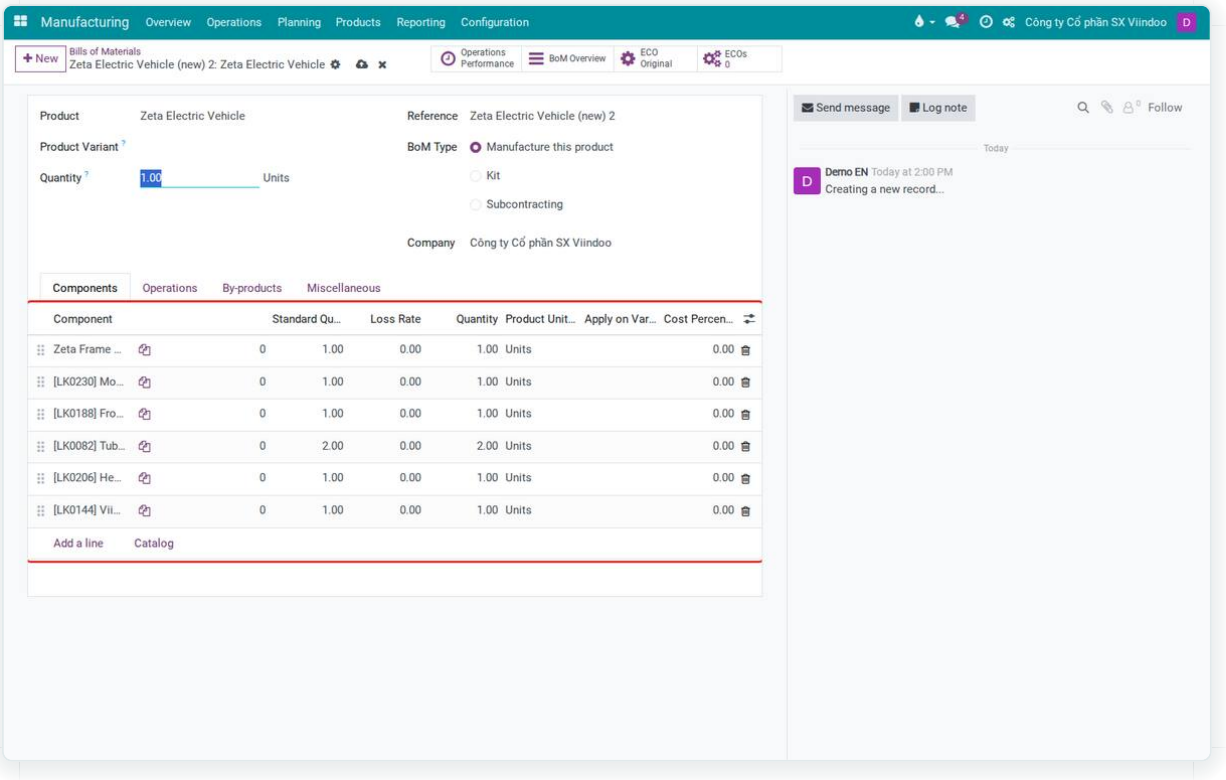


Step 11 - Make the bill of materials of the vehicle, the common components

Go to **Manufacturing > Products > Bills of Materials**, click **New**, choose **Product Zeta Electric Vehicle**. In the **Components** tab add six lines, each with quantity 1 except the tire with quantity 2:

Zeta Frame Assembly (this is the second level), **LK0230** (Motor 60V1200W - Viindoo 10-inch Rim Basic Brake), **LK0188** (Front Disc Rim 2.15x10 Vepas, V6), **LK0082** (Tubeless Tire 3.5-10, quantity **2**), **LK0206** (Headlight Veras, Bella E) and **LK0144** (Viindoo Charger 60V20Ah).

> *Path:* `Manufacturing > Products > Bills of Materials > New > Components tab`

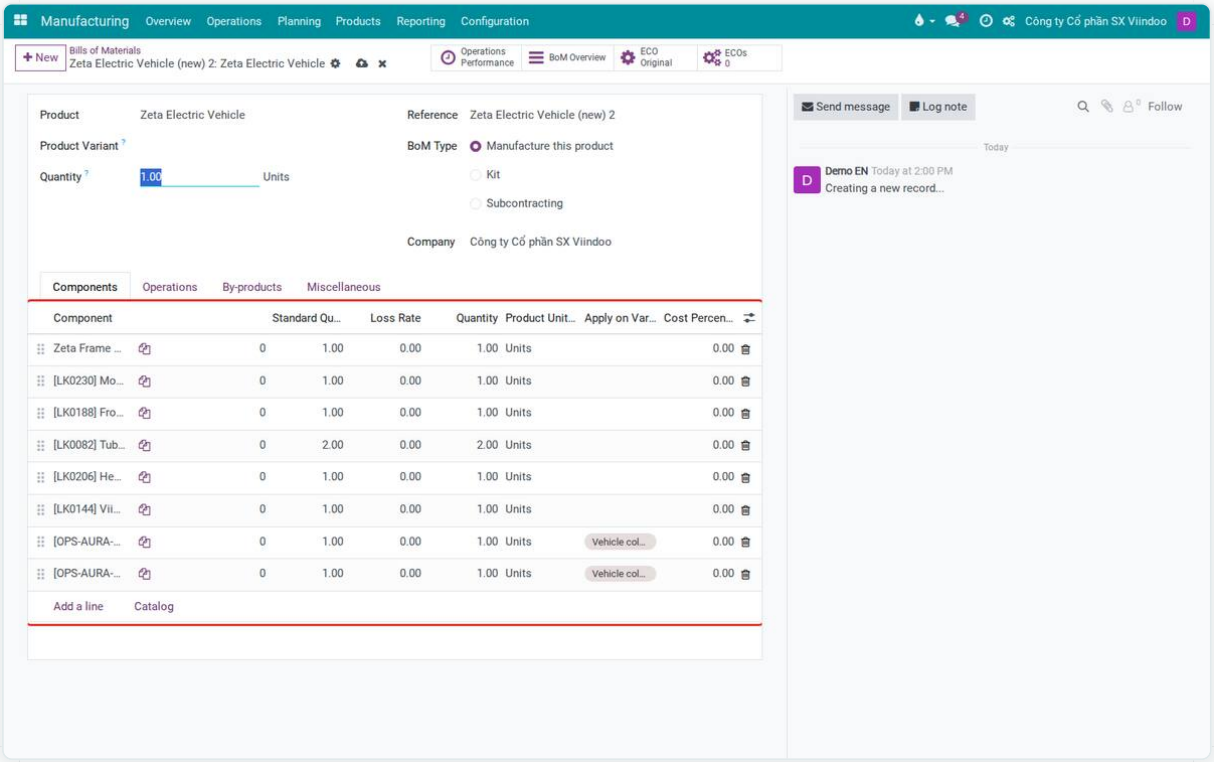


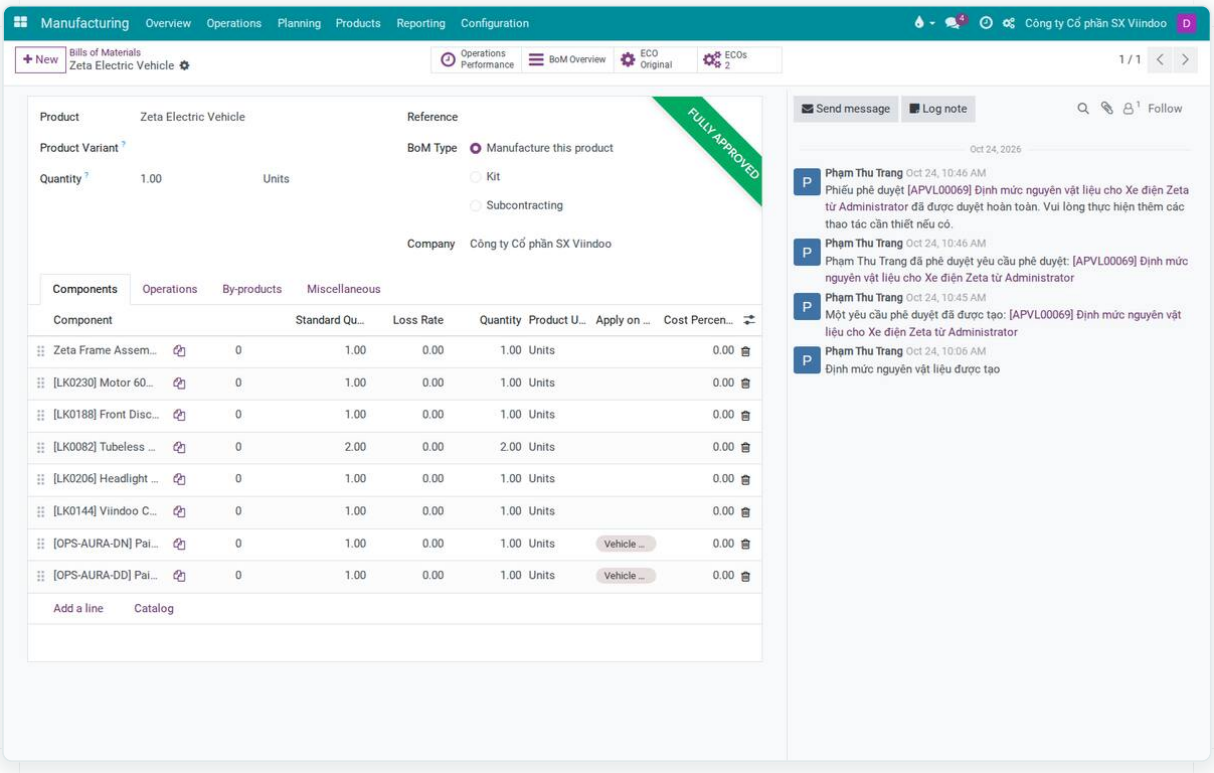
What you should see: six lines, the first one is *Zeta Frame Assembly*. The frame assembly sits in the bill of materials of the vehicle as a component, and because it has a bill of materials of its own, the system understands it as the second level.

Step 12 - Add the plastic body kit by colour, then save

Click the slider icon at the end of the header row of the components table and tick the column **Apply on Variants**. Add two lines: **OPS-AURA-DN** (Painted Plastic Body Kit Aura - Matte Black), and in the **Apply on Variants** column choose **Vehicle colour: Matte black**; and **OPS-AURA-DD** (Painted Plastic Body Kit Aura - Burgundy Red), choose **Vehicle colour: Burgundy**. Click **Save manually**.

> *Path:* `Manufacturing > Products > Bills of Materials > Zeta Electric Vehicle > Components tab`



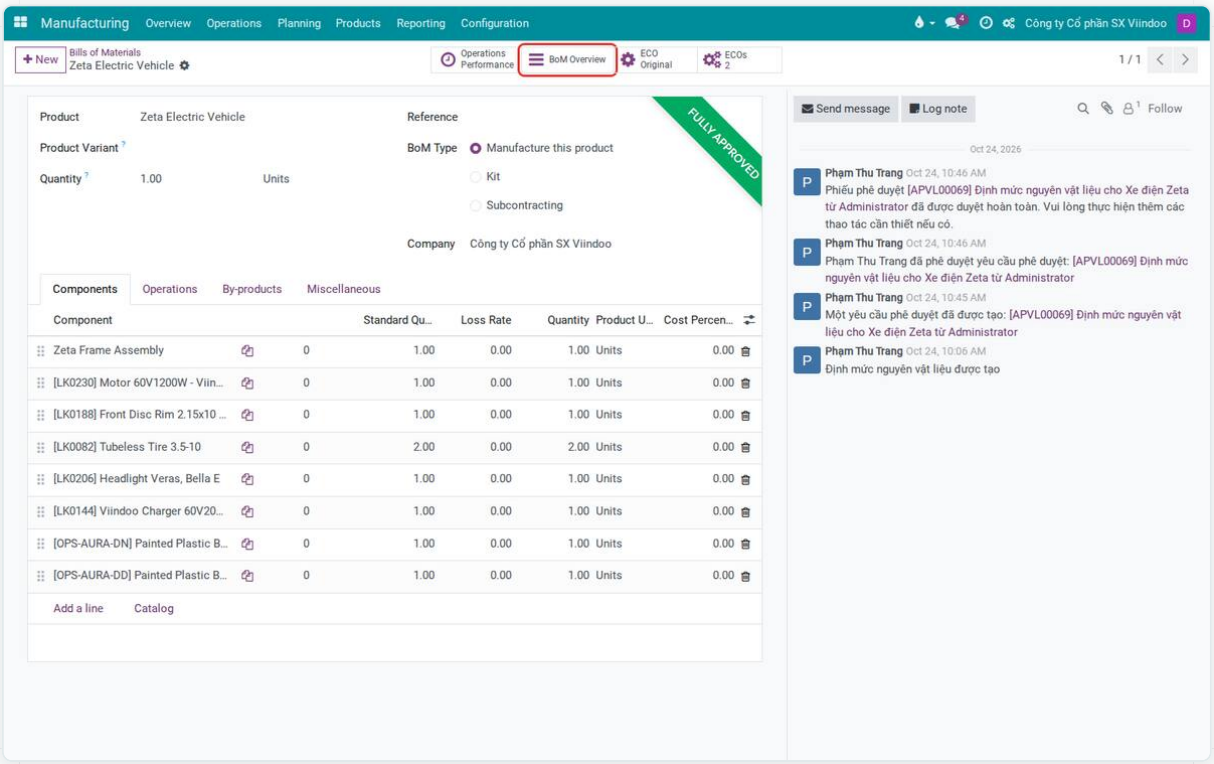


What you should see: the two body kit lines have a colour tag in the **Apply on Variants** column (*Vehicle colour: Matte black* and *Vehicle colour: Burgundy*); the other six lines leave this column empty (they are used for both colours). The existing model *Viindoo Lumi Electric Motorbike* uses exactly this method for 5 colours and 2 versions.

Step 13 - Open the BoM Overview

Click the smart button **BoM Overview** at the top of the bill of materials form.

> *Path:* `Manufacturing > Products > Bills of Materials > Zeta Electric Vehicle > BoM Overview`

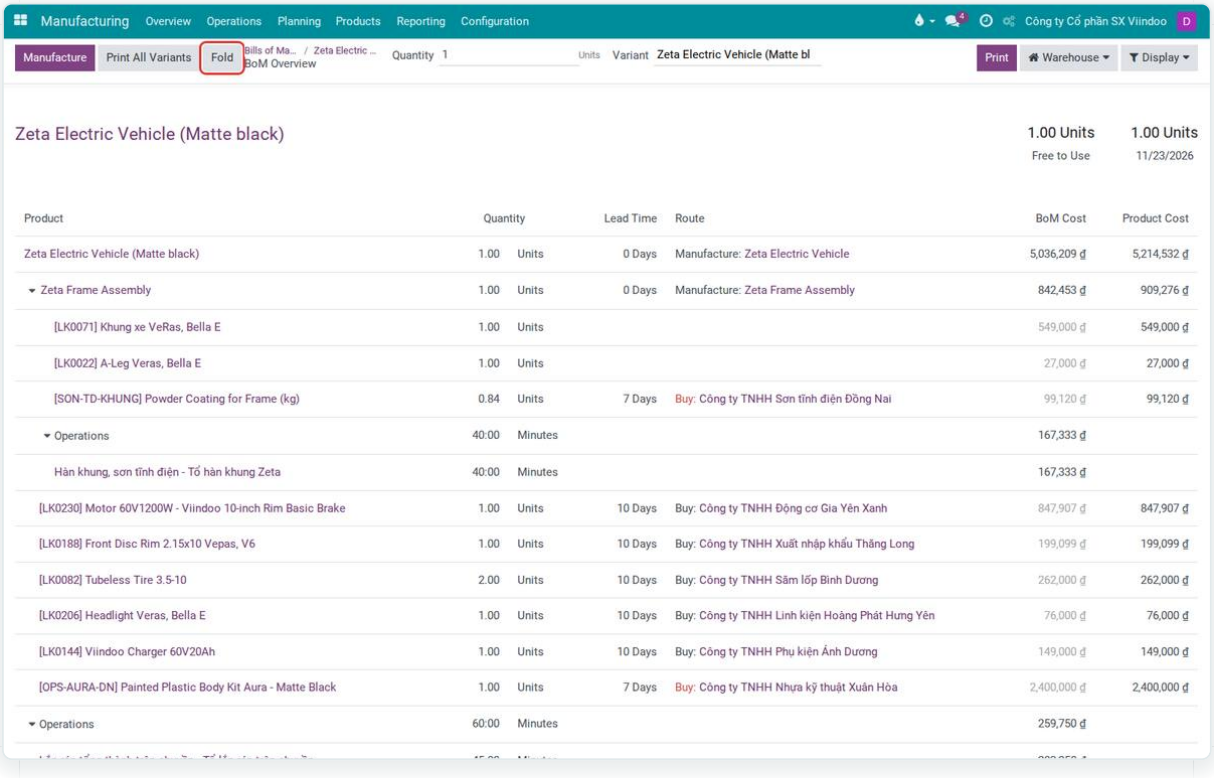


What you should see: a new screen titled *Zeta Electric Vehicle (Matte black)*, with the buttons **Manufacture**, **Print All Variants** and **Unfold**, and a structure table with the columns **Quantity**, **Lead Time**, **Route**, **BoM Cost** and **Product Cost**.

Step 14 - Expand the two-level structure

Click the **Unfold** button (after the click the button changes to **Fold**).

> *Path:* `Manufacturing > Products > Bills of Materials > Zeta Electric Vehicle > BoM Overview`

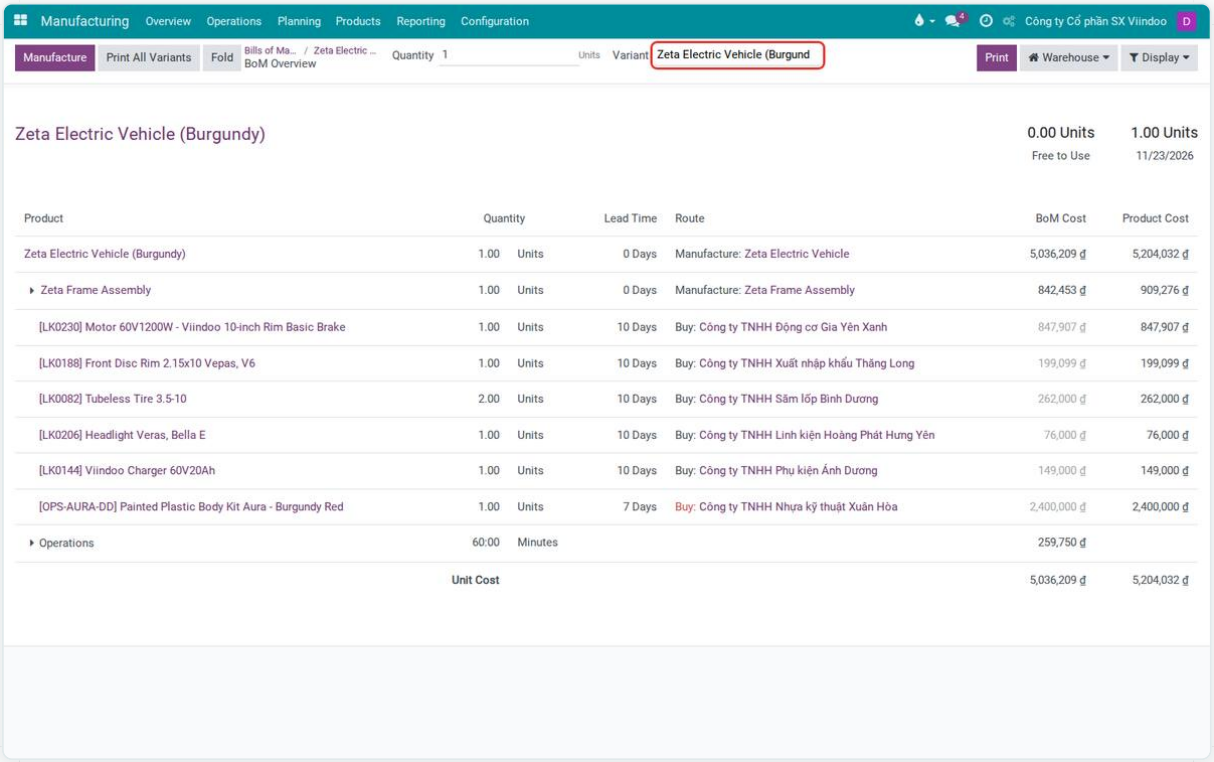


What you should see: the line *Zeta Frame Assembly* opens up to its three components (frame, A-leg, powder coating 0.84, which is 0.80 plus the 5% loss once the loss rate is set); the common components of the vehicle sit at the same level as the frame assembly. The *Operations* lines show the minutes of each work center. In the picture the vehicle line has **BoM Cost** 5,036,209 VND and **Product Cost** 5,214,532 VND. For the colour *Matte black* only the body kit *Aura - Matte Black* is there.

Step 15 - Switch to the colour Burgundy

In the **Variant** box at the top, type **Zeta** and choose **Zeta Electric Vehicle (Burgundy)**.

> *Path:* `Manufacturing > Products > Bills of Materials > Zeta Electric Vehicle > BoM Overview`



What you should see: the title changes to *Zeta Electric Vehicle (Burgundy)* and the body kit line changes to *Aura - Burgundy Red* (**Product Cost** 5,204,032 VND), while the other lines stay the same. At the bottom of the table the **Unit Cost** line sums the whole structure (5,036,209 VND in **BoM Cost**). That is what *one bill of materials for several colours* gives: there is no need to make two bills of materials, and the wrong kit cannot be fitted by mistake.

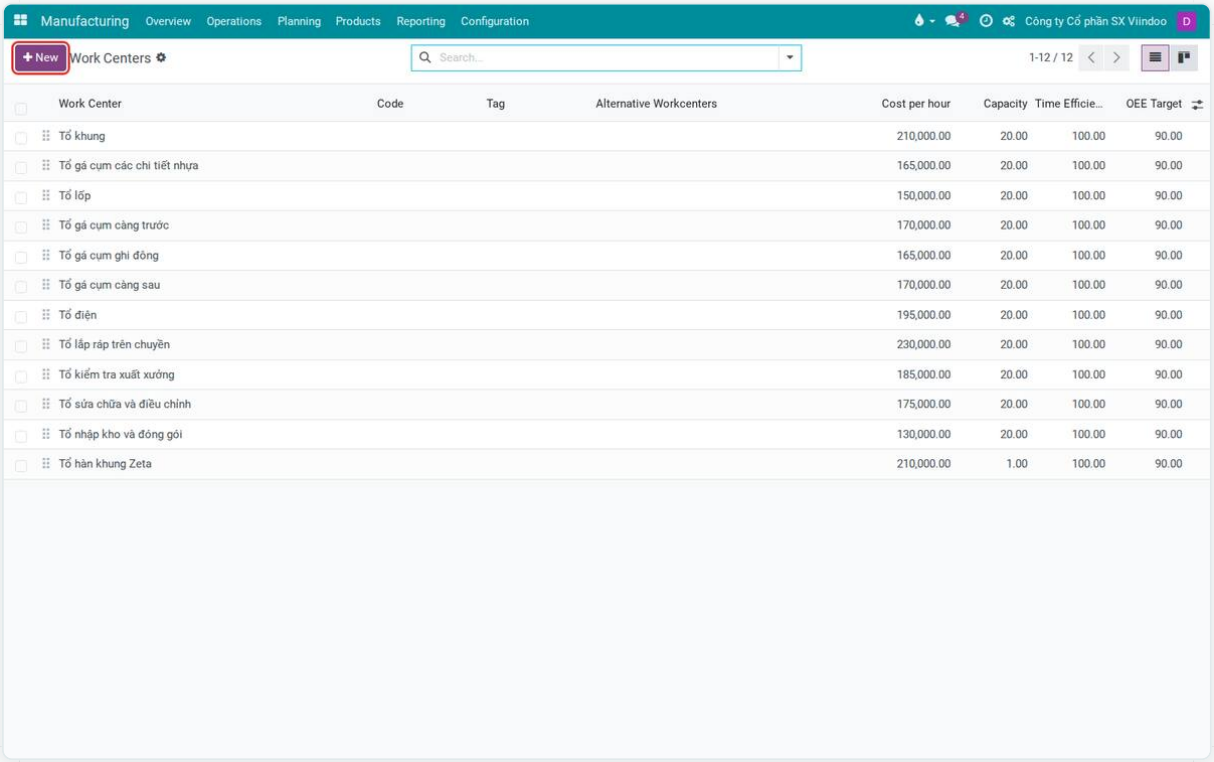
09 WORK CENTERS, OPERATIONS, HOURLY RATES AND EXPENSE ACCOUNTS

About 20 minutes. By the end of this lesson your company has a new station with an hourly rate and the expense account 627, and has attached the operations of the station to the bill of materials of the frame assembly and of the vehicle just created.

Step 1 - Open the list of work centers

Go to **Manufacturing > Configuration > Work Centers** and click **New**.

> *Path:* `Manufacturing > Configuration > Work Centers`

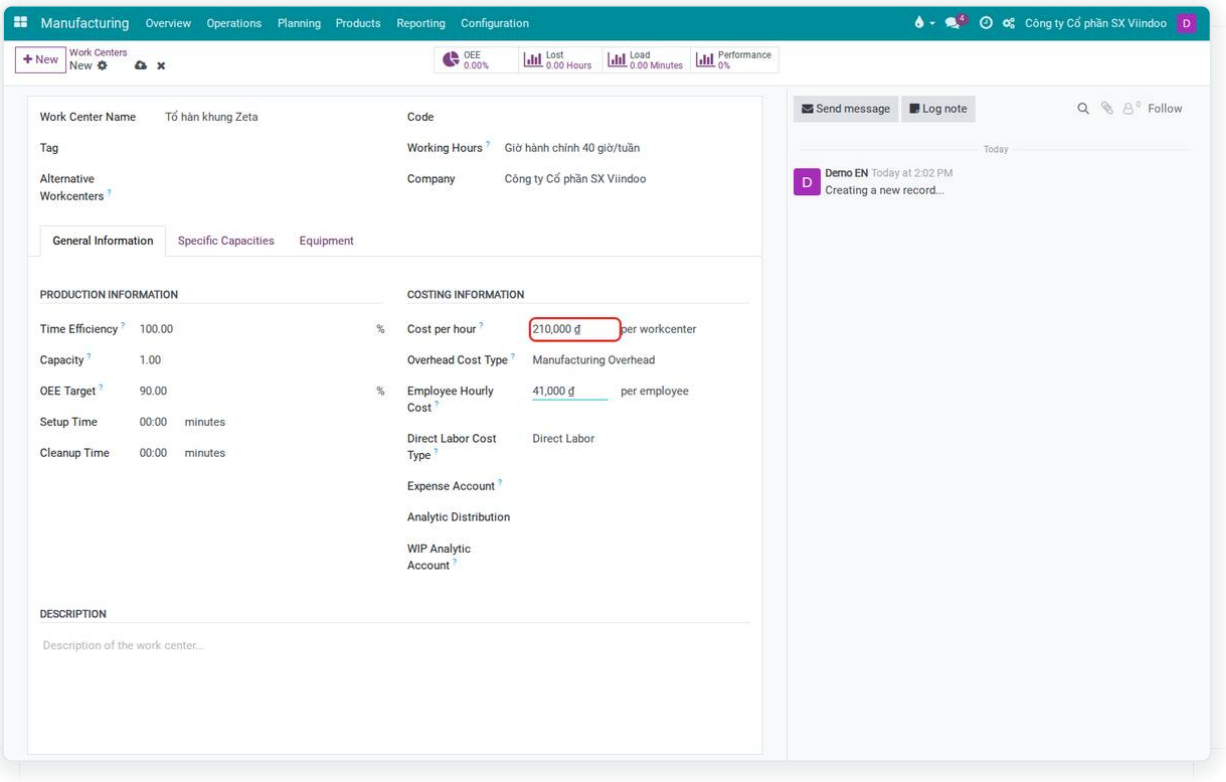


What you should see: the list of stations; clicking **New** opens an empty form.

Step 2 - Name the station and set the hourly rate

In **Work Center Name** type **Tổ hàn khung Zeta** (Zeta frame welding team). In **Cost per hour** (per work center) type 210,000; in the second line (per employee) type 41,000. These two figures are illustrative (assumed), at the same level as Tổ khung (Frame team).

> *Path:* `Manufacturing > Configuration > Work Centers > New`

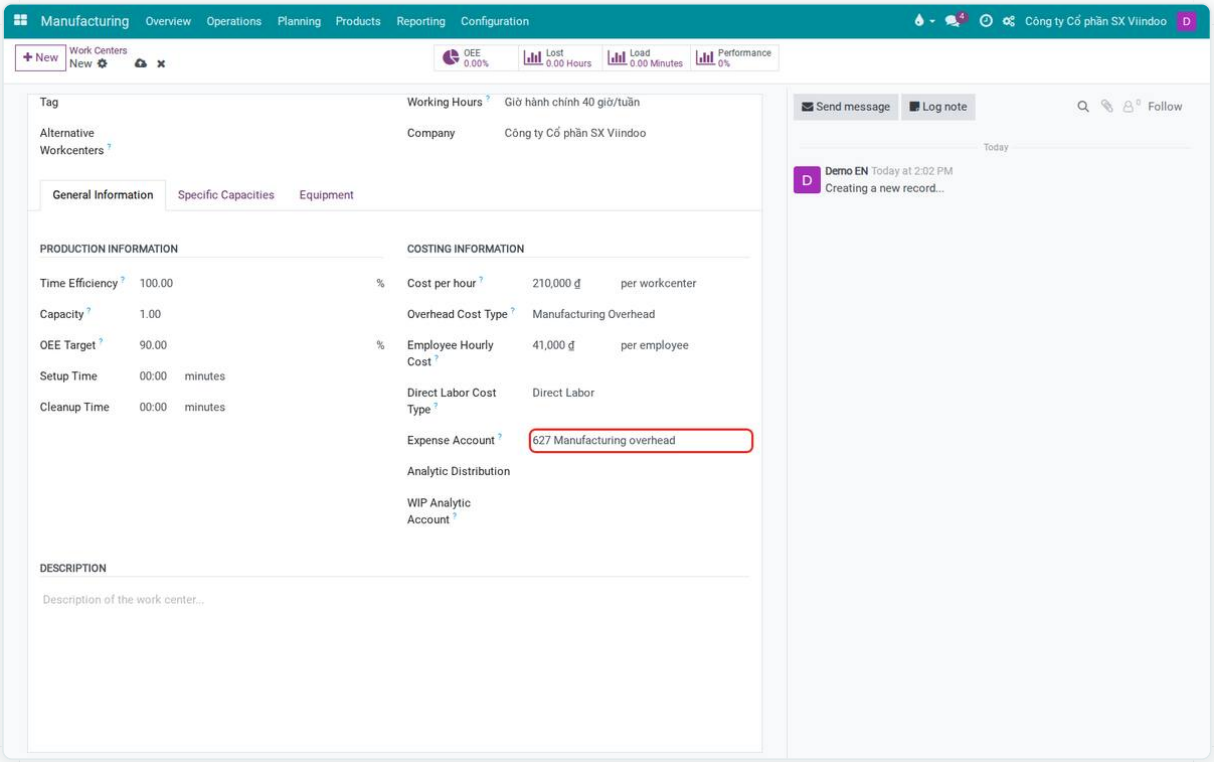


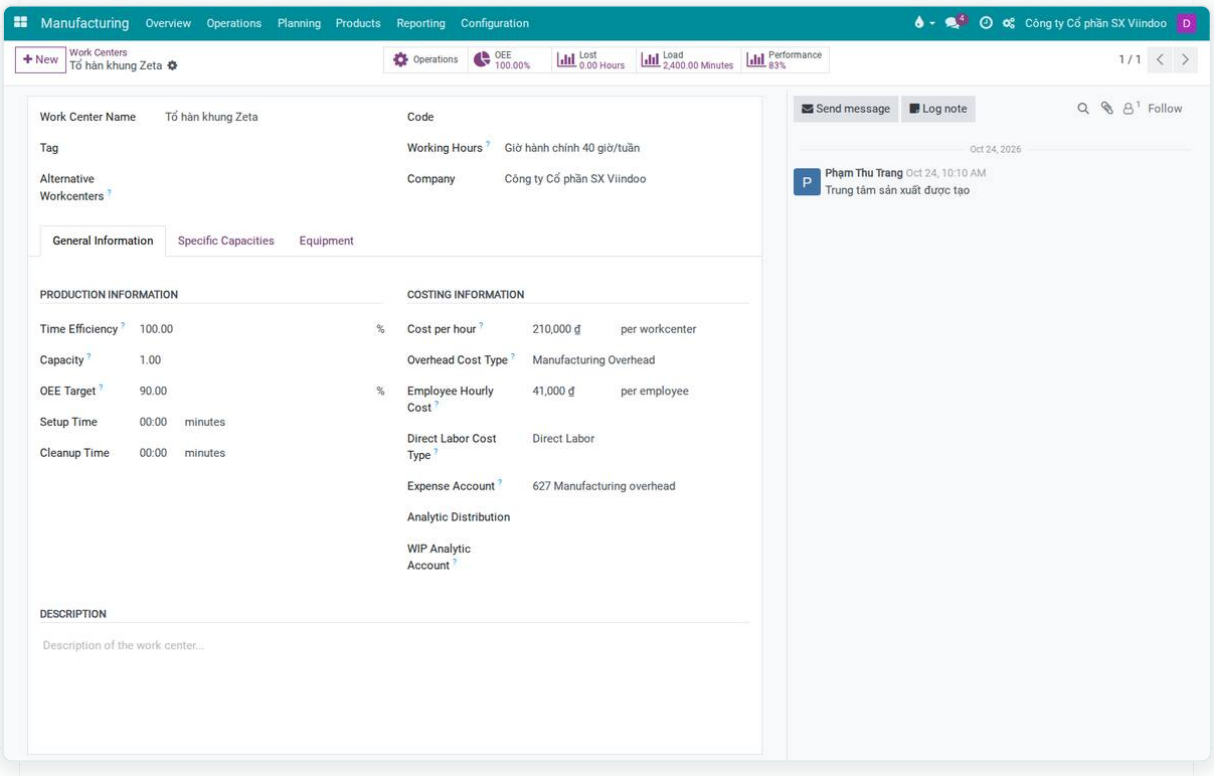
What you should see: Cost per hour *210,000 VND* per work center and *41,000 VND* per employee. Under the two hourly rates, **Overhead Cost Type** is *Manufacturing Overhead* and **Direct Labor Cost Type** is *Direct Labor*; they tell the cost report in which cost column the machine hour and the employee hour appear.

Step 3 - Choose the expense account 627

In **Expense Account** type **627** and choose **627 Manufacturing overhead**. Click **Save manually**.

> *Path:* `Manufacturing > Configuration > Work Centers > Tổ hàn khung Zeta`



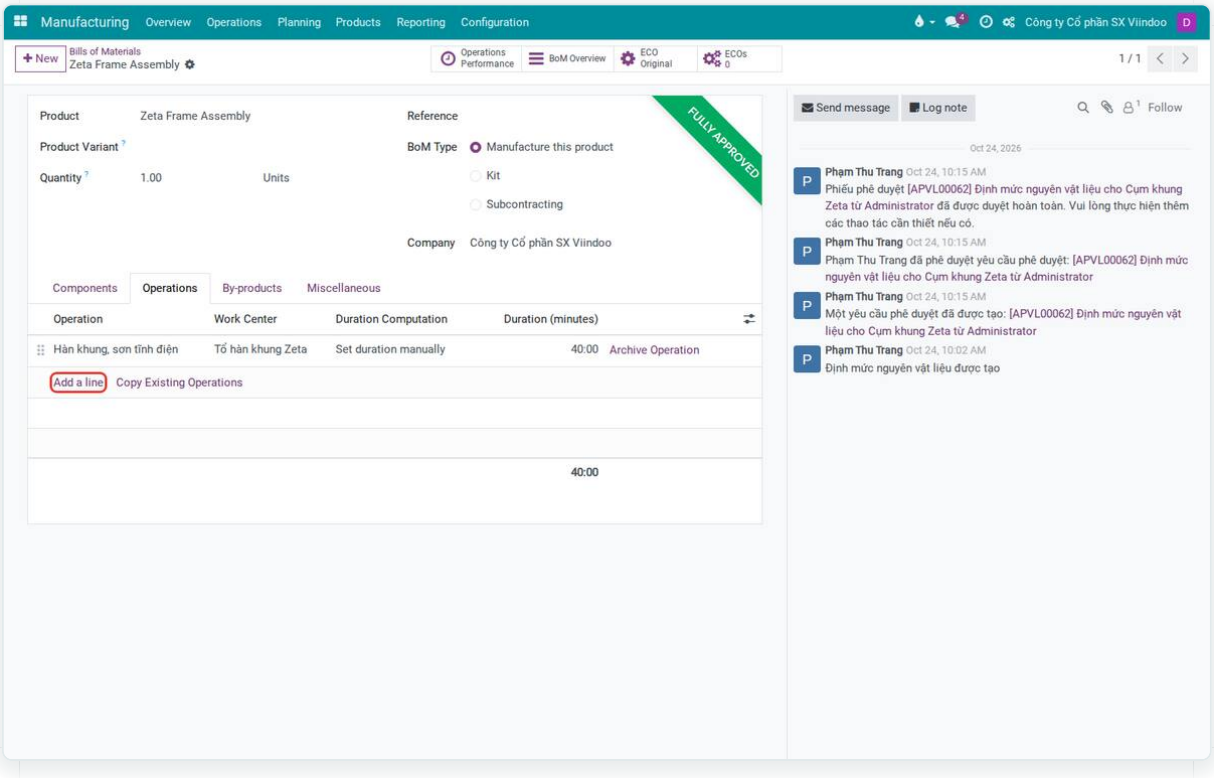


What you should see: the **Expense Account** box shows *627 Manufacturing overhead*; the chatter on the right records the creation of the record. A newly created station leaves this box empty (627 is not filled in by itself), so this step is mandatory if your company wants labor hours to go into manufacturing overhead.

Step 4 - Open the Operations tab of the bill of materials of the frame assembly

Go to **Manufacturing > Products > Bills of Materials**, open the bill of materials **Zeta Frame Assembly** and click the **Operations** tab.

> *Path:* `Manufacturing > Products > Bills of Materials > Zeta Frame Assembly > Operations tab`

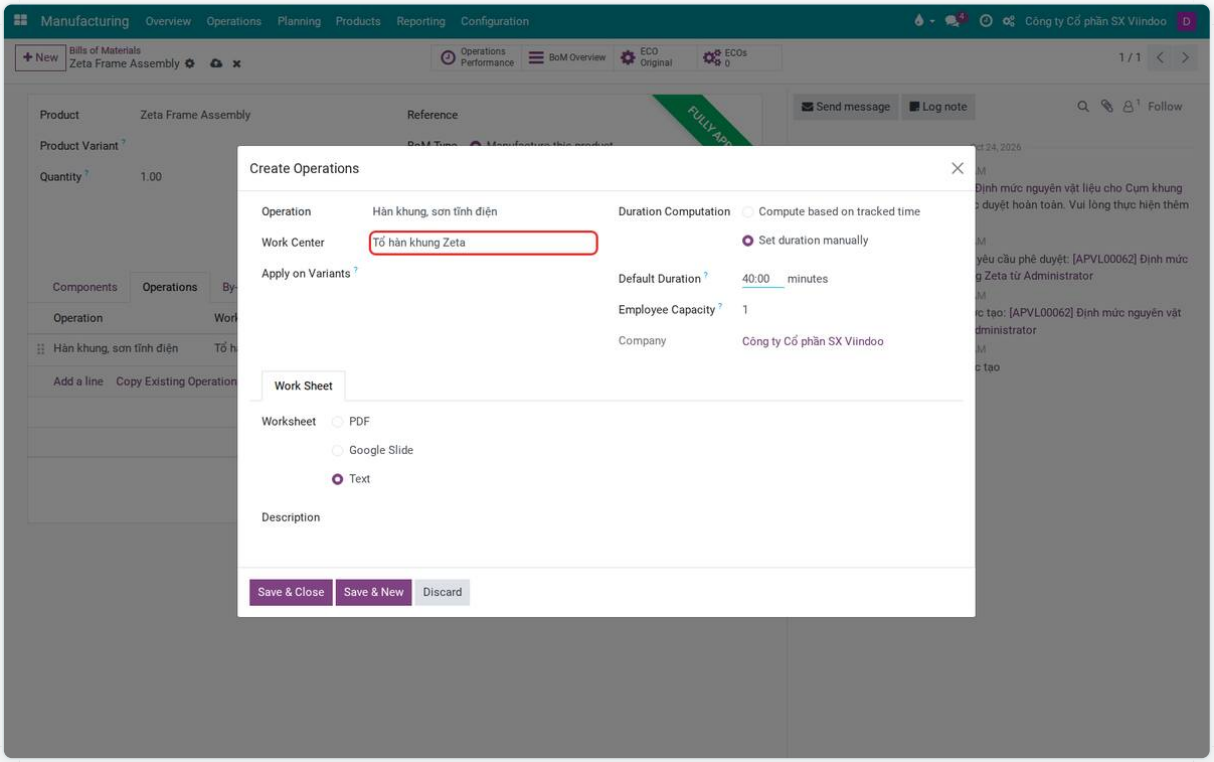


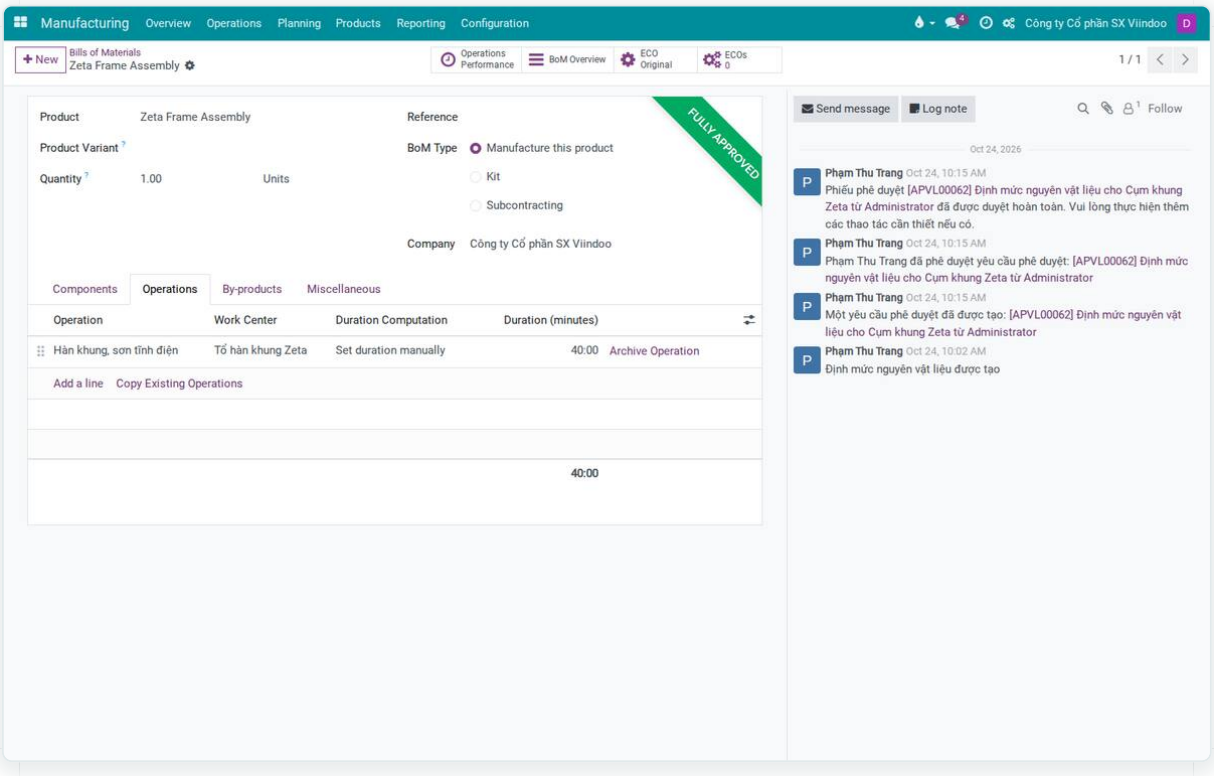
What you should see: the tab is empty, with two buttons **Add a line** and **Copy Existing Operations** (used to take over the whole list of operations of another bill of materials).

Step 5 - Add an operation

Click **Add a line**. In the **Create Operations** dialog: in **Operation** type *Hàn khung, sơn tĩnh điện* (Frame welding and powder coating); in **Work Center** choose *Tổ hàn khung Zeta*; leave **Duration Computation** on **Set duration manually** and in **Default Duration** type 40:00 (40 minutes, assumed); the other boxes (**Apply on Variants**, **Employee Capacity**, the **Work Sheet** tab) stay as they are. Click **Save & Close**, then click **Save manually** on the bill of materials form.

> *Path:* `Manufacturing > Products > Bills of Materials > Zeta Frame Assembly > Operations tab > Add a line`



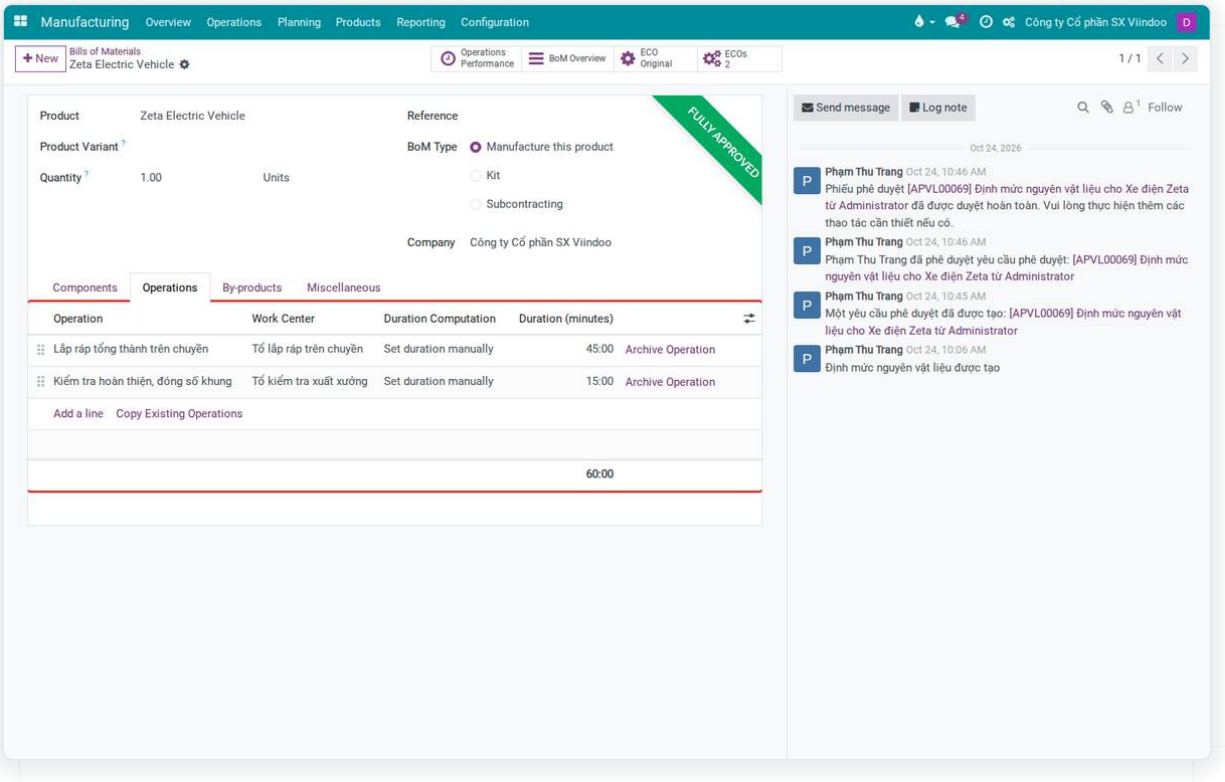


What you should see: one line *Hàn khung, sơn tĩnh điện* of *Tổ hàn khung Zeta*, duration 40:00; the total duration at the bottom of the table is 40:00. The **Duration Computation** box has two ways: *Compute based on tracked time* (taken from the orders already done) and *Set duration manually* (your company enters it).

Step 6 - Add two operations to the bill of materials of the vehicle

Open the bill of materials **Zeta Electric Vehicle**, **Operations** tab. Add: *Lắp ráp tổng thành trên chuyền* (Final assembly on the line) at *Tổ lắp ráp trên chuyền* (Assembly line team) 45:00, click **Save & New**, then *Kiểm tra hoàn thiện, đóng số khung* (Final inspection and frame number stamping) at *Tổ kiểm tra xuất xưởng* (Final inspection team) 15:00, click **Save & Close**. Click **Save manually**.

> *Path:* `Manufacturing > Products > Bills of Materials > Zeta Electric Vehicle > Operations tab`



What you should see: two lines with their stations and durations 45:00 and 15:00; the total at the bottom of the table is 60:00. From now on, a manufacturing order for the Zeta vehicle has operations at these stations, and the labor hours at completion are calculated at the hourly rate of each station.

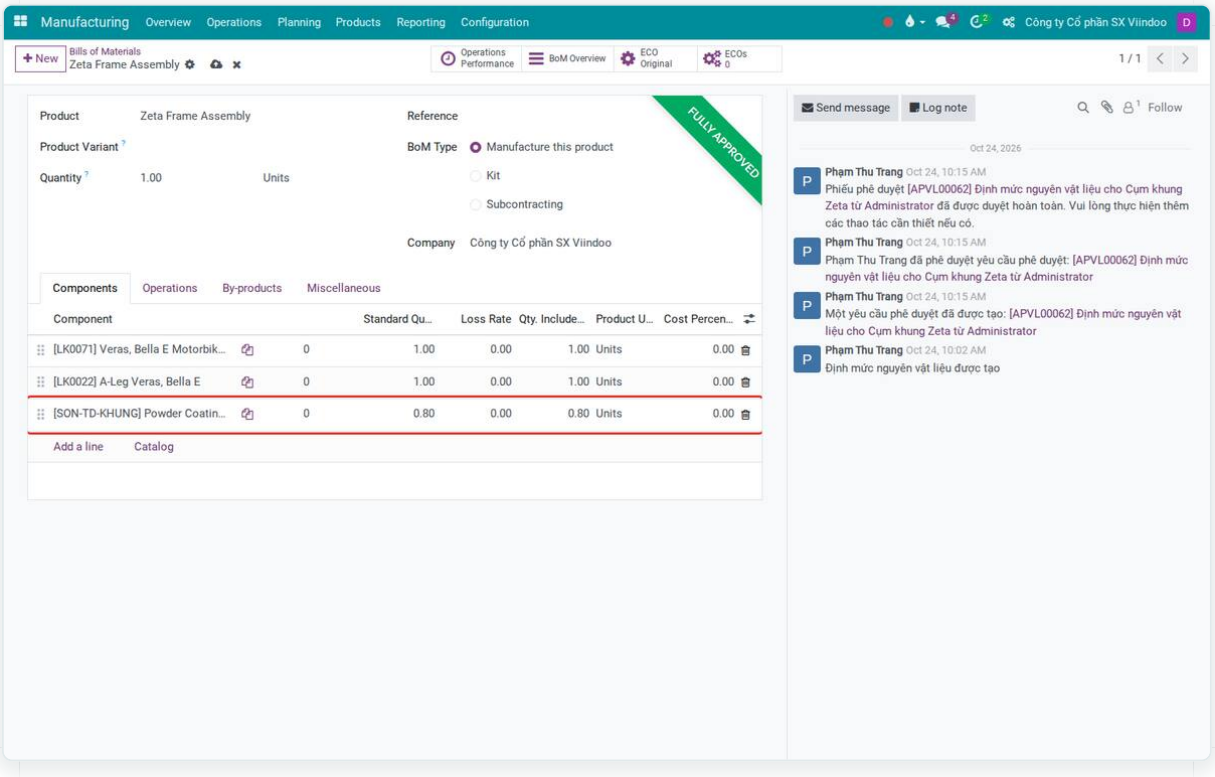
10 STANDARD CONSUMPTION AND LOSS RATE

About 10 minutes. By the end of this lesson your company can declare the loss for one component, and sees that the manufacturing order takes the quantity that already includes the loss.

Step 1 - Open the bill of materials of the frame assembly

Open the bill of materials **Zeta Frame Assembly**, **Components** tab, and find the line **[SON-TD-KHUNG] Powder Coating for Frame (kg)**.

> *Path:* `Manufacturing > Products > Bills of Materials > Zeta Frame Assembly > Components tab`

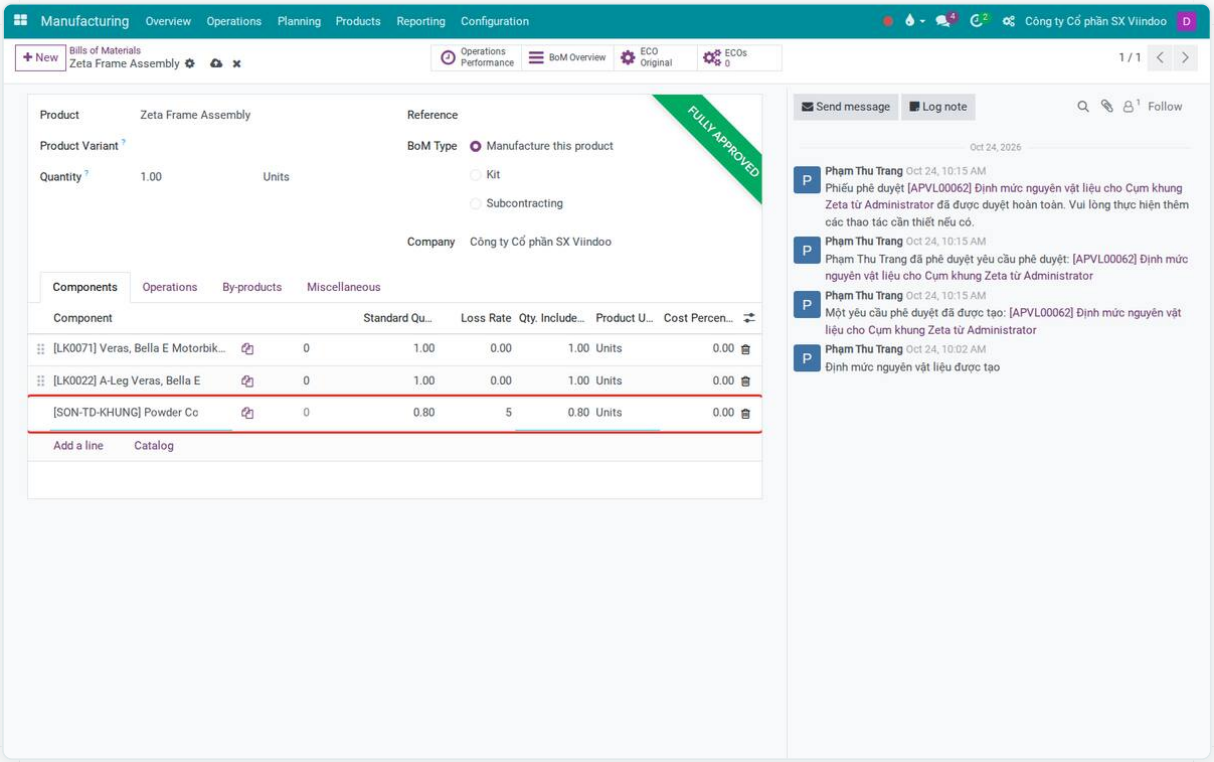


What you should see: the powder coating line has **Standard Quantity** 0.80, a **Loss Rate** column and a third column. The third column (**Quantity**; some views title it **Qty. Included Consumption**) is the **quantity that already includes the loss**; it is the quantity that the manufacturing order will take. On a new bill of materials the line reads 0.80, 0.00 and 0.80; in the picture it already reads 0.80, 5.00 and 0.84.

Step 2 - Enter the loss rate

Click the **Loss Rate** box of the powder coating line and type 5 (meaning 5%).

> *Path:* `Manufacturing > Products > Bills of Materials > Zeta Frame Assembly > Components tab`

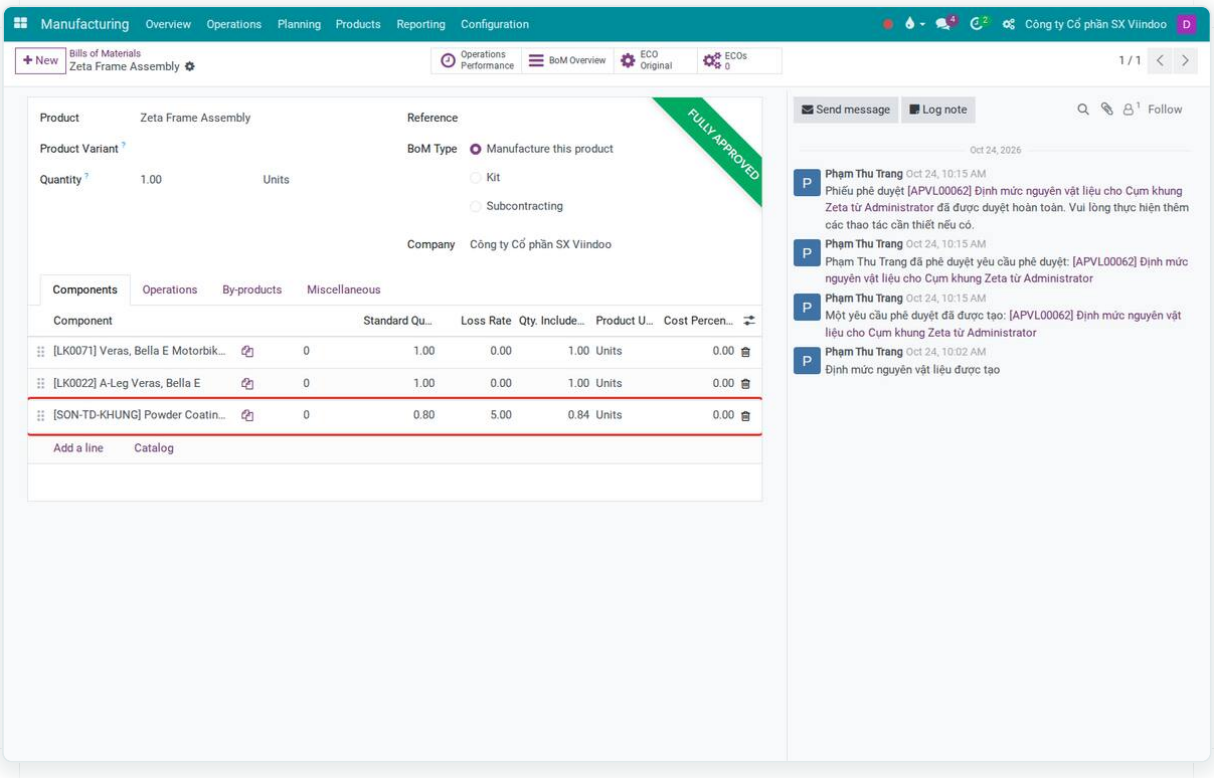


What you should see: the **Loss Rate** box shows 5.

Step 3 - Save and read the result

Click **Save manually**.

> *Path:* `Manufacturing > Products > Bills of Materials > Zeta Frame Assembly`



What you should see: the powder coating line has **Standard Quantity** 0.80, **Loss Rate** 5.00 and the third column changes to **0.84** (0.80 multiplied by 1.05). When an order makes two frame assemblies, the powder coating line of that order needs 1.68 (see the lesson *A sales order generates a make-to-order manufacturing order*, the child order of the frame assembly). After the order is completed, the report *Loss Components Analysis* compares the actual consumption with this standard quantity (see the lesson *Manufacturing engineering reports*).

11 ENGINEERING CHANGE ORDERS (PLM)

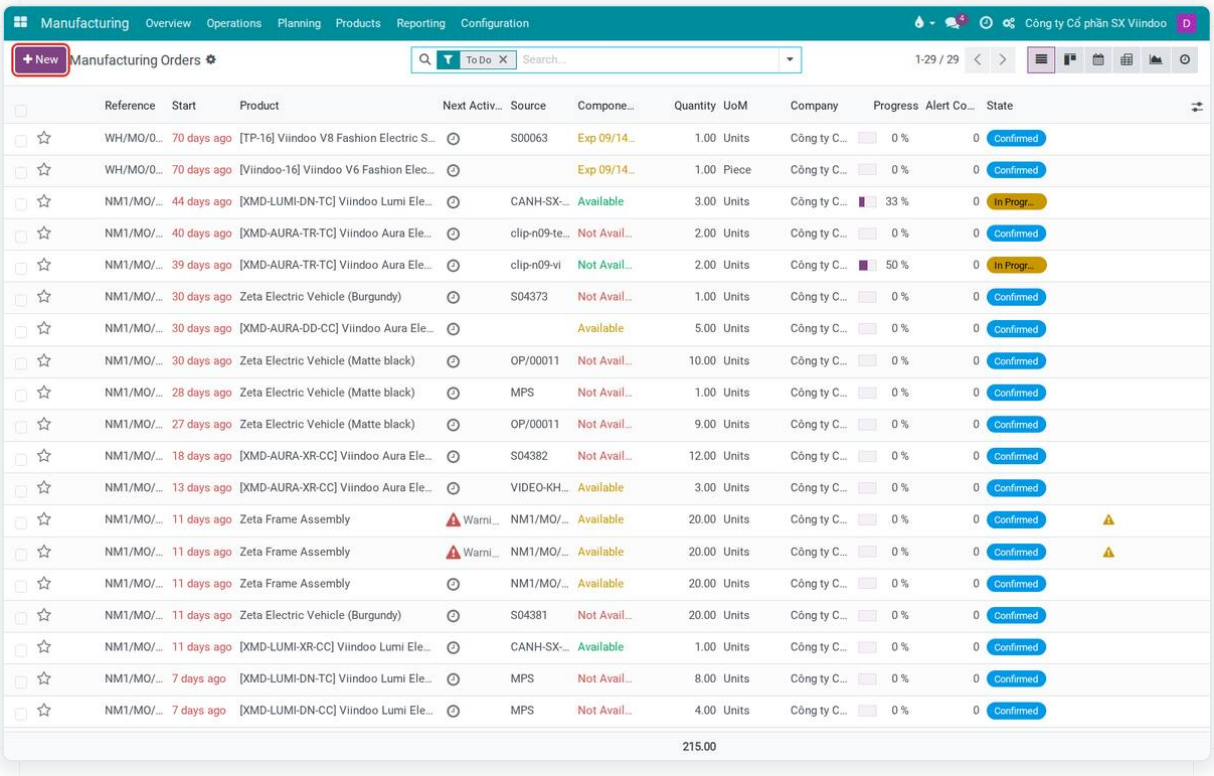
About 40 minutes. By the end of this lesson your company can change one component in a bill of materials, apply the change to a running manufacturing order through an approved engineering change order, and see that the order has changed.

Example: the Zeta vehicle changes to the new charger (LK0143). Your company does two things: makes a new bill of materials *ZETA-V2* with the new charger, then makes an engineering change order so that the running manufacturing order moves to the new bill of materials.

Step 1 - Open the list of manufacturing orders

Go to **Manufacturing > Operations > Manufacturing Orders** and click **New**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders`

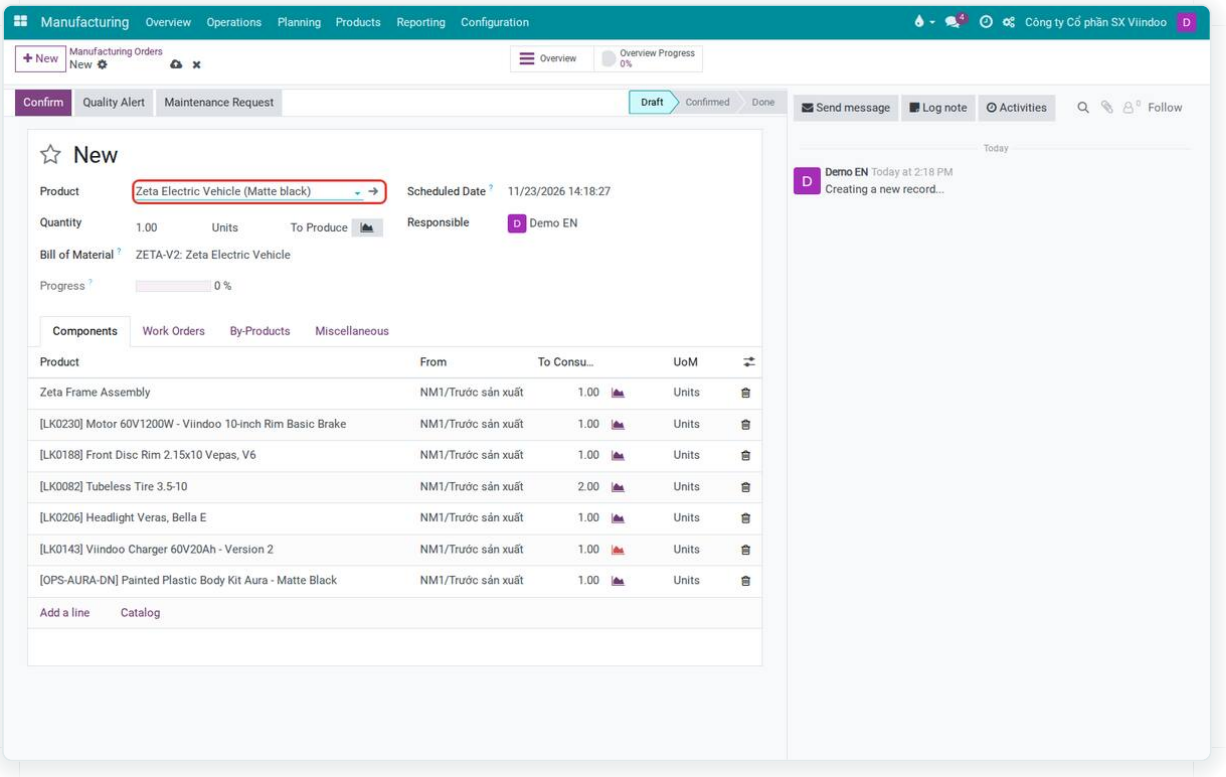


What you should see: the list of manufacturing orders; clicking **New** opens an empty order.

Step 2 - Choose the vehicle to make

In the **Product** box type **Zeta** and choose **Zeta Electric Vehicle (Matte black)**. Leave the quantity at 1.

> *Path:* `Manufacturing > Operations > Manufacturing Orders > New`

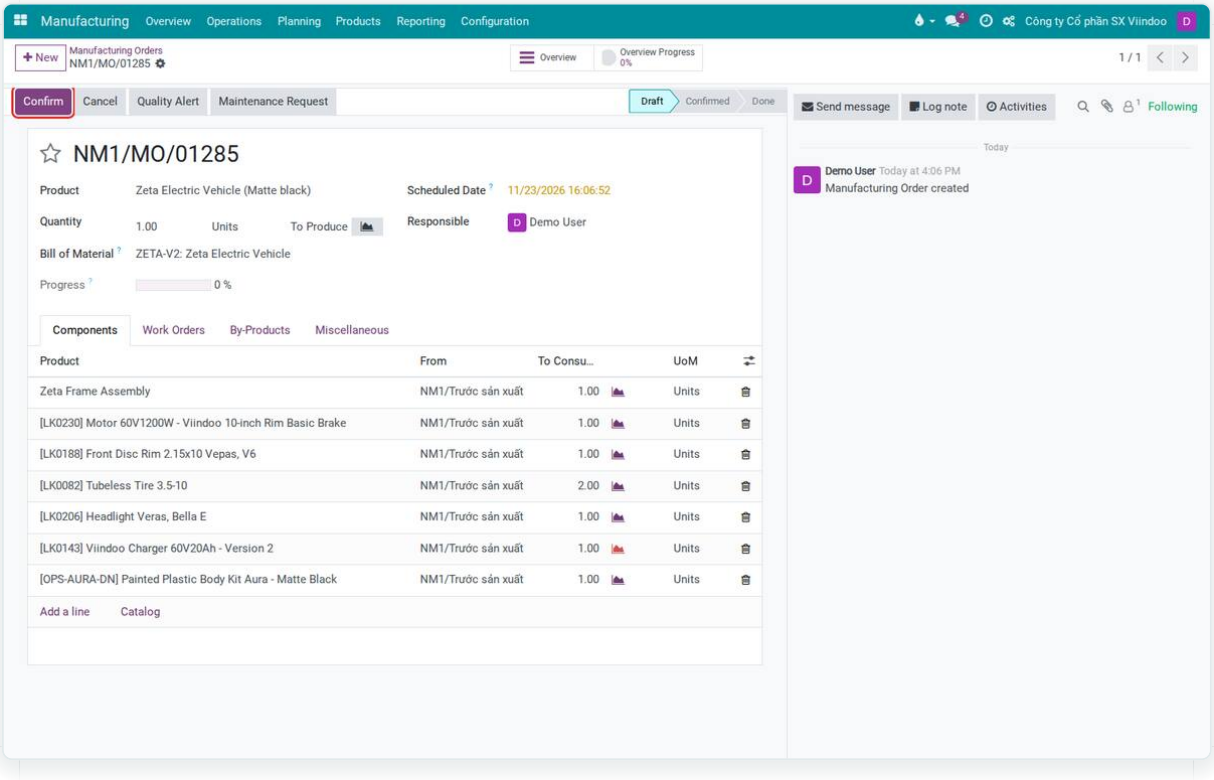


What you should see: the **Product** box is *Zeta Electric Vehicle (Matte black)*; the **Bill of Material** box and the components table fill in by themselves from a bill of materials of the vehicle. If *ZETA-V2* already exists on your system, the order proposes it right away (as in the picture); in that case choose the older bill of materials *Zeta Electric Vehicle* in the **Bill of Material** box, so that the change order below has something to change.

Step 3 - Save the order

Click **Save manually**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders > New`

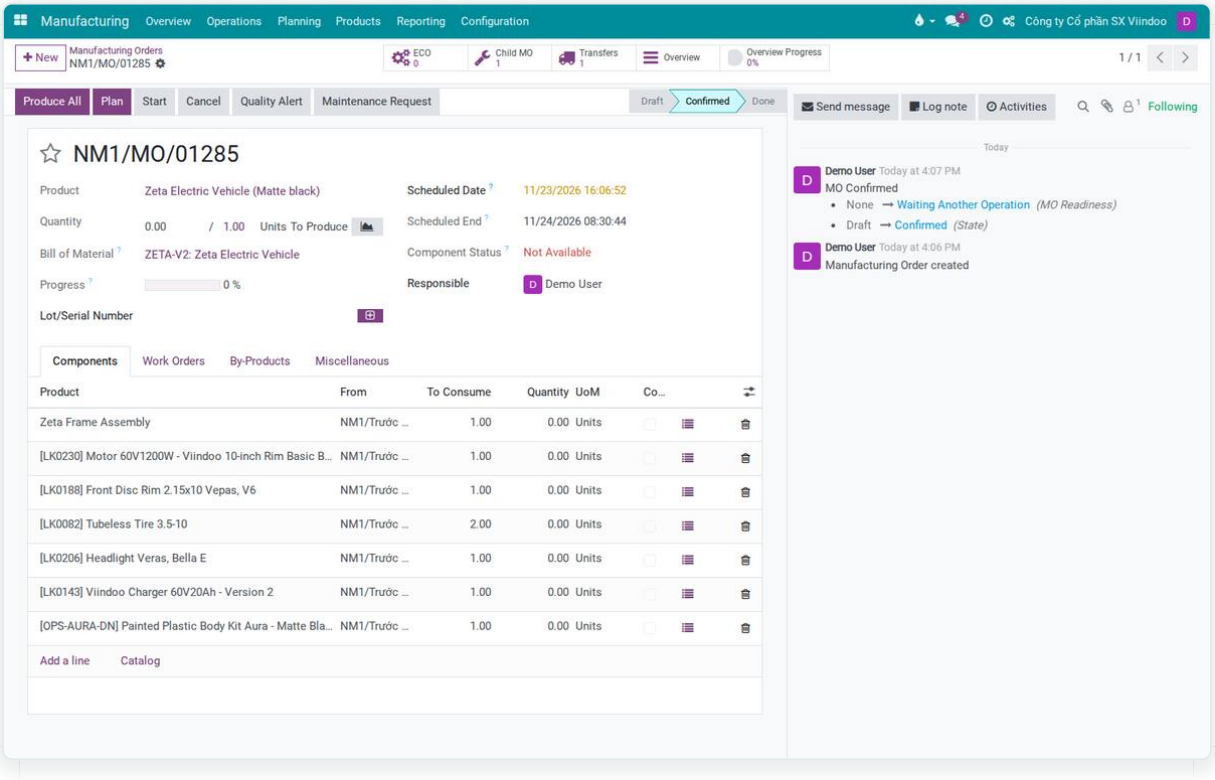


What you should see: the title changes from *New* to an order number like *NM1/MO/...* (*NM1/MO/01285* in the picture), the status is **Draft** and the **Confirm** button is lit.

Step 4 - Confirm the order

Click **Confirm**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/...`

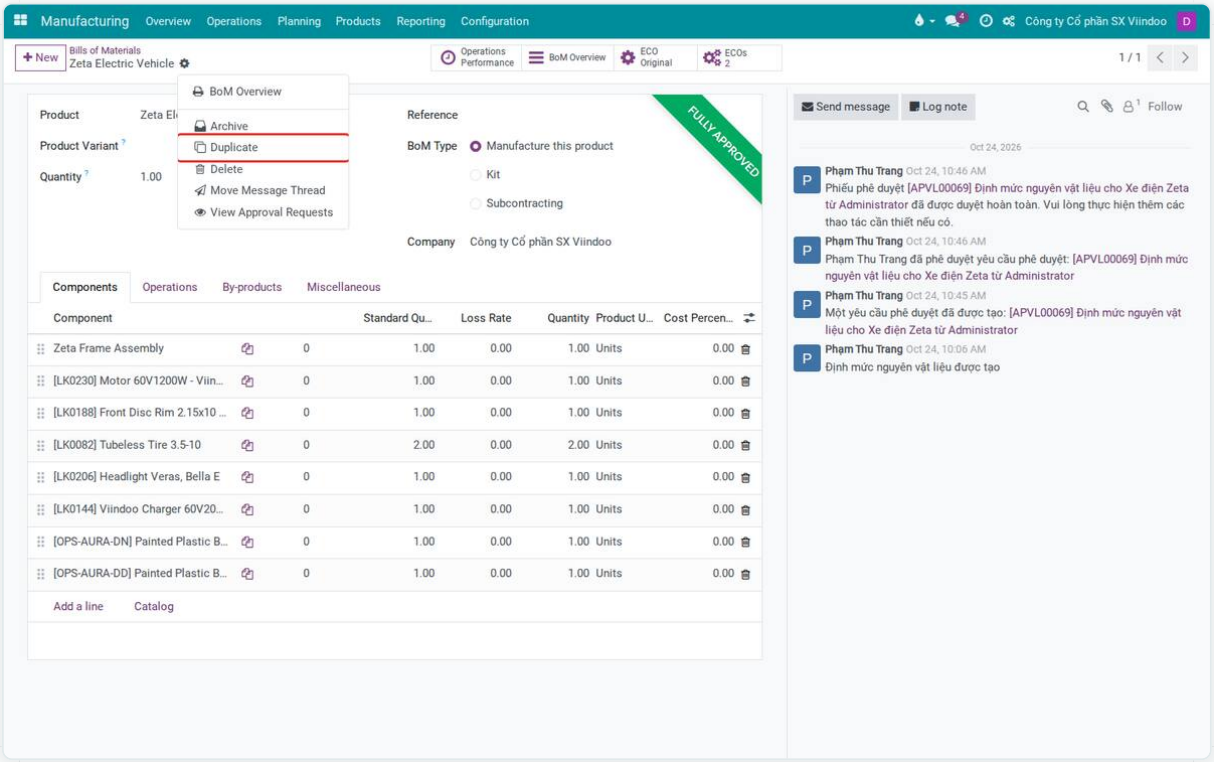


What you should see: the status is **Confirmed**; at the top there are two more smart buttons, **Child MO** (1; the order that makes the frame assembly) and **Transfers** (1); **Component Status** reads *Not Available* because the frame assembly is not yet available.

Step 5 - Duplicate the bill of materials of the vehicle

Go to **Manufacturing > Products > Bills of Materials** and open the bill of materials **Zeta Electric Vehicle**. Click the gear icon **Actions** next to the name and choose **Duplicate**.

> *Path:* `Manufacturing > Products > Bills of Materials > Zeta Electric Vehicle > Actions > Duplicate`

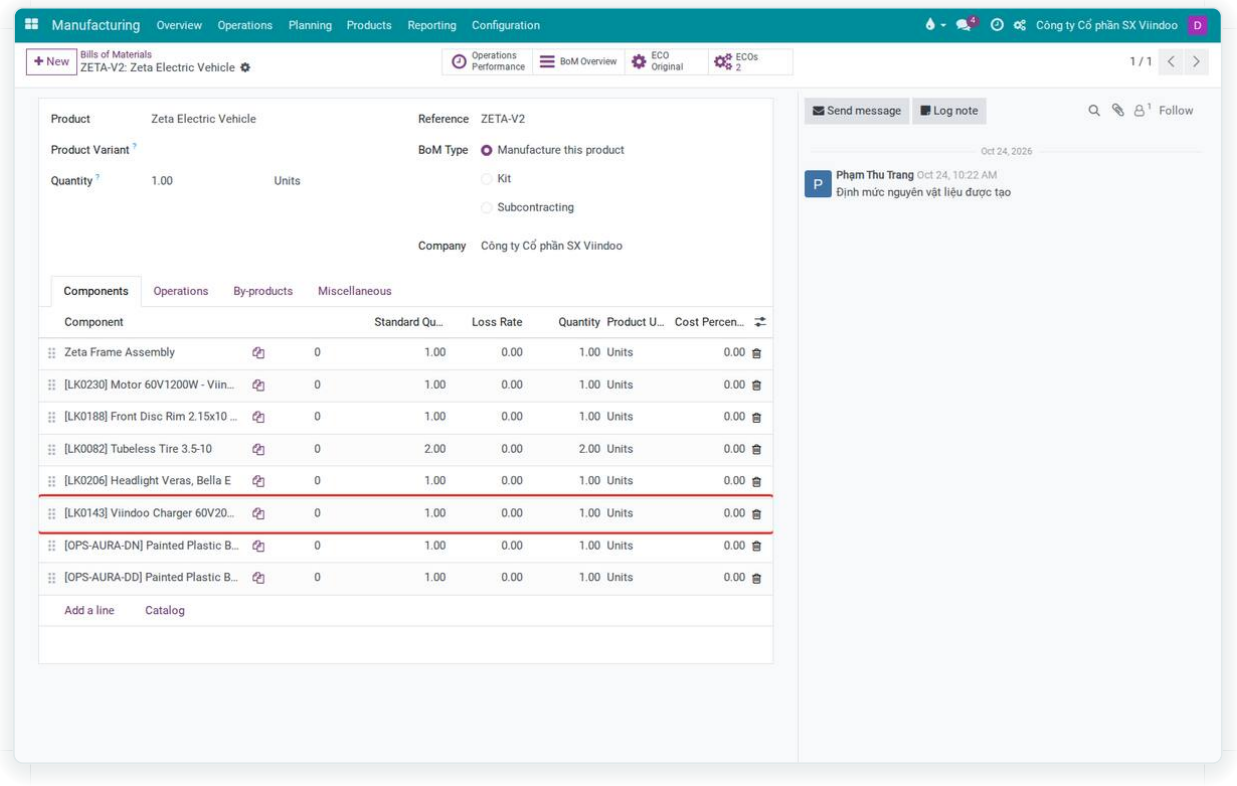


What you should see: the **Actions** menu has **BoM Overview**, **Archive**, **Duplicate**, **Delete**, **Move Message Thread** and **Get Approved**; choosing **Duplicate** opens an unsaved copy.

Step 6 - Set the reference and change the charger

In **Reference** type **ZETA-V2**. On the charger line **LK0144**, click the component box, clear it and type **LK0143**, then choose *[LK0143] Viindoo Charger 60V20Ah - Version 2*.

> *Path:* `Manufacturing > Products > Bills of Materials > Zeta Electric Vehicle > Duplicate`

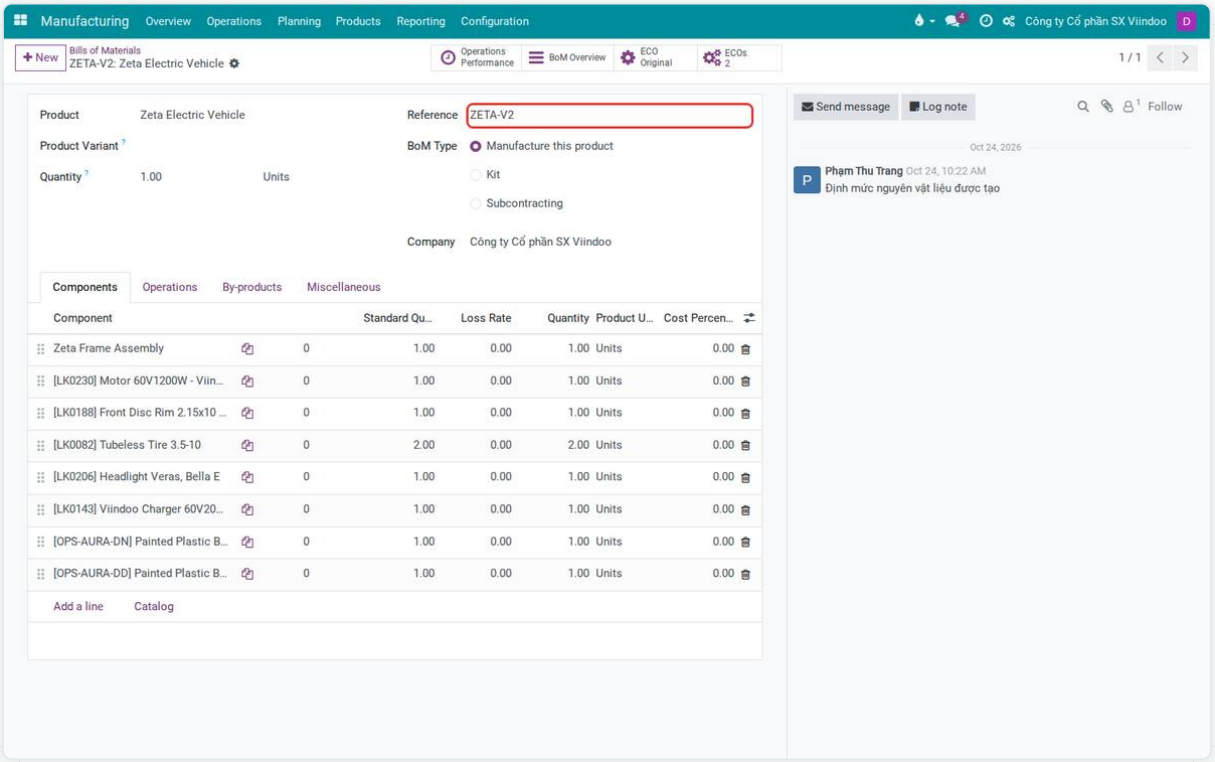


What you should see: the charger line is *[LK0143] Viindoo Charger 60V20Ah - Version 2* (circled in the picture), and the other lines are unchanged.

Step 7 - Save the new bill of materials

Click **Save manually**.

> *Path:* `Manufacturing > Products > Bills of Materials > ZETA-V2: Zeta Electric Vehicle`

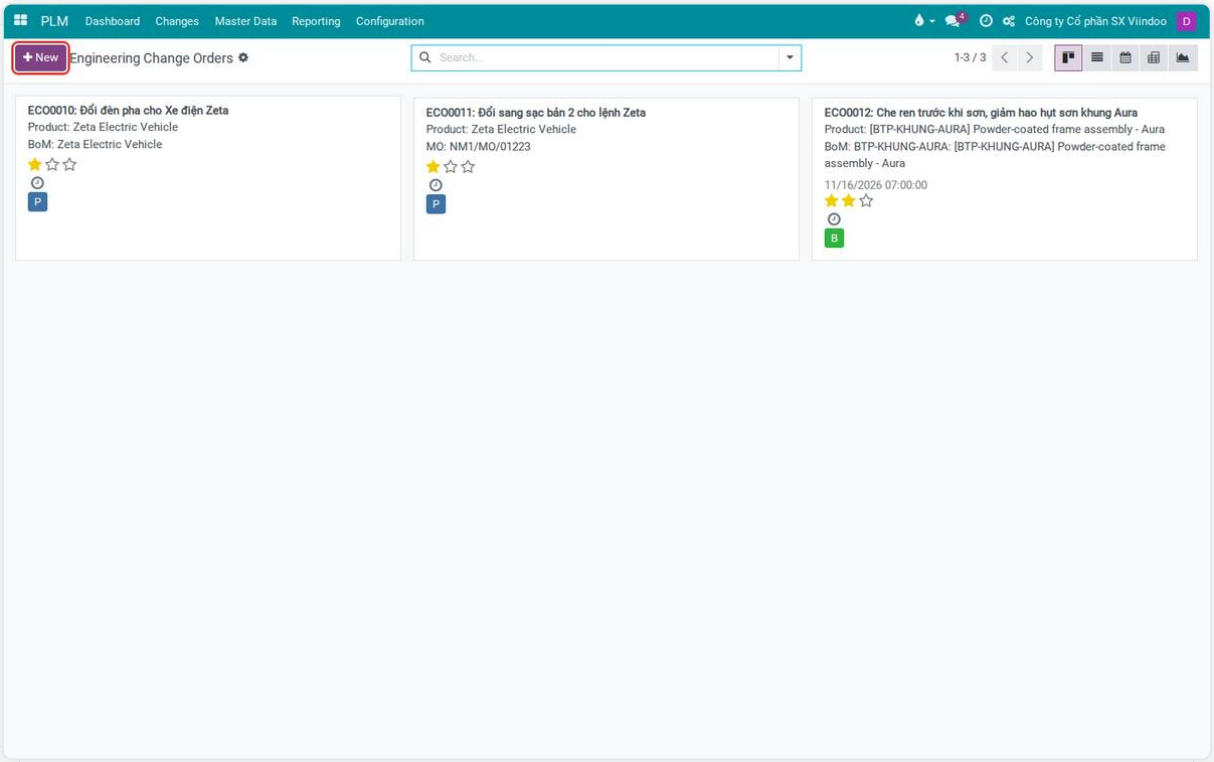


What you should see: the title *ZETA-V2: Zeta Electric Vehicle*; the product Zeta Electric Vehicle now has two bills of materials. From here on, when you create a new order for the vehicle, look at the **Bill of Material** box on the order to see which bill of materials the system took (if you no longer want the old one, **Archive** the old bill of materials).

Step 8 - Open the list of engineering change orders

Go to **PLM > Changes > Engineering Change Orders** and click **New**.

> *Path:* `PLM > Changes > Engineering Change Orders`

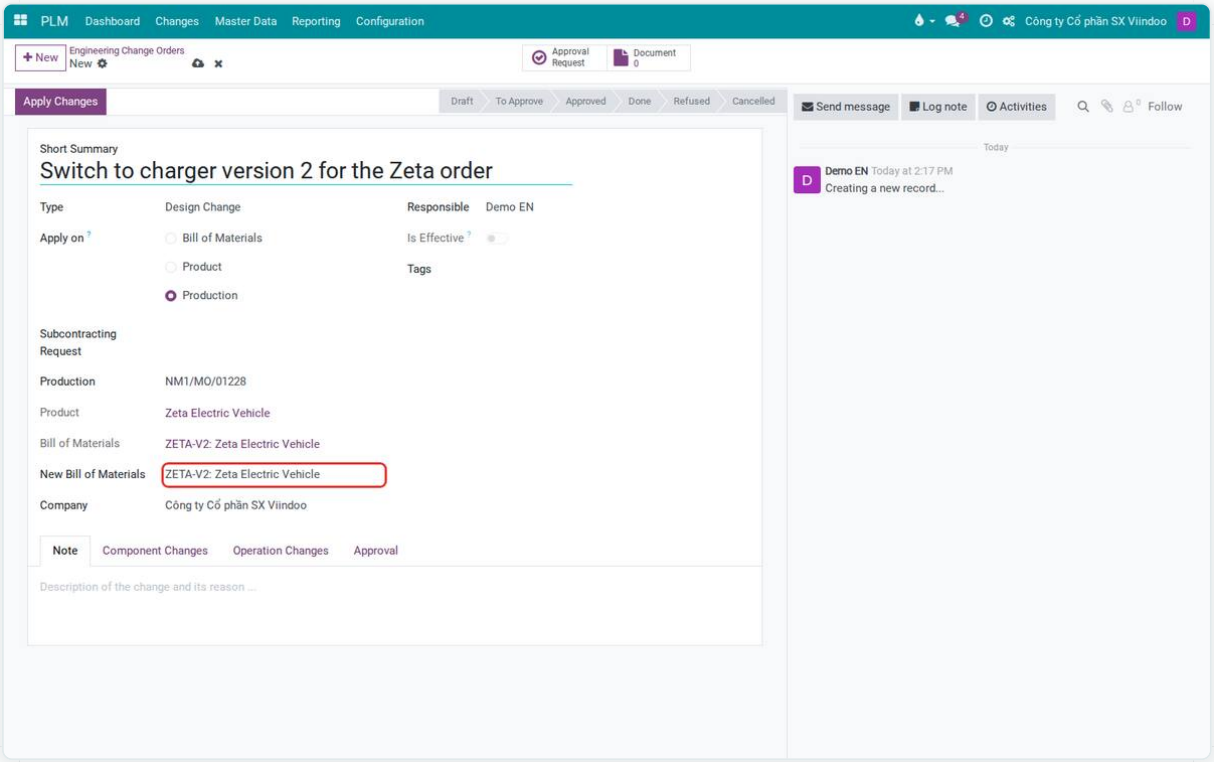


What you should see: the list (it may already hold a few orders as cards); clicking **New** opens an empty order with the statuses **Draft, To Approve, Approved, Done, Refused, Cancelled**.

Step 9 - Fill in the engineering change order

Fill in: **Short Summary** *Switch to the new charger for the Zeta order*; **Type** *Design Change*; **Apply on** choose **Production**; **Production** choose the manufacturing order from steps 1 to 4 (*NM1/MO/01228* in the picture); **New Bill of Materials** choose **ZETA-V2: Zeta Electric Vehicle**.

> *Path:* `PLM > Changes > Engineering Change Orders > New`

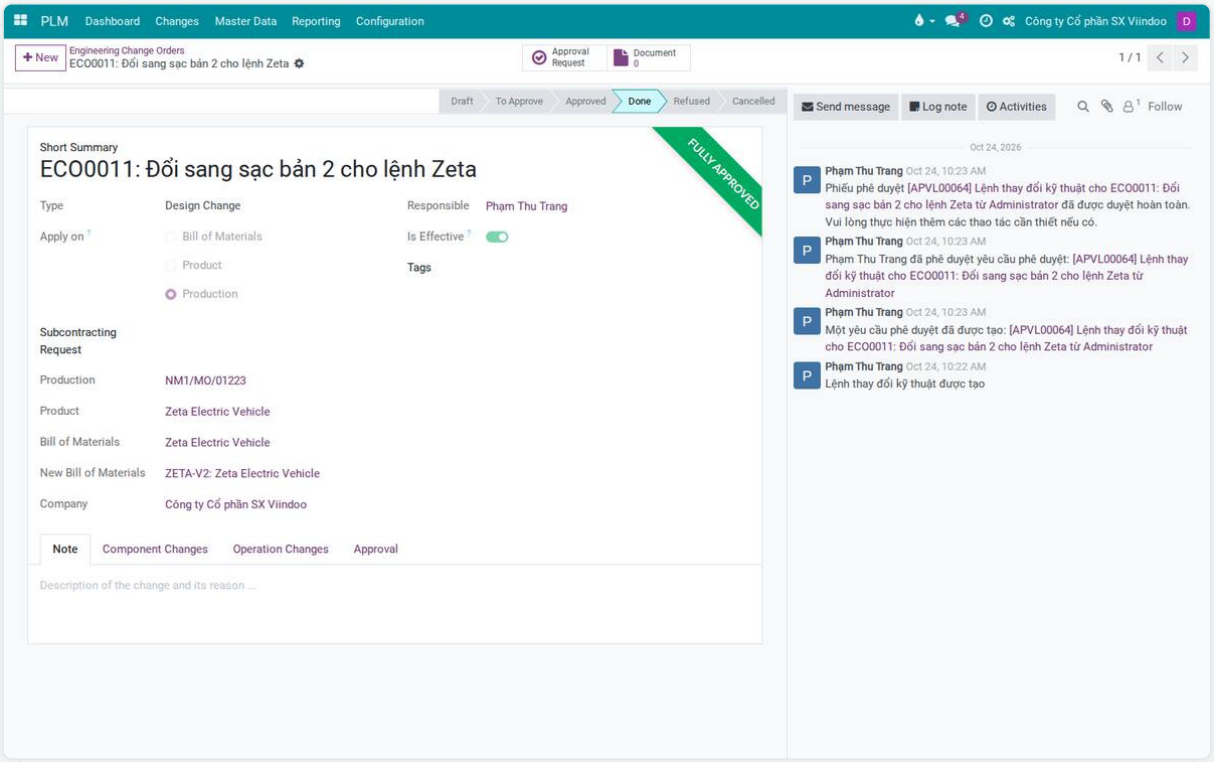


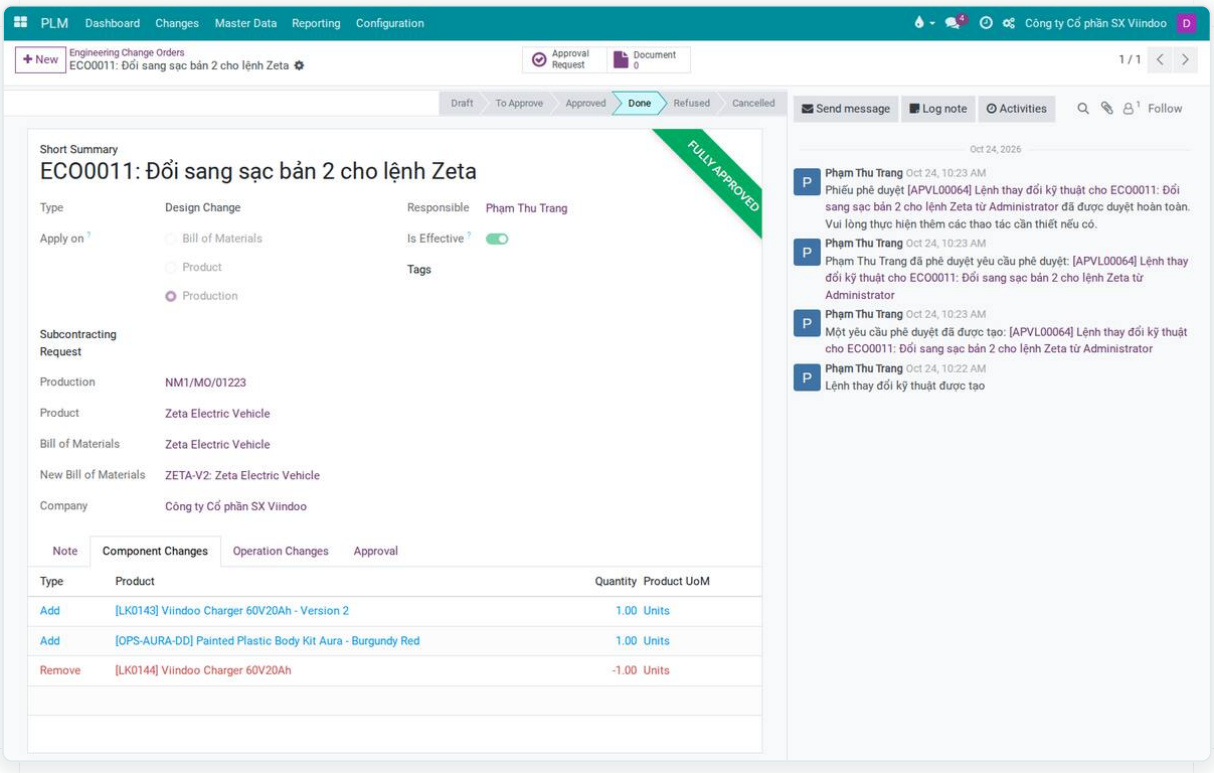
What you should see: Product and **Bill of Materials** (the current bill of materials) fill in from the manufacturing order; the **New Bill of Materials** box is *ZETA-V2: Zeta Electric Vehicle*. The three choices of **Apply on** are *Bill of Materials*, *Product* and *Production*; this lesson uses *Production* because the goal is to change a running order. The status bar shows *Draft, To Approve, Approved, Done, Refused, Cancelled*, the button **Apply Changes** is at the top left and the smart buttons **Approval Request** and **Document** are at the top.

Step 10 - Save and view the component changes

Click **Save manually**, then click the **Component Changes** tab.

> *Path:*
> `PLM > Changes > Engineering Change Orders > ECO... > Component Changes tab`



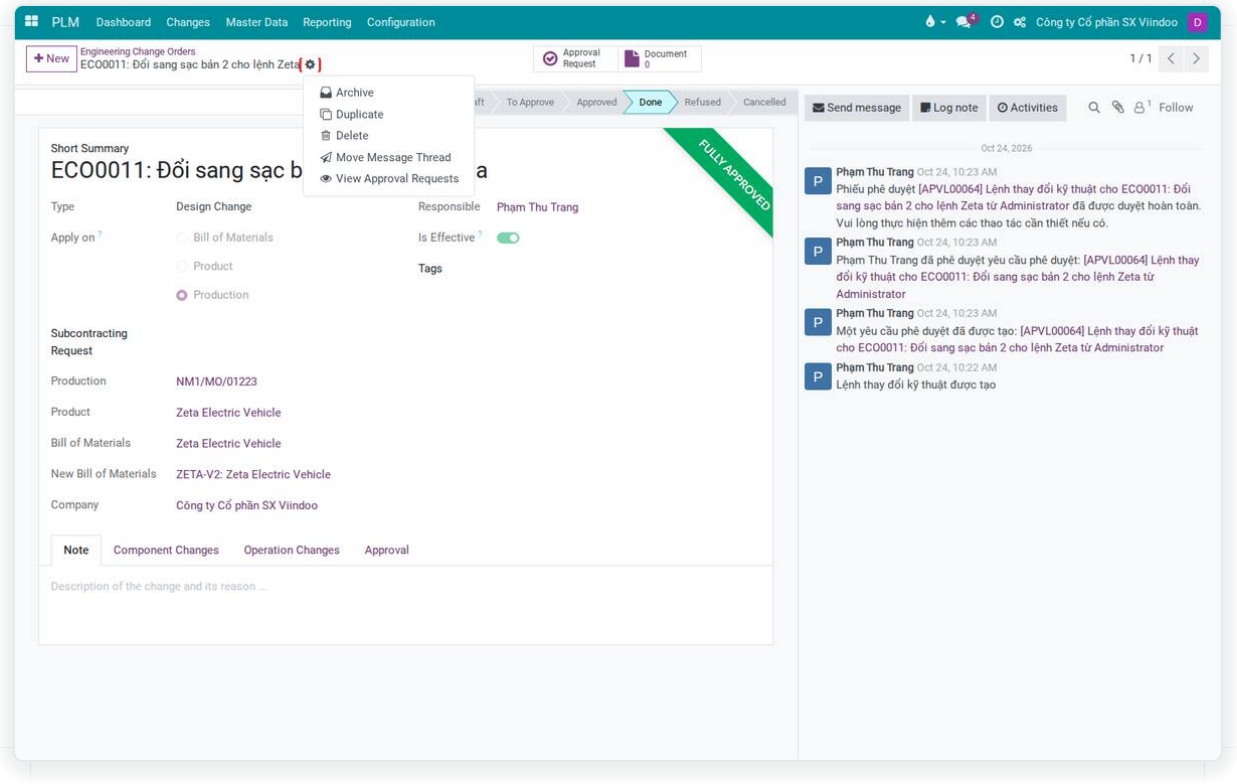


What you should see: the order number has the prefix *ECO...* (*ECO0011* in the picture, with the status bar on **Done**, the **Is Effective** switch on and a green **FULLY APPROVED** ribbon); the comparison table (columns **Type**, **Product**, **Quantity**, **Product UoM**) says *Add* for the new charger and *Remove* for the charger LK0144 (negative quantity -1.00). The table also lists the Burgundy Red body kit line with *Add*; when the change is applied to the order, only the kit of the order's own colour is used (see step 17).

Step 11 - Send the change order for approval

Click the gear icon **Actions** next to the name of the engineering change order.

> *Path:* `PLM > Changes > Engineering Change Orders > ECO... > Actions`

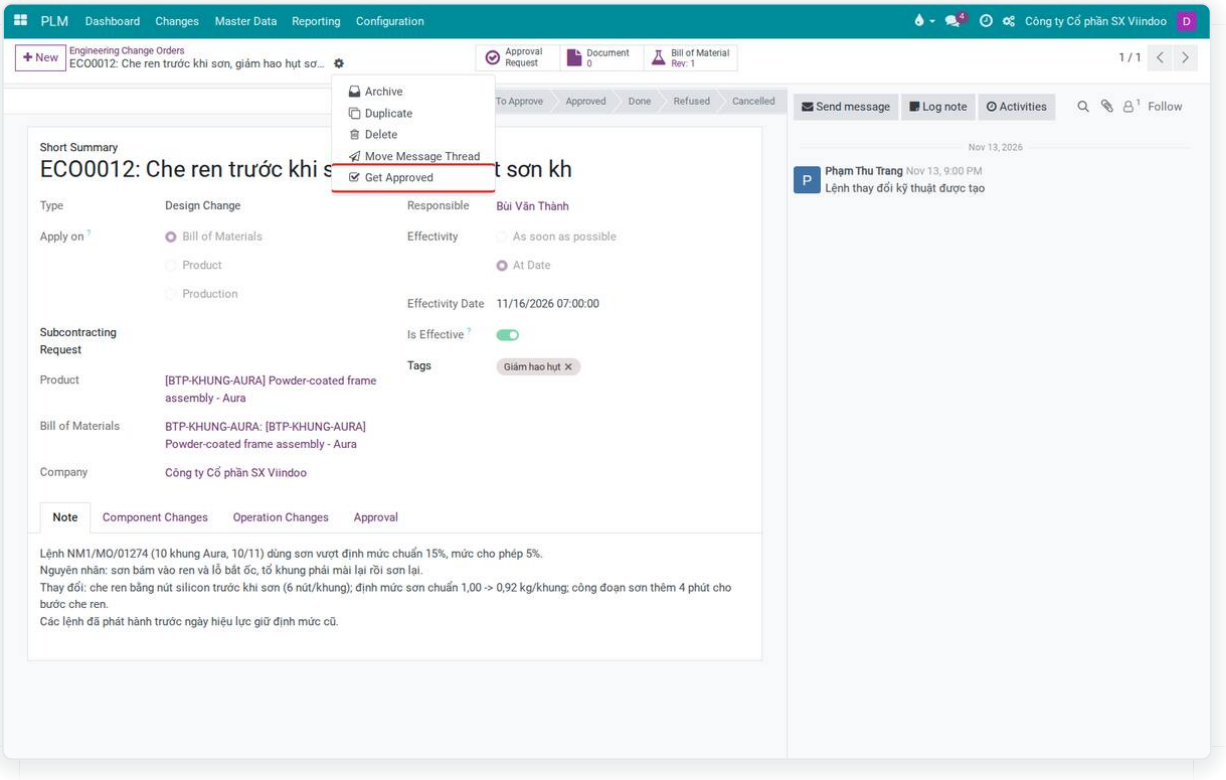


What you should see: the gear icon is circled; the menu has the lines **Archive**, **Duplicate**, **Delete**, **Move Message Thread** and **Get Approved**.

Step 12 - Choose Get Approved

Click **Get Approved**.

> *Path:* `PLM > Changes > Engineering Change Orders > ECO... > Actions > Get Approved`

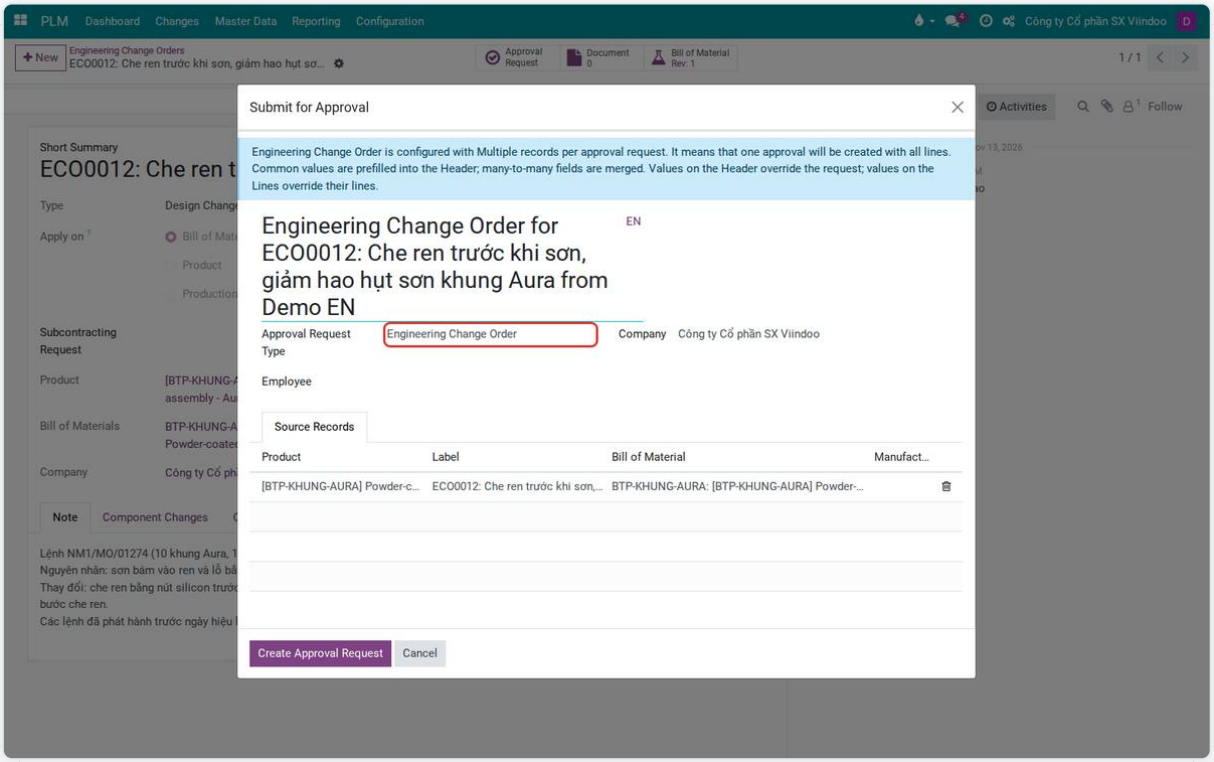


What you should see: the dialog **Submit for Approval** opens.

Step 13 - Create the approval request

In the dialog, **Approval Request Type** is *Engineering Change Order*. Click **Create Approval Request**.

> *Path:* `PLM > Changes > Engineering Change Orders > ECO... > Actions > Get Approved`

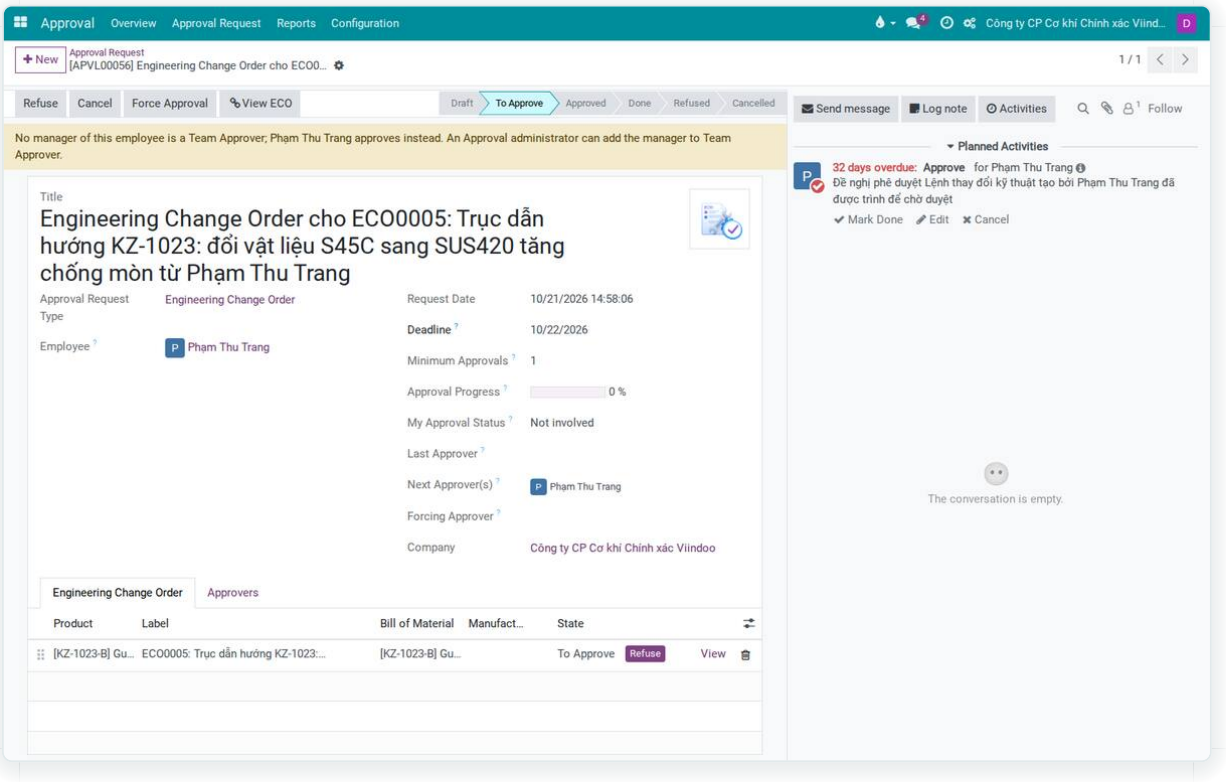


What you should see: the dialog has a blue note that one approval is created with all the lines (*Multiple records per approval request*), a title like *Engineering Change Order for ECO0012: ... from* , and lists the change order under **Source Records**; when you finish, an approval request opens in the status **Draft** with a **Submit** button (picture in the next step).

Step 14 - Submit the request

Click **Submit**.

> *Path:* `Approval > Approval Request > Request > [APVL...] Engineering Change Order for ECO...`

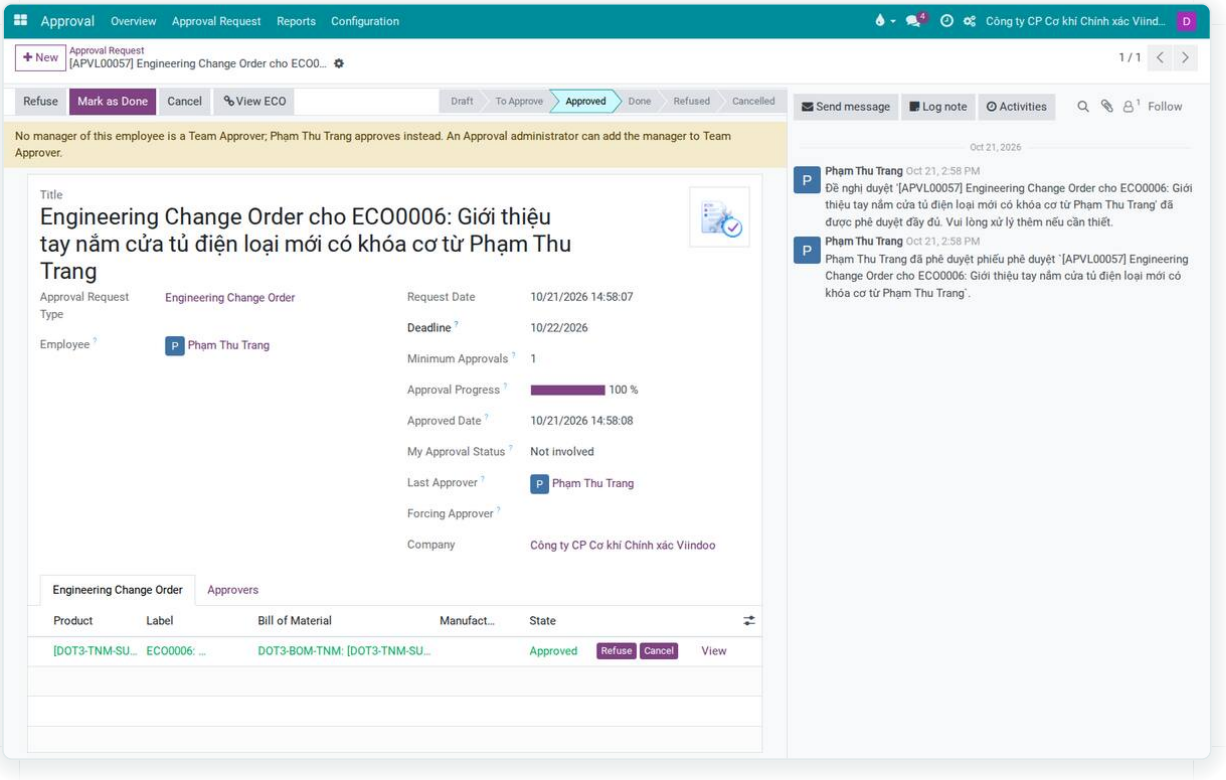


What you should see: the status changes to **To Approve**, **Next Approver(s)** is *Phạm Thu Trang* and **Minimum Approvals** is 1; the buttons **Refuse**, **Cancel** and **View ECO** appear, together with **Approve** for an approver (in the picture **Force Approval** is shown instead, because the logged-in account is not in the approver list). The yellow warning reads *No manager of this employee is a Team Approver; Phạm Thu Trang approves instead. An Approval administrator can add the manager to Team Approver.* It means that no manager of the employee who submits the request is a team approver, so the request goes to the approver who has been declared. The request lines at the bottom show the change order with the state *To Approve*. The request in the picture is in the company *Công ty CP Cơ khí Chính xác Viindoo*.

Step 15 - Approve the request

The approver clicks **Approve**. The account of your company in the trial version is exactly an approver of this kind.

> *Path:* `Approval > Approval Request > Request > [APVL...] Engineering Change Order for ECO...`

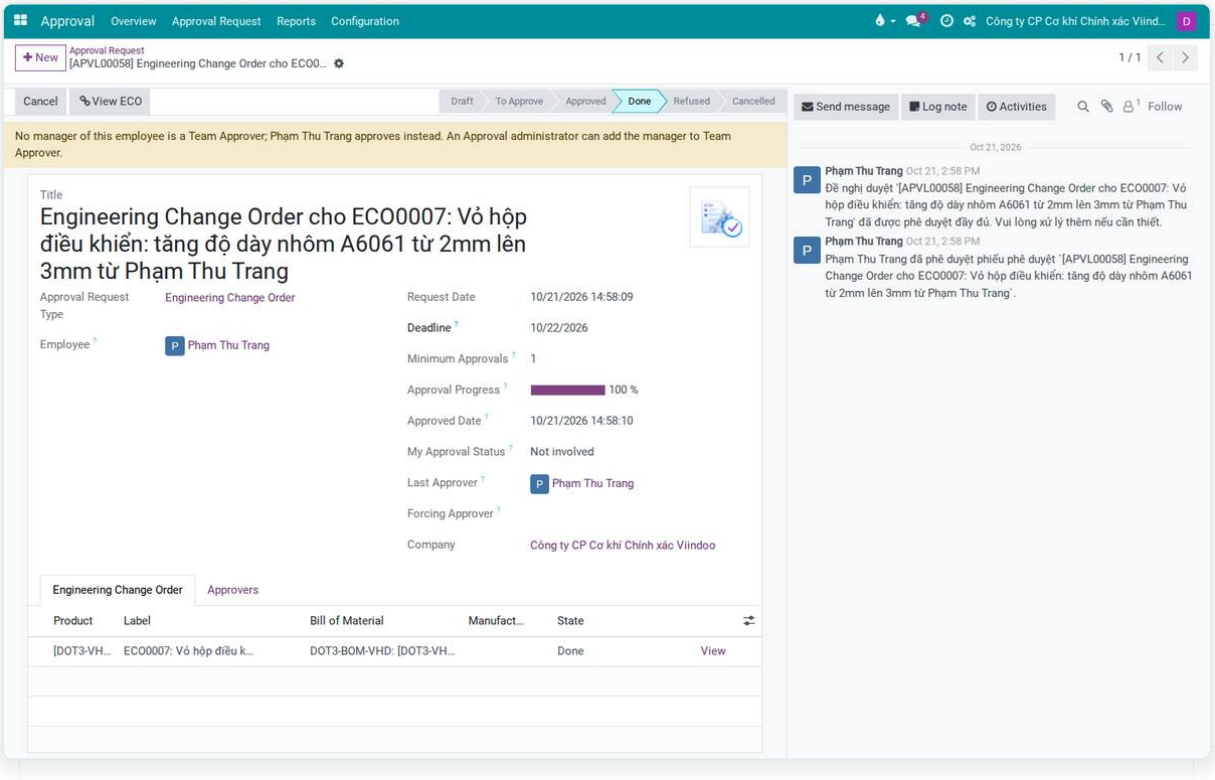


What you should see: the status is **Approved**, **Approval Progress** is 100% and **Approved Date** has a date and time; the buttons **Refuse**, **Mark as Done**, **Cancel** and **View ECO** appear.

Step 16 - Mark as done to apply the change

Click **Mark as Done**. This is the step that makes the engineering change order take effect.

> *Path:* `Approval > Approval Request > Request > [APVL...] Engineering Change Order for ECO...`

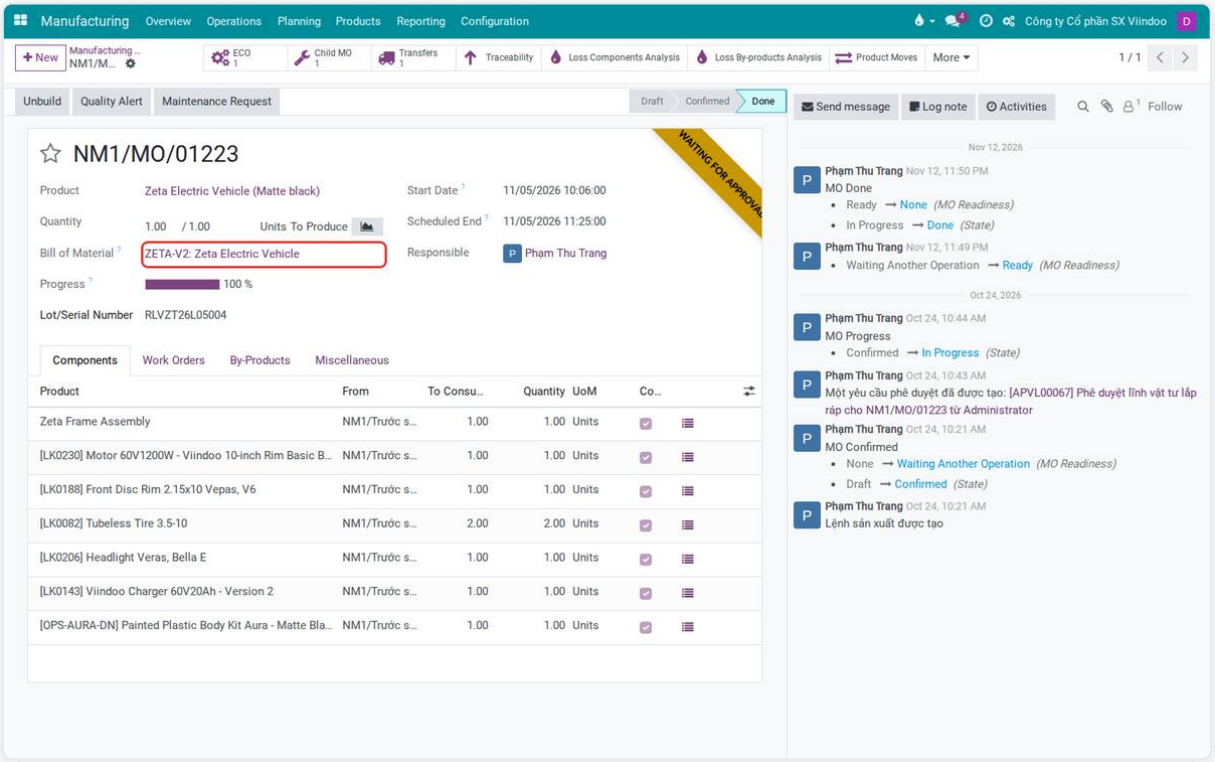


What you should see: the request status is **Done**; only **Cancel** and **View ECO** remain; the chatter has the line *Approved → Done*.

Step 17 - Check that the manufacturing order has changed

Open the manufacturing order from steps 1 to 4 again.

> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/...`

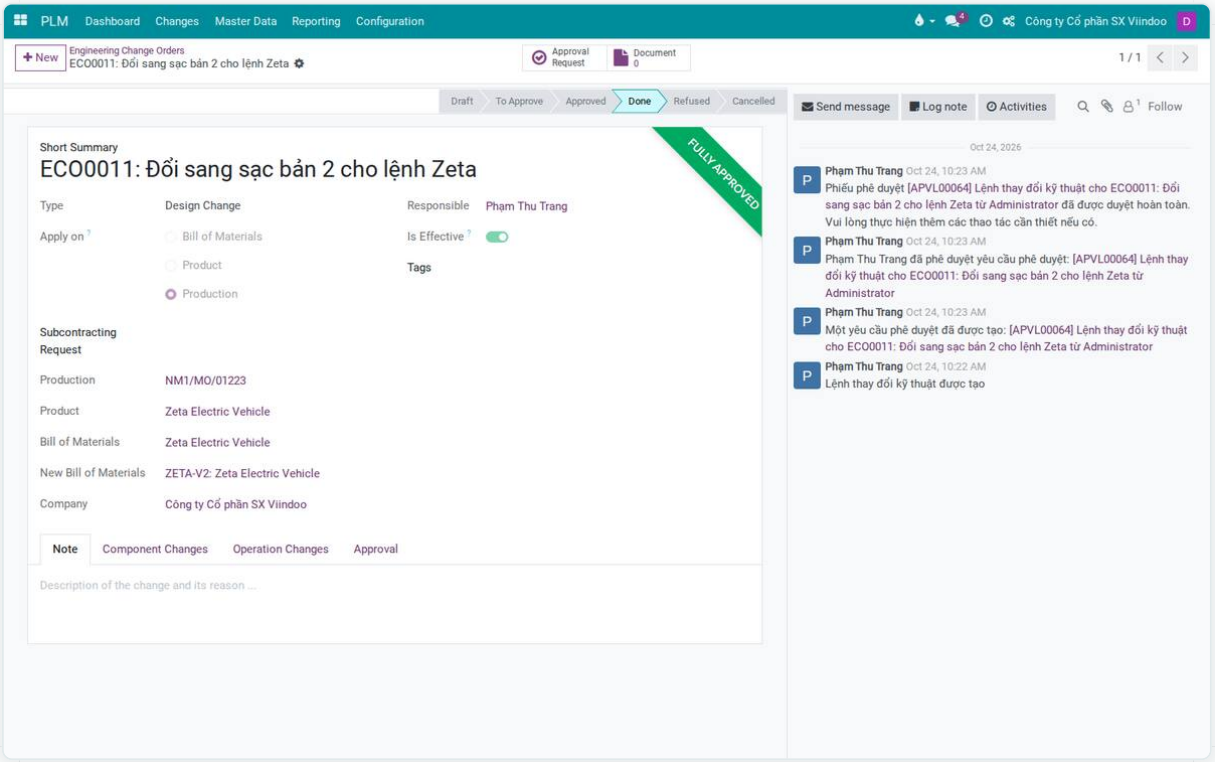


What you should see: the **Bill of Material** box has changed to *ZETA-V2: Zeta Electric Vehicle* (circled in the picture; the order is *NM1/MO/01223* there); in the components table the line *[LK0143] Viindoo Charger 60V20Ah - Version 2* replaces the old charger; the body kit is still *Aura - Matte Black*, the right colour for the order. The **ECO** smart button shows 1.

Step 18 - View the engineering change order after it is applied

Open the engineering change order again.

> *Path:* `PLM > Changes > Engineering Change Orders > ECO...`



What you should see: the status bar on *Done*, the **Is Effective** switch on, the green **FULLY APPROVED** ribbon, and the chatter records the status changes.

> **Good to know.** The **Apply on: Bill of Materials** option (to change the common bill of materials for later orders) on this trial system goes through approval and can be marked as done, but the system does not create a new revision of the bill of materials, so the bill of materials does not change by itself. To change the bill of materials for later orders, your company duplicates the bill of materials as in steps 5 to 7 and then **Archive**s the old bill of materials; the engineering change order of the type **Production** is used to change the orders that are running, as in this lesson.

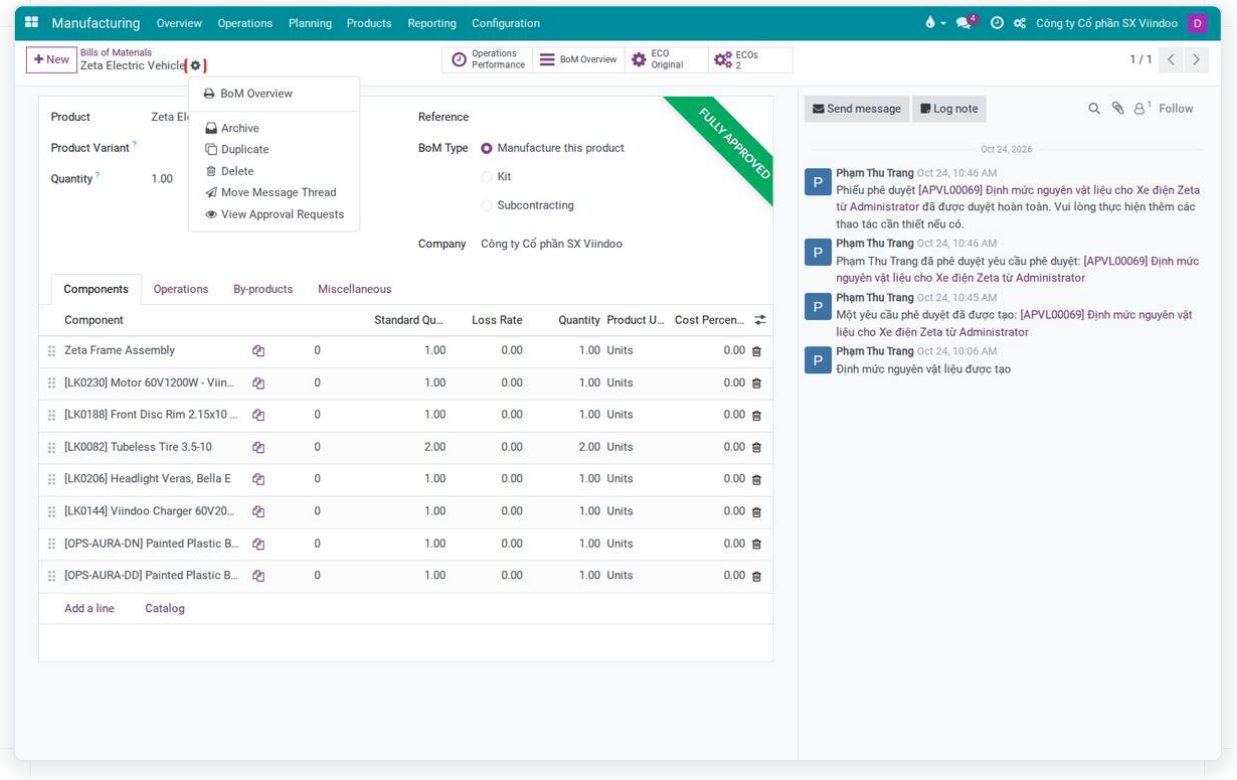
12 SUBMITTING A BILL OF MATERIALS FOR APPROVAL

About 5 minutes. By the end of this lesson your company has sent the bill of materials *ZETA-V2: Zeta Electric Vehicle* for approval. How the approver approves is covered in Part XI. Approvals (lesson *Submitting and approving an approval request*).

Step 1 - Open the bill of materials to approve

Open the bill of materials **ZETA-V2: Zeta Electric Vehicle** and click the gear icon **Actions** next to the name.

> *Path:* `Manufacturing > Products > Bills of Materials > ZETA-V2: Zeta Electric Vehicle > Actions`

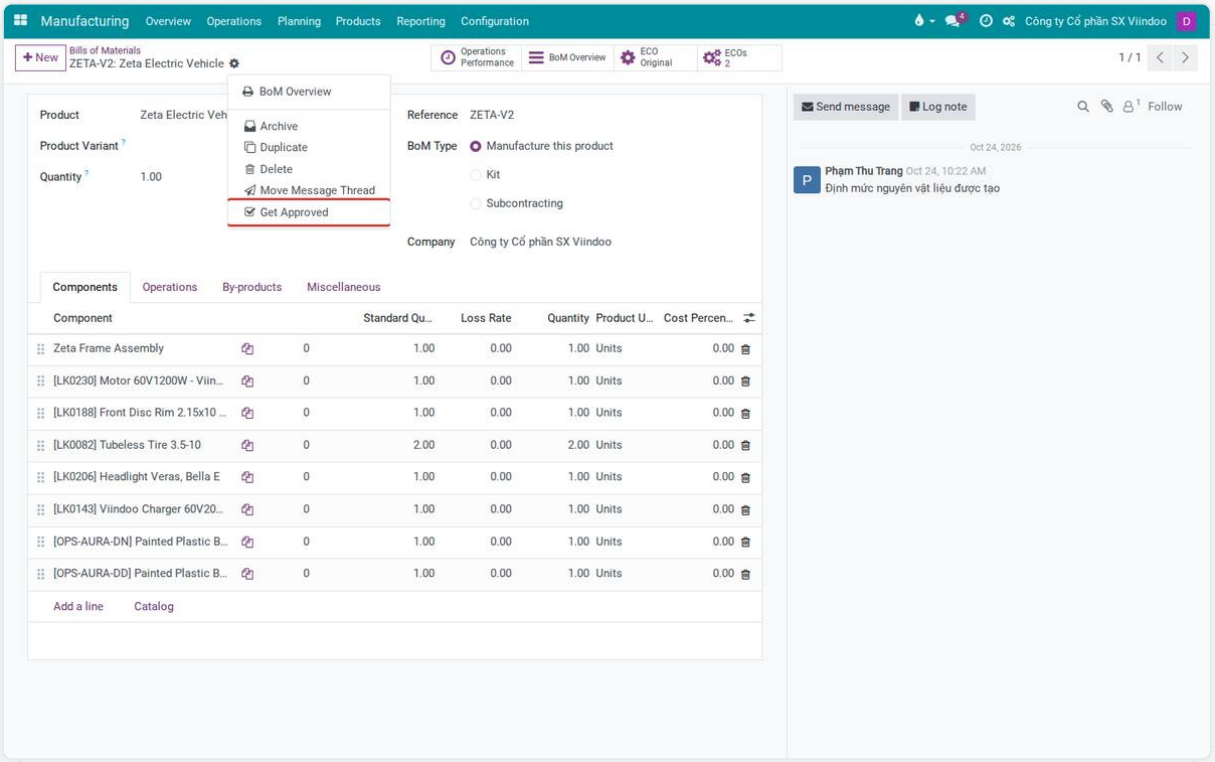


What you should see: the gear icon is circled on the bill of materials *ZETA-V2: Zeta Electric Vehicle*.

Step 2 - Choose Get Approved

Click **Get Approved**.

> *Path:* `Manufacturing > Products > Bills of Materials > ZETA-V2: Zeta Electric Vehicle > Actions > Get Approved`

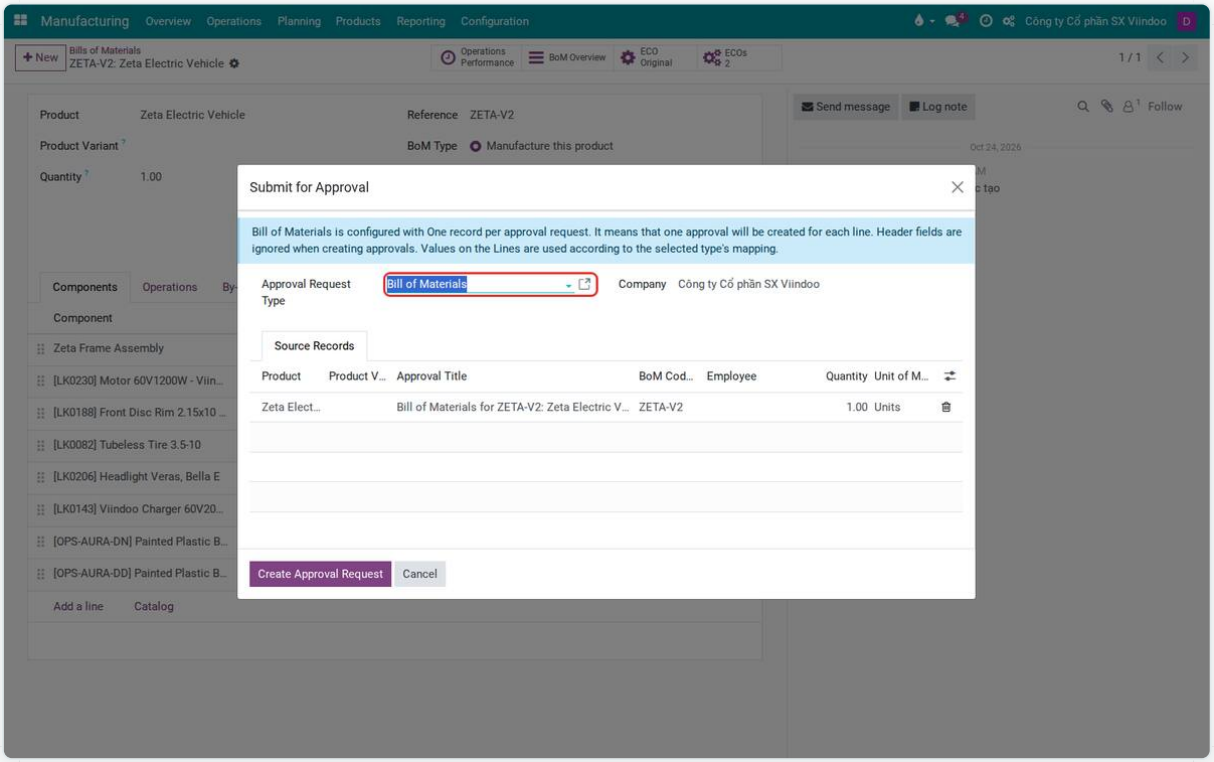


What you should see: the menu opens with the line **Get Approved** circled.

Step 3 - Create the request

In the dialog **Submit for Approval**, **Approval Request Type** is already *Bill of Materials*. Click **Create Approval Request**.

> *Path:* `Manufacturing > Products > Bills of Materials > ZETA-V2: Zeta Electric Vehicle > Actions > Get Approved`

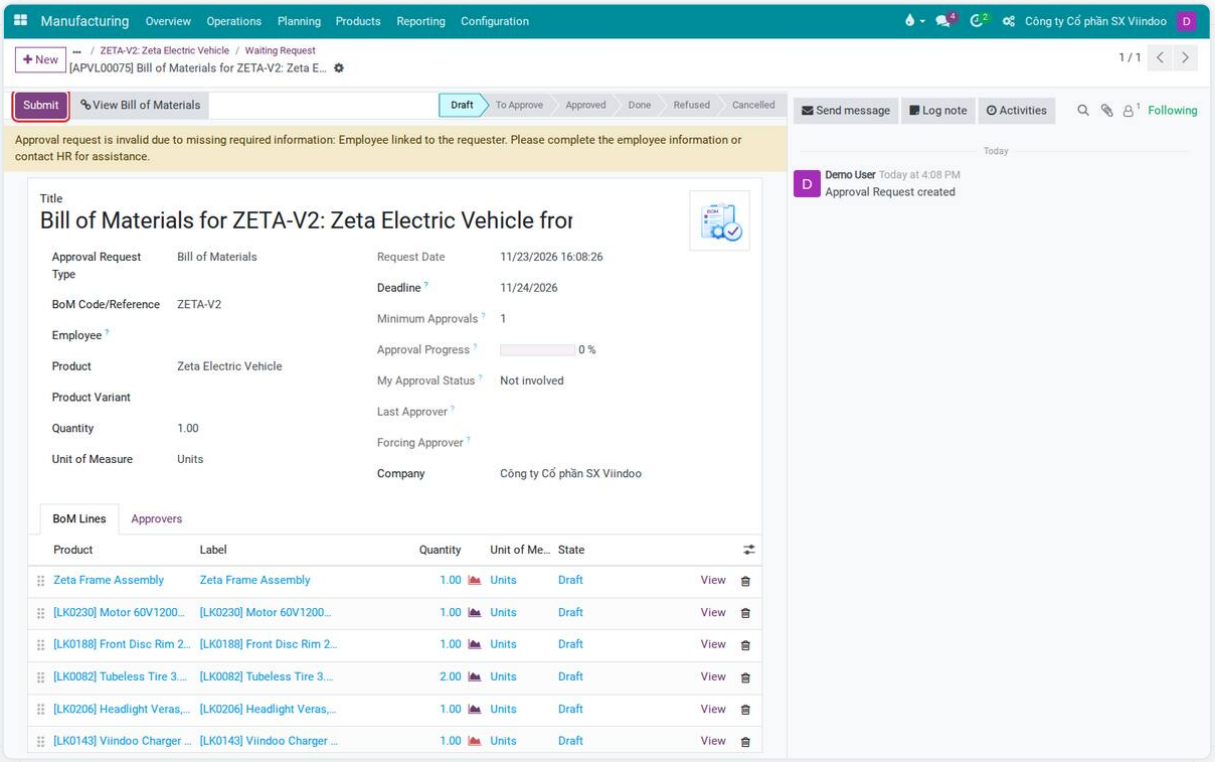


What you should see: the dialog has a blue note that the type is configured with *One record per approval request* (one approval is created for each line), and the **Source Records** table (columns **Product**, **Approval Title**, **BoM Code**, **Employee**, **Quantity**, **Unit of Measure**) with one line *Bill of Materials for ZETA-V2: Zeta Electric Vehicle*, **BoM Code** ZETA-V2.

Step 4 - Read the request just created

The system opens the approval request.

> *Path:* `Approval > Approval Request > Request > [APVL...] Bill of Materials for ZETA-V2: Zeta Electric Vehicle`



What you should see: the request number like *[APVL...]* (*APVL00075* in the picture), the status **Draft**, the **Submit** and **View Bill of Materials** buttons at the top left, the **BoM Lines** tab listing the components (each in the state *Draft*), the **Approvers** tab listing the approvers. The yellow warning reads *Approval request is invalid due to missing required information: Employee linked to the requester. Please complete the employee information or contact HR for assistance.* It appears when the account that creates the request has no employee record; the request can still be submitted. The chatter shows *Approval Request created*.

13 MANUFACTURING ENGINEERING REPORTS

About 15 minutes. The manufacturing engineering part has the following reports. The table lists all of them; the three most important screens are walked through below.

Report	What question it answers	Path
BoM Overview (button on the bill of materials)	What a vehicle is made of at every level, what the standard cost is, which kit is used for which colour	`Manufacturing > Products > Bills of Materials > (open a bill of materials) > BoM Overview`
Operations Performance (button on the bill of materials)	How efficiently the operations of this bill of materials run	`Manufacturing > Products > Bills of Materials > (open a bill of materials) > Operations Performance`

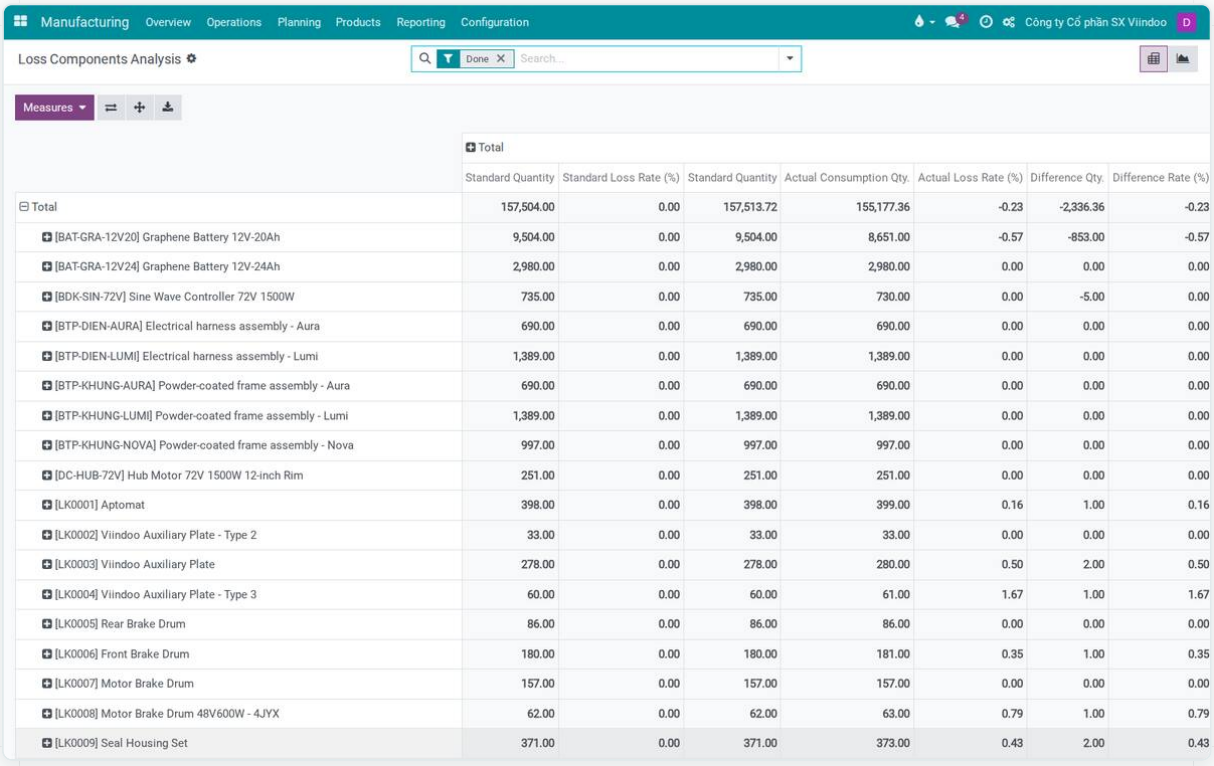
Report	What question it answers	Path
OEE, Lost, Load, Performance (buttons on the work center)	How much of its capacity this station uses, where hours are lost	`Manufacturing > Configuration > Work Centers > (open a station)`
Loss Components Analysis	Which component is consumed more than the standard, by how many percent	`Manufacturing > Reporting > Loss Components Analysis`
Loss By-products Analysis	By-products obtained compared with the standard	`Manufacturing > Reporting > Loss By-products Analysis`
ECOs (PLM)	How many engineering change orders, of which type, for which product	`PLM > Reporting > ECOs`
PLM Dashboard	Which engineering change orders are open, by type	`PLM > Dashboard`

The other reports in the menu **Manufacturing > Reporting** (the manufacturing cost report, the shop-floor entries, overall equipment effectiveness, work orders) belong to Part VI. Shop floor production and Part XII. Accounting and costing.

Step 1 - Open the Loss Components Analysis report

Go to **Manufacturing > Reporting > Loss Components Analysis**.

> *Path:* `Manufacturing > Reporting > Loss Components Analysis`

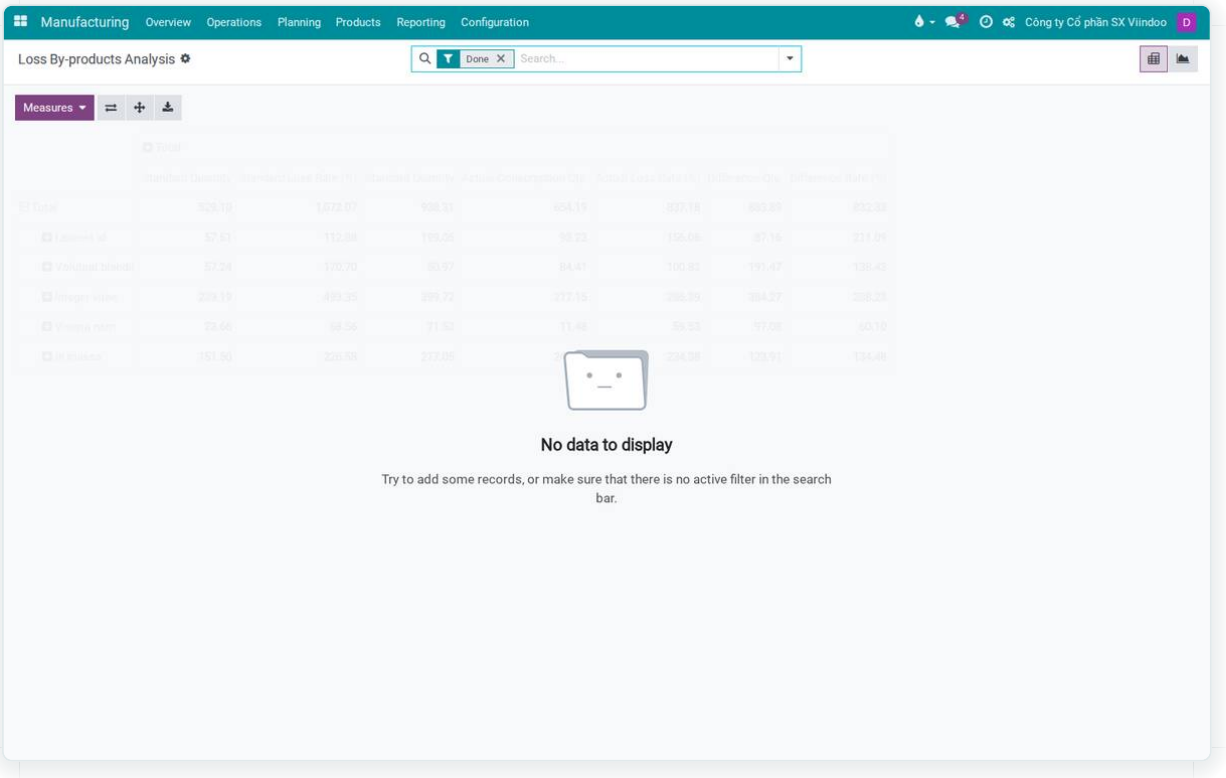


What you should see: a pivot table by component (one row per component, with a **Total** row on top and the **Measures** button) with the columns **Standard Quantity**, **Standard Loss Rate (%)**, a second **Standard Quantity** (the quantity that includes the loss), **Actual Consumption Qty.**, **Actual Loss Rate (%)**, **Difference Qty.** and **Difference Rate (%)**; the default filter is **Done**. A negative number in the difference column means consumption was less than the standard. The figures change from day to day, so the handbook does not quote fixed numbers.

Step 2 - Open the Loss By-products Analysis report

Go to **Manufacturing > Reporting > Loss By-products Analysis**.

> *Path:* `Manufacturing > Reporting > Loss By-products Analysis`

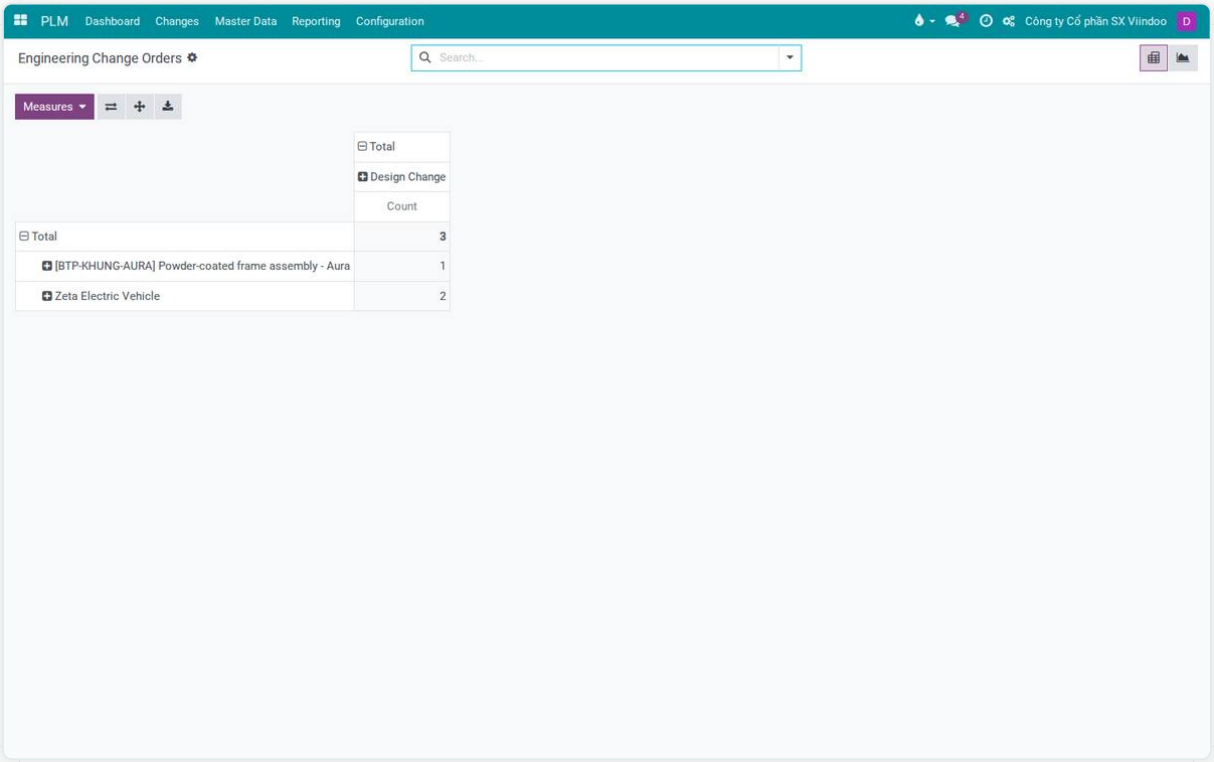


What you should see: the screen says *No data to display* (with the hint *Try to add some records, or make sure that there is no active filter in the search bar.*) when no completed order has made a by-product yet. This is a correct result, not an error.

Step 3 - Open the ECOs report

Go to **PLM > Reporting > ECOs**.

> *Path:* `PLM > Reporting > ECOs`

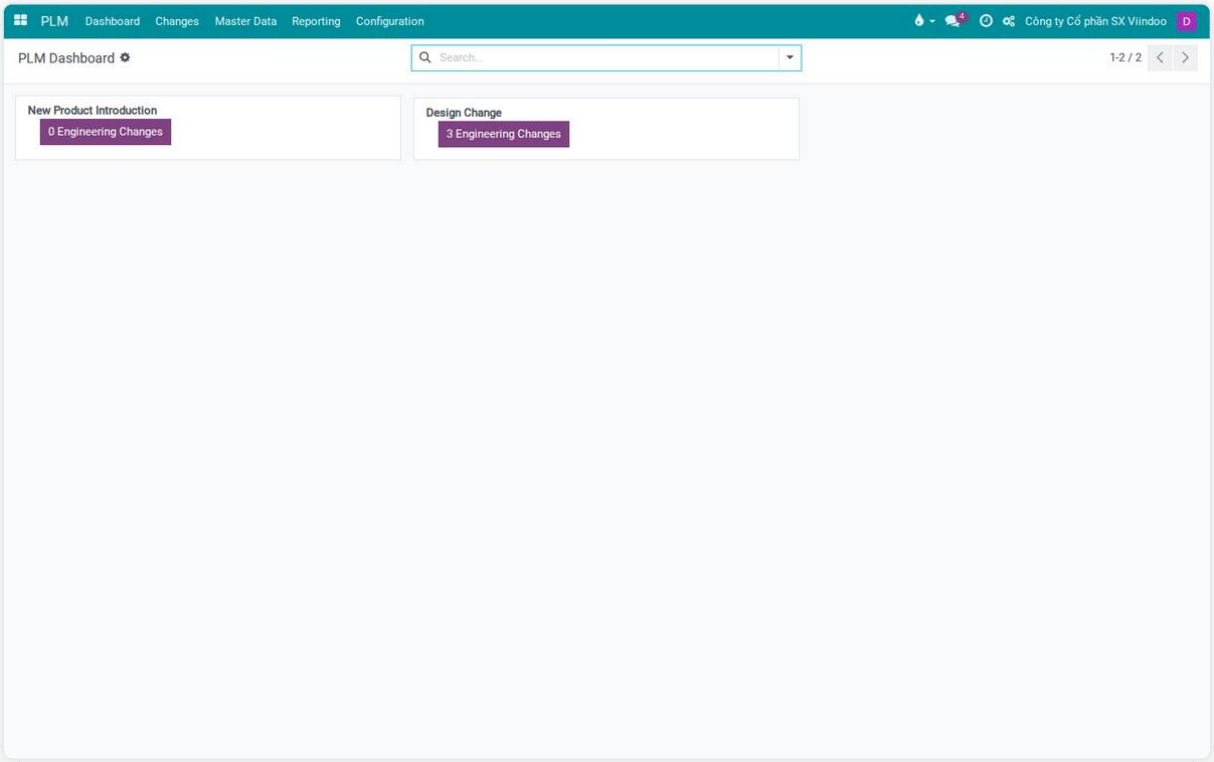


What you should see: a pivot table titled *Engineering Change Orders* that counts the change orders by **Type** (column *Design Change*) and by product (rows *[BTP-KHUNG-AURA] Powder-coated frame assembly - Aura* 1 and *Zeta Electric Vehicle* 2; total 3). The counts reflect the orders on the system.

Step 4 - Open the PLM dashboard

Go to **PLM > Dashboard**.

> *Path:* `PLM > Dashboard`



What you should see: the *PLM Dashboard* with one card per type of change order: *New Product Introduction* (0 Engineering Changes) and *Design Change* (3 Engineering Changes).

14 PRACTICE EXERCISE: A SECOND VEHICLE MODEL

About 45 minutes. There are no step-by-step pictures. Your company does a complete manufacturing engineering cycle for a new vehicle model, then checks it.

The task. Your company has the model *Zeta Electric Vehicle Mini* made of:

- its own frame assembly (a semi-finished product) welded at the station *Tổ hàn khung Zeta* (Zeta frame welding team) in 30 minutes, with an 8% loss on the powder coating;
- three colours *Matte black*, *Burgundy*, *Moss green*, each with its own plastic body kit (use the Aura kit of each colour);
- final assembly on the line for 40 minutes at *Tổ lắp ráp trên chuyền* (Assembly line team);
- only the approval of the bill of materials is needed before it goes into production.

What to do.

1. Create the frame assembly (routes *Manufacture* and *MTO*, **Buy** not ticked) and its bill of materials with one operation.
2. Create the vehicle with three colours, tracked by serial number, route *Manufacture*.
3. Make the bill of materials of the vehicle with the frame assembly, at least four common components and three body kit lines that apply by colour.

4. Open the **BoM Overview** of each colour and check that the kit changes with the colour.
5. Send the bill of materials for approval.

Self-check. It is right when: (a) the **BoM Overview** of each colour has exactly one kit, of the right colour; (b) the frame assembly shows at the second level when you click **Unfold**; (c) the powder coating line has a third column equal to the standard quantity multiplied by 1.08; (d) the approval request has a number like *[APVL...]* and the status **Draft**; (e) the total duration of the two bills of materials is 30 and 40 minutes.

If it does not come out like this. The kit does not change with the colour: check the **Apply on Variants** column of the three kit lines. The overview has no second level: check whether the frame assembly already has a bill of materials of its own. A quantity that comes out wrong (for example 8 instead of 0.8): check that you typed the decimal point.

PART III. PRODUCTION PLANNING

This part answers these questions: what to make, how much, when, and for which order or as stock. The workshop has four sources of manufacturing orders: a **sales order** (make to order), a **reordering rule** (make to stock), the **master production schedule** (make from a forecast) and **manual creation**. The readers are the production planner, the sales team (who want to know whether a customer order creates a manufacturing order) and the storekeeper (who wants to know where the components come from).

The lessons reuse the vehicle model *Zeta Electric Vehicle* and the frame assembly *Zeta Frame Assembly* created in Part II. Manufacturing engineering; if you have not done so, do the lesson *Two-level bill of materials: one BoM for several colours* first.

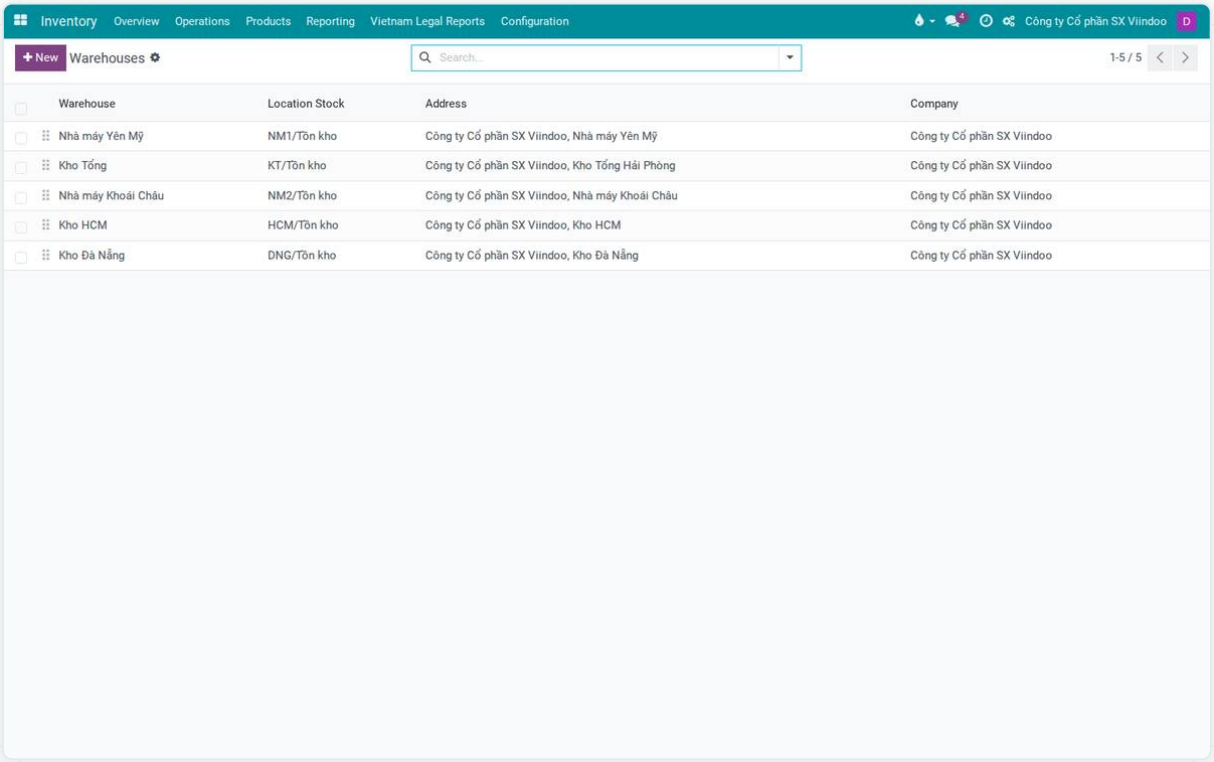
15 CURRENT PRODUCTION PLANNING CONFIGURATION

About 15 minutes. By the end of this lesson your company knows where the workshop takes components and puts finished products, which supply routes exist, which route a new product carries, and by which period the master production schedule plans. This lesson is read-only; nothing is created.

Step 1 - See the list of warehouses

Go to **Inventory > Configuration > Warehouse Management > Warehouses**.

> *Path:* `Inventory > Configuration > Warehouse Management > Warehouses`

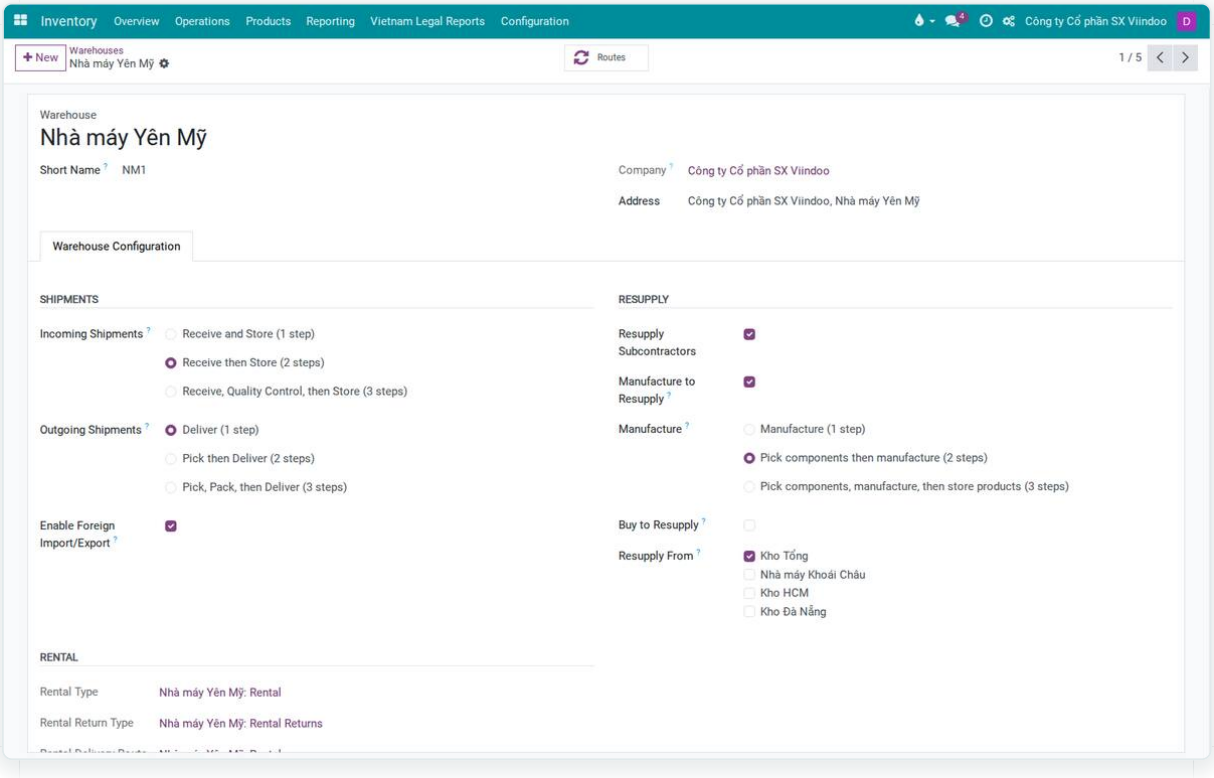


What you should see: five warehouses with the columns **Warehouse**, **Location Stock**, **Address** and **Company**: *Nhà máy Yên Mỹ* (Yen My factory; short name NM1), *Kho Tổng* (Main warehouse), *Nhà máy Khoái Châu* (Khoai Chau factory), *Kho HCM* (Ho Chi Minh City warehouse) and *Kho Đà Nẵng* (Da Nang warehouse). The orders in this handbook are made at *Nhà máy Yên Mỹ*.

Step 2 - Open the warehouse Nhà máy Yên Mỹ

Click the line **Nhà máy Yên Mỹ**.

> *Path:* `Inventory > Configuration > Warehouse Management > Warehouses > Nhà máy Yên Mỹ`

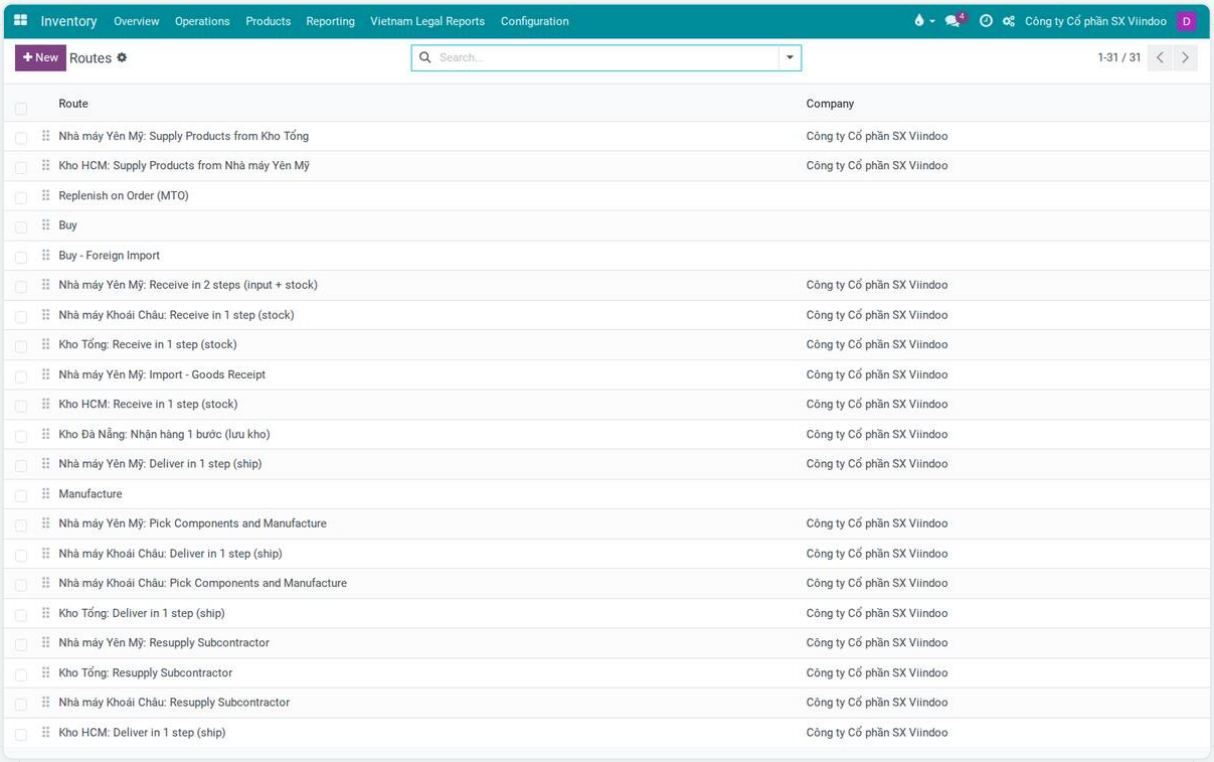


What you should see: on the tab **Warehouse Configuration** (with the smart button **Routes** at the top), the **Shipments** section has **Incoming Shipments** set to *Receive then Store (2 steps)*, **Outgoing Shipments** set to *Deliver (1 step)* and **Enable Foreign Import/Export** ticked. The **Resupply** section has **Resupply Subcontractors** and **Manufacture to Resupply** ticked, **Manufacture** set to *Pick components then manufacture (2 steps)*, **Buy to Resupply** not ticked and **Resupply From** *Kho Tổng* ticked. Two manufacturing steps mean that the components go from stock to the *Trước sản xuất* (pre-production) area before they go into the order, and the finished product goes into *Tồn kho* (stock); changing to *Manufacture (1 step)* is just choosing another option again, not a further development.

Step 3 - See the supply routes

Go to **Inventory > Configuration > Warehouse Management > Routes**.

> *Path:* `Inventory > Configuration > Warehouse Management > Routes`

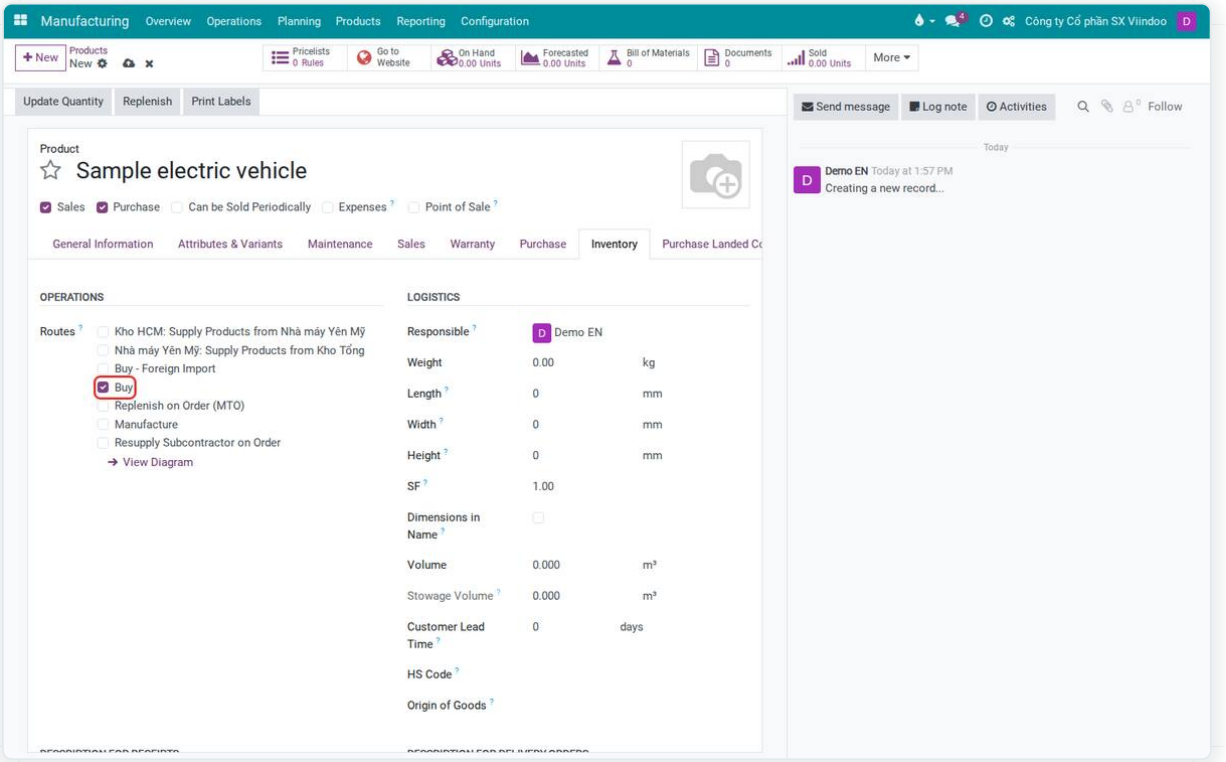


What you should see: 31 routes: the shared routes *Replenish on Order (MTO)*, *Buy*, *Buy - Foreign Import* and *Manufacture*, and the routes that belong to each warehouse, such as *Nhà máy Yên Mỹ: Receive in 2 steps (input + stock)*, *Nhà máy Yên Mỹ: Deliver in 1 step (ship)*, *Nhà máy Yên Mỹ: Pick Components and Manufacture* and *Nhà máy Yên Mỹ: Resupply Subcontractor*.

Step 4 - See the default route of a new product

Go to **Manufacturing > Products > Products**, click **New**, type any name and click the **Inventory** tab (no need to save).

> *Path:* `Manufacturing > Products > Products > New > Inventory tab`

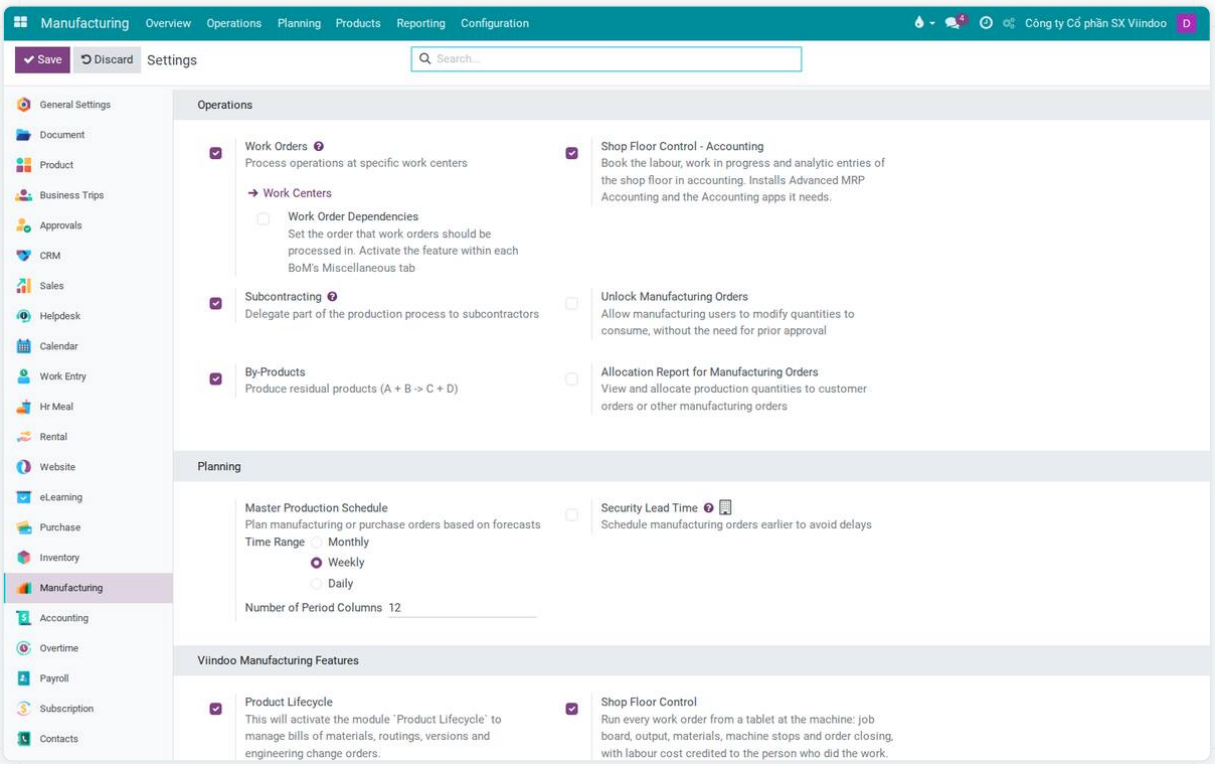


What you should see: the **Buy** box is already ticked in **Routes** (circled), and the other routes (*Replenish on Order (MTO)*, *Manufacture* and so on) are empty. A product that you make yourself must have **Buy** removed and **Manufacture** ticked (see the lesson *Two-level bill of materials: one BoM for several colours*).

Step 5 - See the period of the master production schedule

Go back to **Manufacturing > Configuration > Settings** and look at the group **Planning**.

> *Path:* `Manufacturing > Configuration > Settings` (group *Planning*)



What you should see: Master Production Schedule has **Time Range** *Weekly* (the other options are *Monthly* and *Daily*) and **Number of Period Columns** 12; **Security Lead Time** is not ticked.

The table below is what your company needs to remember when assigning routes:

Route or setting	Consequence
Manufacture	The product is made by a manufacturing order from a bill of materials
Replenish on Order (MTO) together with **Manufacture**	When there is a specific demand (a sales order, or a parent order that needs a semi-finished product) the system creates an order of its own for that demand
Buy	The product is bought; a newly created product always has it ticked
Reordering rule (**Min**, **Max**)	When the forecast stock falls below the minimum, the system orders enough to reach the maximum (make to stock)
Manufacture to Resupply (on the warehouse)	Allows this warehouse to be resupplied by manufacturing
2-step manufacturing on the warehouse	Components move to the *Trước sản xuất* (pre-production) area before they go into the order; with 1 step they are taken straight from the warehouse
Security Lead Time	Schedules manufacturing orders earlier to avoid delays; when it is off, an order follows the time of the bill of materials exactly

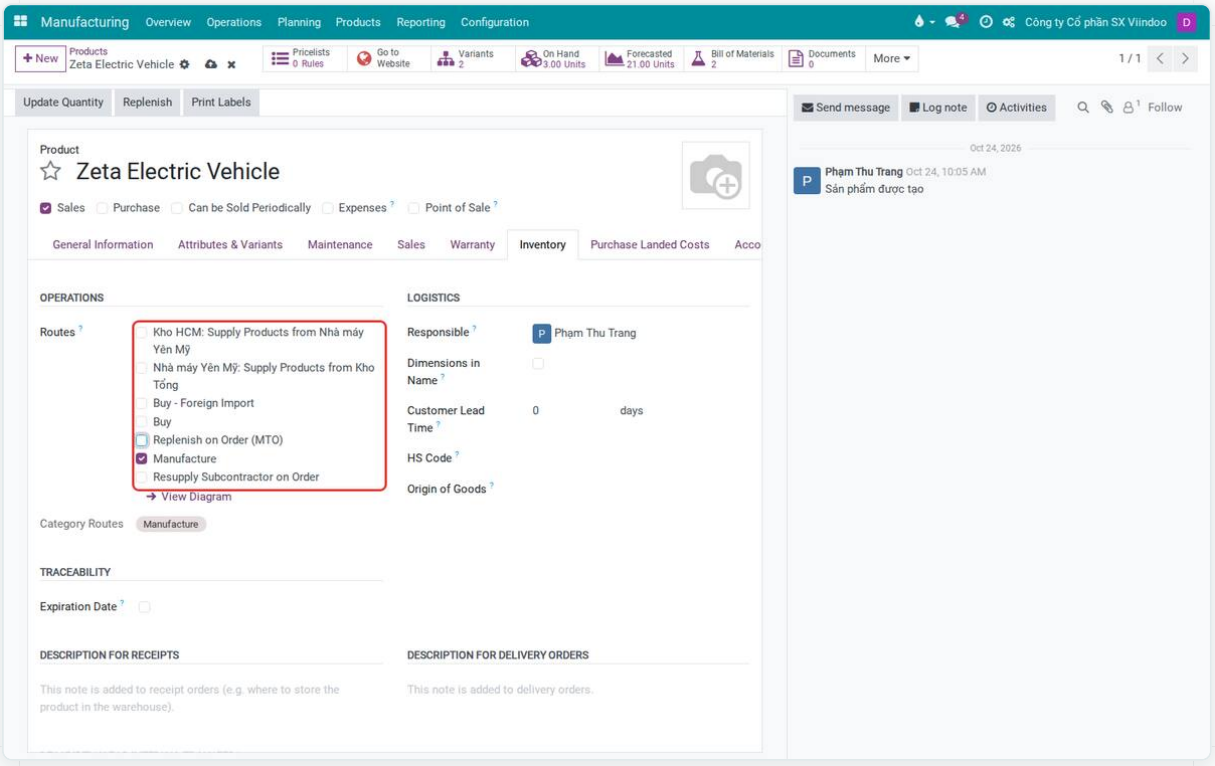
16 A SALES ORDER GENERATES A MAKE-TO-ORDER MANUFACTURING ORDER

About 30 minutes. By the end of this lesson your company confirms a sales order for a vehicle and sees the system automatically create the vehicle manufacturing order and the child order for the frame assembly, with the source clearly showing which sales order caused it. The sales team does not have to call the workshop, and the workshop does not have to read the order again.

Step 1 - Open the vehicle product and see its current routes

Go to **Manufacturing > Products > Products**, open **Zeta Electric Vehicle** and click the **Inventory** tab.

> *Path:* `Manufacturing > Products > Products > Zeta Electric Vehicle > Inventory tab`

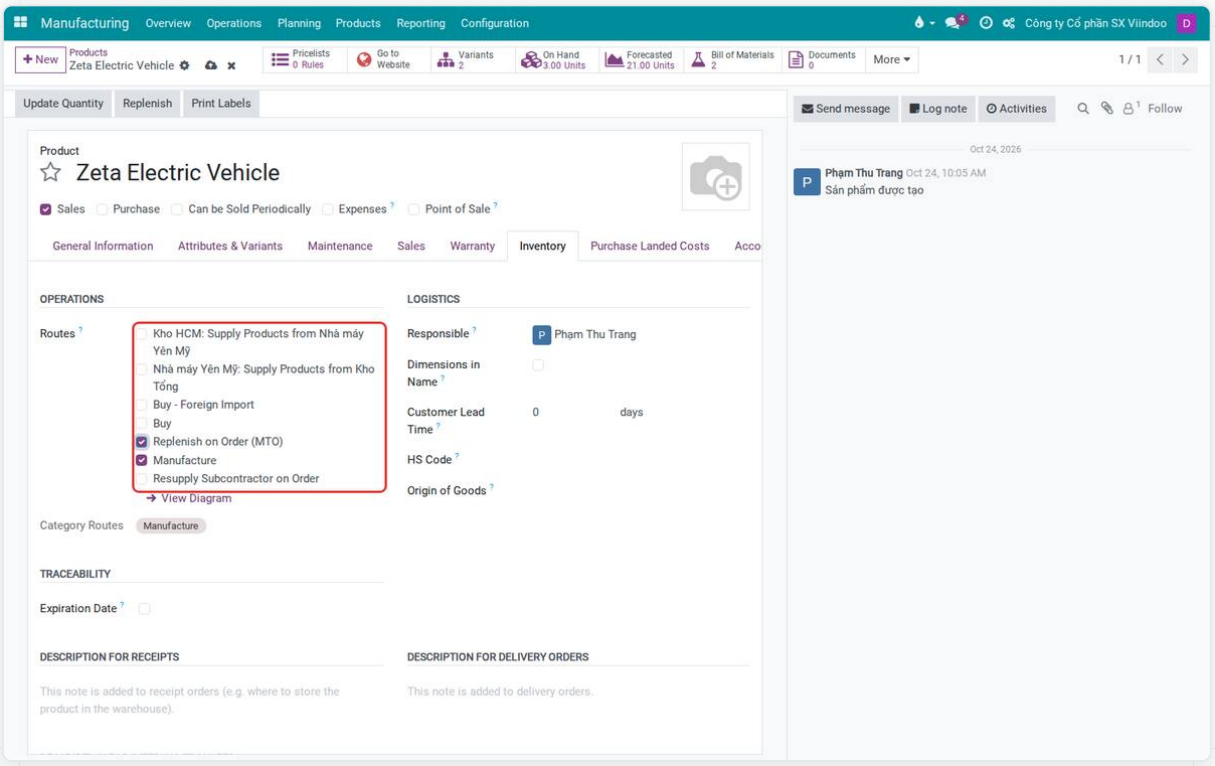


What you should see: Manufacture is ticked, **Buy** and **Replenish on Order (MTO)** are not.

Step 2 - Tick the Replenish on Order route

Tick **Replenish on Order (MTO)** and click **Save manually**. This route is the link between the sales order and the manufacturing order: with it, every sales order line creates a demand and the **Manufacture** route turns that demand into an order.

> *Path:* `Manufacturing > Products > Products > Zeta Electric Vehicle > Inventory tab`

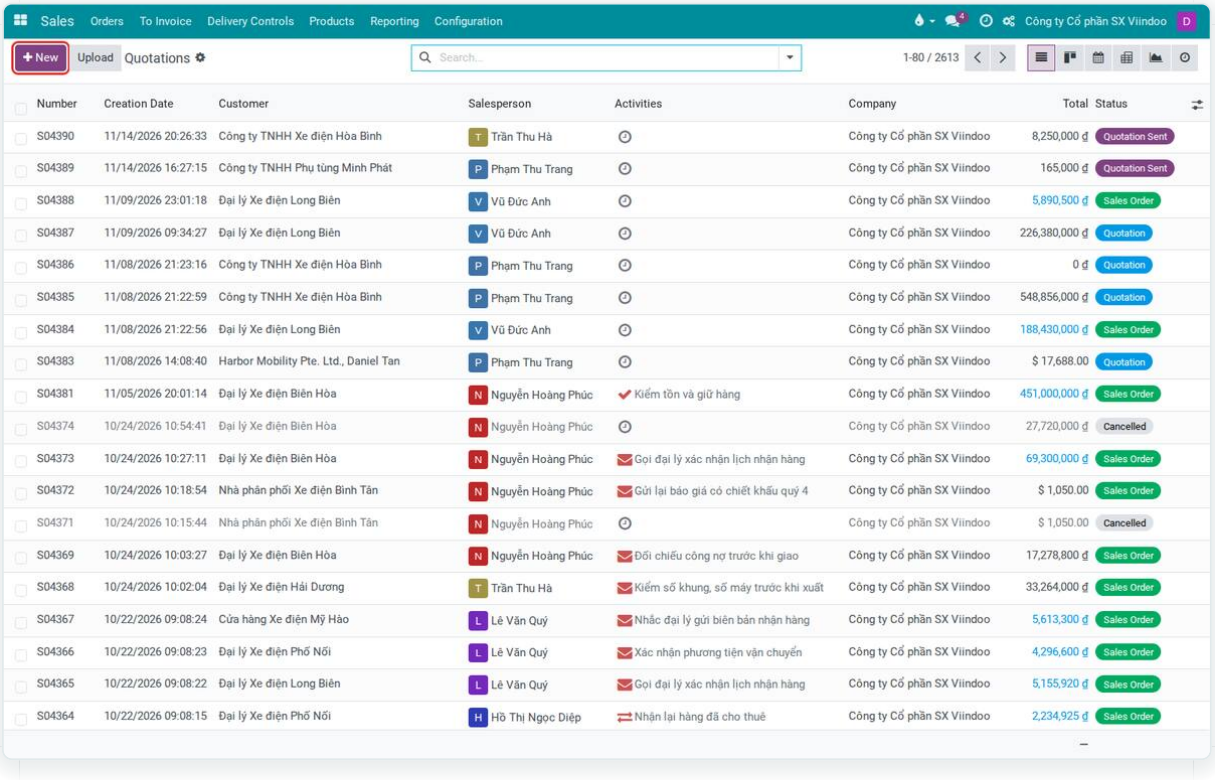


What you should see: both **Replenish on Order (MTO)** and **Manufacture** are ticked.

Step 3 - Open the list of quotations

Go to **Sales > Orders > Quotations** and click **New**.

> *Path:* `Sales > Orders > Quotations`

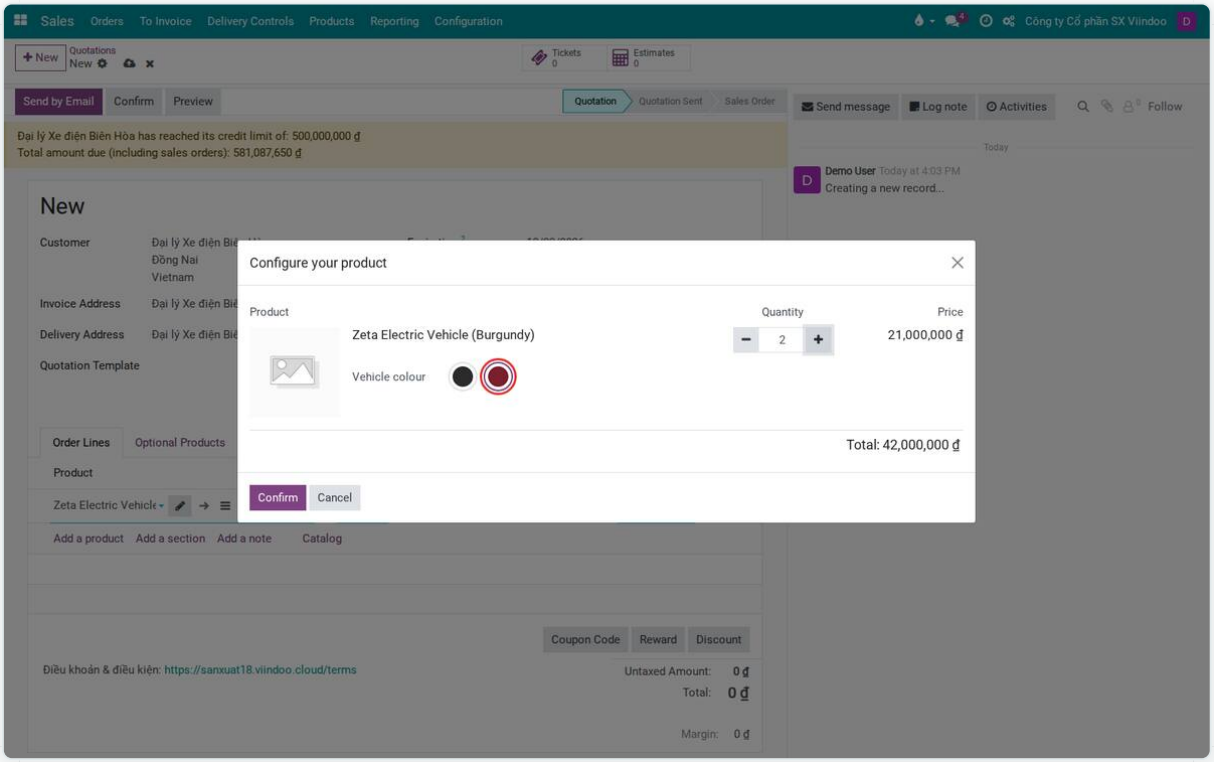


What you should see: the list of quotations and sales orders with the columns **Number**, **Creation Date**, **Customer**, **Salesperson**, **Activities**, **Company**, **Total** and **Status**; clicking **New** opens an empty quotation.

Step 4 - Choose the customer and add the vehicle

In **Customer** choose **Đại lý Xe điện Biên Hòa** (the pricelist changes by itself to *Dealer Pricelist (16% discount)*). In the **Order Lines** tab click **Add a product**, type **Zeta**, choose **Zeta Electric Vehicle**. The dialog **Configure your product** shows two colour dots: click the red dot (*Burgundy*), type quantity 2, click **Confirm**.

> *Path:* `Sales > Orders > Quotations > New`

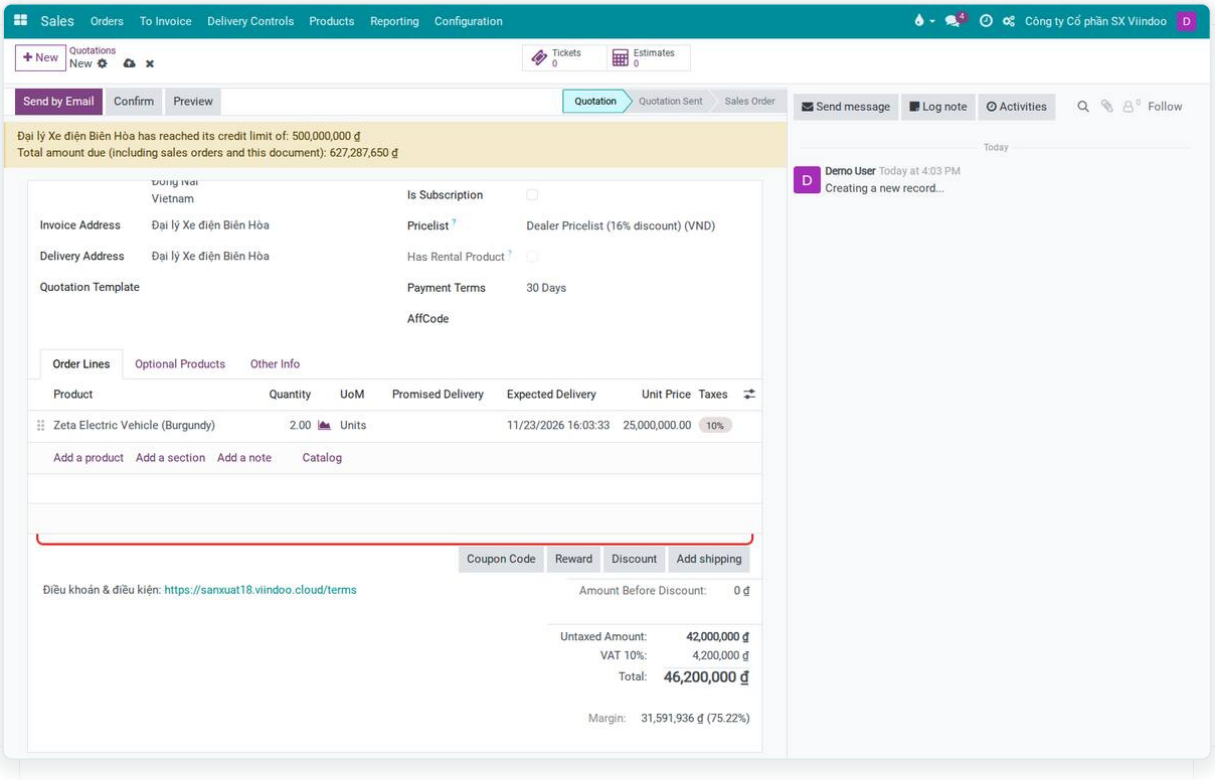


What you should see: the dialog has the name *Zeta Electric Vehicle (Burgundy)* or *(Matte black)* depending on the dot selected (the red dot is selected in the picture), the quantity box 2, a **Price** of 21,000,000 VND per vehicle and a **Total** of 42,000,000 VND. A yellow banner on the quotation may say that the customer has reached its credit limit; it is information only.

Step 5 - Read the order line

After you click **Confirm** in the dialog, the system puts the vehicle into the order line.

> *Path:* `Sales > Orders > Quotations > New > Order Lines tab`

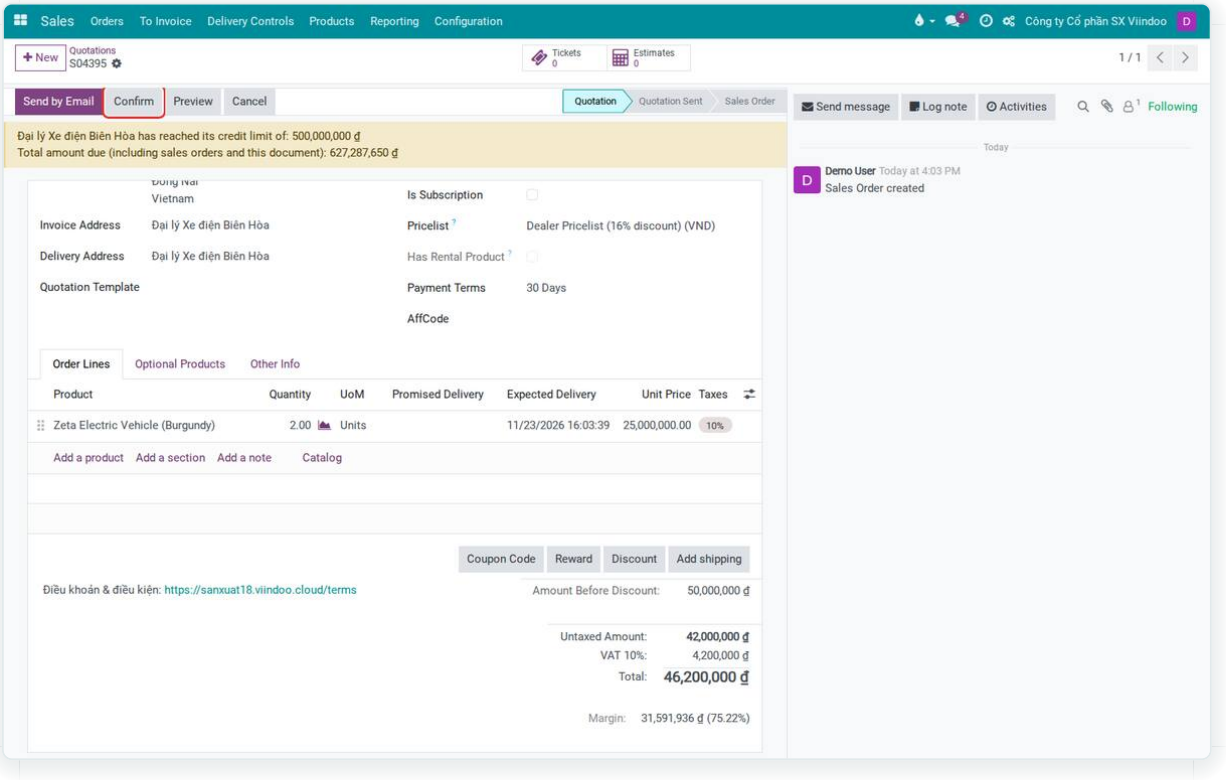


What you should see: the line *Zeta Electric Vehicle (Burgundy)*, quantity 2.00, unit price 25,000,000.00, tax 10%; **Pricelist** is *Dealer Pricelist (16% discount) (VND)* and **Payment Terms** is *30 Days*. Below the lines, **Untaxed Amount** is 42,000,000 VND (after the 16% dealer discount), *VAT 10%* is 4,200,000 VND and **Total** is 46,200,000 VND; once the quotation is saved, **Amount Before Discount** shows 50,000,000 VND. These are illustrative (assumed) figures.

Step 6 - Save the quotation and click Confirm

Click **Save manually**, then click **Confirm** at the top left.

> *Path:* `Sales > Orders > Quotations > S0...`

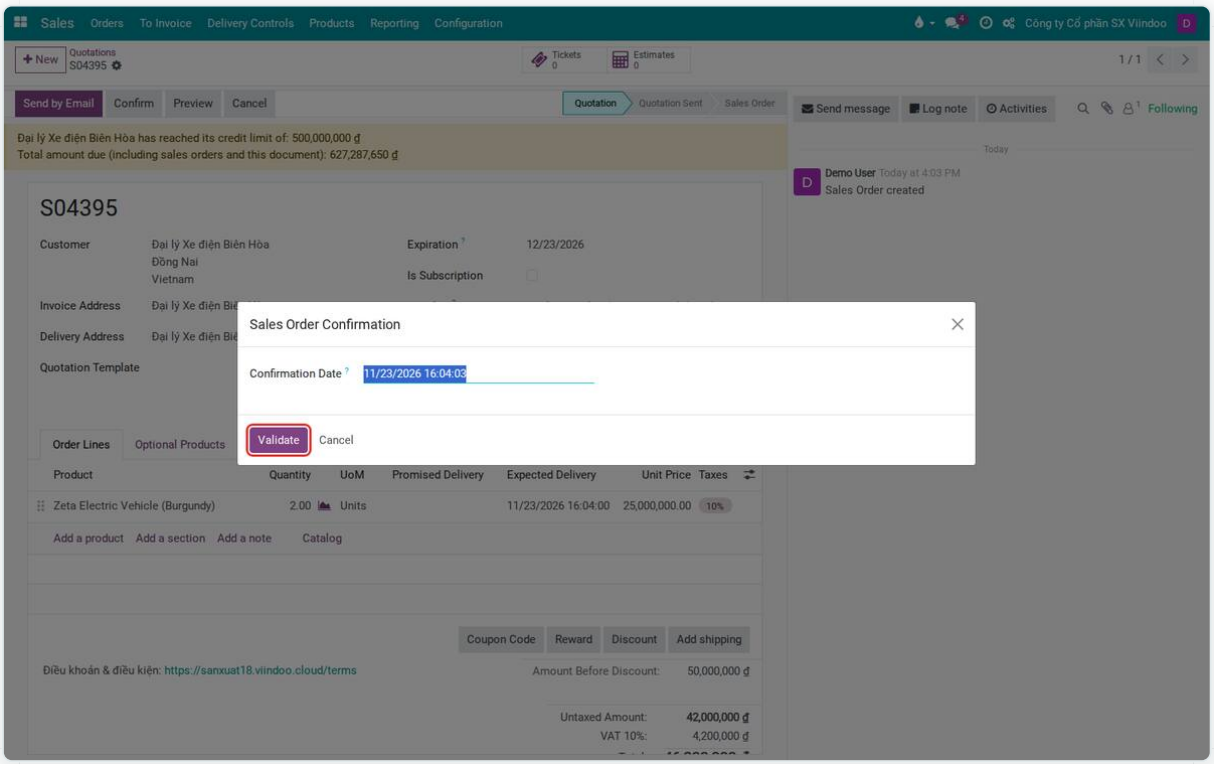


What you should see: the quotation has a number like *S0...* (*S04395* in the picture), the status is **Quotation**, the buttons **Send by Email**, **Confirm**, **Preview** and **Cancel** are at the top, and the **Confirm** button is circled.

Step 7 - Confirm the date

The dialog **Sales Order Confirmation** asks for the **Confirmation Date** (by default the current time, used to record a back-dated confirmation when needed). Click **Validate**.

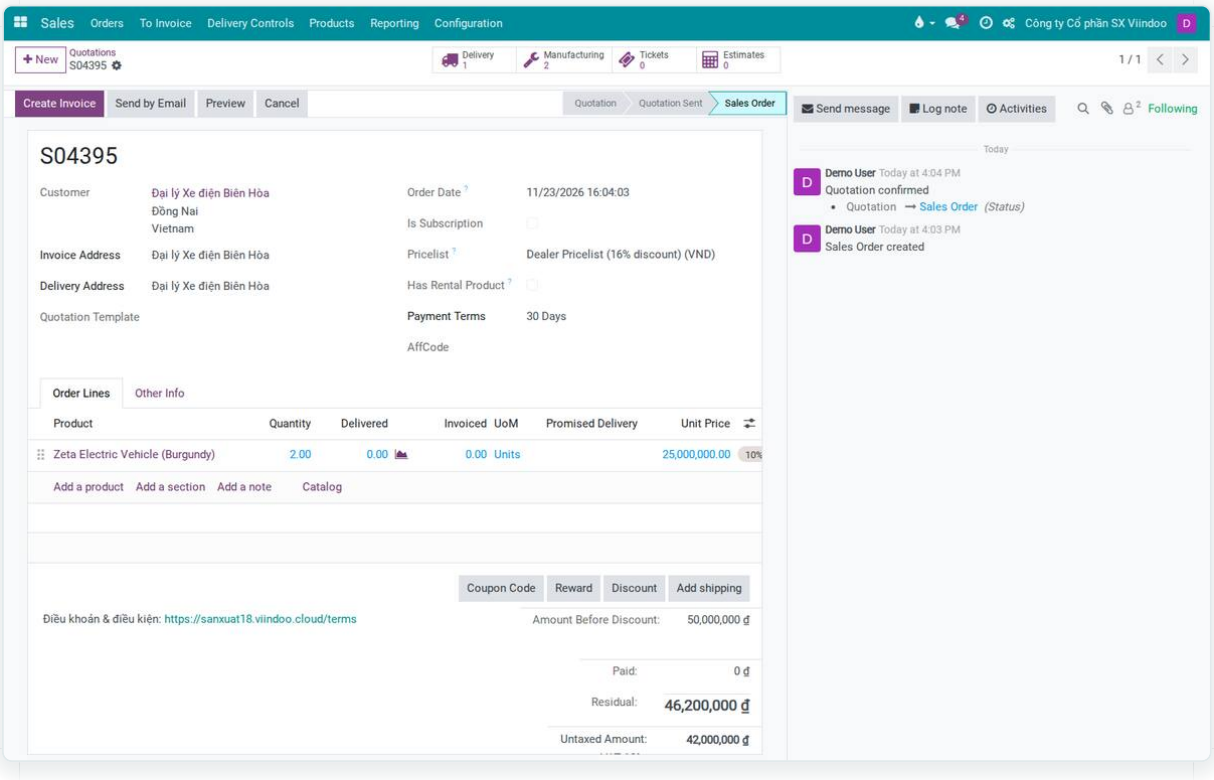
> *Path:* `Sales > Orders > Quotations > S0... > Confirm`



What you should see: the dialog with the **Confirmation Date** box and the two buttons **Validate** and **Cancel**.

Step 8 - Read the confirmed sales order

> *Path:* `Sales > Orders > Quotations > S0...`

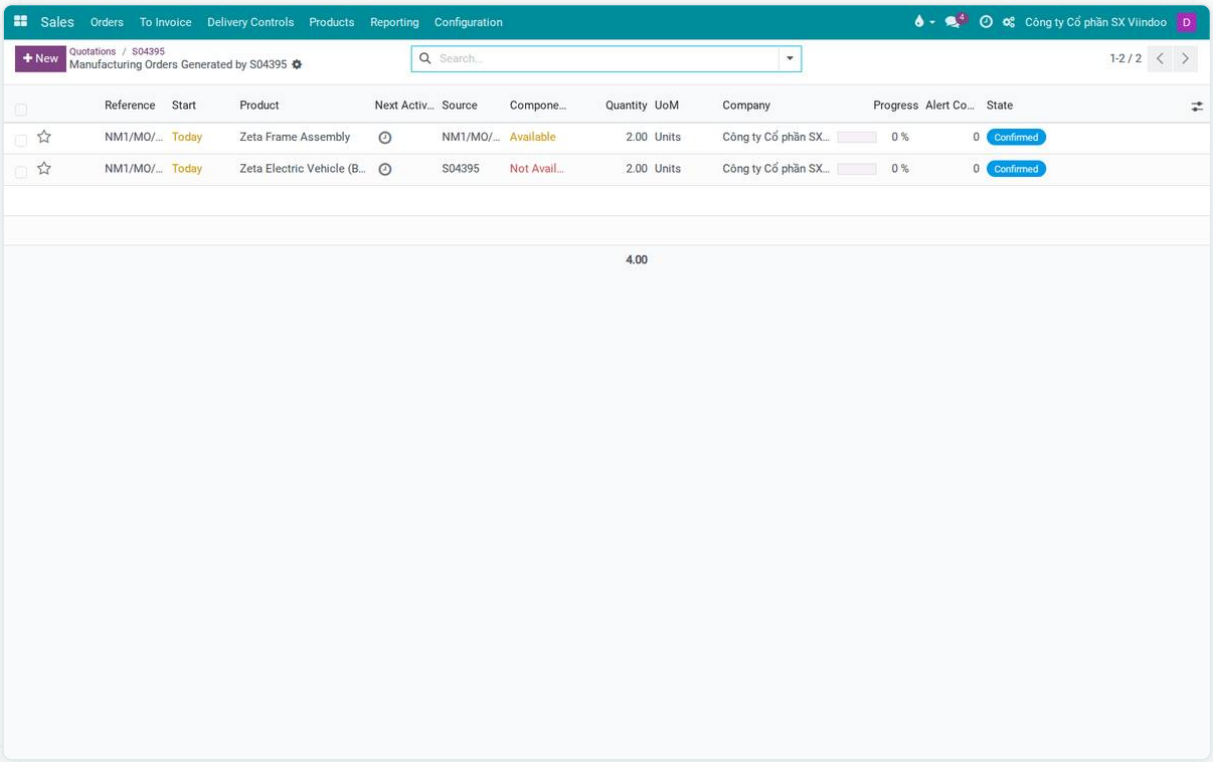


What you should see: the status changes to **Sales Order** and the chatter records *Quotation confirmed*. The top of the form has the smart buttons **Delivery 1** and **Manufacturing 2** (one order that makes the vehicle and one that makes the frame assembly), and a **Create Invoice** button. The **Order Lines** tab has the extra columns **Delivered** and **Invoiced**.

Step 9 - Open the list of orders of the sales order

Click the smart button **Manufacturing**.

> *Path:* `Sales > Orders > Quotations > S0... > Manufacturing`

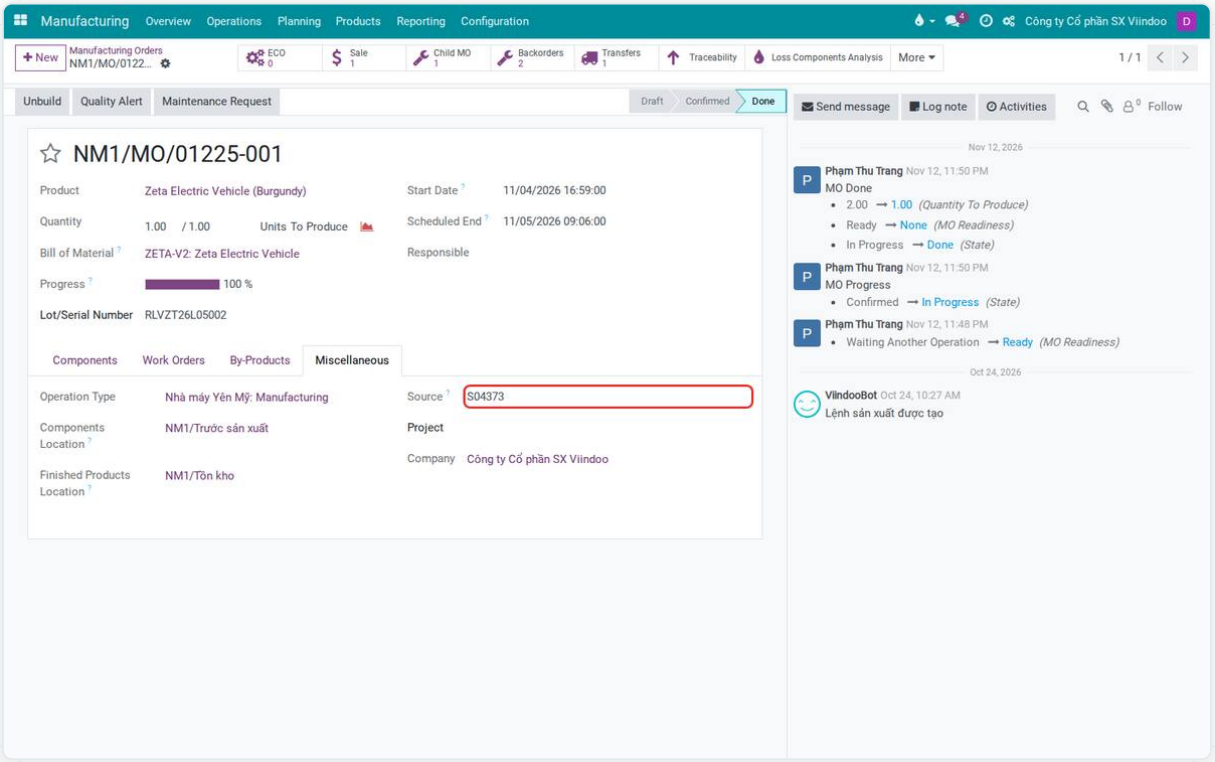


What you should see: the list *Manufacturing Orders Generated by S04395* with two lines: *Zeta Electric Vehicle (Burgundy)* quantity 2 whose **Source** is the sales order number *S04395* and whose **Component Status** is *Not Available*, and *Zeta Frame Assembly* quantity 2 whose **Source** is the number of the vehicle order and whose **Component Status** is *Available*. Both are in the state **Confirmed**.

Step 10 - Open the vehicle order

Click the line *Zeta Electric Vehicle (Burgundy)*, then the **Miscellaneous** tab.

> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/... > Miscellaneous tab`

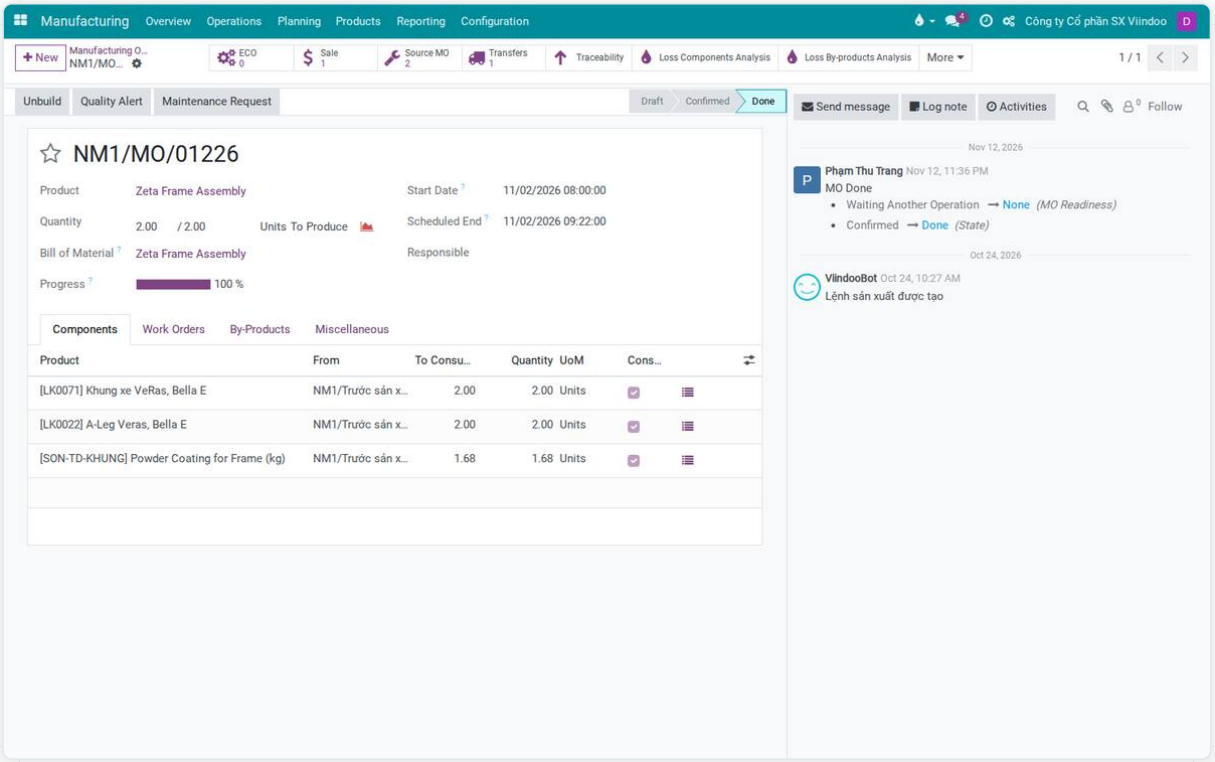


What you should see: Source is the sales order number; **Operation Type** is *Nhà máy Yên Mỹ: Manufacturing*; **Components Location** is *NM1/Trước sản xuất* (pre-production area) and **Finished Products Location** is *NM1/Tồn kho* (stock area); **Bill of Material** shows the bill of materials used (*ZETA-V2* if your company has done the lesson *Engineering change orders (PLM)*). The system fills in the components from the bill of materials by itself.

Step 11 - Open the child order of the frame assembly

Go back to the list of orders and click the line *Zeta Frame Assembly*.

> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/... (Zeta Frame Assembly)`



What you should see: the button **Source MO** at the top of the form; the three components of the frame assembly with quantities multiplied by the order (frame 2.00, A-leg 2.00 and powder coating 1.68, which is 2 multiplied by 0.84 because the 5% loss is already included). That is the meaning of *several levels*: the customer's sales order pulls in the vehicle order, and the vehicle order pulls in the frame assembly order.

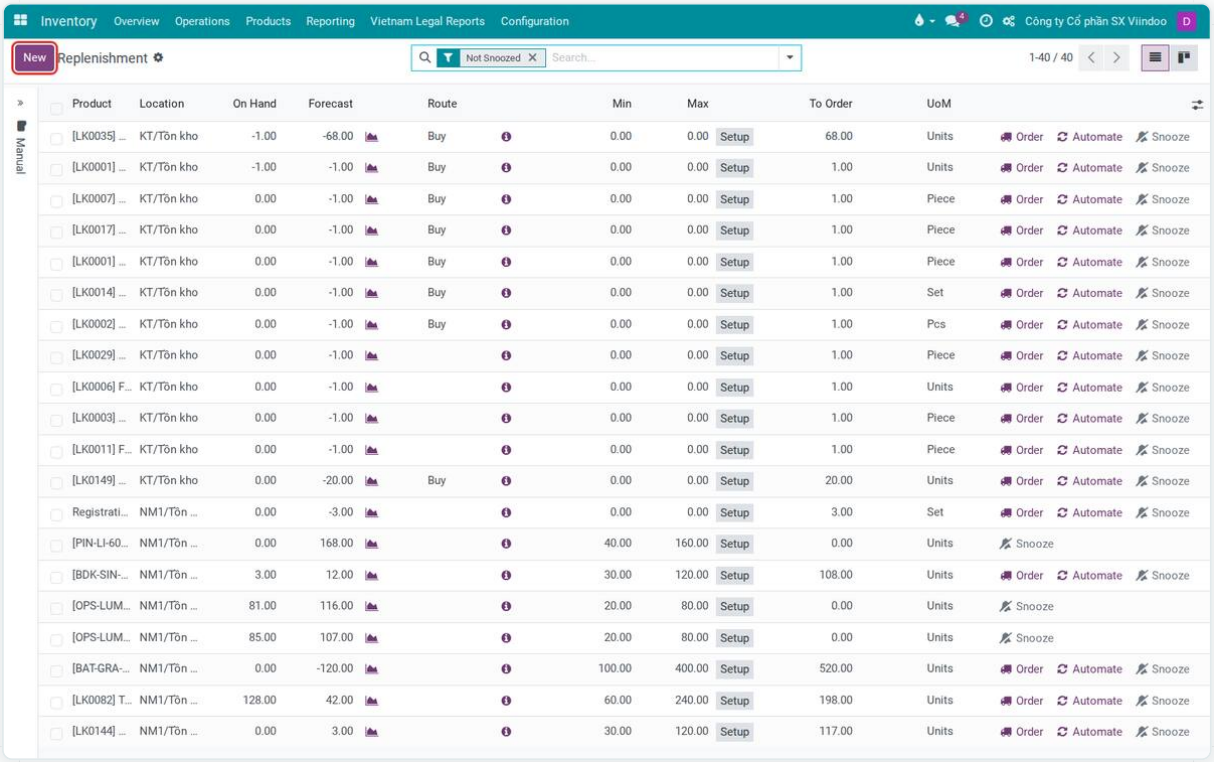
17 REORDERING RULES (MAKE TO STOCK)

About 25 minutes. By the end of this lesson your company can set a minimum - maximum stock level for a vehicle model and let the system create replenishment orders when the forecast stock is low. Unlike make to order, these orders are not tied to any customer.

Step 1 - Open the Replenishment screen

Go to **Inventory > Operations > Procurement > Replenishment** and look at the list.

> *Path:* `Inventory > Operations > Procurement > Replenishment`

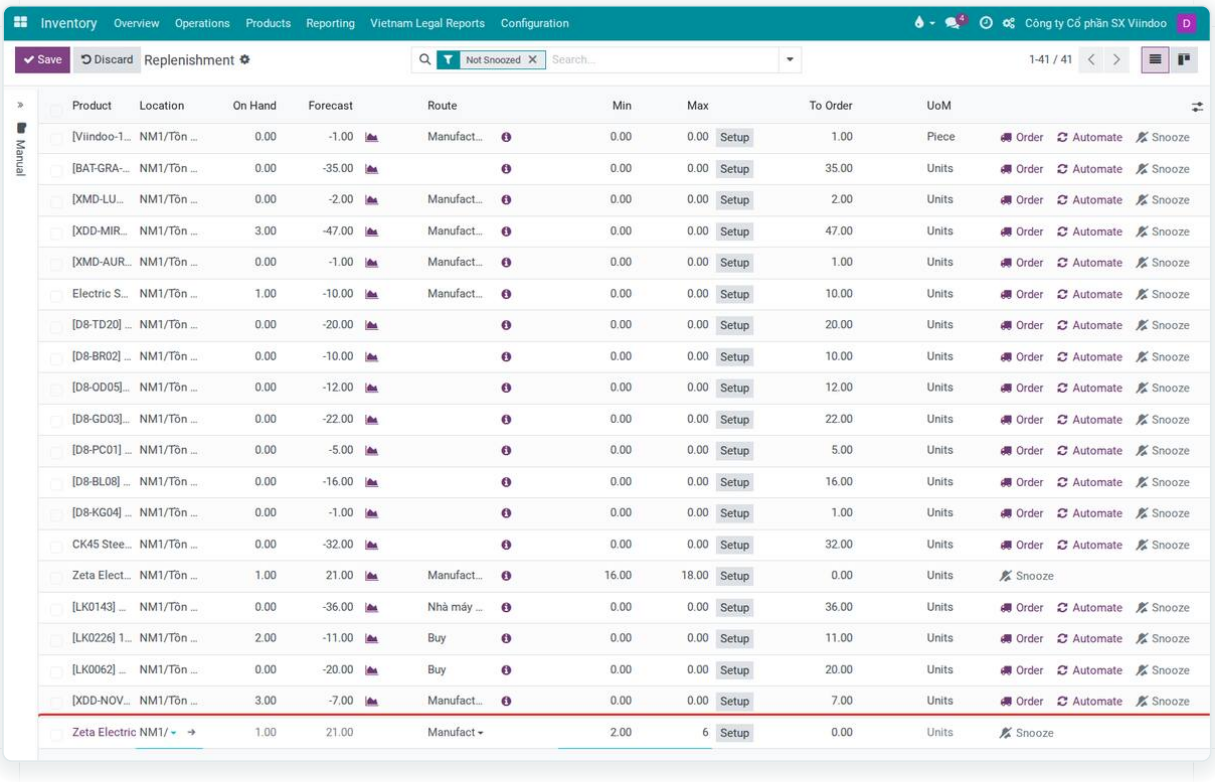


What you should see: the list of rules, with the default filter **Not Snoozed** and the columns **Product**, **Location**, **On Hand**, **Forecast**, **Route**, **Min**, **Max**, **To Order** and **UoM**, and three buttons at the end of each line: **Order**, **Automate**, **Snooze**. Next to the **Max** column there is the **Setup** button. The **New** button at the top left adds a rule.

Step 2 - Declare a rule for a vehicle

Click **New**. In the new line: **Product** choose **[XMD-AURA-DN-TC] Viindoo Aura Electric Motorbike (Matte black, Standard)** (any vehicle that has no rule yet works the same way), **Route** choose **Manufacture**, **Min** 2, **Max** 6 (illustrative, assumed figures). Click outside to save the line. A product can have only one rule for the same location: if the product already has a rule, change the **Min** and **Max** of that rule instead of adding a second one.

> *Path:* `Inventory > Operations > Procurement > Replenishment > New`

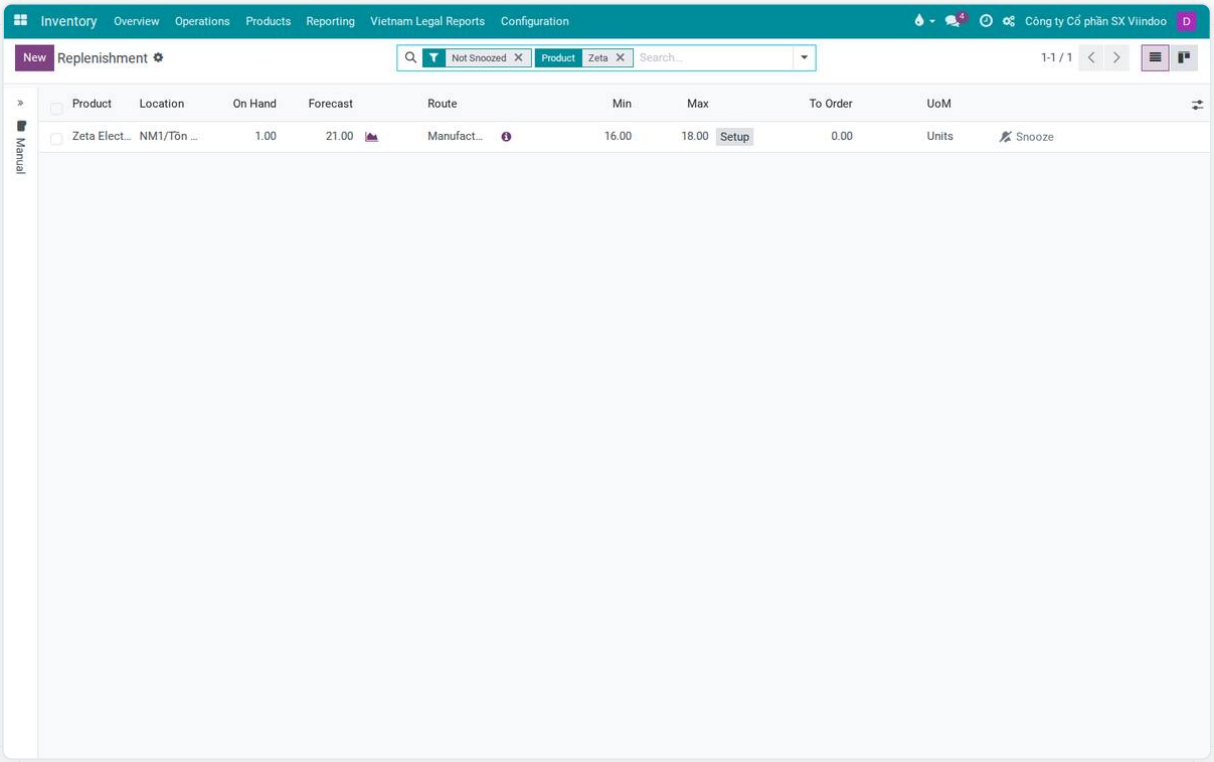


What you should see: the new line has **Route** *Manufacture*, **Min** 2 and **Max** 6, and the **Save** and **Discard** buttons appear at the top.

Step 3 - Filter and read the quantity to order

Type the product code (for example **XMD-AURA-DN-TC**) in the search box and press Enter.

> *Path:* `Inventory > Operations > Procurement > Replenishment`

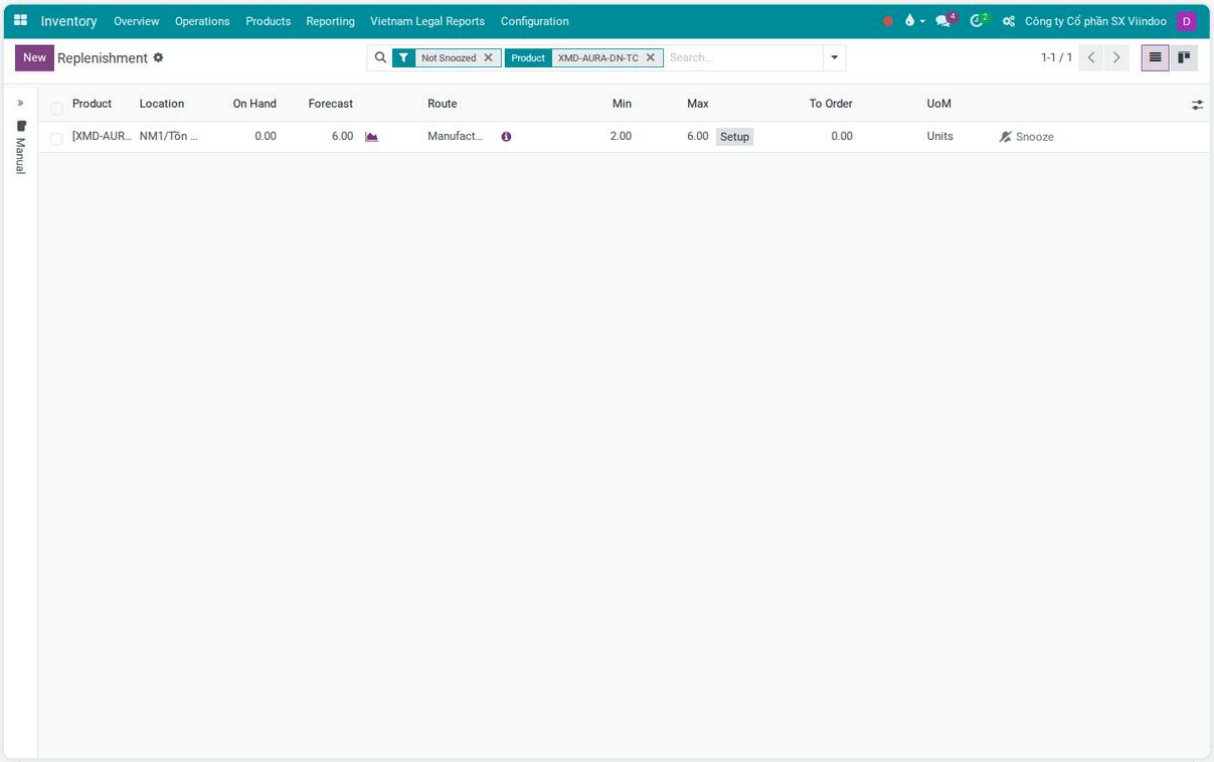


What you should see: one line for the product, with **On Hand**, **Forecast**, **Min**, **Max** and **To Order**. The rule is: when the forecast drops below the minimum, **To Order** equals **Max** minus **Forecast** (for the new Aura rule with no stock, 6.00 minus 0.00 gives 6.00 to order, and the buttons **Order**, **Automate** and **Snooze** appear). When the forecast is above the minimum, nothing is ordered: **To Order** is 0.00 and only **Snooze** is offered, as in the picture (another vehicle with forecast 21.00, **Min** 16.00, **Max** 18.00).

Step 4 - Click Order

Click the **Order** button at the end of the line.

> *Path:* `Inventory > Operations > Procurement > Replenishment`

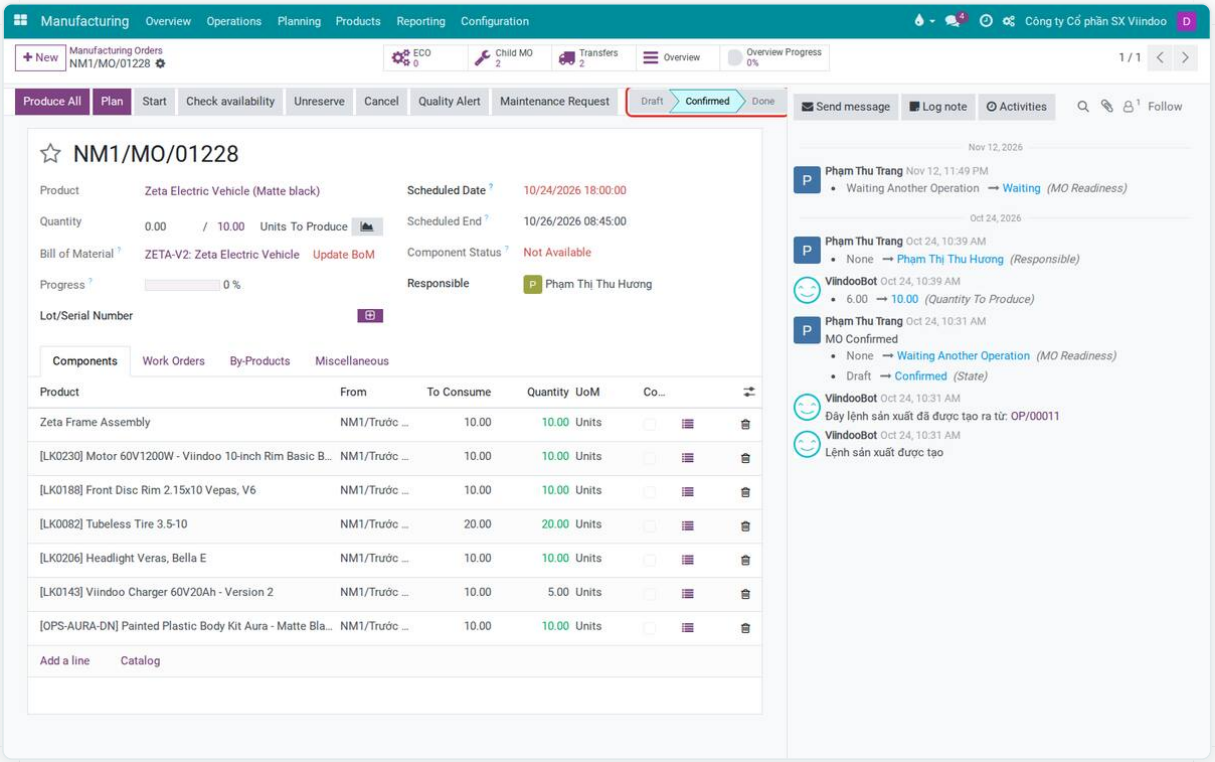


What you should see: Forecast goes up by the quantity just ordered (6.00), **To Order** goes back to 0.00 and the **Order** button disappears; **Min** 2.00 and **Max** 6.00 are unchanged. The **Automate** button changes the rule to run by itself whenever the forecast falls below the minimum; the **Snooze** button pauses the rule.

Step 5 - Open the order just created

Go to **Manufacturing > Operations > Manufacturing Orders** and find the order whose **Source** is the rule number (like *OP/...*).

> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/...`

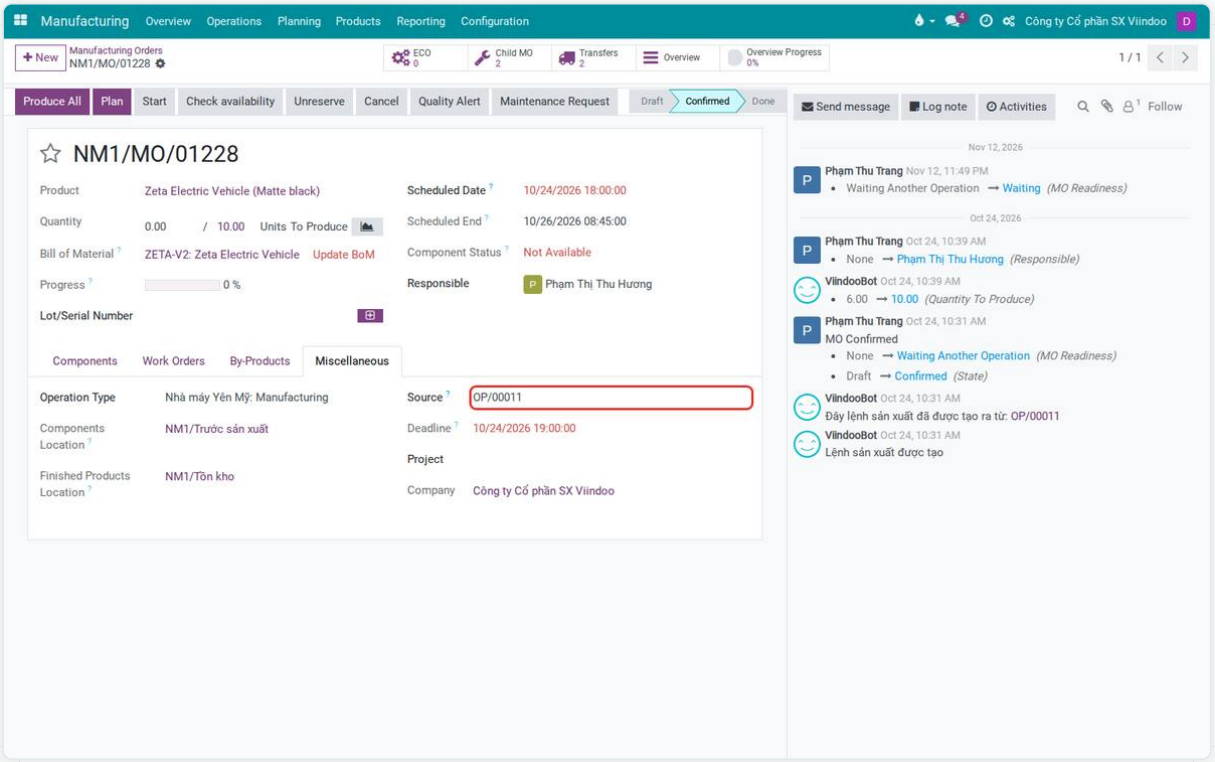


What you should see: the order that makes the vehicle with a quantity equal to the quantity ordered (6.00 for the Aura rule, order *NM1/MO/01292*; the picture shows another vehicle's order of 10.00, *NM1/MO/01228*), the status **Confirmed**, the components filled in by themselves, **Child MO** 2 at the top, and a chatter note *This manufacturing order has been created from: OP/00011*.

Step 6 - Read the source of the order

Click the **Miscellaneous** tab.

> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/... > Miscellaneous tab`



What you should see: Operation Type is *Nhà máy Yên Mỹ: Manufacturing*, **Source** is *OP/00011* (the number of the reordering rule), different from the *S0...* number of a sales order and from the word *MPS* of the master production schedule.

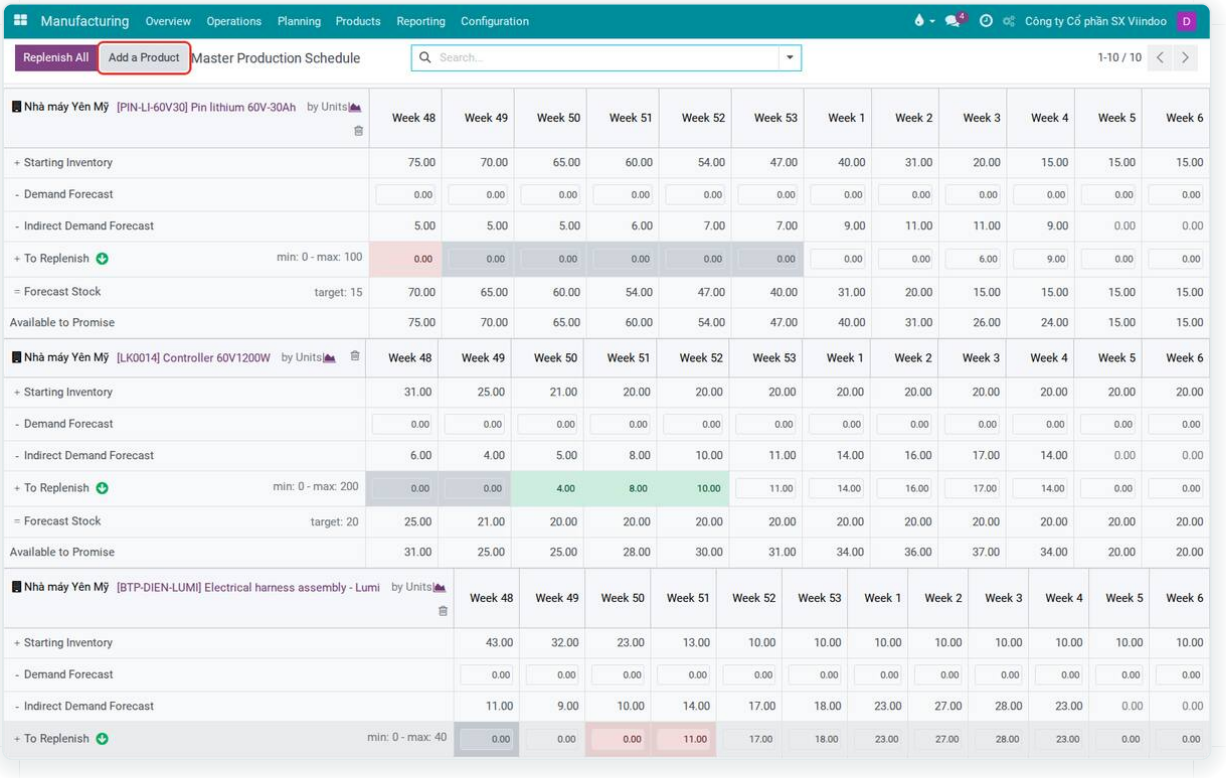
18 MASTER PRODUCTION SCHEDULE FROM A FORECAST

About 25 minutes. By the end of this lesson your company enters a weekly demand forecast for a vehicle model and lets the system create orders for the part that is missing.

Step 1 - Open the schedule screen

Go to **Manufacturing > Planning > Master Production Schedule**.

> *Path:* `Manufacturing > Planning > Master Production Schedule`

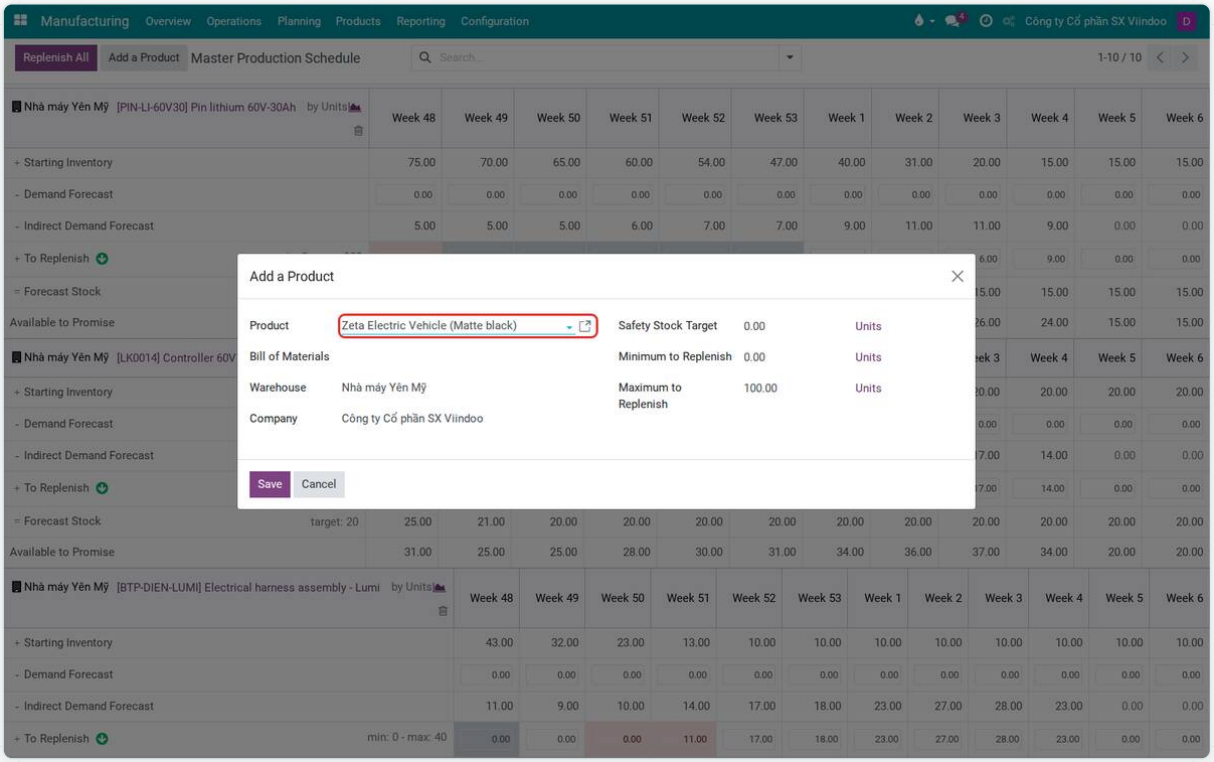


What you should see: two buttons **Replenish All** and **Add a Product** (circled); each product in the schedule is a block of weekly columns (*Week 48*, *Week 49*, ...) with the lines *Starting Inventory*, *Demand Forecast*, *Indirect Demand Forecast*, *To Replenish*, *Forecast Stock* and *Available to Promise*. The picture shows 10 products. Do not click **Replenish All**: it runs for every product in the schedule, including products of other people.

Step 2 - Add the vehicle to the schedule

Click **Add a Product**. Choose **Product** *[XMD-AURA-DN-TC] Viindoo Aura Electric Motorbike (Matte black, Standard)*; leave **Warehouse** as *Nhà máy Yên Mỹ*; set **Maximum to Replenish** to 50 (it starts at 100) and leave **Minimum to Replenish** at 0. Click **Save**. If the vehicle already has a block on the screen, skip this step.

> *Path:* `Manufacturing > Planning > Master Production Schedule > Add a Product`

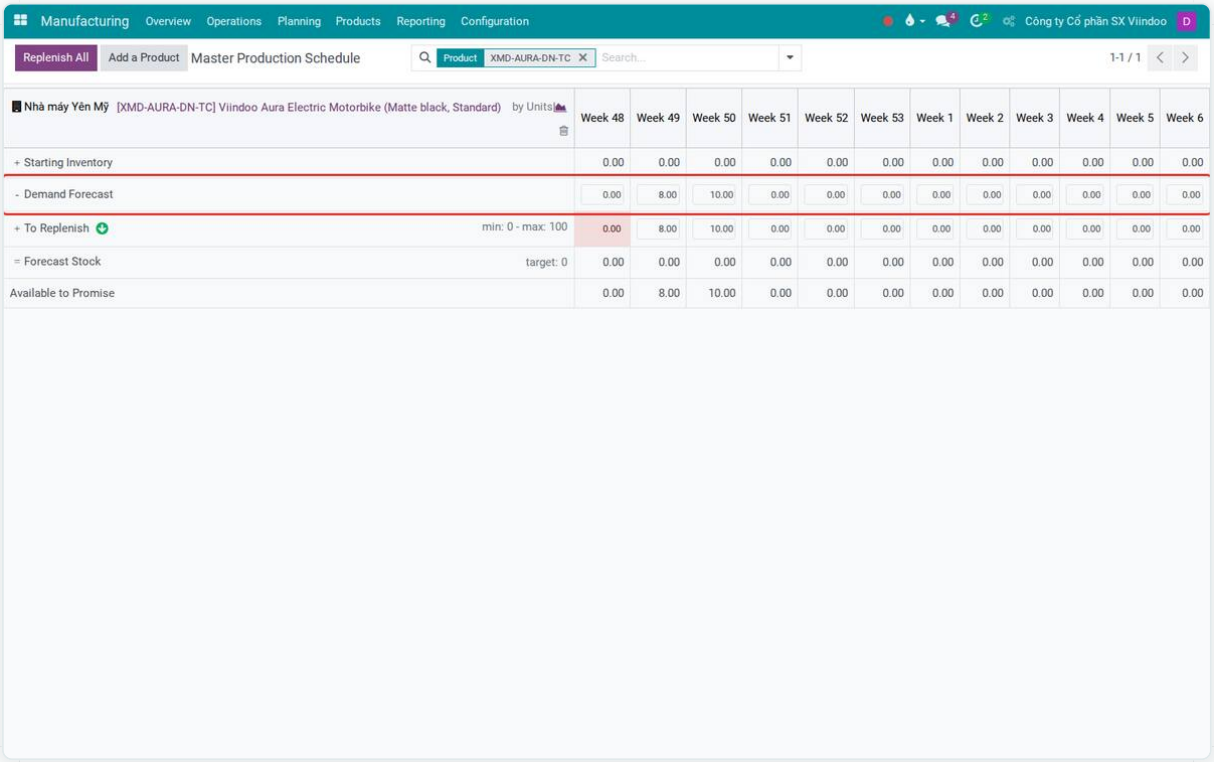


What you should see: the dialog has **Product**, **Bill of Materials**, **Warehouse**, **Company**, **Safety Stock Target** (0.00 Units), **Minimum to Replenish** (0.00 Units) and **Maximum to Replenish** (100.00 Units by default). After saving, the vehicle has a block of its own on the screen.

Step 3 - Enter the demand forecast

Type the product code in the search box and press Enter to see only the block of this vehicle. On the line **Demand Forecast**, type 8 in the column *Week 49* and 10 in the column *Week 50* (assumed figures), pressing Tab after each box.

> *Path:* `Manufacturing > Planning > Master Production Schedule`

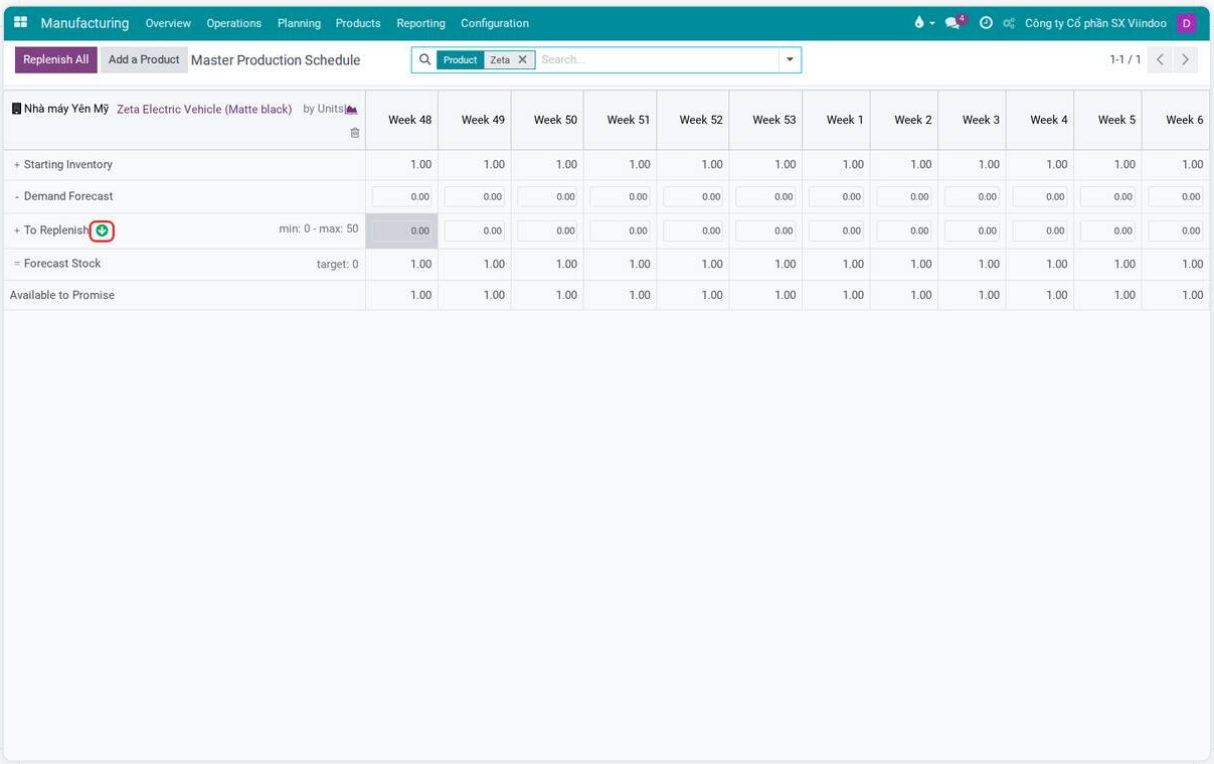


What you should see: the **Demand Forecast** line (circled) has 8.00 and 10.00; the **To Replenish** line below calculates by itself from those numbers (also 8.00 and 10.00 when there is no stock or order that covers them), and **Available to Promise** follows.

Step 4 - Click replenish for this vehicle only

Click the green arrow next to the words **To Replenish** in the block of the vehicle (the **Replenish** button).

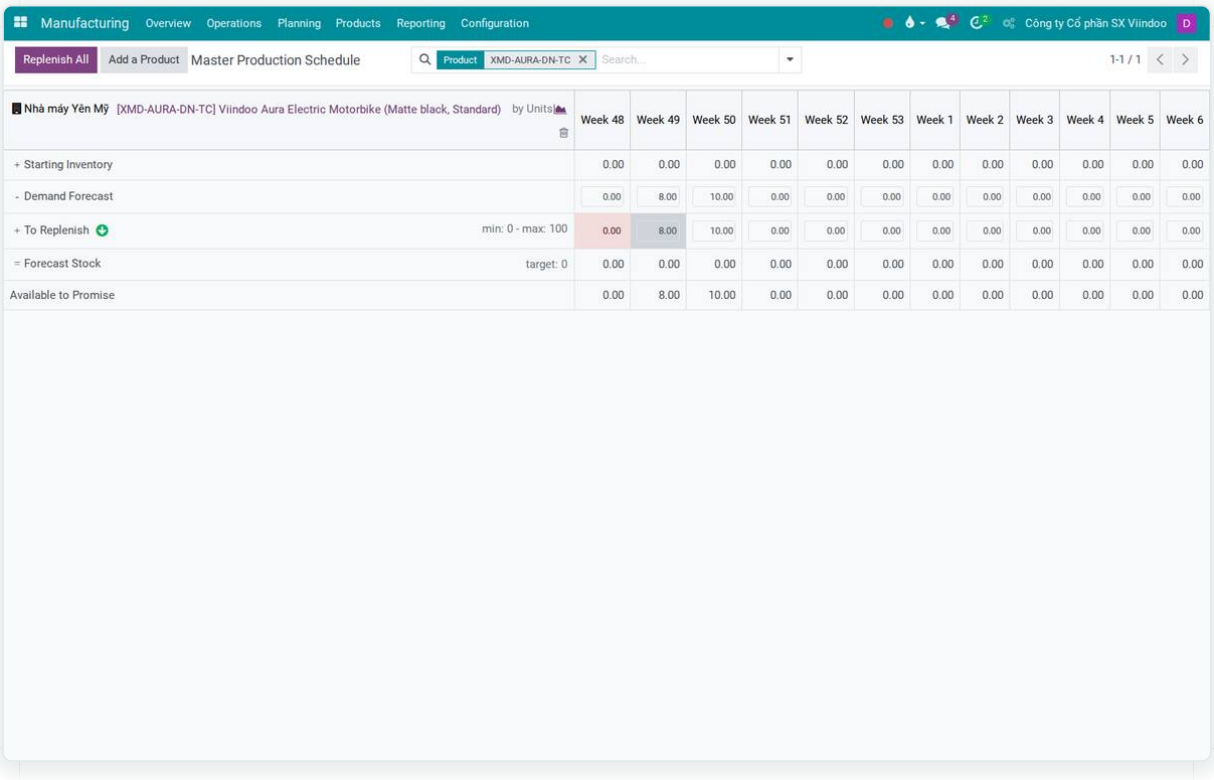
> *Path:* `Manufacturing > Planning > Master Production Schedule`



What you should see: the green arrow is circled on the **To Replenish** line of the vehicle block (the screen is filtered on one product, so no other product is replenished).

Step 5 - Read the result

> *Path:* `Manufacturing > Planning > Master Production Schedule`

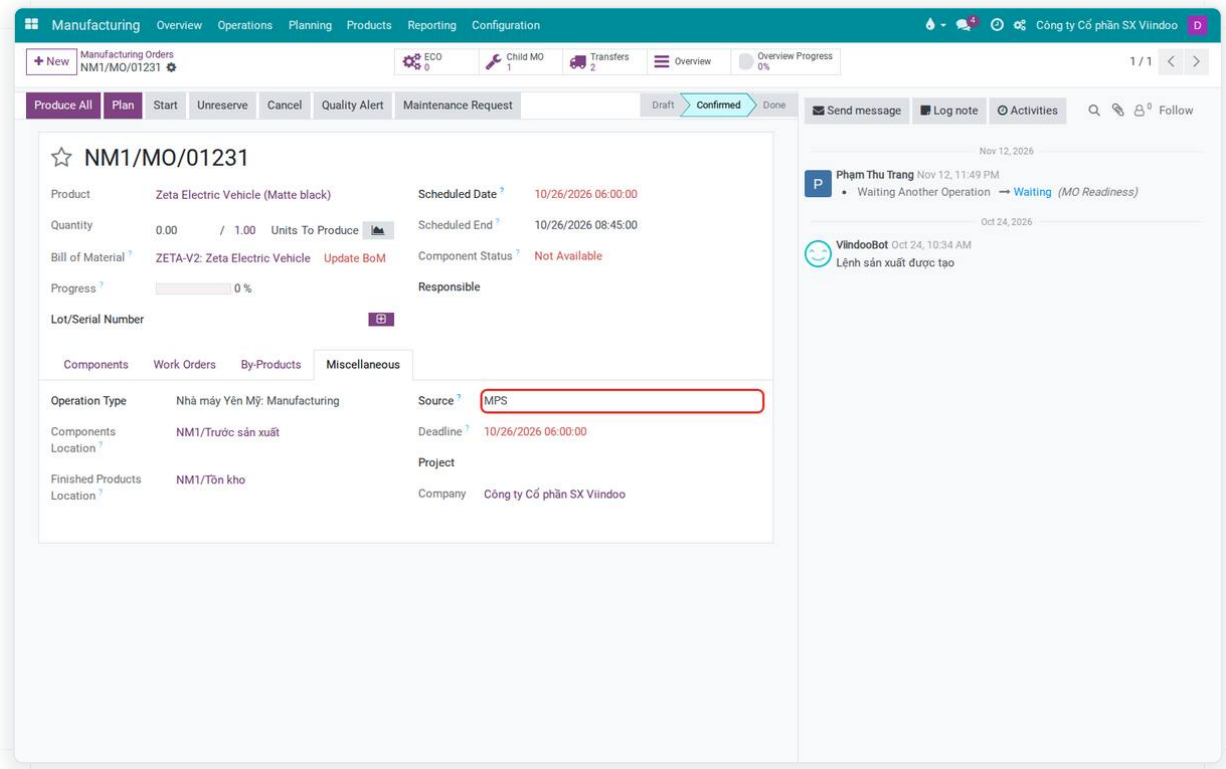


What you should see: the box of *Week 49* on the **To Replenish** line turns grey, which means this period has been replenished.

Step 6 - Open the order that was created

Go to **Manufacturing > Operations > Manufacturing Orders**, find the order whose **Source** is *MPS* and open the **Miscellaneous** tab.

> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/... > Miscellaneous tab`



What you should see: Source is *MPS*; **Scheduled Date** falls at the start of the planned week (10/26/2026 in the picture); the status is **Confirmed**; **Operation Type** is *Nhà máy Yên Mỹ: Manufacturing*. The quantity of the order is the part that is missing for the period after stock and existing orders are subtracted, not exactly the forecast. For the Aura line above, with no stock and no other order, the new order is for the full 8 vehicles (*NM1/MO/01294*); the picture shows another vehicle whose forecast was partly covered by earlier orders, so its order is for 1 vehicle. Your company's numbers may differ depending on the orders already made.

19 REVIEWING THE QUANTITY, DATE AND RESPONSIBLE PERSON OF AN ORDER

About 40 minutes. By the end of this lesson your company can read the source of each order, change the quantity, start date and responsible person of an order, and knows when a new demand is added to an existing order and when the system creates a new order.

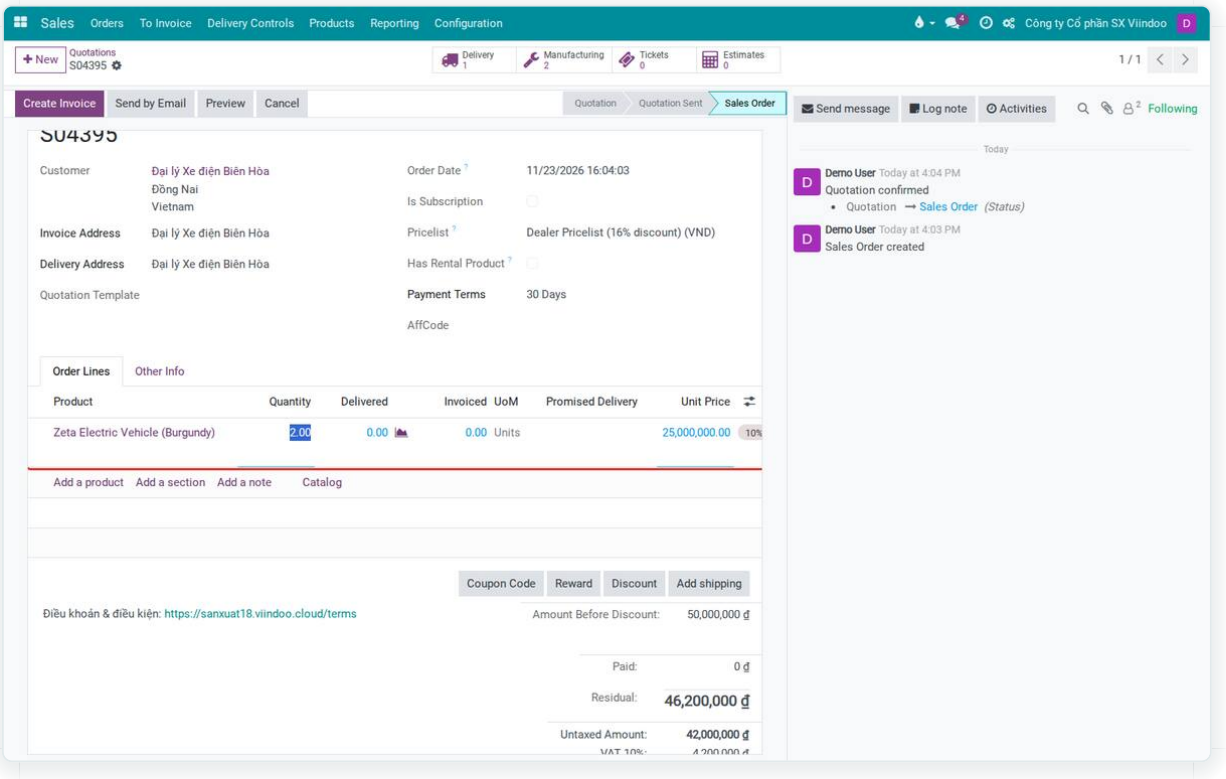
The table for recognising the source in the **Source** column of the order list:

Source column says	The order comes from
A sales order number, like *S0...*	A sales order (make to order)
A rule number, like *OP/...*	A reordering rule (make to stock)
MPS	The master production schedule
Another order number, like *NM1/MO/...*	A child order, created to make a semi-finished product for the parent order
Empty	Created by hand

Step 1 - Increase the quantity on the sales order

Open the sales order *S0...* (*S04395* in the pictures) of the lesson *A sales order generates a make-to-order manufacturing order*, click the **Quantity** box of the vehicle line and change 2 to 3.

> *Path:* `Sales > Orders > Quotations > S0... > Order Lines tab`

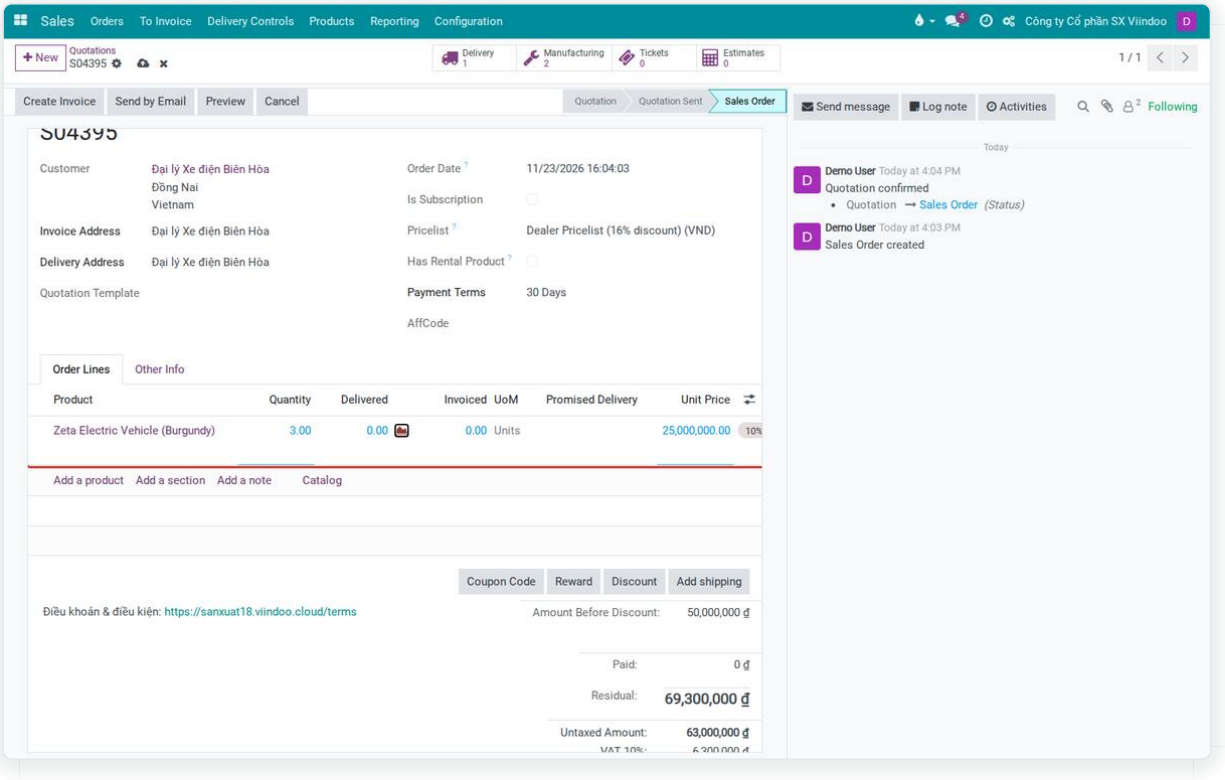


What you should see: the quantity box of the vehicle line can be edited, with its content selected.

Step 2 - Save and read the reaction of the system

Click **Save manually**.

> *Path:* `Sales > Orders > Quotations > S0...`

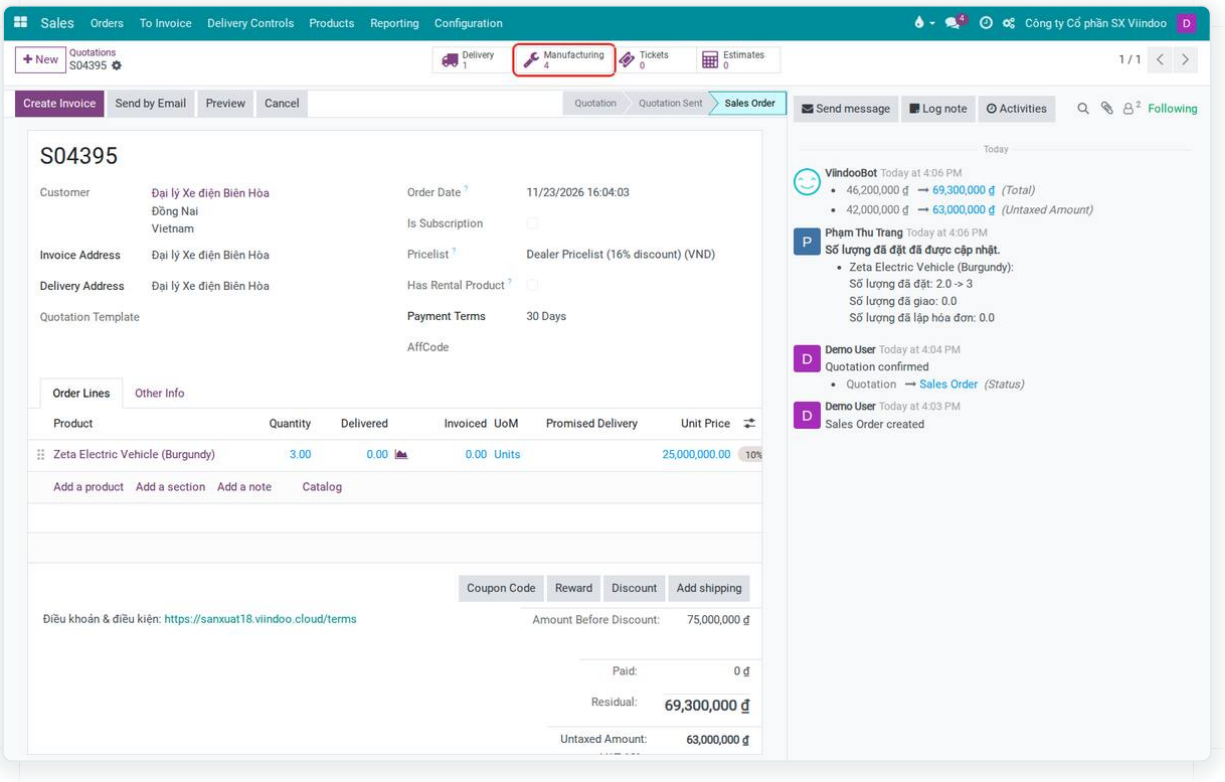


What you should see: the quantity is 3.00; the total goes up accordingly (the amount due is 69,300,000 VND including tax in the picture, instead of 46,200,000 VND); after saving, the chatter says the ordered quantity has been updated: 2.0 -> 3.

Step 3 - See the number of orders of the sales order

Look at the smart button **Manufacturing**.

> *Path:* `Sales > Orders > Quotations > S0...`

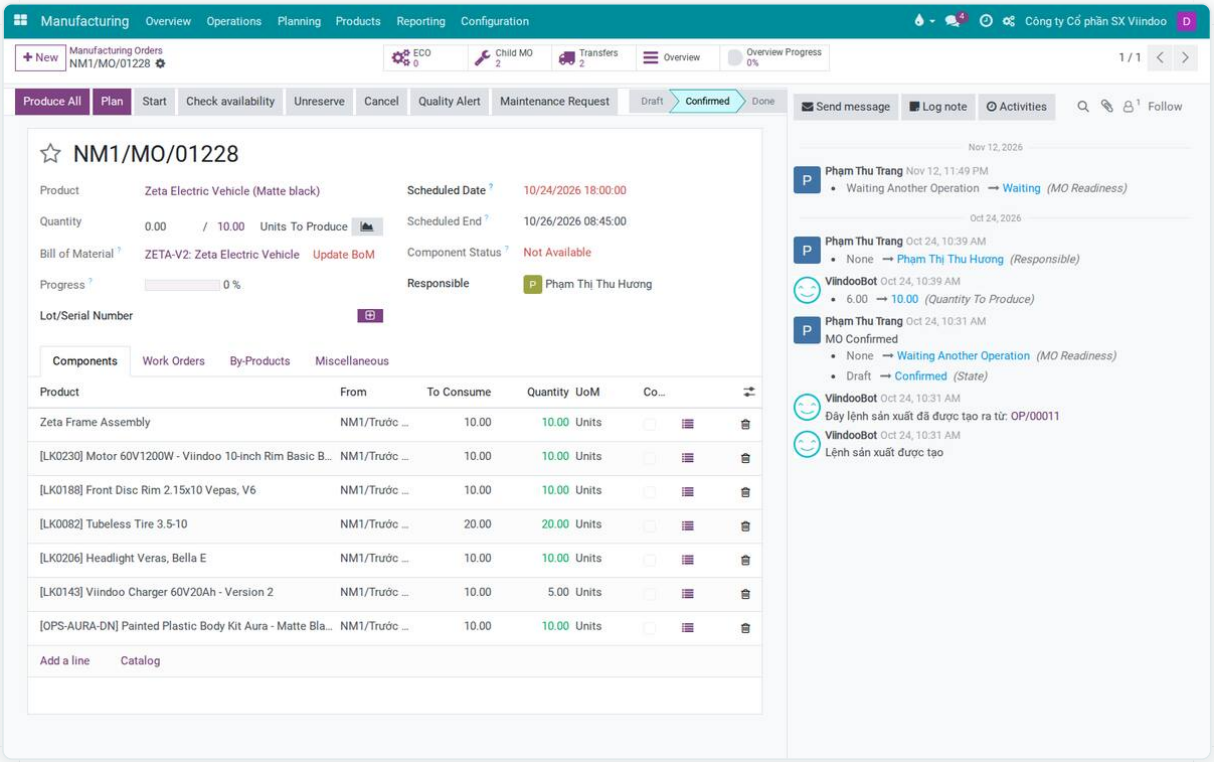


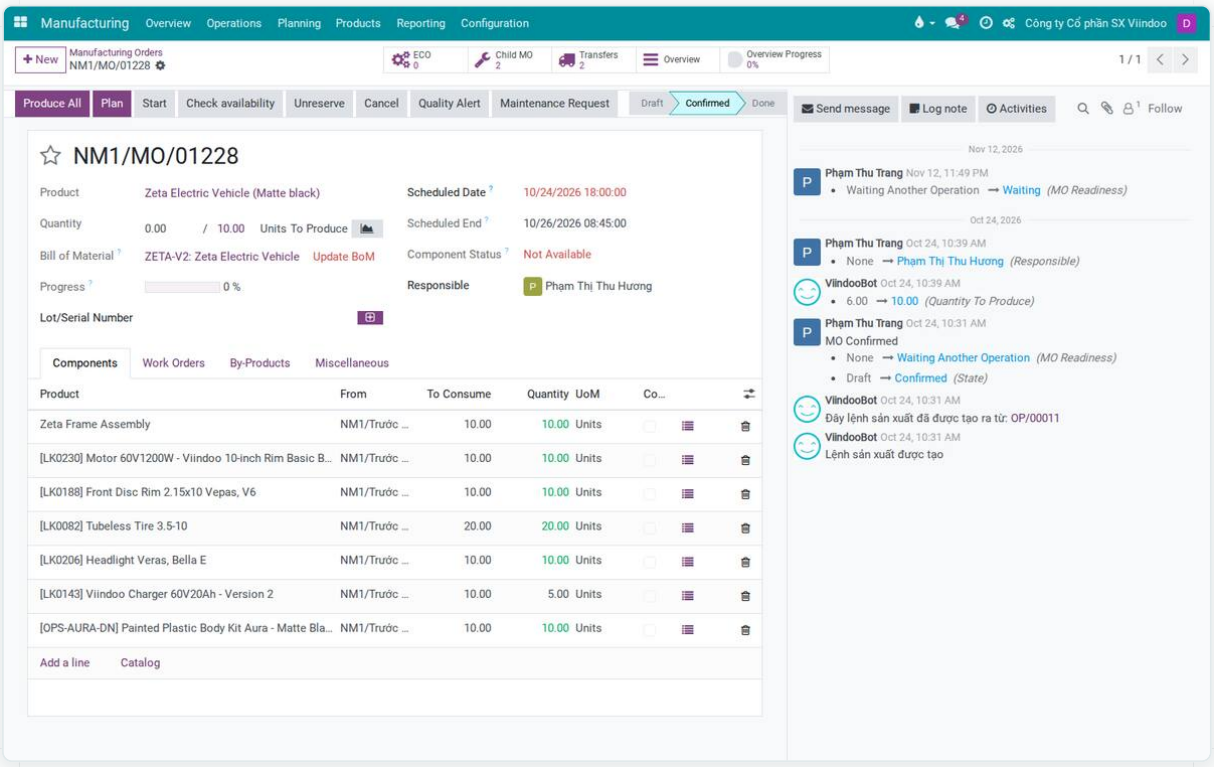
What you should see: the **Manufacturing** button goes from 2 to 4. The system does not add 1 vehicle to the old order; it creates one more order for 1 vehicle (together with its child order for the frame assembly).

Step 4 - Assign a responsible person

Open the order created from the reordering rule in the previous lesson (the **Source** column is *OP/...*). The **Responsible** box of such an order is empty at first; click it, choose a person and click **Save manually**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/... (Source OP/...)`



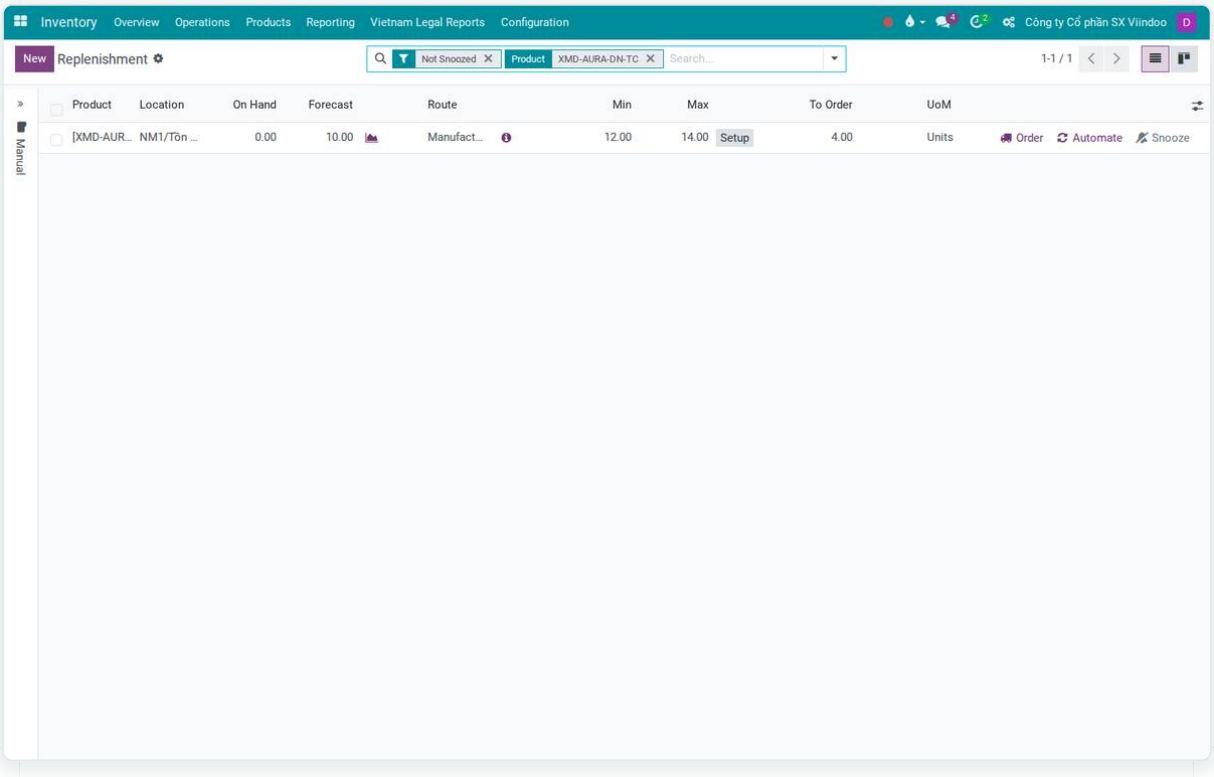


What you should see: the **Responsible** box shows the name of the person just chosen (*Phạm Thị Thu Hương* in the picture, order *NM1/MO/01228*); the chatter has a *(Responsible)* line with that name. An order that has a responsible person is an order that someone has taken over, so new demands will not be added to it (step 5).

Step 5 - Raise the minimum to create a new demand

Go to **Inventory > Operations > Procurement > Replenishment**, filter on the vehicle, edit **Min** and **Max** of its rule to be higher than the current **Forecast** (in the picture 12 and 14 with **Forecast** 10.00), then click **Order**.

> *Path:* `Inventory > Operations > Procurement > Replenishment`

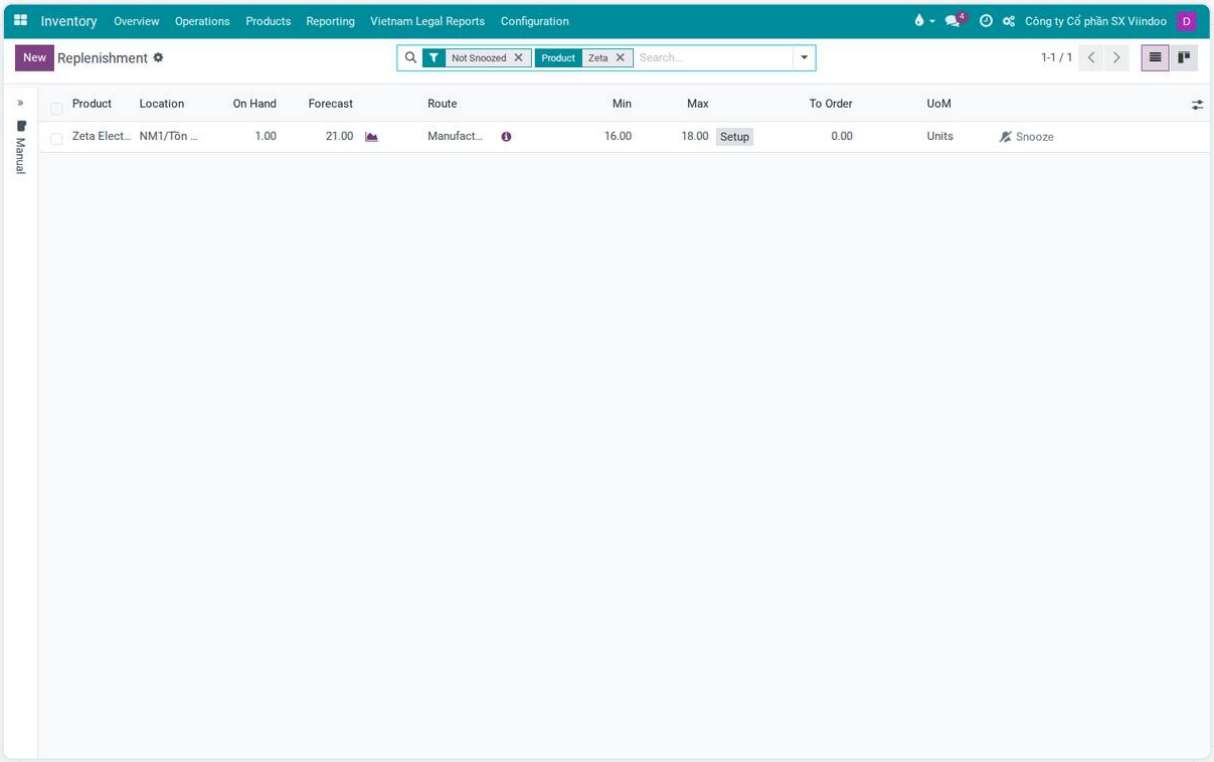


What you should see: in the picture (the Aura rule with **Forecast** 10.00, **Min** 12.00 and **Max** 14.00) **To Order** equals **Max** minus **Forecast**, that is 4.00. After you click **Order**, the order that already has a responsible person keeps its quantity, and the system creates a **new** order for the quantity just ordered (see the list in step 9).

Step 6 - Raise it once more to see demand added up

Repeat step 5 at a still higher level (for example 26 and 28), then click **Order**. The picture shows the rule line before you raise it: **Forecast** 21.00, **Min** 16.00, **Max** 18.00, **To Order** 0.00.

> *Path:* `Inventory > Operations > Procurement > Replenishment`

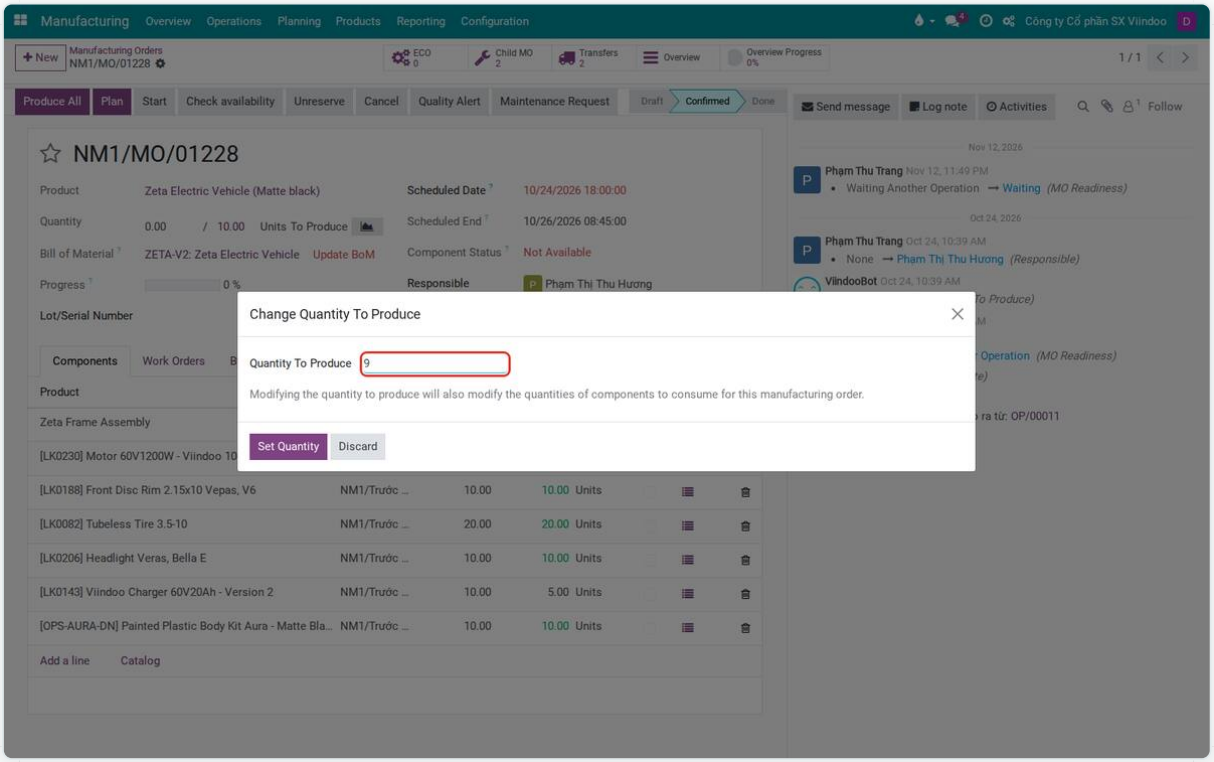


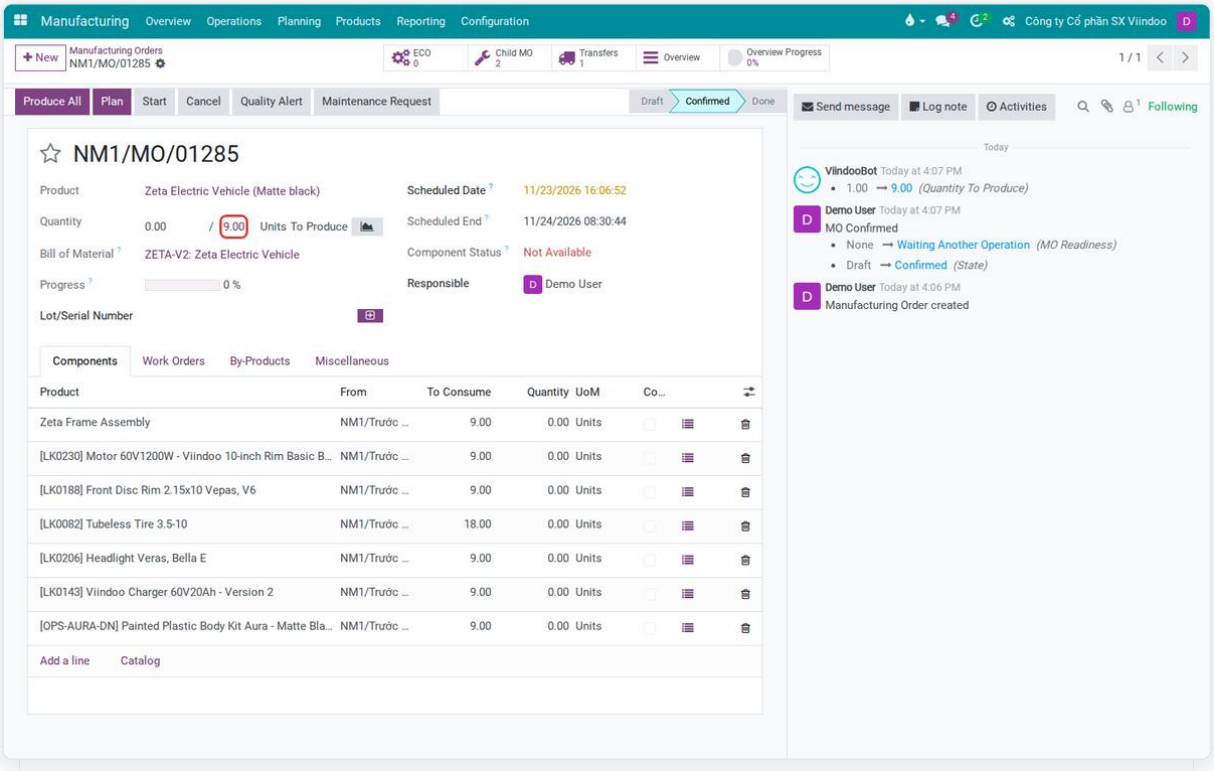
What you should see: To Order has a number again; this time the **new** order of step 5 (which has no responsible person) gets **extra quantity** instead of a third order being created (see the list in step 9: that order has a quantity equal to the sum of the two times). The rule is: a new demand is added to an existing order when that order has the same product, the same bill of materials, is still in the status **Draft** or **Confirmed**, is not yet planned and **has no responsible person**.

Step 7 - Change the quantity of an order

Open the order that was added up in step 6 and click the number of the quantity to produce (next to the word **Quantity**). In the dialog **Change Quantity To Produce** type the new number in **Quantity To Produce** (in the picture it is 9) and click **Set Quantity** (the other button is **Discard**).

> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/... > Quantity`



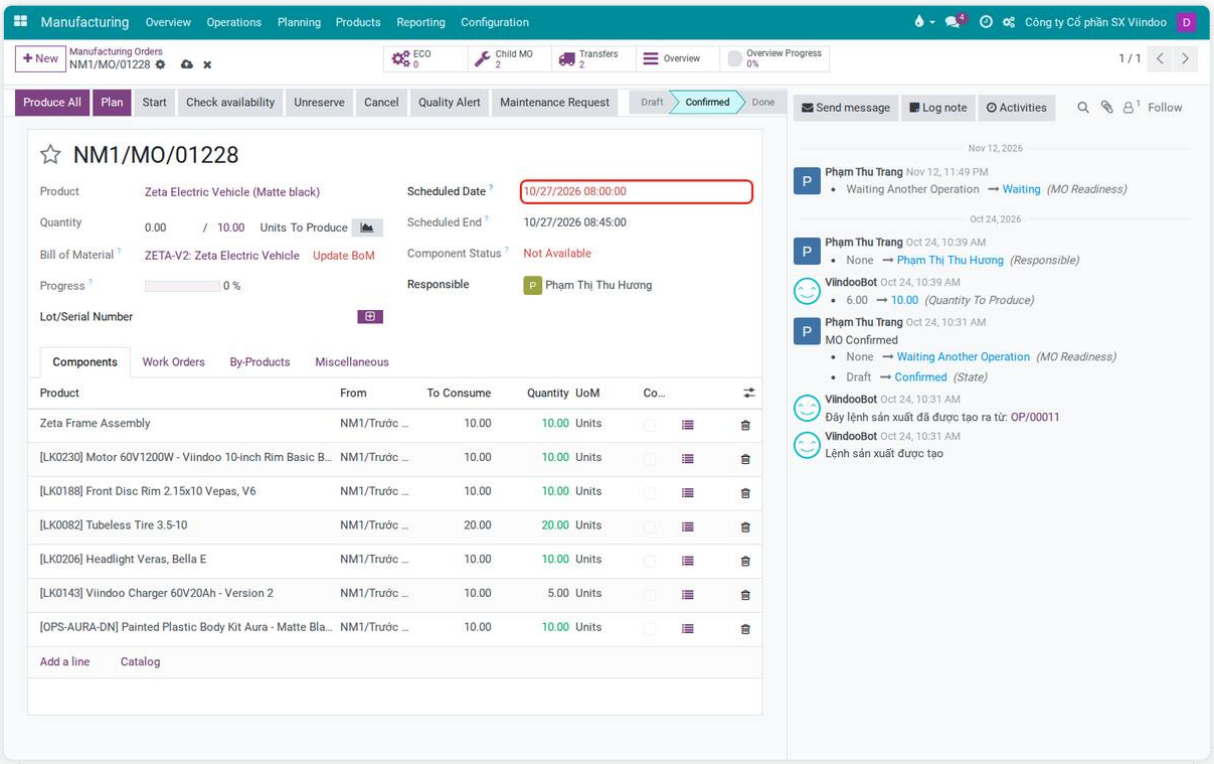


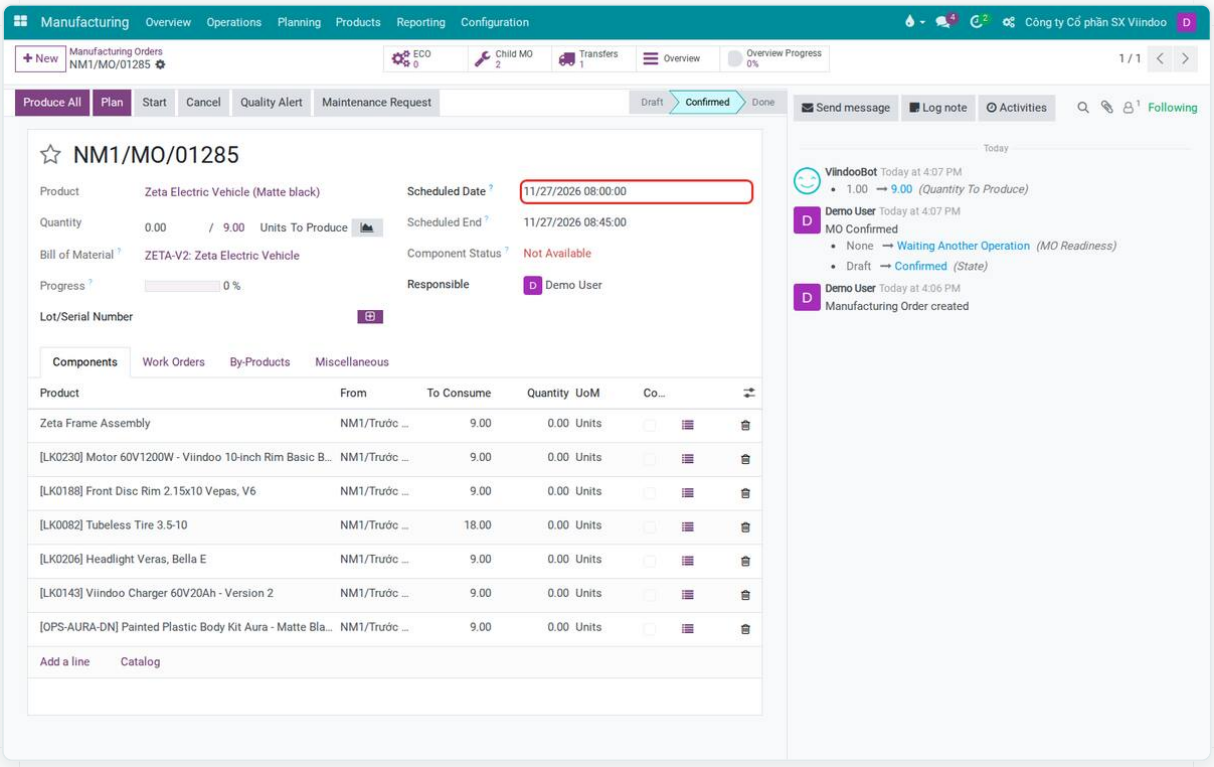
What you should see: the dialog says *Modifying the quantity to produce will also modify the quantities of components to consume for this manufacturing order.* After you set it, the quantity changes (in the picture *NM1/MO/01285* goes from 1 to 9) and every component line is multiplied again (the component lines are 9.00 and the tire 18.00). The child order of the frame assembly may go up too, and the **Child MO** button changes its number.

Step 8 - Change the start date

On the same order, click the **Scheduled Date** box, type the new date and time (in the picture it is 11/27/2026 08:00:00), press Enter, then click **Save manually**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/... > Scheduled Date`



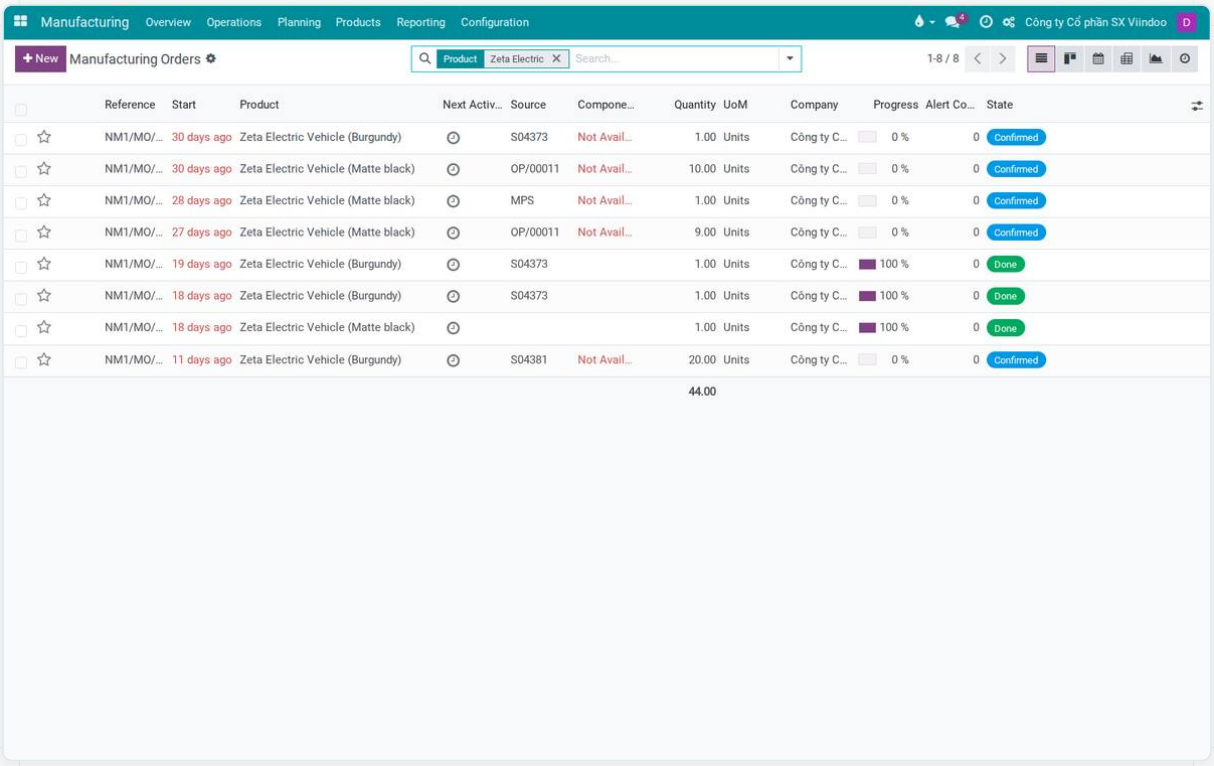


What you should see: Scheduled Date is the new date, **Scheduled End** moves with it (11/27/2026 08:45:00, the same day, 45 minutes later). The chatter on the right records each change of quantity, *1.00 → 9.00 (Quantity To Produce)*.

Step 9 - Read the whole list of orders of the Zeta vehicle

Go to **Manufacturing > Operations > Manufacturing Orders**, remove the default filter, type **Zeta Electric Vehicle** in the search box and choose **Search Product for**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders`



What you should see: one line per order (8 in the picture) with the columns **Reference**, **Start**, **Product**, **Next Activity**, **Source**, **Component Status**, **Quantity**, **UoM**, **Company**, **Progress**, **Alert Count** and **State**: orders whose **Source** is a sales order (*S04373* three times, 1.00 each, and *S04381* for 20.00), two orders whose source is *OP/00011* (10.00 and 9.00; the order that has a responsible person and the order that was added up), one order whose source is *MPS* (1.00) and one order with no source (made by hand, **Done**). The **Component Status** column says *Not Available* for the orders that are still **Confirmed**: that is correct behavior when the frame assembly and components are not enough, and the next job is to receive goods or make the frame assembly (see Part IV. Purchasing and import and Part VI. Shop floor production).

20 PRODUCTION PLANNING REPORTS

About 15 minutes. The planning part has the following screens. The table lists all of them; three are walked through below.

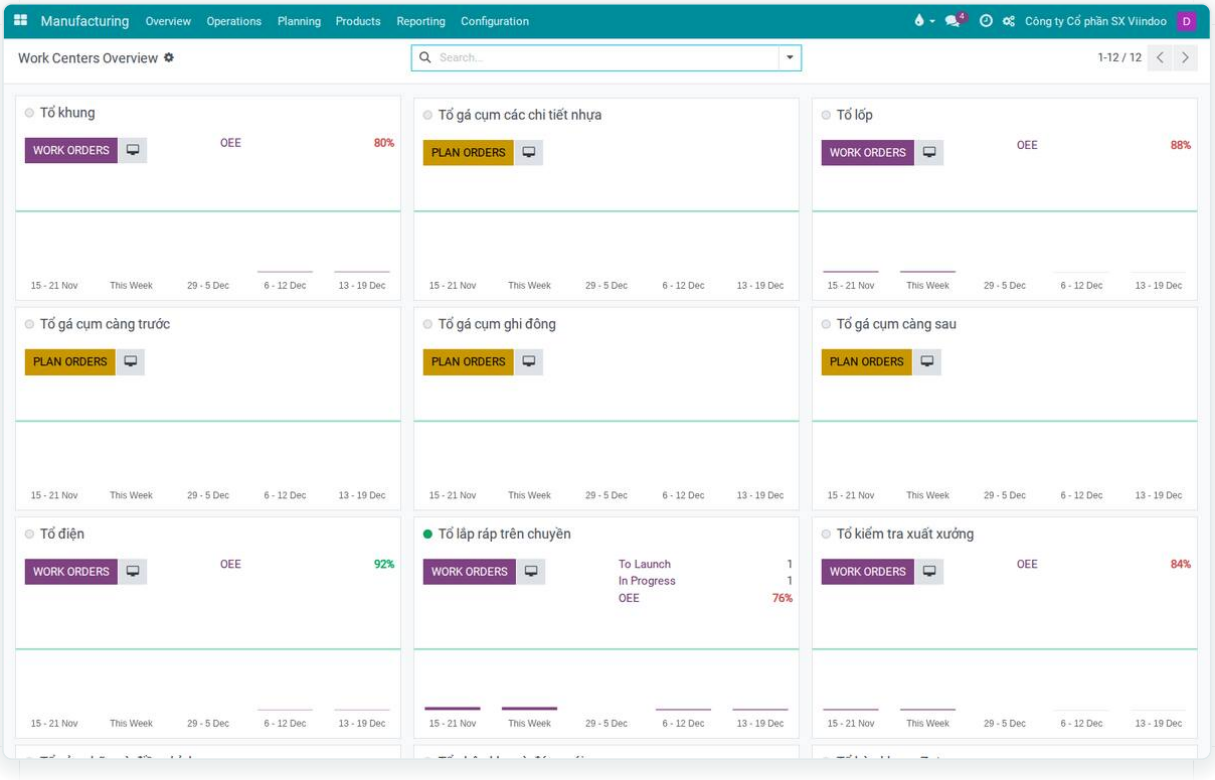
Report	What question it answers	Path
Manufacturing Overview	How many work orders each station has, what the OEE is, how the week plan looks	`Manufacturing > Overview`
Planning by Production	Which operations each order has and how long they are expected to take	`Manufacturing > Planning > Work Orders > Planning by Production`
Planning by Workcenter	How busy each station is this week, whether work overlaps	`Manufacturing > Planning > Work Orders > Planning by Workcenter`
Master Production Schedule	Which week needs how many vehicles to meet the forecast	`Manufacturing > Planning > Master Production Schedule`
Replenishment	Which item is under its minimum, how much to order	`Inventory > Operations > Procurement > Replenishment`
List of manufacturing orders by source	Which orders are make to order, make to stock or from the forecast	`Manufacturing > Operations > Manufacturing Orders` (the **Source** column)

The reports **Manufacturing Orders Progress** and **Work Orders** are in Part VI. Shop floor production.

Step 1 - Open the Manufacturing overview

Go to **Manufacturing > Overview**.

> *Path:* `Manufacturing > Overview`

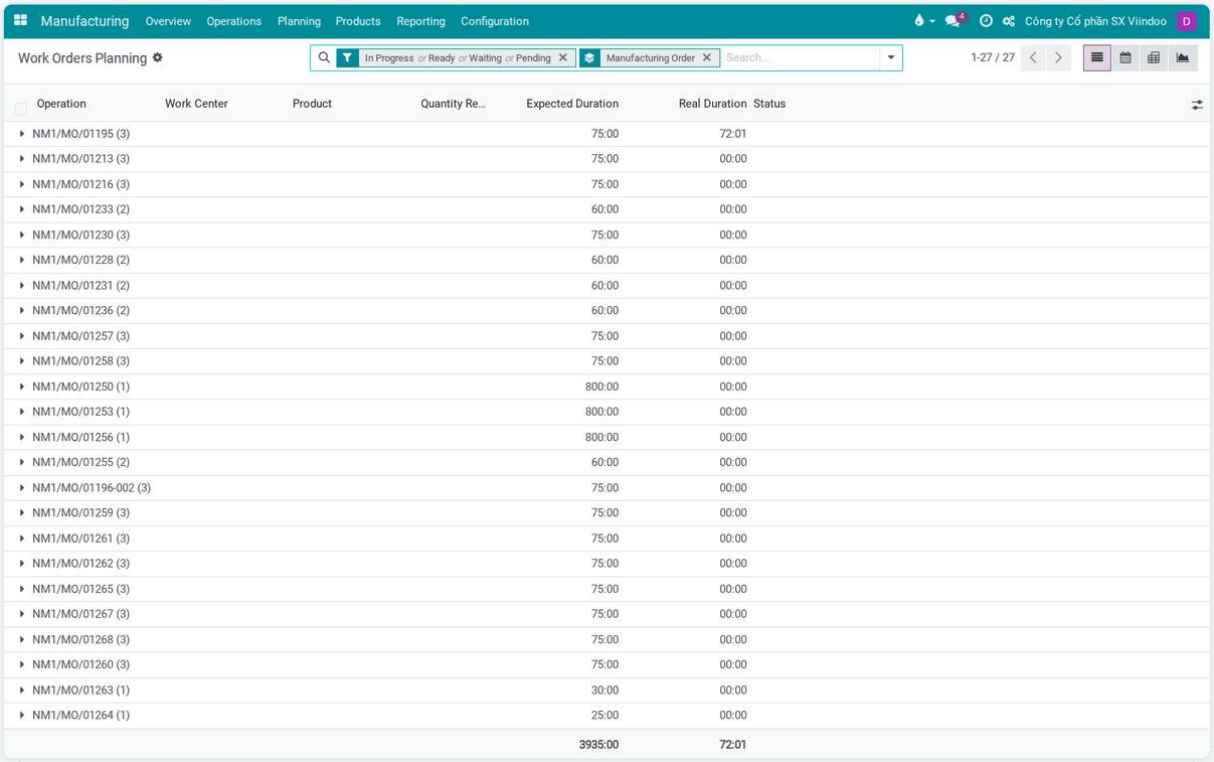


What you should see: the screen *Work Centers Overview* with one card per station (12 in the picture): the station name, a button **WORK ORDERS** or **PLAN ORDERS**, the OEE figure (for example 80% for *Tổ khung*) and a weekly chart (*15 - 21 Nov*, *This Week*, ...). A station with running work also shows *To Launch* and *In Progress* counts.

Step 2 - Open Planning by Production

Go to **Manufacturing > Planning > Work Orders > Planning by Production**.

> *Path:* `Manufacturing > Planning > Work Orders > Planning by Production`

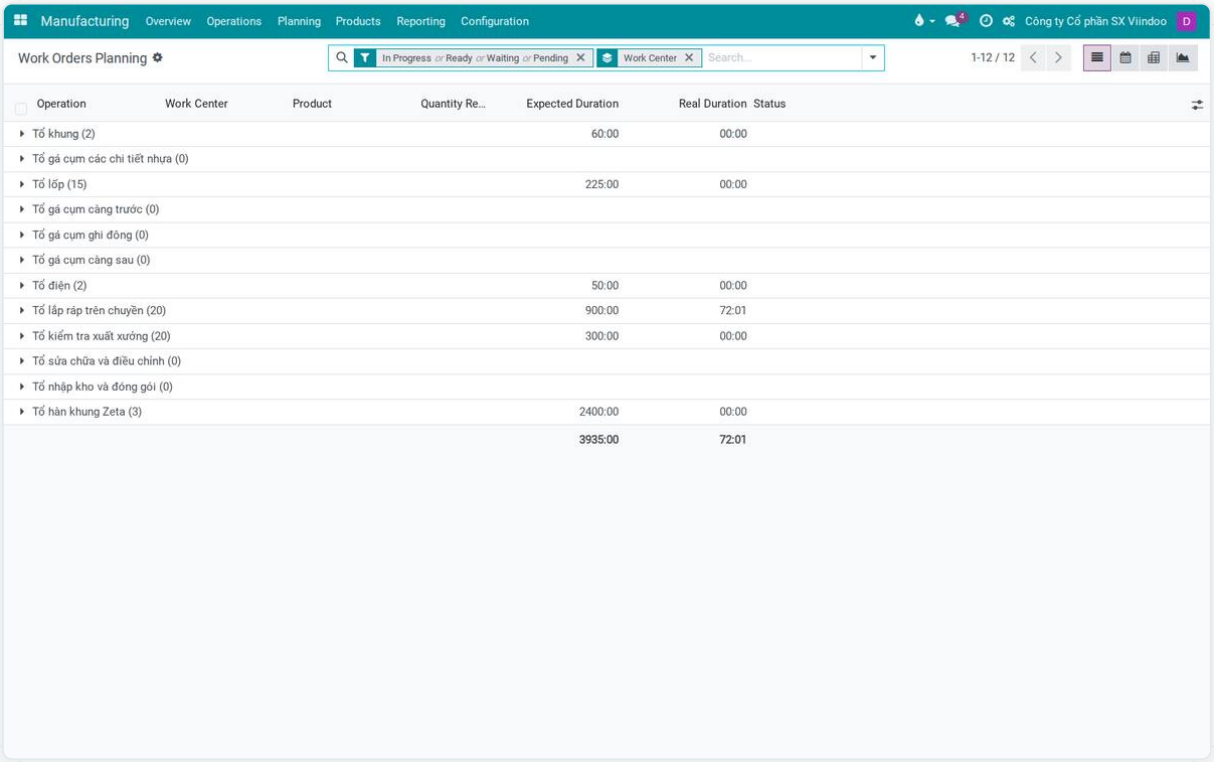


What you should see: the screen *Work Orders Planning* as a list grouped by manufacturing order (for example *NM1/MO/01228 (2)*); expand a group to see its work orders. The columns are **Operation**, **Work Center**, **Product**, **Quantity Re...**, **Expected Duration**, **Real Duration** and **Status**; the default filter is *In Progress or Ready or Waiting or Pending*, and the buttons at the top right switch between list, calendar, pivot and graph.

Step 3 - Open Planning by Workcenter

Go to **Manufacturing > Planning > Work Orders > Planning by Workcenter**.

> *Path:* `Manufacturing > Planning > Work Orders > Planning by Workcenter`



What you should see: the same screen grouped by **Work Center** (for example *Tổ khung (2)* (Frame team), *Tổ điện (2)* (Electrical team), *Tổ lắp ráp trên chuyền (20)* (Assembly line team) and *Tổ hàn khung Zeta (3)* (Zeta frame welding team)), with the expected duration of each group (900:00 for the assembly line team). This is the screen on which to see which station is overloaded.

21 PRACTICE EXERCISE: FROM FORECAST TO MANUFACTURING ORDER

About 45 minutes. There are no step-by-step pictures.

The task. Your company receives a sales order for 3 *Zeta Electric Vehicle (Matte black)* from *Cửa hàng Xe điện An Phát* and wants to keep a minimum stock of 4 *Matte black* vehicles.

What to do.

1. Make a quotation for 3 *Matte black* vehicles for the customer above and confirm it. Write down the number of the order created and the number of the child order.
2. Open the vehicle order, read the **Source** column and the **Bill of Material** box.
3. Create (or edit) the reordering rule of the *Matte black* vehicle with minimum 4 and maximum 8; click **Order**. Write down the order created.
4. Enter in the master production schedule a forecast of 5 *Matte black* vehicles for next week; click replenish for this vehicle only; write down the quantity of the orders.
5. Assign a responsible person to the make-to-order order; increase the quantity of the order from the reordering rule by 2.

6. Open the list of orders filtered by product and classify each order by the **Source** column.

Self-check. It is right when: (a) the make-to-order order has the sales order number as **Source** and a child order *Zeta Frame Assembly* of the same quantity; (b) the order from the rule has **Source** *OP/...* and the chatter note *This manufacturing order has been created from: OP/...*; (c) the order from the master production schedule has **Source** *MPS*; (d) after a responsible person is assigned to an order, the next replenishment does not add to that order; (e) the total of the *Matte black* orders without a responsible person and with the source *OP/...* is only one order if your company replenishes twice in a row.

If it does not come out like this. Confirming the order does not create an order: check that the vehicle has both **Manufacture** and **Replenish on Order (MTO)** routes, and that the vehicle has a bill of materials. The rule gives no quantity to order: check whether **Forecast** is higher than **Min** (then nothing is ordered). The order from the master production schedule is smaller than the forecast: it is the part missing after the existing orders are subtracted.

PART IV. PURCHASING AND IMPORTS

This part answers these questions: where do you buy the components you are short of, how do you buy in a foreign currency, do large orders have to be approved, and do import duty, freight and customs fees go into the cost of each component? It is written for purchasing staff, planners, storekeepers and accountants.

Every hands-on lesson starts with **your company creating its own documents** (purchase order, request, manufacturing order). Your company does not have to edit records that belong to someone else.

> *Note on typing numbers:* type decimal numbers with a dot, for example `1.05` for a unit price of 1.05.

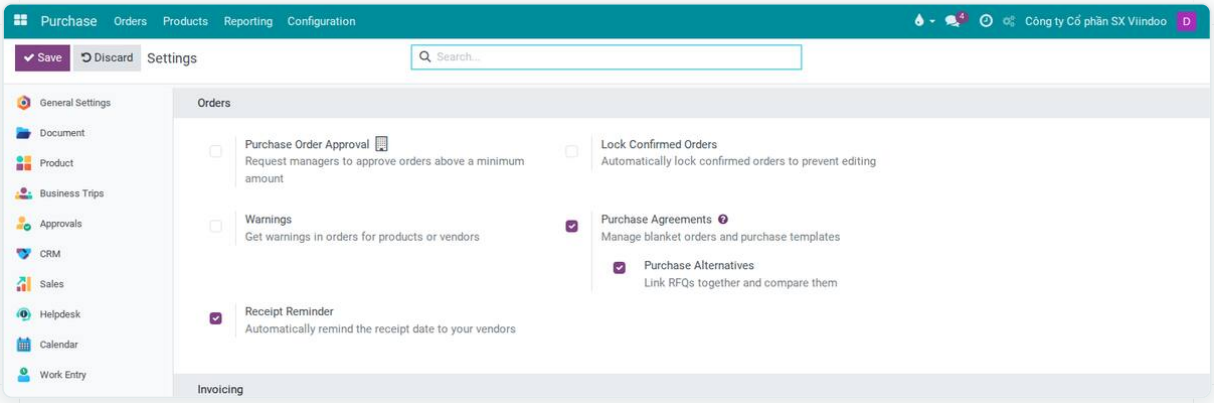
22 PURCHASING AND IMPORT CONFIGURATION IN USE

About 10 minutes. By the end of this lesson your company knows what is switched on in the system for purchasing and importing, and what is lost if it is switched off.

Step 1 - Read the Purchase settings

Open **Purchase**, go to **Configuration** and click **Settings**. Read the **Orders** group (read only, do not click **Save**).

> *Path:* `Purchase > Configuration > Settings`

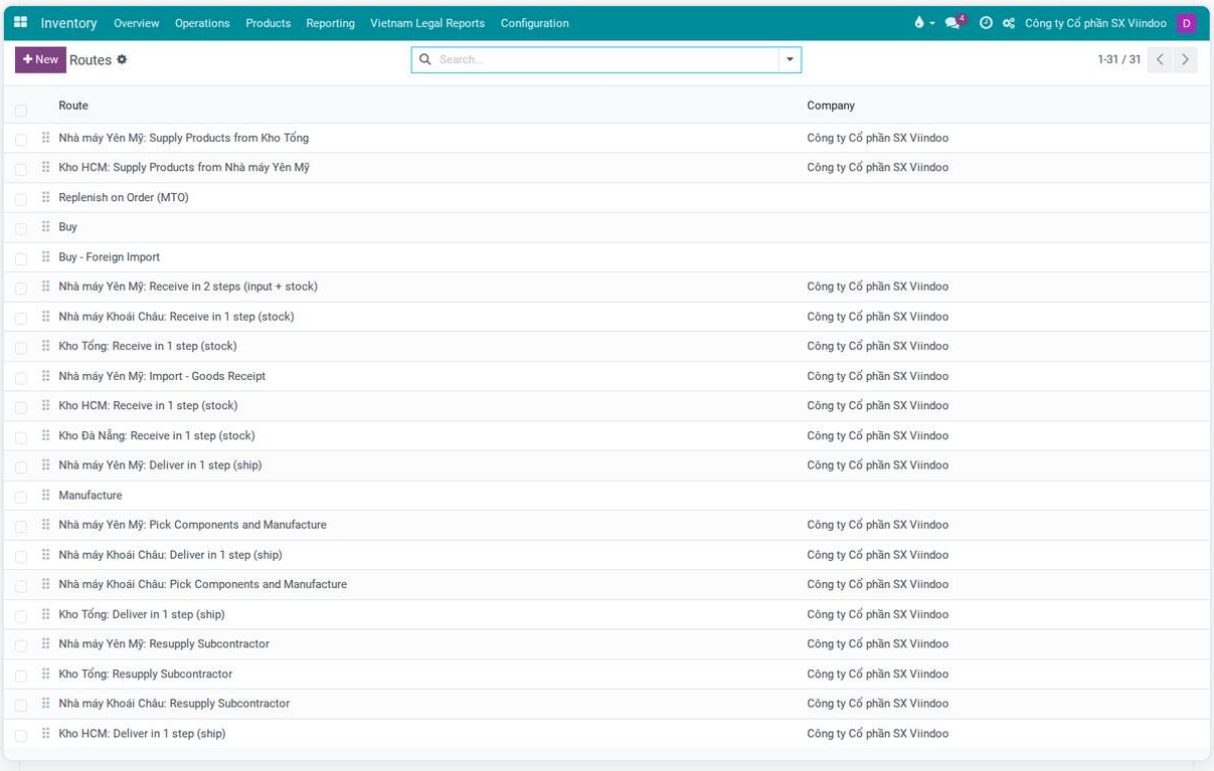


What you should see: the **Purchase Order Approval** box is not ticked; **Purchase Agreements** (with **Purchase Alternatives** under it) and **Receipt Reminder** are ticked.

Step 2 - Read the supply routes

Open the list of routes. Find the two lines **Buy** and **Buy - Foreign Import**.

> *Path:* `Inventory > Configuration > Warehouse Management > Routes`

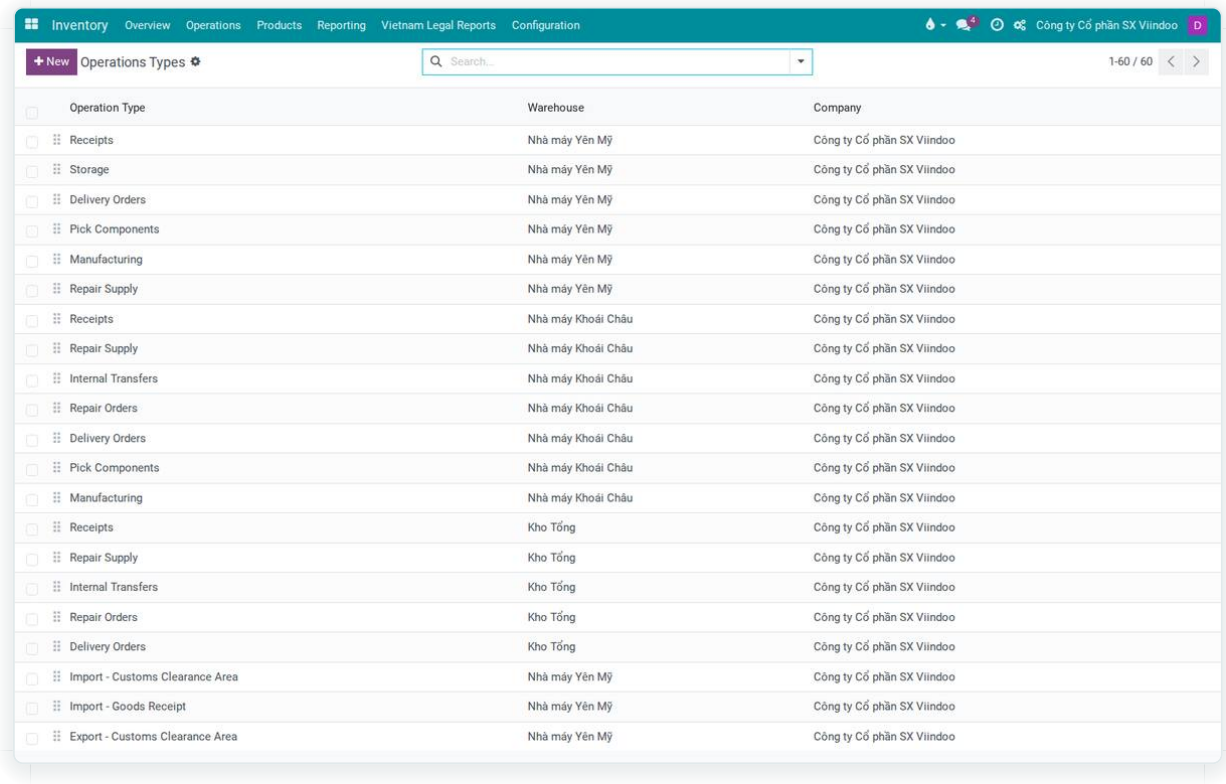


What you should see: the list has a **Buy** route and a **Buy - Foreign Import** route. The second route sends goods to the customs clearance area instead of straight into the warehouse.

Step 3 - Read the import operation types

Open the list of operation types and scroll to the bottom. Find **Import - Customs Clearance Area** and **Import - Goods Receipt** of Nhà máy Yên Mỹ (Yen My Factory).

> *Path:* `Inventory > Configuration > Warehouse Management > Operations Types`



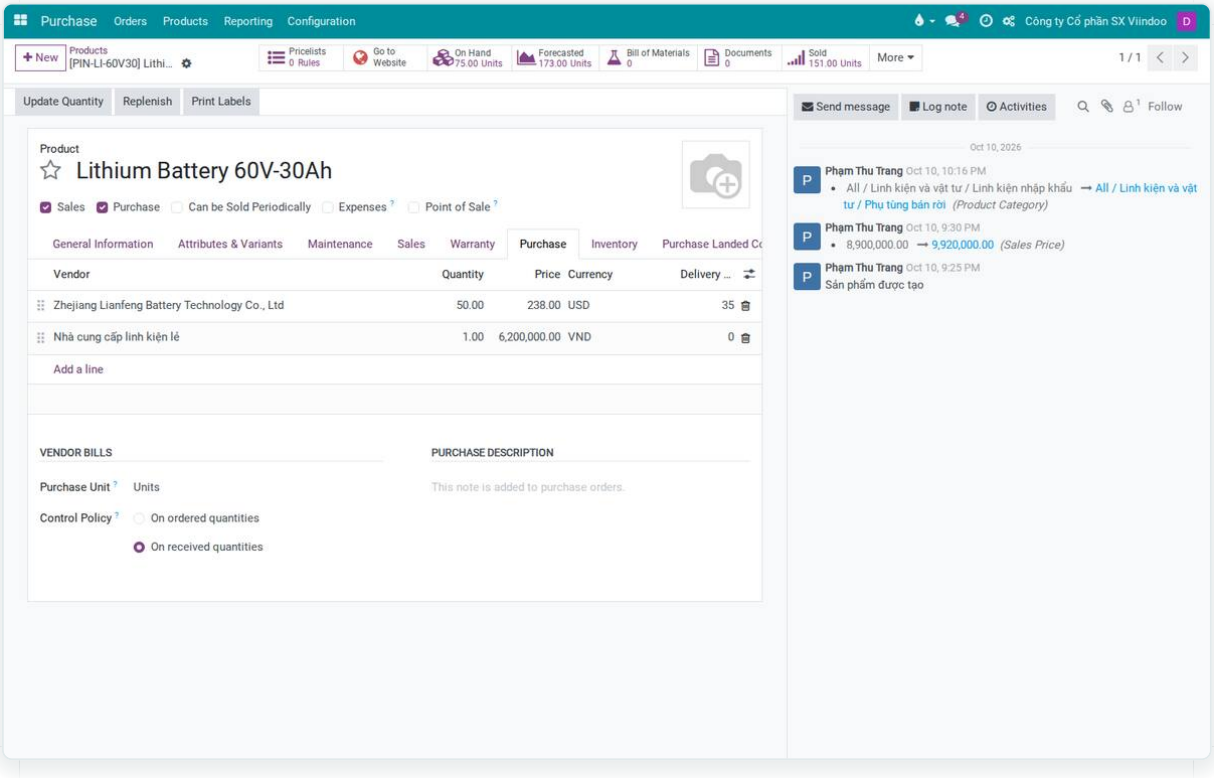
Operation Type	Warehouse	Company
Receipts	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Storage	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Delivery Orders	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Pick Components	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Manufacturing	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Repair Supply	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Receipts	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Repair Supply	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Internal Transfers	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Repair Orders	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Delivery Orders	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Pick Components	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Manufacturing	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Receipts	Kho Tổng	Công ty Cổ phần SX Viindoo
Repair Supply	Kho Tổng	Công ty Cổ phần SX Viindoo
Internal Transfers	Kho Tổng	Công ty Cổ phần SX Viindoo
Repair Orders	Kho Tổng	Công ty Cổ phần SX Viindoo
Delivery Orders	Kho Tổng	Công ty Cổ phần SX Viindoo
Import - Customs Clearance Area	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Import - Goods Receipt	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Export - Customs Clearance Area	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo

What you should see: two import operation types that belong to Nhà máy Yên Mỹ, placed after the ordinary receipt, delivery and manufacturing types.

Step 4 - Read the vendor price list on a product

Open the product **Lithium Battery 60V-30Ah** and choose the **Purchase** tab.

> *Path:* `Purchase > Products > Products` , open the product, **Purchase** tab

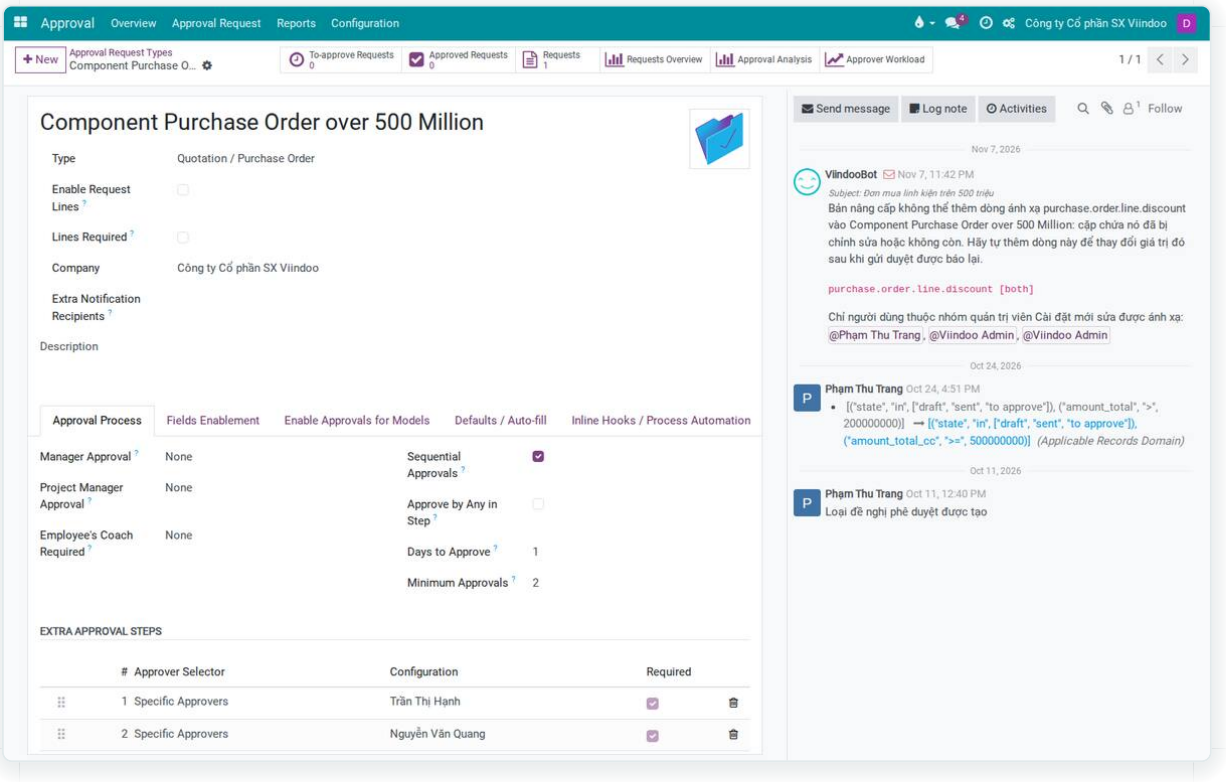


What you should see: every vendor has its own **Quantity** (the minimum quantity), **Price**, **Currency** and delivery lead time. Foreign vendors are priced in USD or CNY (here Zhejiang Lianfeng at 238.00 USD for 50 units), domestic vendors in VND.

Step 5 - Read the purchase approval type

Open the approval type **Component Purchase Order over 500 Million**.

> *Path:* `Approval > Configuration > Approval Types`



What you should see: the type applies to **Quotation / Purchase Order**, **Sequential Approvals** is on, **Minimum Approvals** is 2, and under **Extra Approval Steps** there are two specific approvers in order 1, 2.

What you lose without it

Configuration	Current state	What you lose without it
Purchase Order Approval (Purchase settings)	Off	A high-value purchase order is confirmed at once, with no manager approval step to stop it (see the lesson *Purchase order approval threshold*)
The Buy - Foreign Import route and the two import operation types	In place	Imported goods go straight into the warehouse, without passing through the customs clearance area, and no customs clearance request can be attached
Vendor price list by currency	In place	The purchase order needs a hand-typed price, with a high risk of the wrong currency or the wrong quantity tier
Purchase order approval type	In place	There is no multi-step approval request for large orders
Incoming quality control (see Part V)	In place for some product groups	Defective goods enter the warehouse without being held back

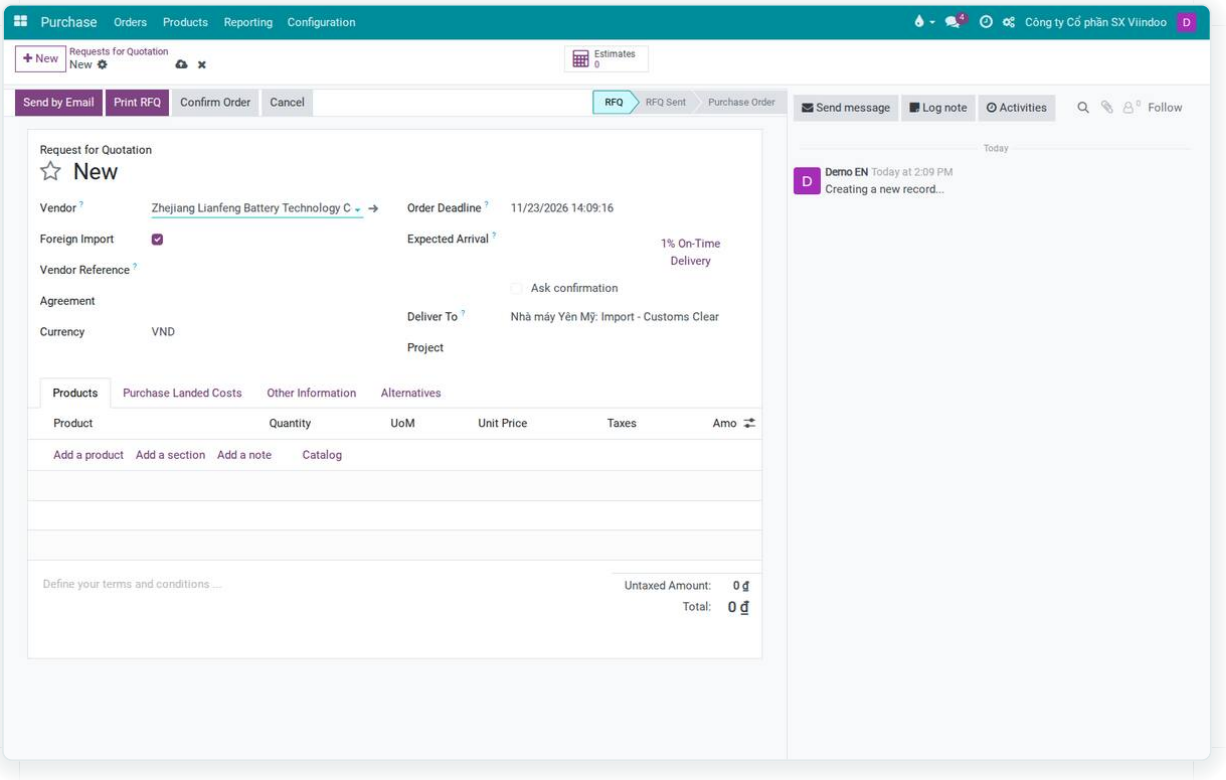
23 IMPORT PURCHASE ORDER IN A FOREIGN CURRENCY

About 15 minutes. By the end of this lesson your company has a purchase order for components from a foreign vendor, priced in USD, confirmed, with a receipt waiting at the customs clearance area.

Step 1 - Open a new purchase order and choose a foreign vendor

Open **Requests for Quotation**, click **New**. In the **Vendor** field, type `Zhejiang Lianfeng` and select it.

> *Path:* `Purchase > Orders > Requests for Quotation`



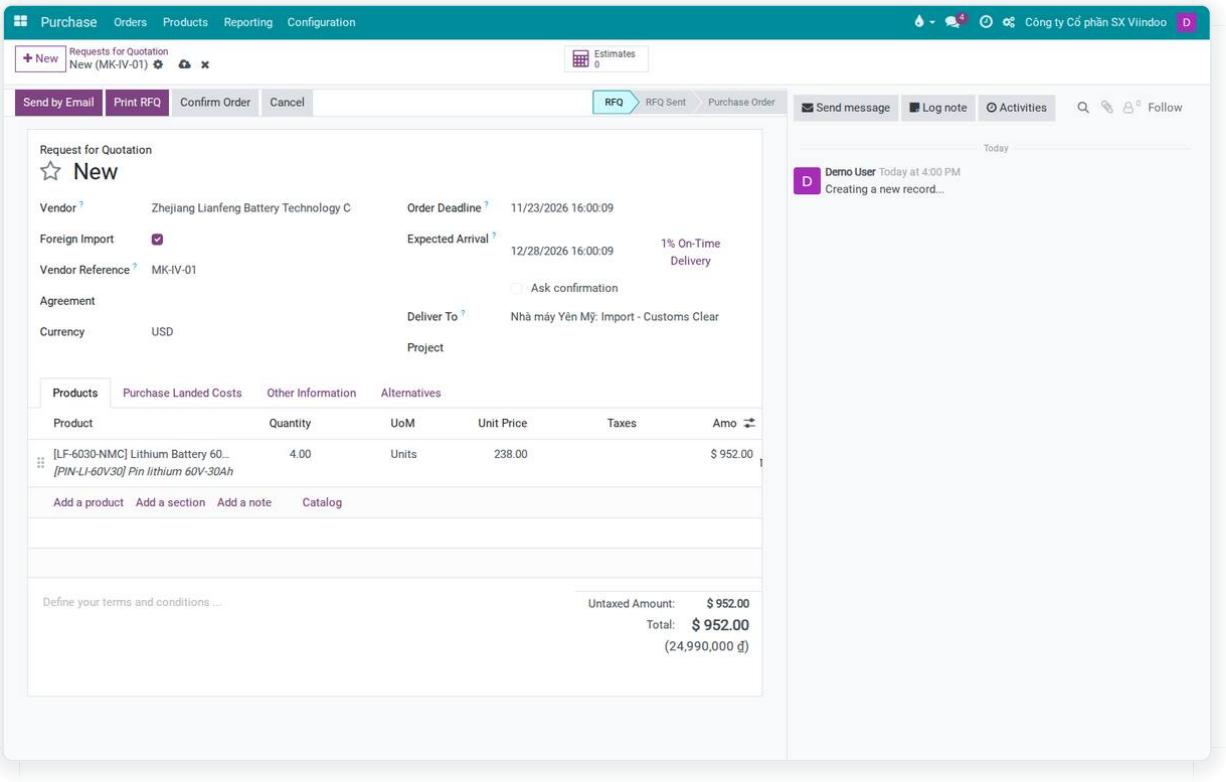
What you should see: the **Foreign Import** box is ticked automatically, and **Deliver To** changes to **Nhà máy Yên Mỹ: Import - Customs Clearance Area**.

Step 2 - Choose the USD currency and add the product line

> *Path:* still on the screen of the previous step (`Purchase > Orders > Requests for Quotation`)

In the **Currency** field choose **USD**. Type `MK-IV-01` in **Vendor Reference**. Click **Add a product**, type `PIN-LI-60V30`, select it and enter **Quantity** 4. Click the **x** in the **Taxes** field to remove VAT from the order (import duty and import VAT are calculated in the customs clearance request).

> *Path:* on the purchase order you just opened (`Purchase > Orders > Requests for Quotation`)

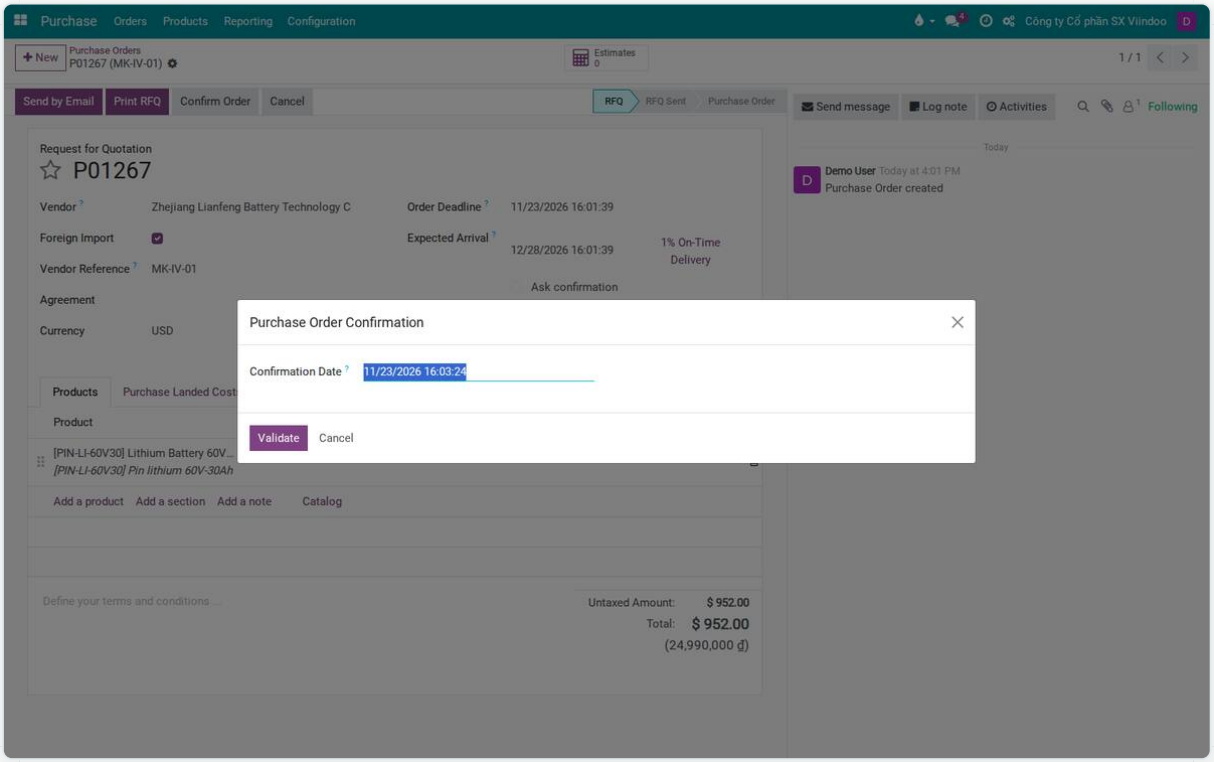


What you should see: the unit price is 238.00 (check it against the vendor price list), the order total is 952.00 USD, and the amount converted to dong (24,990,000 VND) appears on the line below.

Step 3 - Save and click Confirm Order

Click the save icon, then click **Confirm Order**. The **Purchase Order Confirmation** dialog asks for the **Confirmation Date**; keep today's date and click **Validate**.

> *Path:* `Purchase > Orders > Requests for Quotation` , open the order you just saved

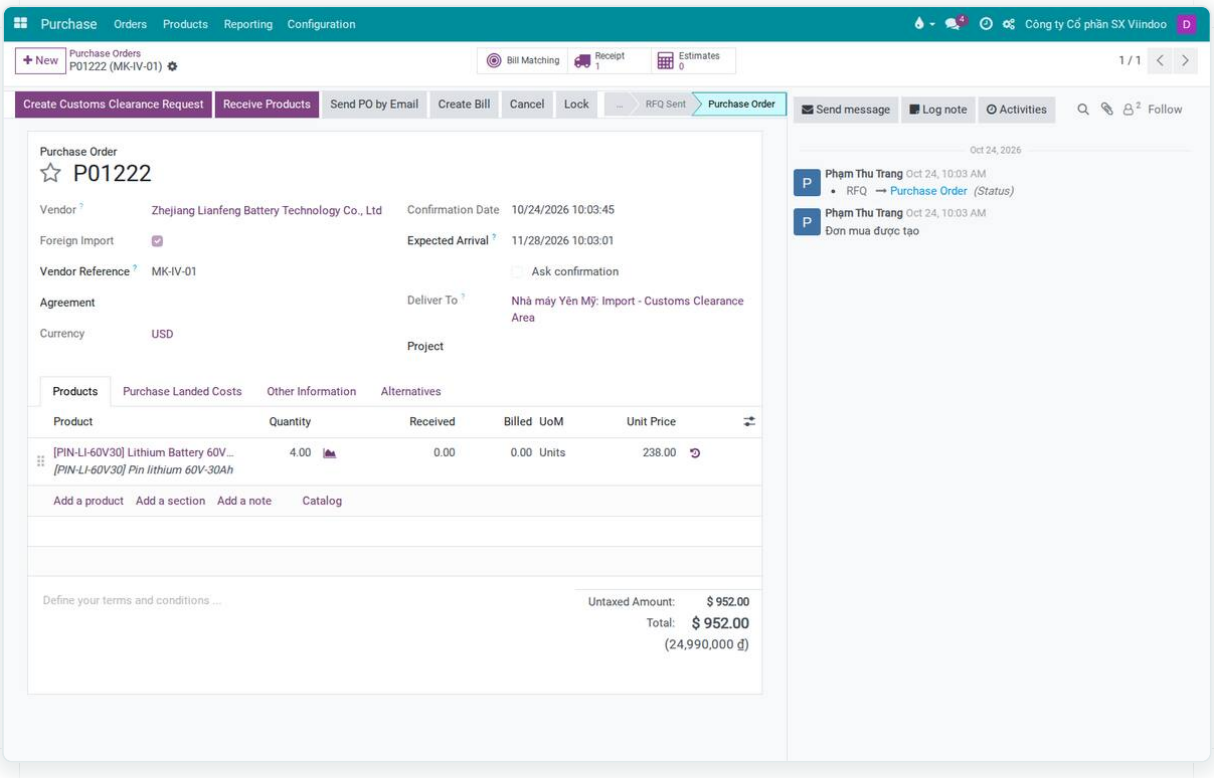


What you should see: the **Purchase Order Confirmation** dialog with the current date and time.

Step 4 - Check that the order has become a purchase order

After confirming, look at the status bar and the buttons above it.

> *Path:* on the purchase order itself (`Purchase > Orders > Requests for Quotation`)



What you should see: the status is **Purchase Order**; the **Receipt** button shows 1; the **Create Customs Clearance Request** and **Receive Products** buttons appear. A small order like this one is not held for approval.

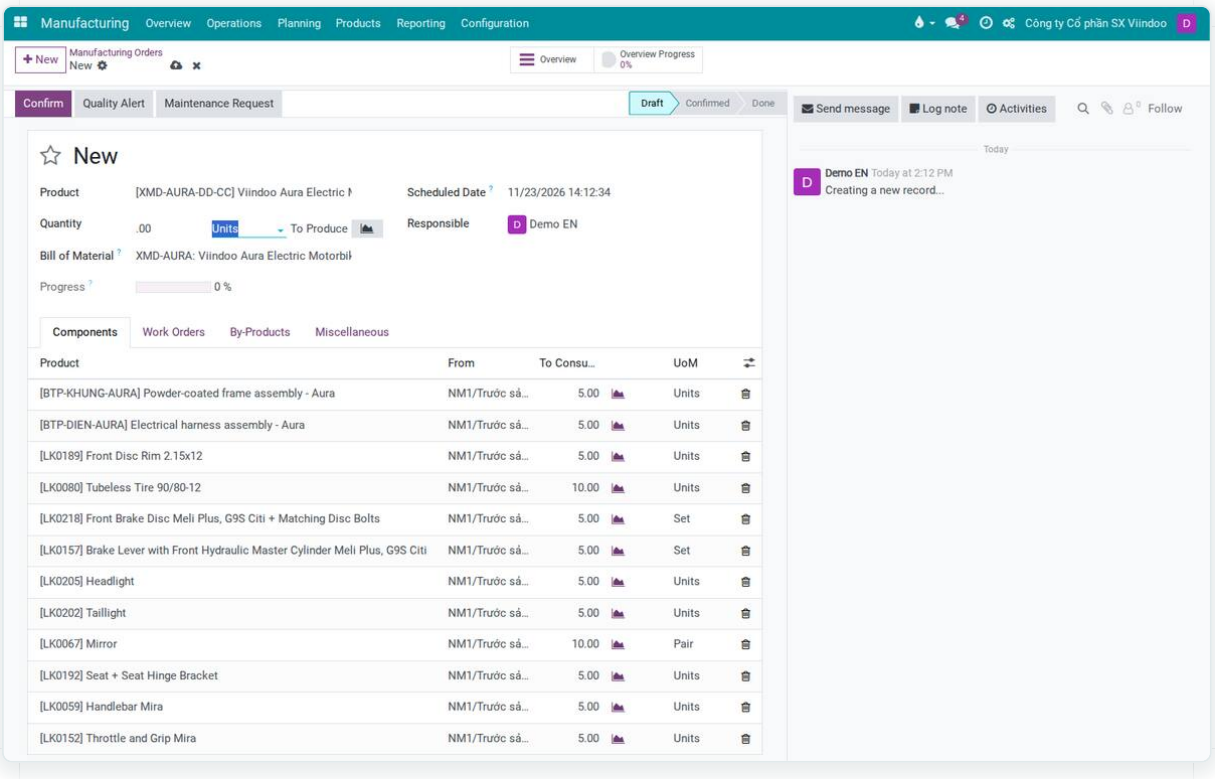
24 CHECK MATERIAL AVAILABILITY AND BUY THE SHORTFALL FOR A MANUFACTURING ORDER

About 20 minutes. By the end of this lesson your company can read which components of a manufacturing order are not yet available, and has ordered the missing quantity from a vendor priced in Chinese yuan.

Step 1 - Create a manufacturing order

Open **Manufacturing Orders**, click **New**. In **Product** choose `XMD-AURA-DD-CC` (Viindoo Aura Electric Motorbike (Burgundy, Premium)), enter **Quantity** 5. Click save.

> *Path:* `Manufacturing > Operations > Manufacturing Orders`



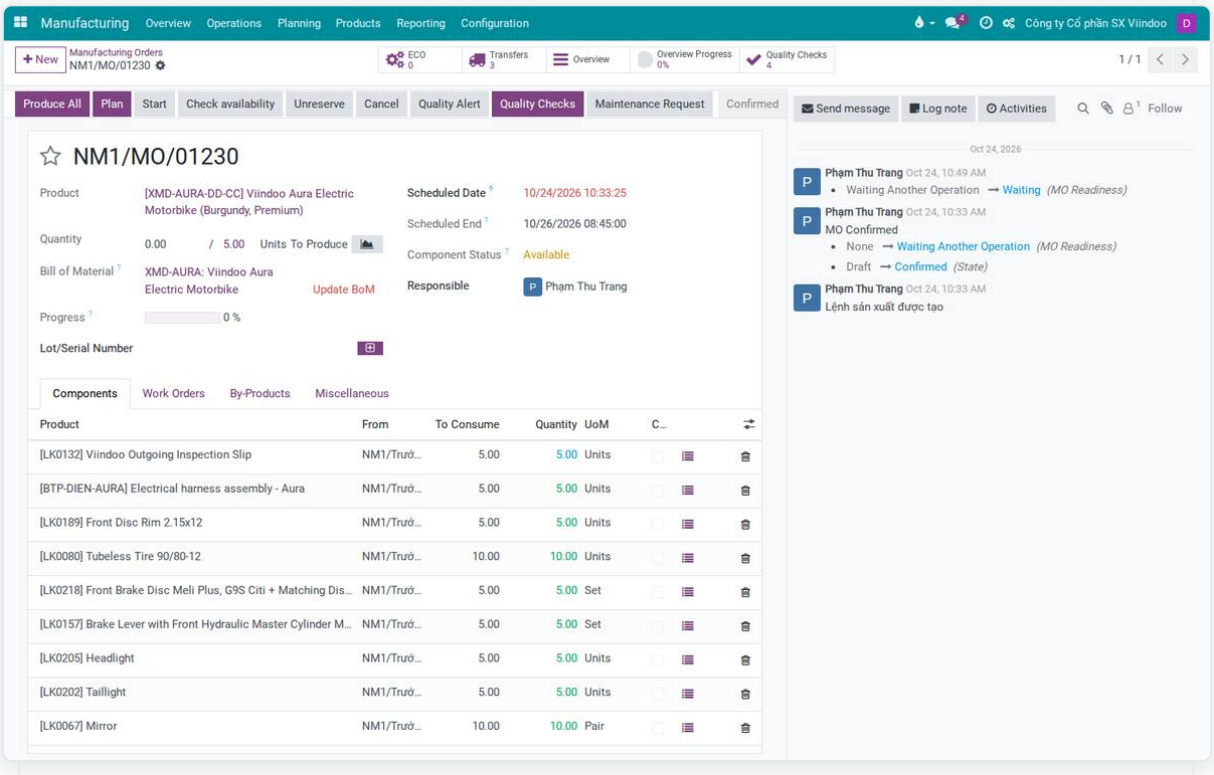
What you should see: Bill of Material is filled in automatically, and the **Components** tab lists all components for a quantity of 5.

Step 2 - Confirm the manufacturing order

> *Path:* still on the screen of the previous step (`Manufacturing > Operations > Manufacturing Orders`)

Click **Confirm**.

> *Path:* on the manufacturing order itself (`Manufacturing > Operations > Manufacturing Orders`)

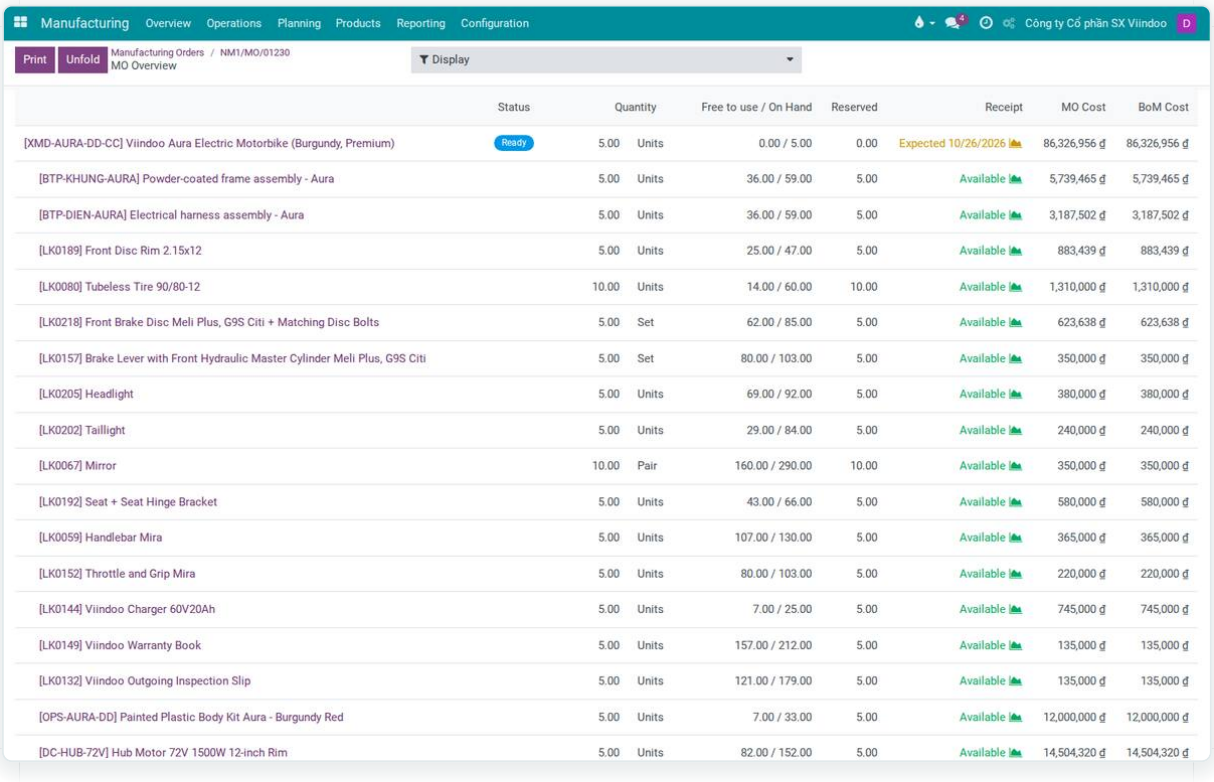


What you should see: the status is **Confirmed**; the **Transfers** button (the component pick, showing 3) and the **Overview** button appear, and **Component Status** reads **Available**.

Step 3 - Open the order overview to check availability

Click the **Overview** button at the top of the order.

> *Path:* on the manufacturing order itself, **Overview** button (`Manufacturing > Operations > Manufacturing Orders`)



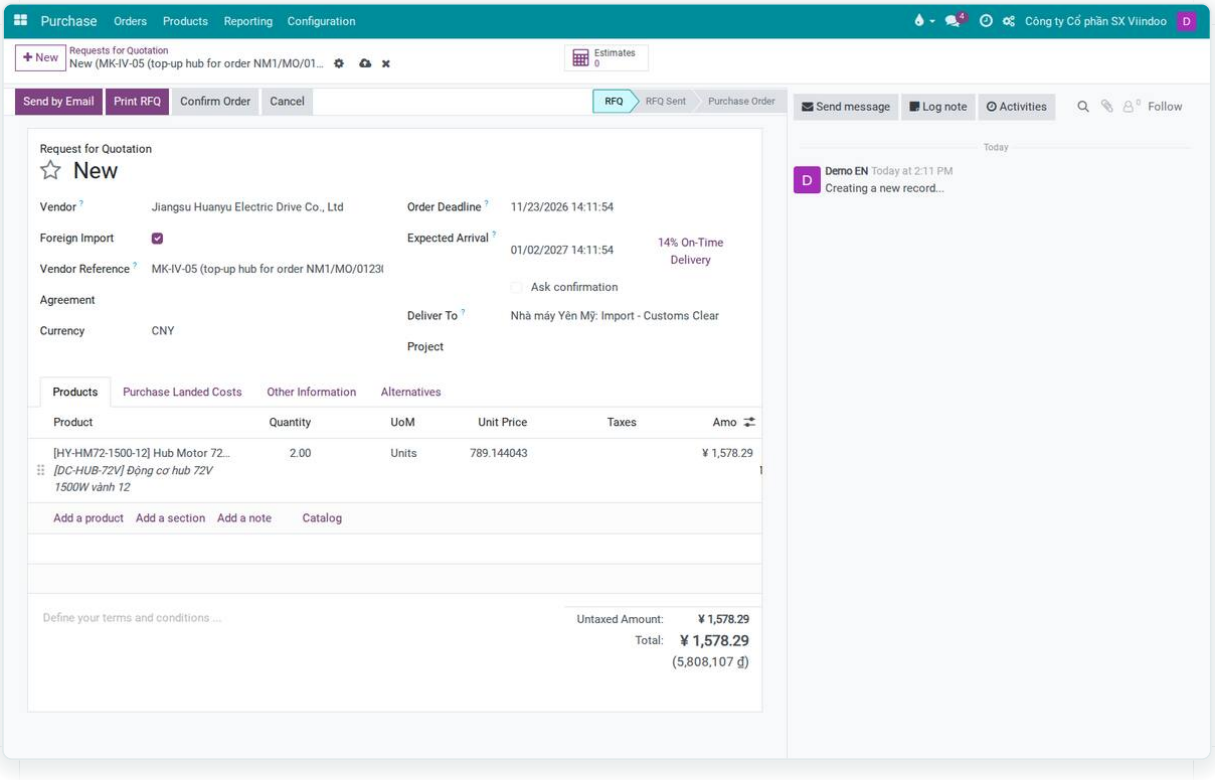
	Status	Quantity		Free to use / On Hand	Reserved	Receipt	MO Cost	BoM Cost
[XMD-AURA-DD-CC] Viindoo Aura Electric Motorbike (Burgundy, Premium)	Ready	5.00	Units	0.00 / 5.00	0.00	Expected 10/26/2026	86,326,956 ₫	86,326,956 ₫
[BTP-KHUNG-AURA] Powder-coated frame assembly - Aura		5.00	Units	36.00 / 59.00	5.00	Available	5,739,465 ₫	5,739,465 ₫
[BTP-DIEN-AURA] Electrical harness assembly - Aura		5.00	Units	36.00 / 59.00	5.00	Available	3,187,502 ₫	3,187,502 ₫
[LK0189] Front Disc Rim 2.15x12		5.00	Units	25.00 / 47.00	5.00	Available	883,439 ₫	883,439 ₫
[LK0080] Tubeless Tire 90/80-12		10.00	Units	14.00 / 60.00	10.00	Available	1,310,000 ₫	1,310,000 ₫
[LK0218] Front Brake Disc Meli Plus, G9S Citi + Matching Disc Bolts		5.00	Set	62.00 / 85.00	5.00	Available	623,638 ₫	623,638 ₫
[LK0157] Brake Lever with Front Hydraulic Master Cylinder Meli Plus, G9S Citi		5.00	Set	80.00 / 103.00	5.00	Available	350,000 ₫	350,000 ₫
[LK0205] Headlight		5.00	Units	69.00 / 92.00	5.00	Available	380,000 ₫	380,000 ₫
[LK0202] Taillight		5.00	Units	29.00 / 84.00	5.00	Available	240,000 ₫	240,000 ₫
[LK0067] Mirror		10.00	Pair	160.00 / 290.00	10.00	Available	350,000 ₫	350,000 ₫
[LK0192] Seat + Seat Hinge Bracket		5.00	Units	43.00 / 66.00	5.00	Available	580,000 ₫	580,000 ₫
[LK0059] Handlebar Mira		5.00	Units	107.00 / 130.00	5.00	Available	365,000 ₫	365,000 ₫
[LK0152] Throttle and Grip Mira		5.00	Units	80.00 / 103.00	5.00	Available	220,000 ₫	220,000 ₫
[LK0144] Viindoo Charger 60V20Ah		5.00	Units	7.00 / 25.00	5.00	Available	745,000 ₫	745,000 ₫
[LK0149] Viindoo Warranty Book		5.00	Units	157.00 / 212.00	5.00	Available	135,000 ₫	135,000 ₫
[LK0132] Viindoo Outgoing Inspection Slip		5.00	Units	121.00 / 179.00	5.00	Available	135,000 ₫	135,000 ₫
[OPS-AURA-DD] Painted Plastic Body Kit Aura - Burgundy Red		5.00	Units	7.00 / 33.00	5.00	Available	12,000,000 ₫	12,000,000 ₫
[DC-HUB-72V] Hub Motor 72V 1500W 12-inch Rim		5.00	Units	82.00 / 152.00	5.00	Available	14,504,320 ₫	14,504,320 ₫

What you should see: the finished product on the first line (status **Ready**, with an orange **Expected** date in the **Receipt** column) and one line per component below it. A green **Available** on a component line means that component is fully reserved; a component that is short shows an orange expected date instead. The **Free to use / On Hand** column shows how much can still be used out of the total stock, and **Reserved** shows how much this order has reserved. For example, **Hub Motor 72V 1500W 12-inch Rim** has 152 on hand but only 82 available, because the rest is reserved for other orders. The figures change from day to day; your company reads them in exactly this way.

Step 4 - Order the shortfall from a foreign vendor

Open **Requests for Quotation**, click **New**. Vendor `Jiangsu Huanyu`, **Currency CNY**, type `MK-IV-05` in **Vendor Reference**, add the line `DC-HUB-72V` (Hub Motor 72V 1500W 12-inch Rim) with quantity 2, remove VAT.

> *Path:* `Purchase > Orders > Requests for Quotation`



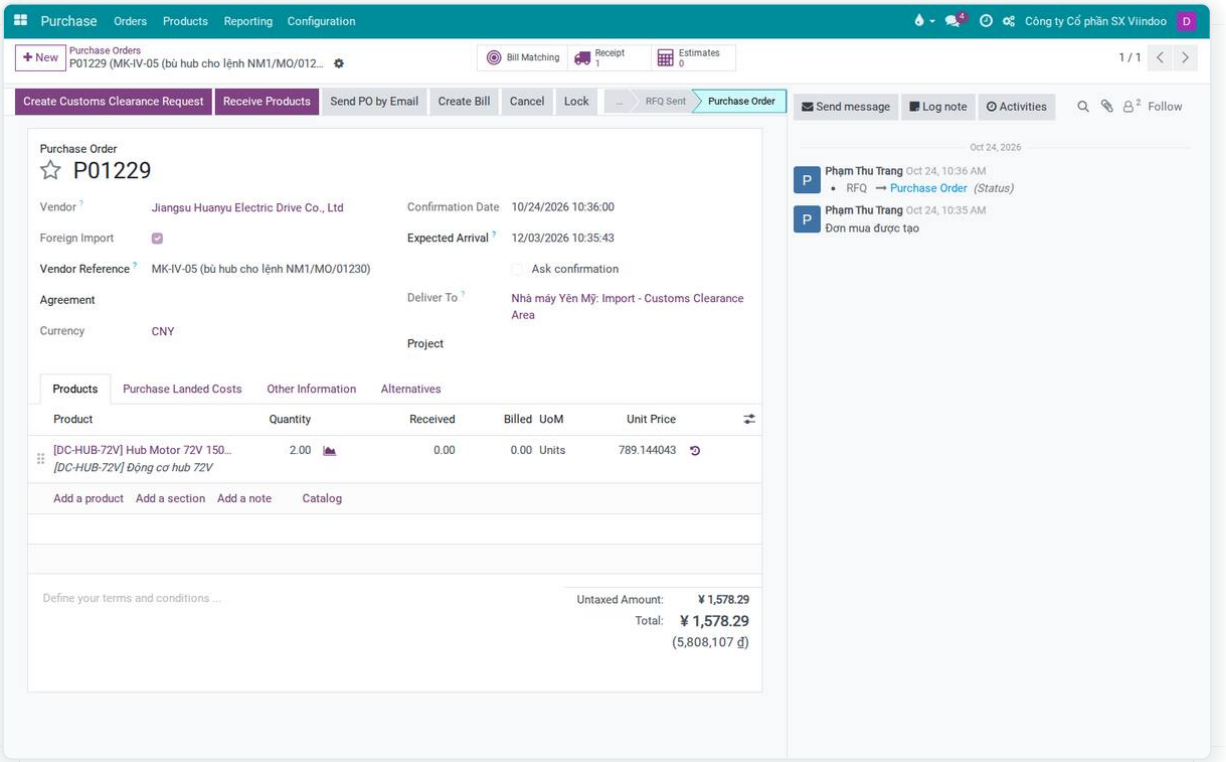
What you should see: currency **CNY**, an order total of ¥1,578.29 (unit price 789.144043), and the amount converted to dong (5,808,107 VND) below it.

Step 5 - Confirm the shortfall order

> *Path:* still on the screen of the previous step (`Purchase > Orders > Requests for Quotation`)

Click save, **Confirm Order**, then **Validate** in the date dialog.

> *Path:* on the purchase order itself (`Purchase > Orders > Requests for Quotation`)



What you should see: the status is **Purchase Order**, and the **Receipt** button shows an expected receipt linked to the order. When the goods arrive, click **Check Availability** on the component pick of the order to reserve the newly arrived quantity.

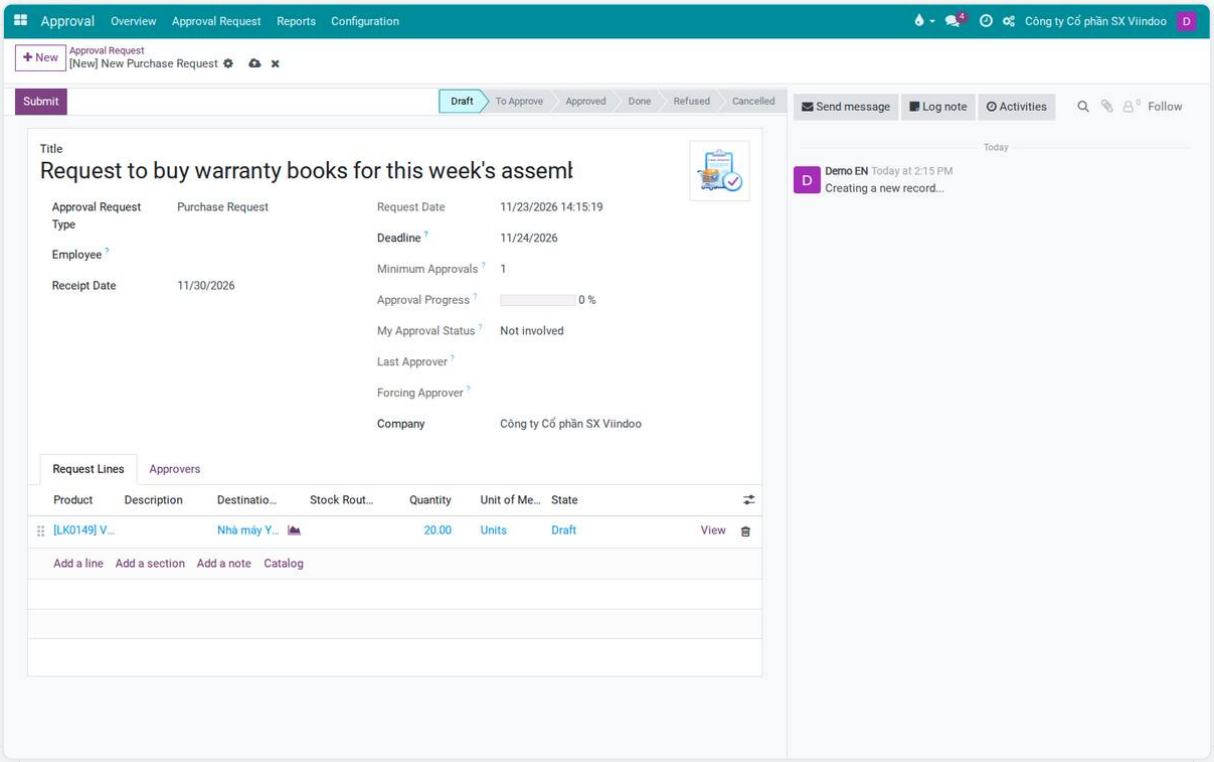
25 SUPPLY REQUEST AND APPROVAL

About 15 minutes. By the end of this lesson your company sends a supply request, gets it approved, and sees the system generate the stock transfers along the supply routes.

Step 1 - Create the supply request

Open **Approval**, open the **Approval Request** menu, choose **Request** and click **New**. In **Approval Request Type** choose **Purchase Request**. Enter the **Title**. On the **Request Lines** tab click **Add a line**: product `LK0149` (Viindoo Warranty Book), **Destination Warehouse** Nhà máy Yên Mỹ (Yen My Factory), **Quantity** 20. For the title you can write, for example, "Request to buy warranty books for this week's assembly lot".

> *Path:* `Approval > Approval Request > Request`



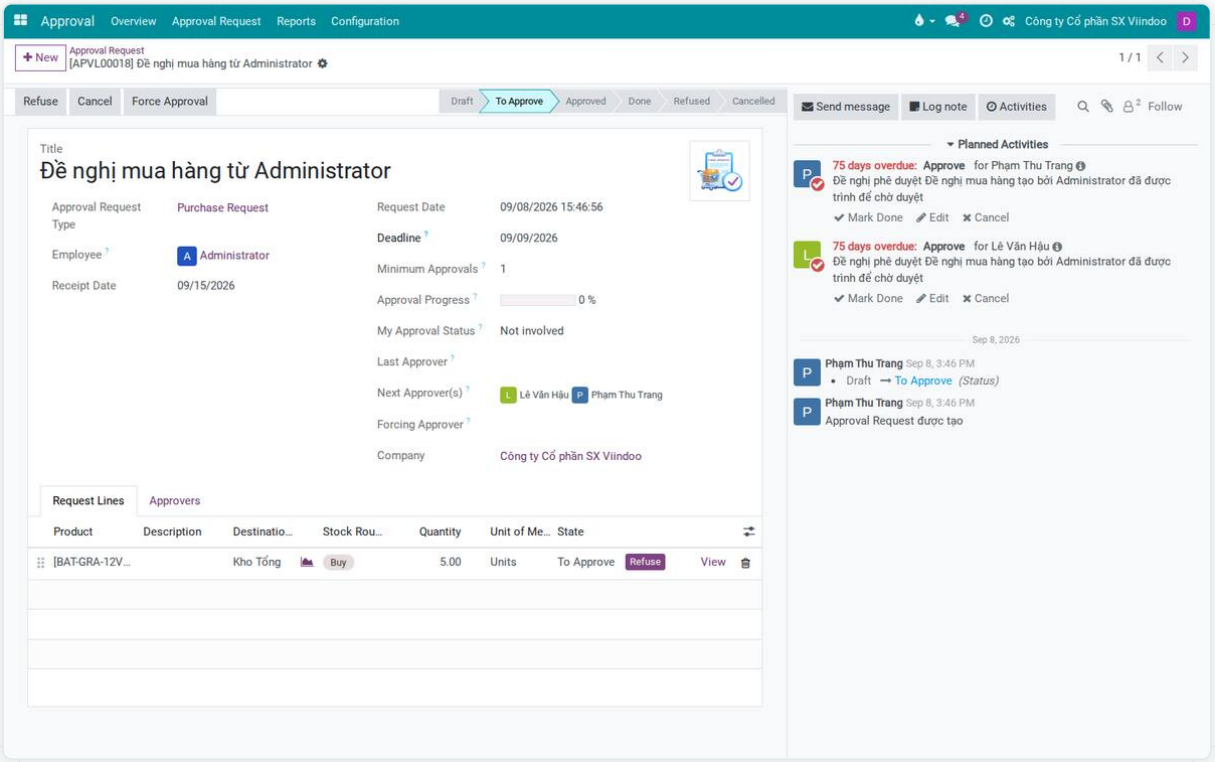
What you should see: the status is **Draft**, a **Submit** button, and the **Approvers** tab beside **Request Lines**.

Step 2 - Submit the request

> *Path:* still on the screen of the previous step (`Approval > Approval Request > Request`)

Click save, then click **Submit**.

> *Path:* on the request itself (`Approval > Approval Request > Request`)

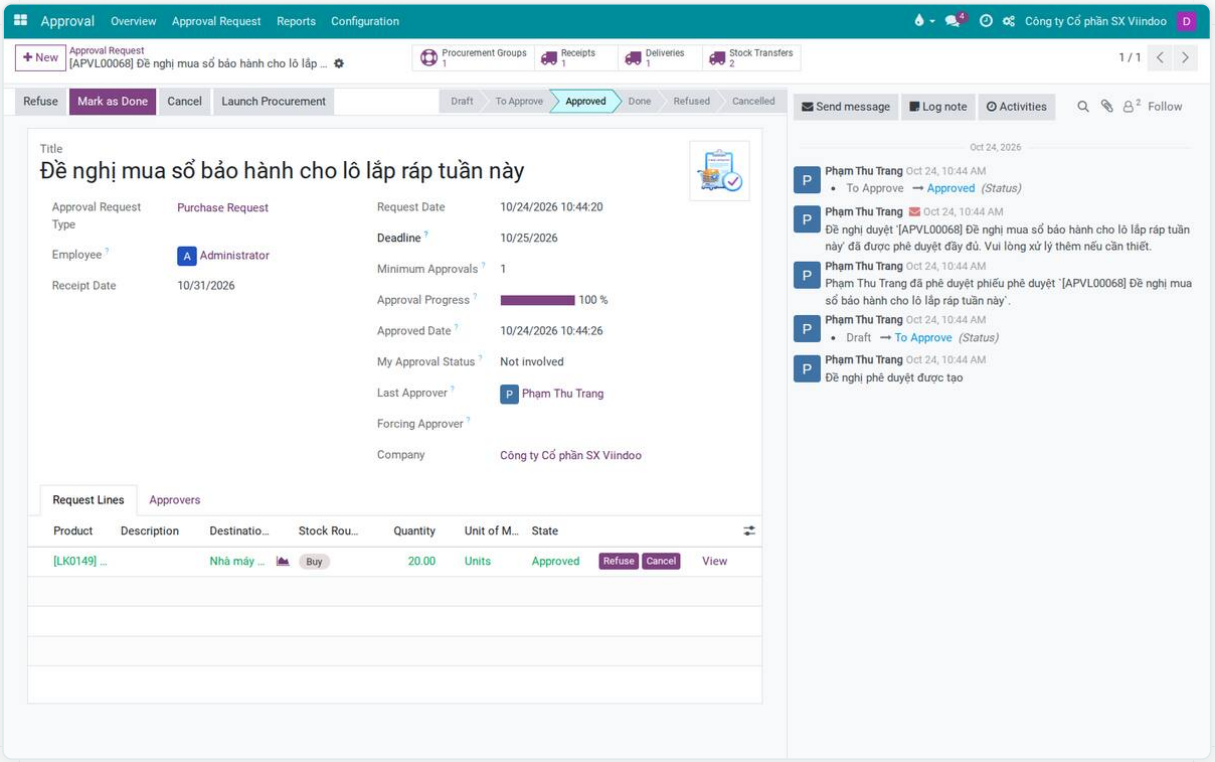


What you should see: the status is **To Approve**; the **Refuse**, **Cancel** and **Force Approval** buttons appear, **Next Approver(s)** lists who has to approve, and each approver receives a to-do in the right-hand panel.

Step 3 - Approve the request

A user with approval rights clicks **Approve**.

> *Path:* on the request itself (`Approval > Approval Request > Request`)



What you should see: the status is **Approved**, **Approval Progress** 100%; the **Mark as Done** and **Launch Procurement** buttons appear, together with the smart buttons **Procurement Groups** (1), **Receipts** (1), **Deliveries** (1) and **Stock Transfers** (2). The system chooses the supply method from the route of the destination warehouse: Nhà máy Yên Mỹ is resupplied from Kho Tổng (Central Warehouse), so it generates one delivery at Kho Tổng and one receipt at Nhà máy Yên Mỹ. If Kho Tổng does not have enough stock, the delivery waits for goods.

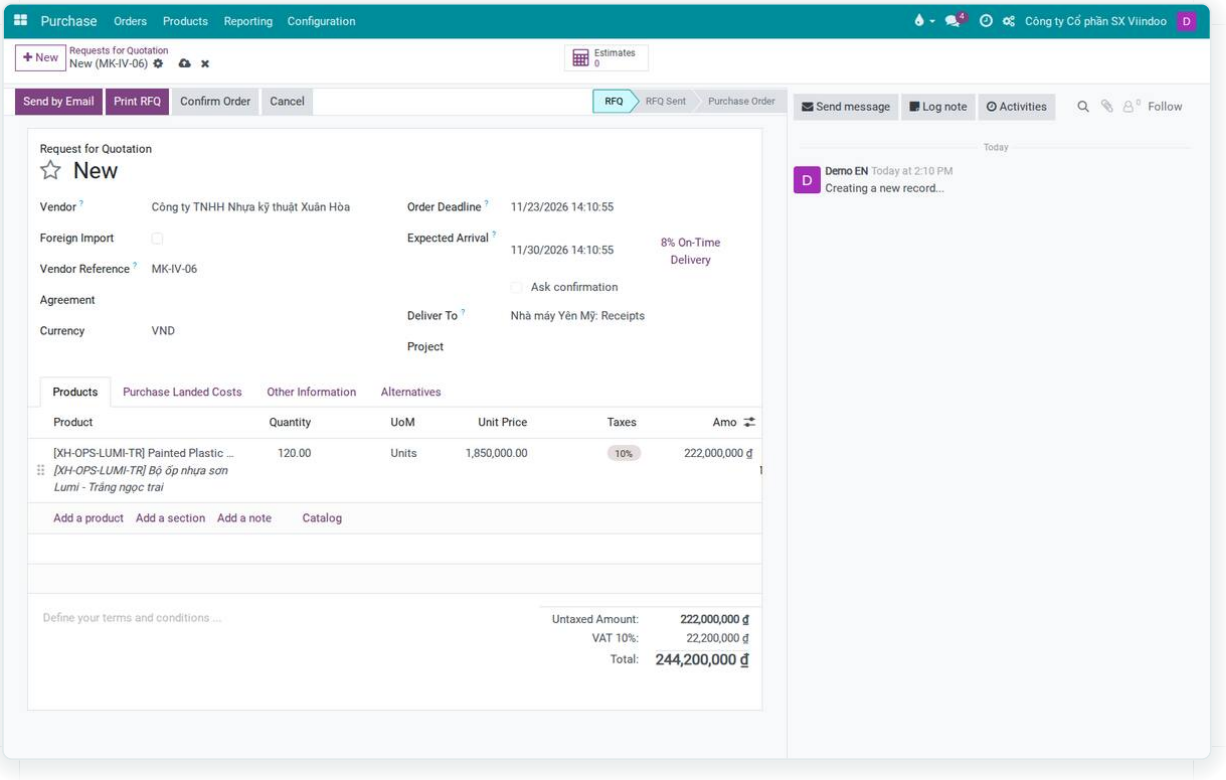
26 PURCHASE ORDER APPROVAL THRESHOLD

About 10 minutes. By the end of this lesson your company knows how high-value purchase orders are controlled on this system.

Step 1 - Create a high-value purchase order

Create a **Request for Quotation** for the vendor `Nhựa kỹ thuật Xuân Hòa`, add the line `OPS-LUMI-TR` (Painted Plastic Body Kit Lumi - Pearl White) with quantity 120 and unit price 1,850,000, and type `MK-IV-06` in **Vendor Reference**. Click save.

> *Path:* `Purchase > Orders > Requests for Quotation`



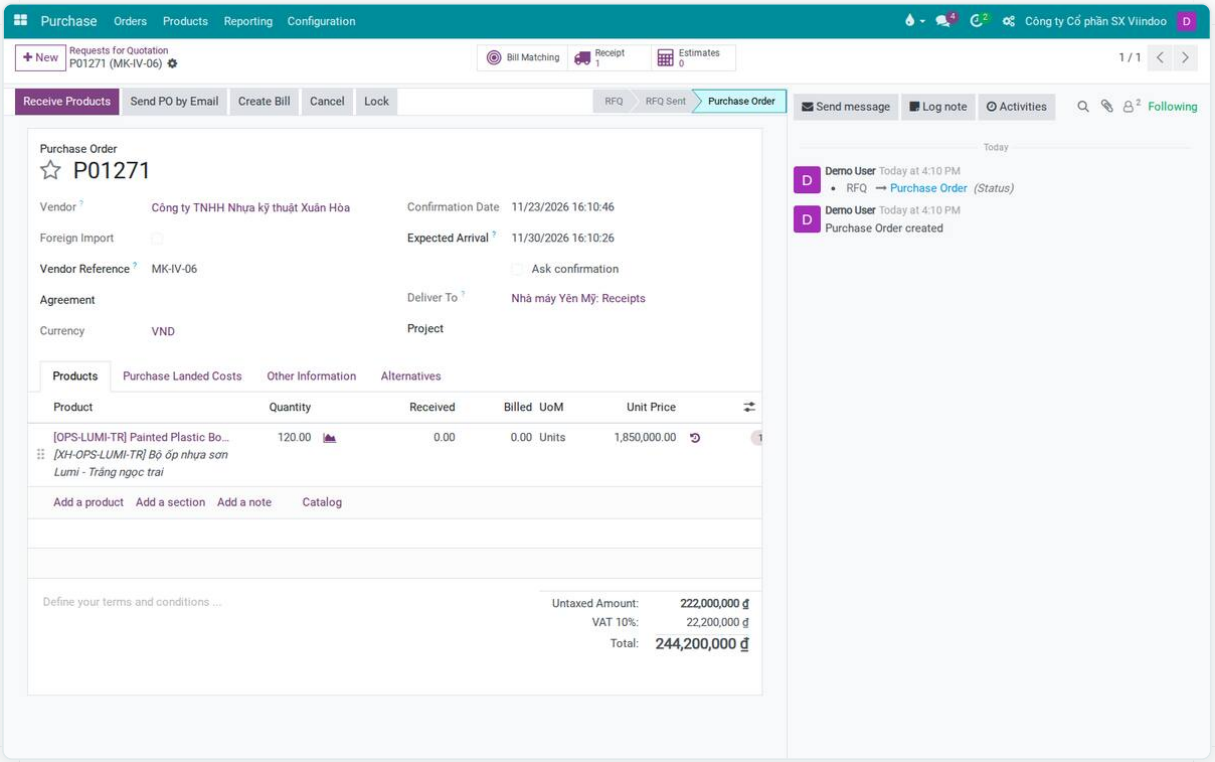
What you should see: an order total of 244,200,000 VND (222,000,000 VND untaxed plus 22,200,000 VND of 10% VAT).

Step 2 - Confirm the purchase order

> *Path:* still on the screen of the previous step (`Purchase > Orders > Requests for Quotation`)

Click **Confirm Order**, then **Validate** in the date dialog.

> *Path:* on the purchase order itself (`Purchase > Orders > Requests for Quotation`)

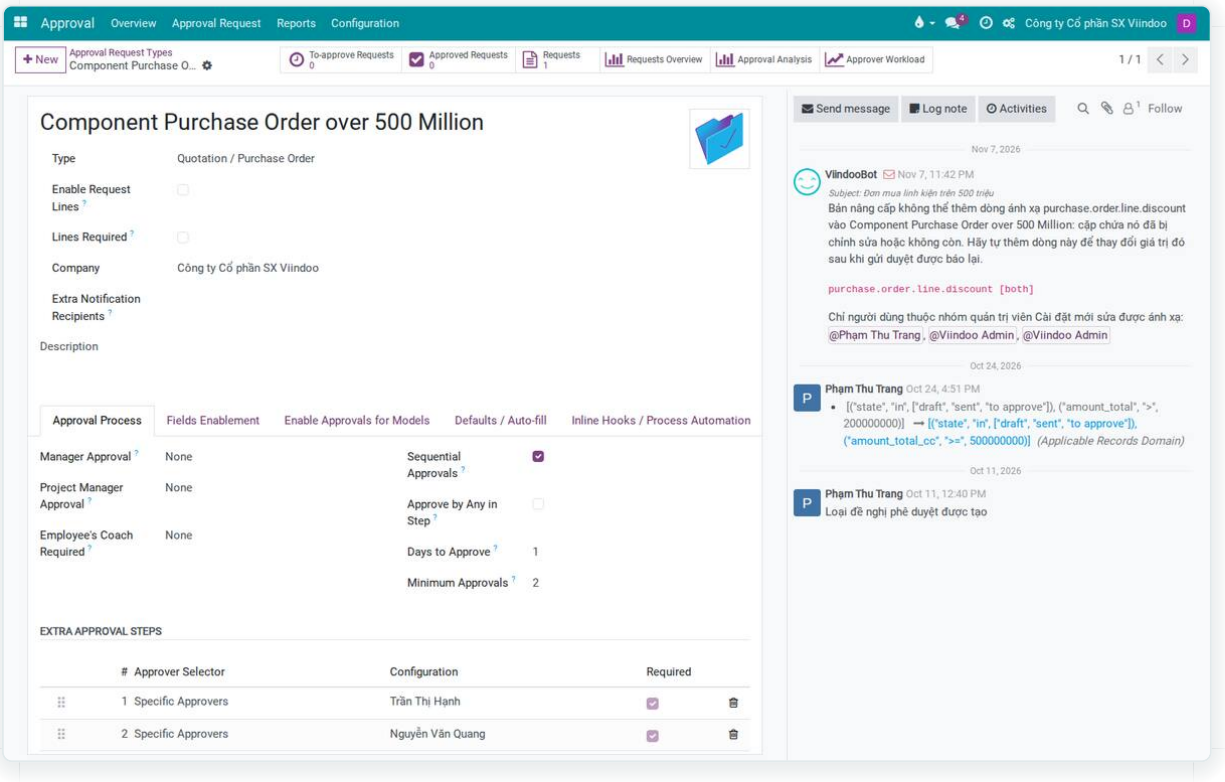


What you should see: the order moves straight to **Purchase Order**, with no waiting-for-approval status. The reason: the **Purchase Order Approval** box in the Purchase settings is off (see the lesson *Purchasing and import configuration in use*). To make large orders go through a manager, your company switches this box on and sets a **Minimum Amount**; the description shown by the system reads: "Request managers to approve orders above a minimum amount".

Step 3 - Compare with the two-step approval type

Open again the approval type **Component Purchase Order over 500 Million** from the configuration lesson. This is a multi-step approval path for quotations and purchase orders: two approvers approve in turn, and the second one is reached only after the first has approved.

> *Path:* `Approval > Configuration > Approval Types`



What you should see: under **Extra Approval Steps**, two lines with the **Approver Selector Specific Approvers** (Trần Thị Hạnh, then Nguyễn Văn Quang), with the **Required** column ticked on both.

27 IMPORT COSTS IN INVENTORY COST

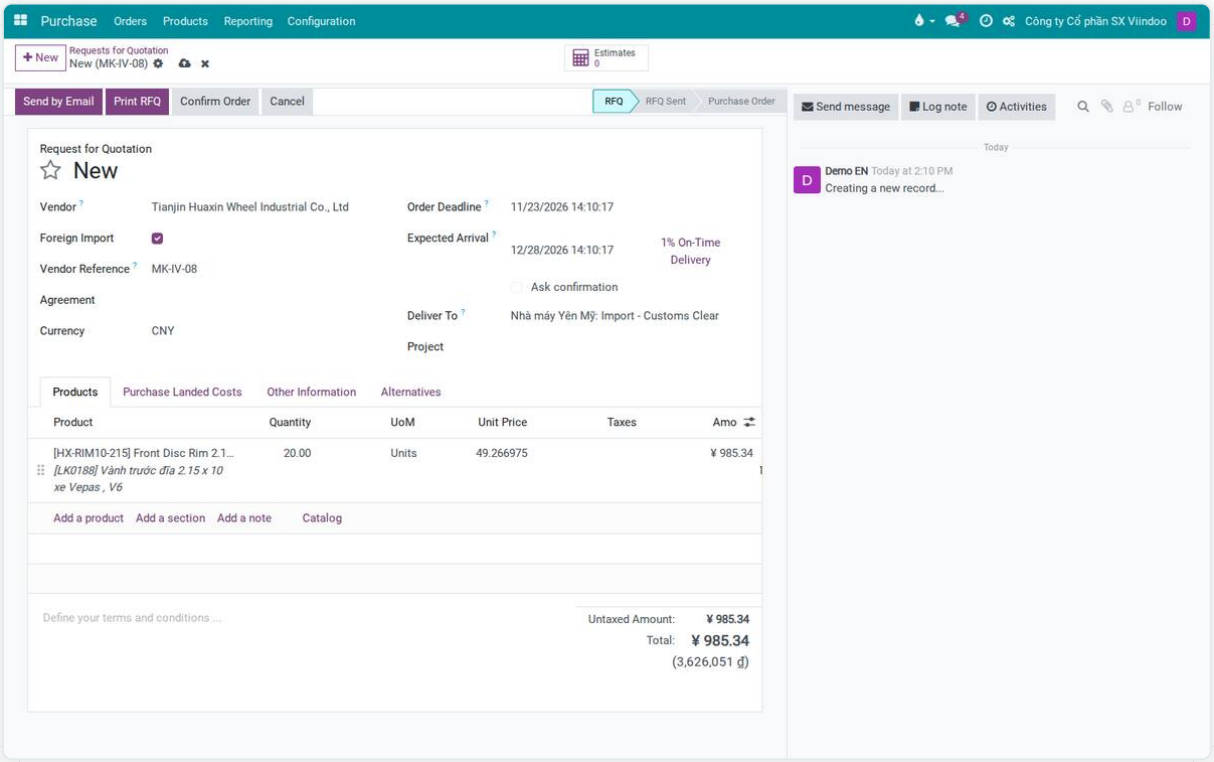
About 35 minutes. By the end of this lesson your company has an import batch whose import duty, sea freight and customs fees have been added to the stock value of the components, and has checked this with the valuation report.

> *Principle:* freight and customs fees come from the **service vendor's bill**; import duty comes from the **customs clearance request**. Your company does not enter costs into stock with a hand-made entry that has no bill: an entry that credits 151 with no matching debit to 151 makes account 151 go more and more negative.

Step 1 - Create the import purchase order and confirm it

Create a purchase order for the vendor `Tianjin Huaxin`, currency **CNY**, vendor reference `MK-IV-08`, one line `LK0188` (Front Disc Rim 2.15x10 Vepas, V6) quantity 20, keep the unit price the system fills in, remove VAT on the line. Save, click **Confirm Order**, then **Validate** in the date dialog.

> *Path:* `Purchase > Orders > Requests for Quotation`

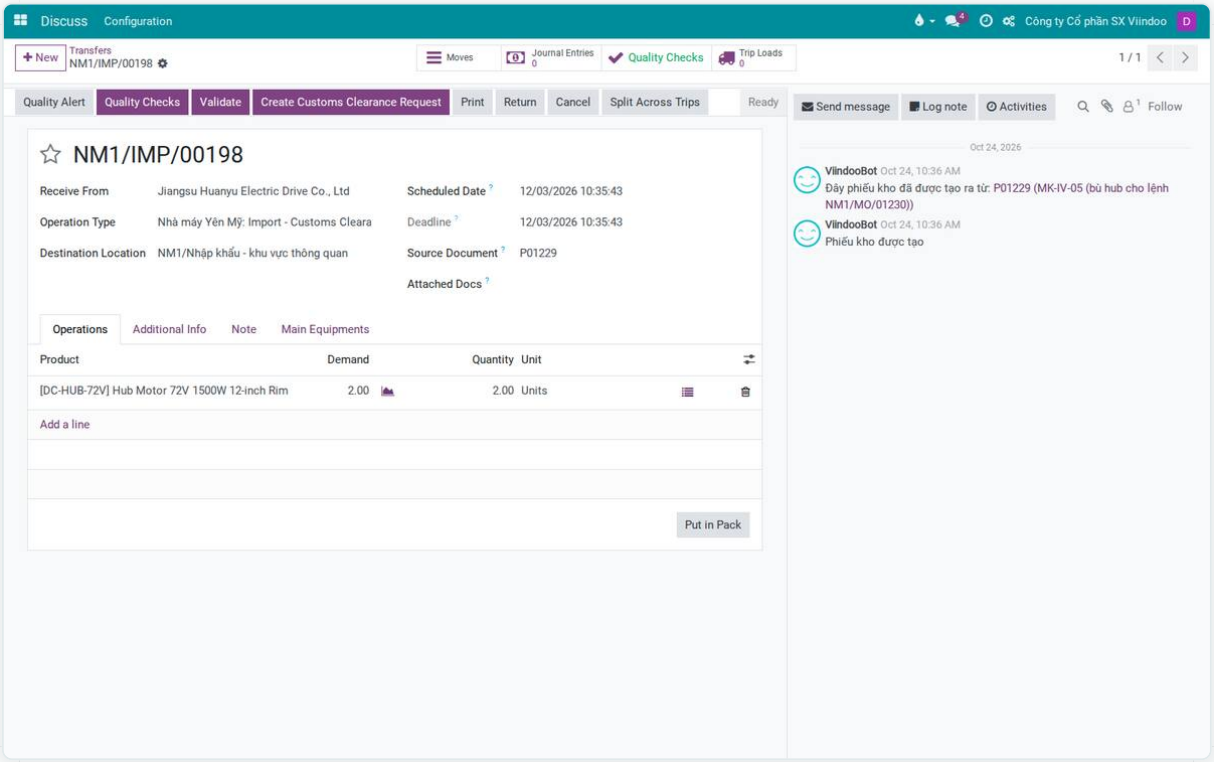


What you should see: an order total of ¥985.34 (3,626,051 VND), and the **Foreign Import** box ticked automatically.

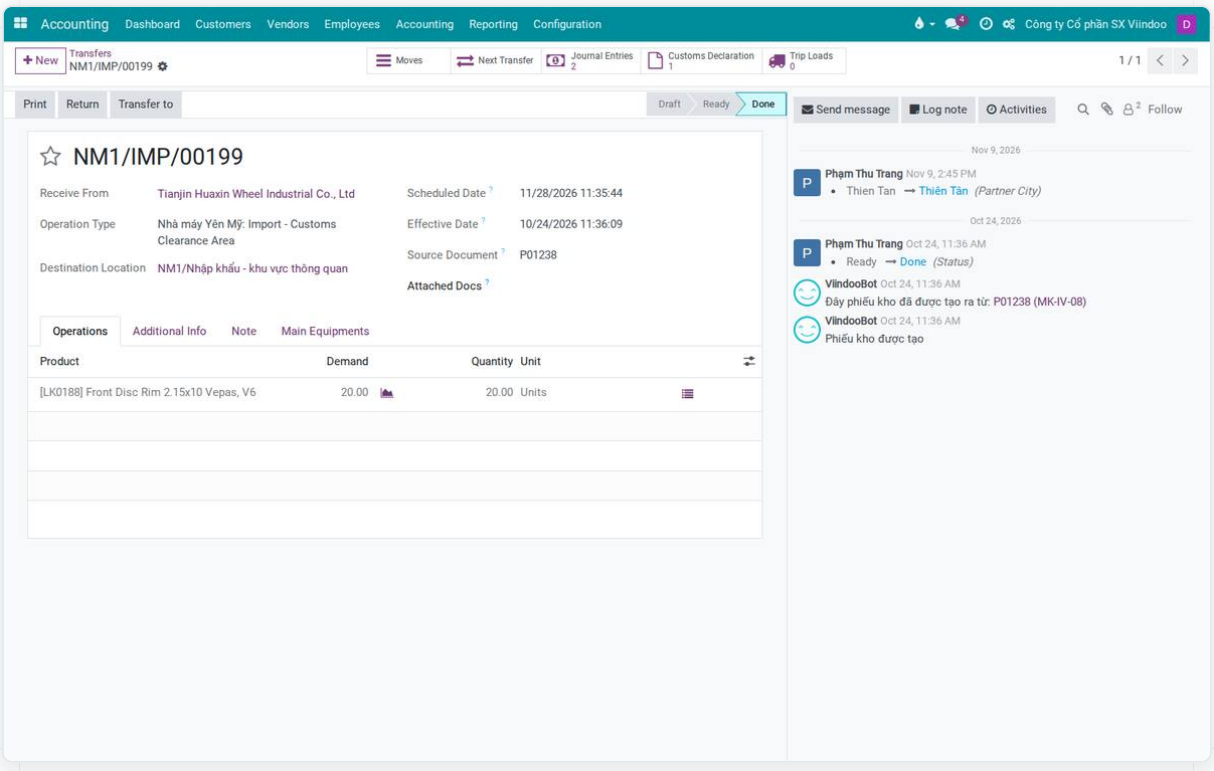
Step 2 - Receive the goods at the customs clearance area

From the purchase order click **Receipt**, open the transfer `NM1/IMP/xxxxx`, click **Validate**, then **Validate** in the **Validate with a Back Date** dialog.

> *Path:* on the purchase order, **Receipt** button (`Purchase > Orders > Requests for Quotation`)



What you should see: a transfer coded `NM1/IMP/xxxxx` in status **Ready**, with the buttons **Validate** and **Create Customs Clearance Request**, **Operation Type Nhà máy Yên Mỹ: Import - Customs Clearance Area**, and **Destination Location NM1/Nhập khẩu - khu vực thông quan** (NM1/Import - customs clearance area).



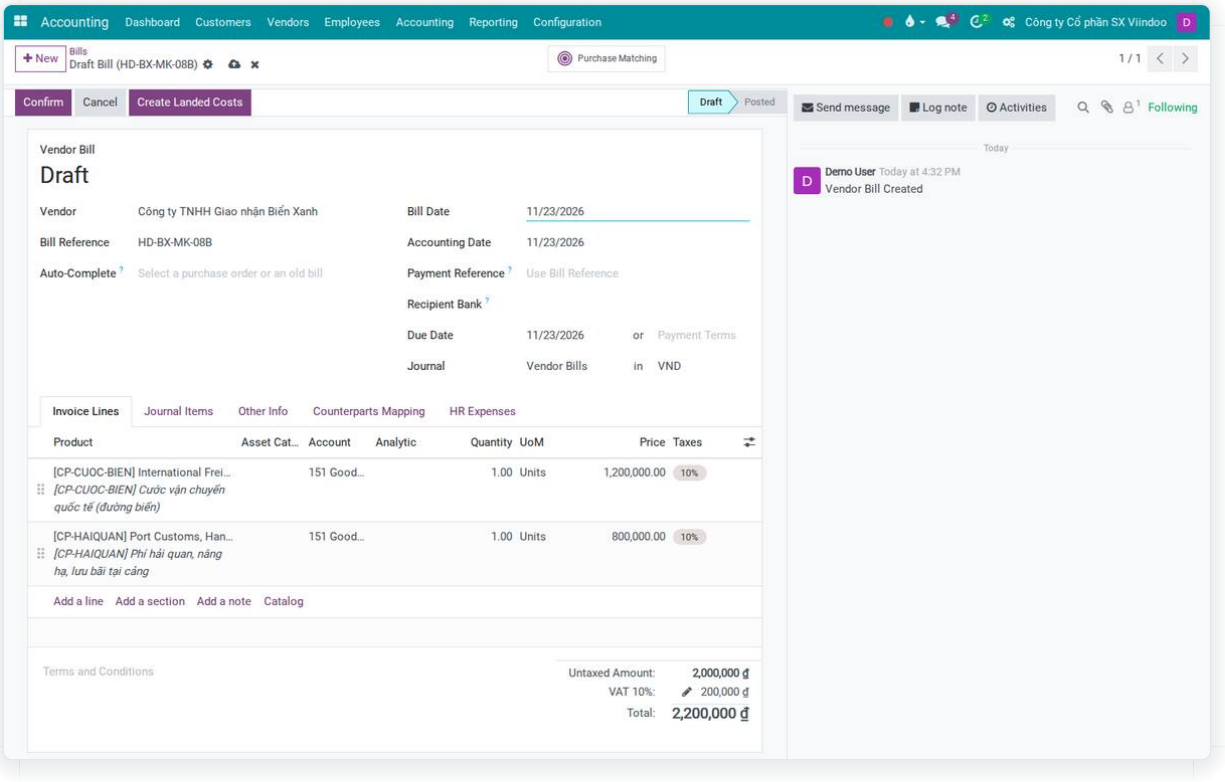
What you should see: the status is **Done**; the **Next Transfer** smart button (receiving the goods into the warehouse) appears. The **Create Customs Clearance Request** button is available on the

transfer until a request exists; once it has been created (step 4), a **Customs Declaration** smart button showing 1 takes its place.

Step 3 - Enter the freight and customs fee bill

Open **Bills**, click **New**. **Vendor** `Công ty TNHH Giao nhận Biển Xanh` (the freight forwarder; create it if it does not exist yet). Enter the **Bill Reference** and the **Bill Date**. Add two lines: product `CP-CUOC-BIEN` (International Freight (Sea)) at 1,200,000 and `CP-HAIQUAN` (Port Customs, Handling and Storage Fees) at 800,000.

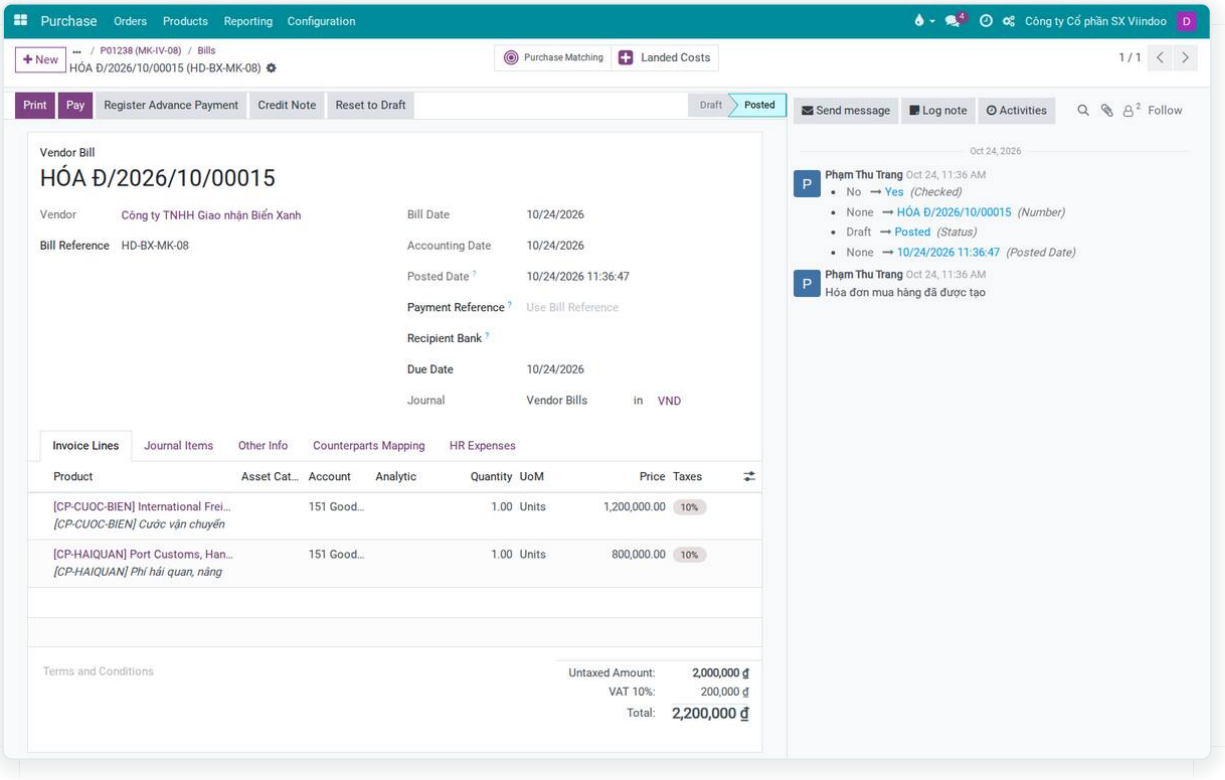
> *Path:* `Accounting > Vendors > Bills`



What you should see: two cost product lines with 10% tax: 2,000,000 VND untaxed, 200,000 VND of VAT, total 2,200,000 VND.

Click **Confirm**.

> *Path:* on the bill itself (`Purchase > Orders > Requests for Quotation`)

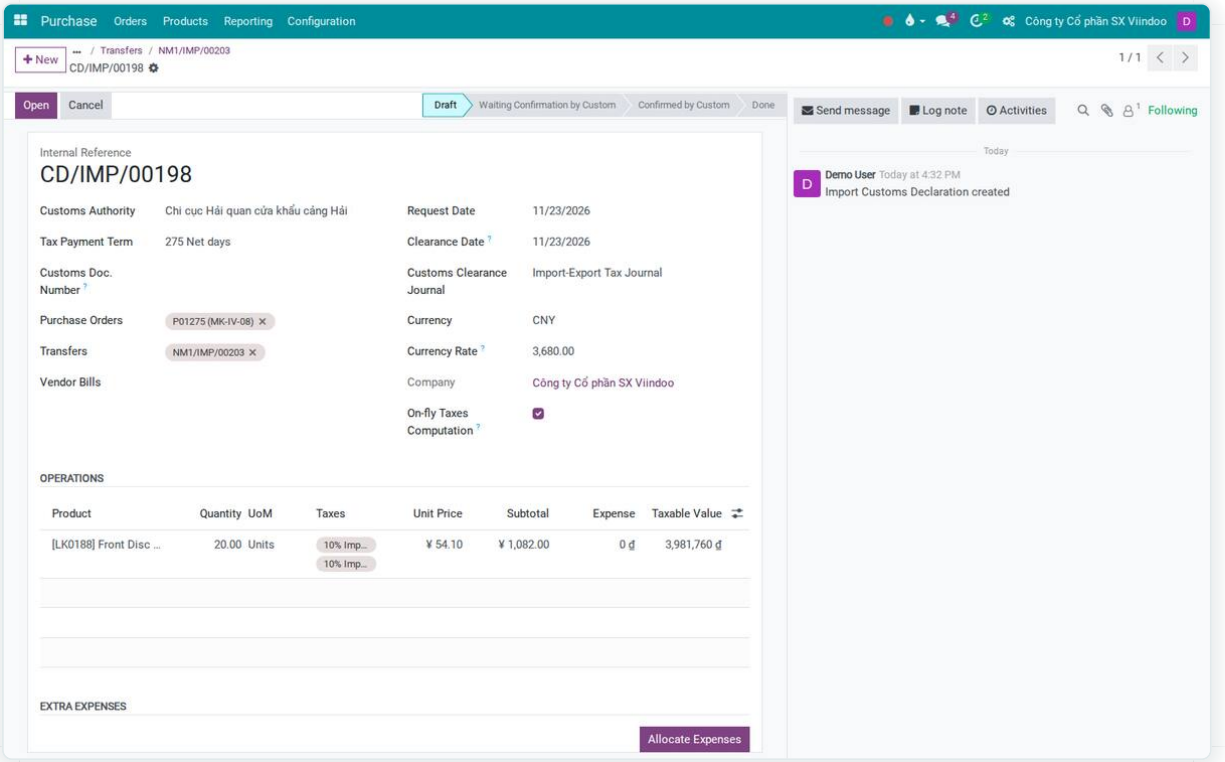


What you should see: the status is **Posted**; the two cost lines post to account **151 Goods in transit** (debit 151 2,000,000 VND), and the **Pay**, **Register Advance Payment** and **Credit Note** buttons appear; a **Landed Costs** smart button lists the landed cost documents linked to this bill (a draft bill carries a **Create Landed Costs** button instead). In this lesson your company puts the costs into stock cost through the customs clearance request in a later step.

Step 4 - Create the customs clearance request

Go back to the transfer `NM1/IMP/xxxxx`, click **Create Customs Clearance Request**, then click save.

> *Path:* on the transfer `NM1/IMP/xxxxx`, **Create Customs Clearance Request** button

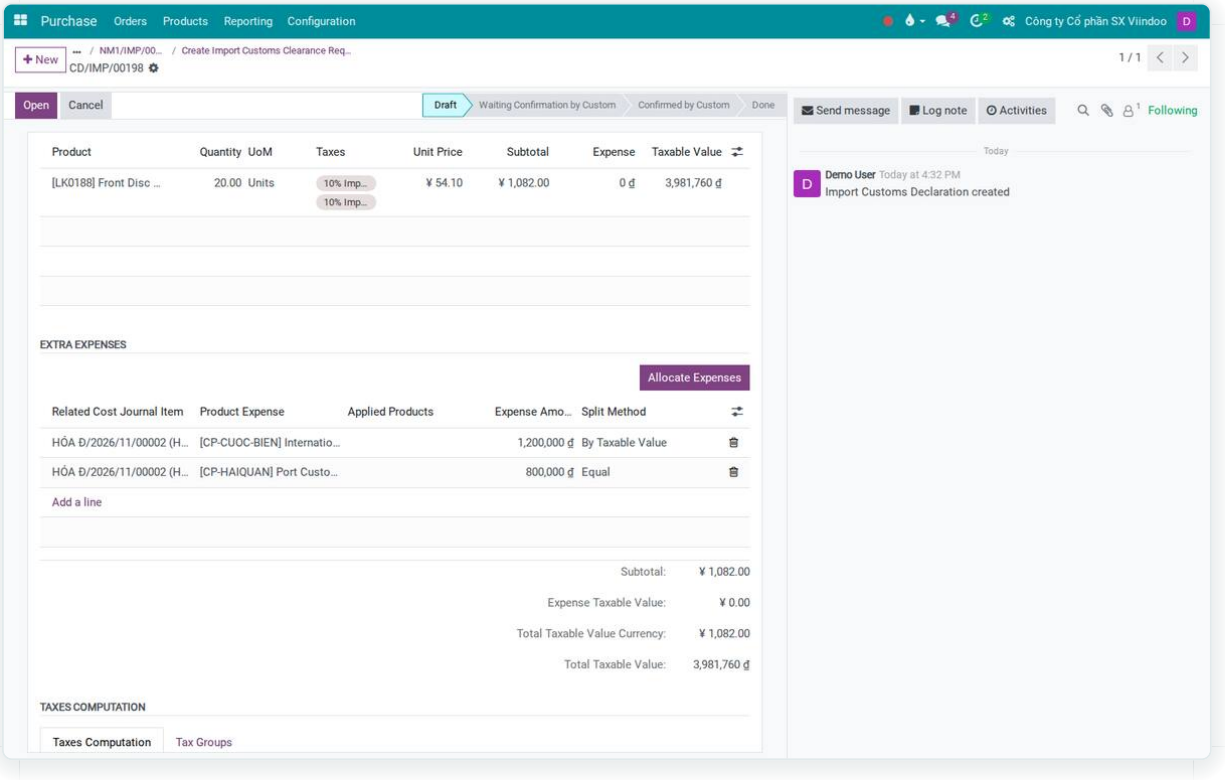


What you should see: the request `CD/IMP/xxxxx` takes the **Purchase Orders**, **Transfers** and **Currency Rate** automatically, in status **Draft** with the **Open** and **Cancel** buttons, **Currency Rate** 3,680.00, and a goods line carrying **10% Import Tax** and **10% Import VAT** with a **Taxable Value** of 3,981,760 VND.

Step 5 - Link the freight and customs fee bill to the extra expenses

Scroll down to **Extra Expenses**, click **Add a line**. In the **Related Cost Journal Item** column choose the freight line of the bill you just posted; for **Split Method** choose **By Taxable Value**. Add a second line, choose the customs fee line, split method **Equal**. Click save.

> *Path:* on the customs clearance request, **Extra Expenses** section (`NM1/IMP/xxxxx`)



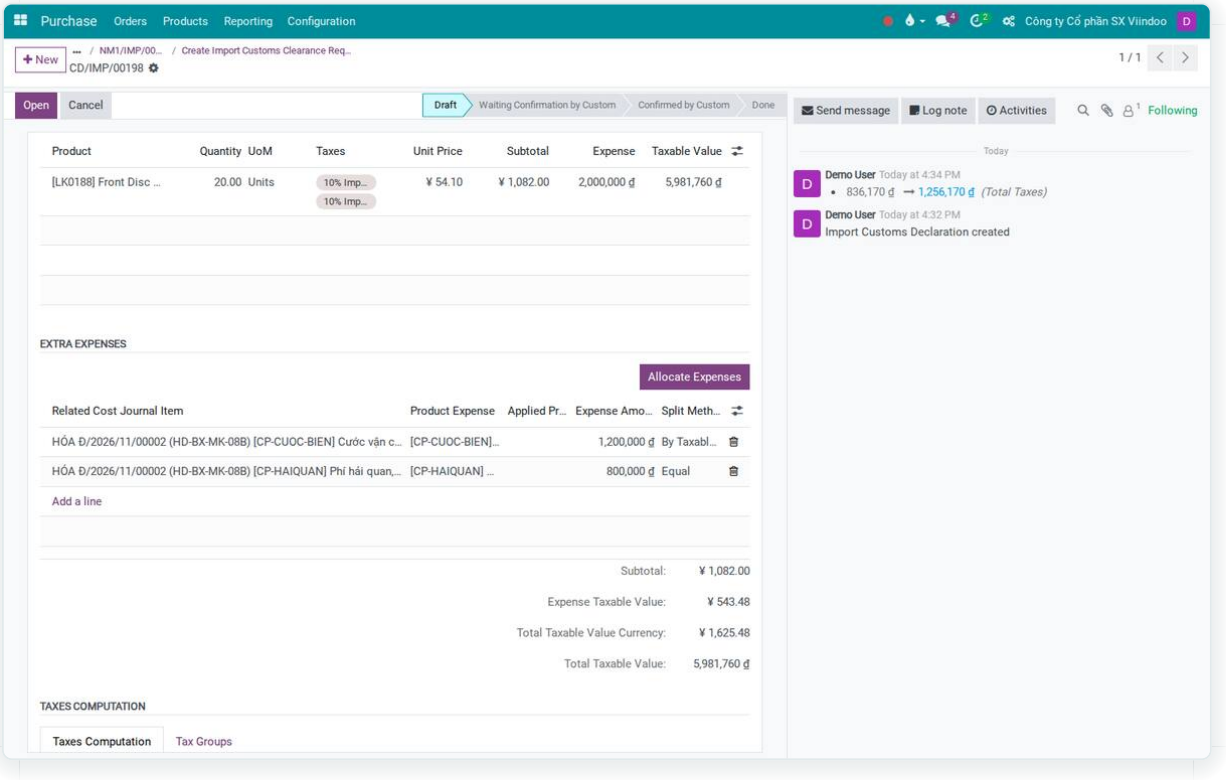
What you should see: the **Expense Amount** is filled in as 1,200,000 VND and 800,000 VND from the bill, and the cost product is filled in from the bill line.

> *Note:* if you choose **By Quantity** when the goods lines belong to two different unit-of-measure categories (for example Set and Unit), the system shows "You can't select split method is `By Quantity`, while applied products has different UoM categories." and does not save. Choose **Equal** or **By Taxable Value** instead.

Step 6 - Click Allocate Expenses

Click the **Allocate Expenses** button.

> *Path:* on the customs clearance request, **Extra Expenses** section (`NM1/IMP/xxxxx`)



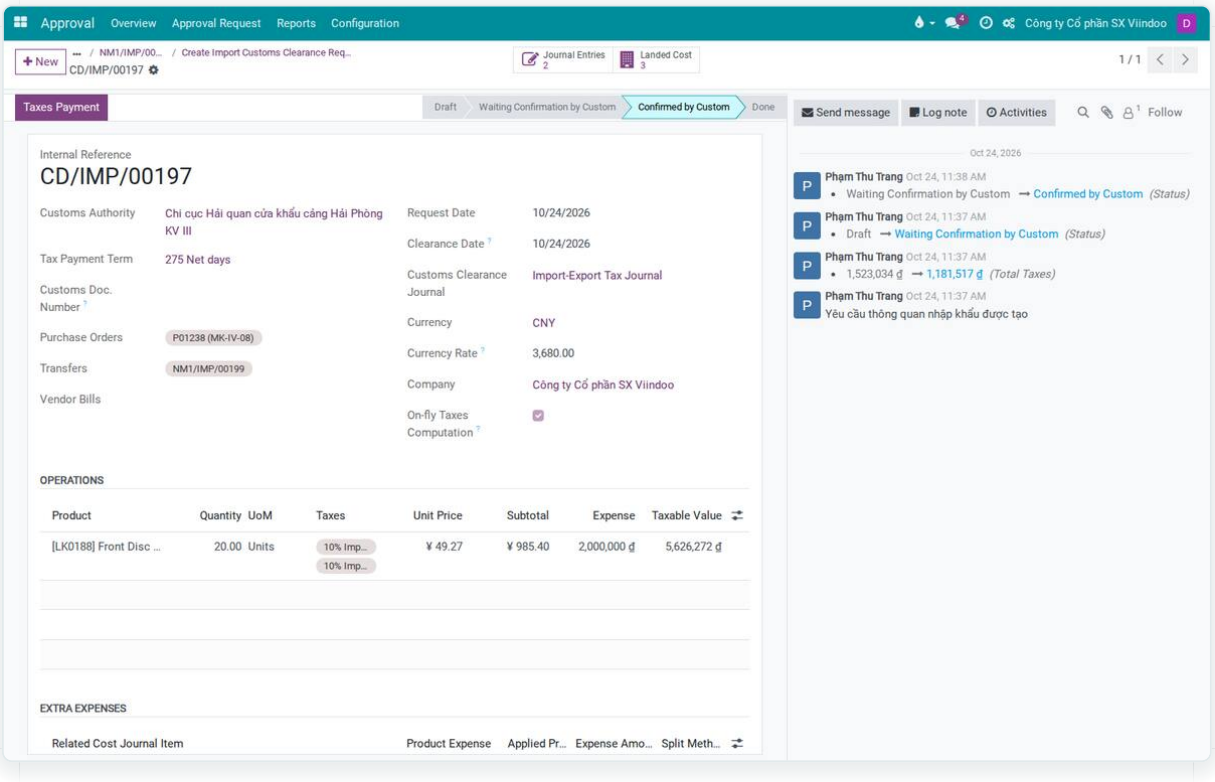
What you should see: the **Expense** column of the goods line goes from 0 to 2,000,000 VND; the **Taxable Value** column rises by the same amount, from 3,981,760 to 5,981,760 VND.

Step 7 - Open the request and confirm with customs

> *Path:* still on the screen of the previous step (`Accounting > Vendors > Bills`)

Click **Open**, then click **Confirmed by Custom**.

> *Path:* on the customs clearance request, the button bar at the top (`NM1/IMP/xxxxx`)

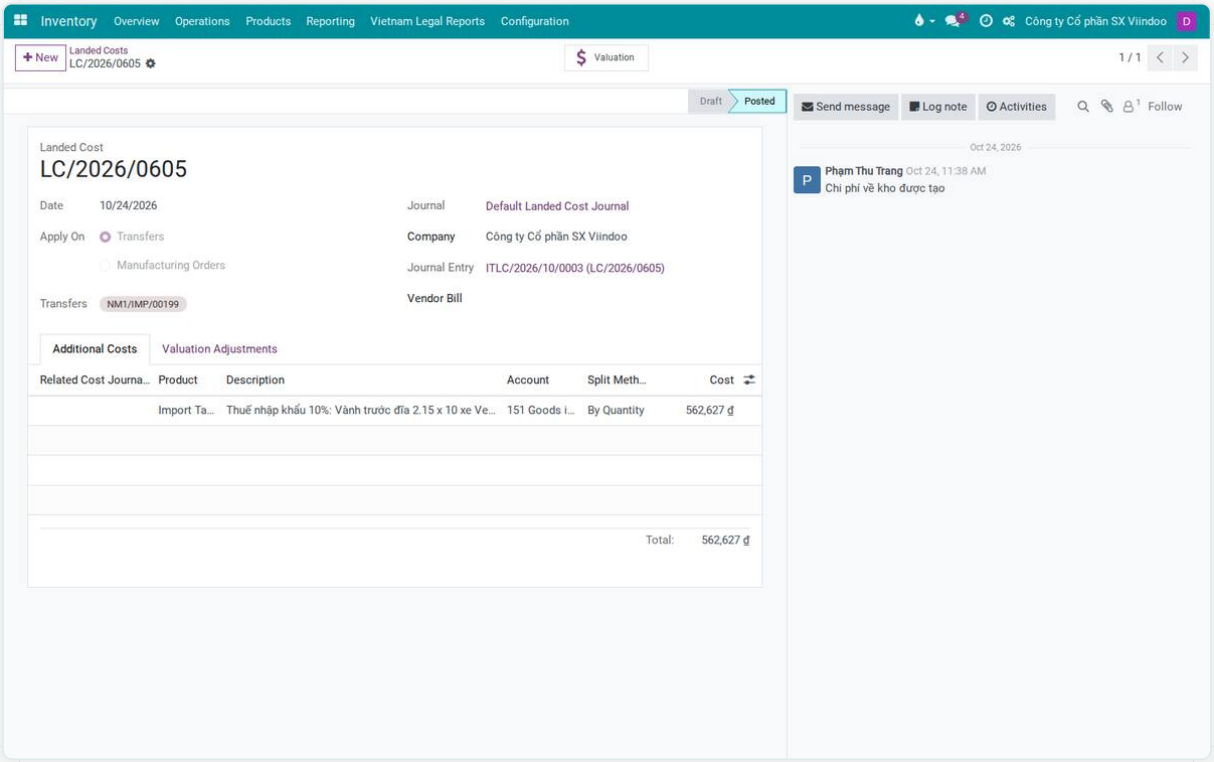


What you should see: the status is **Confirmed by Custom**; the **Journal Entries** button (import duty debit 151 / credit 3333, import VAT debit 1331 / credit 33312) and the **Landed Cost** button show the number of documents (2 and 3 here); a **Taxes Payment** button appears.

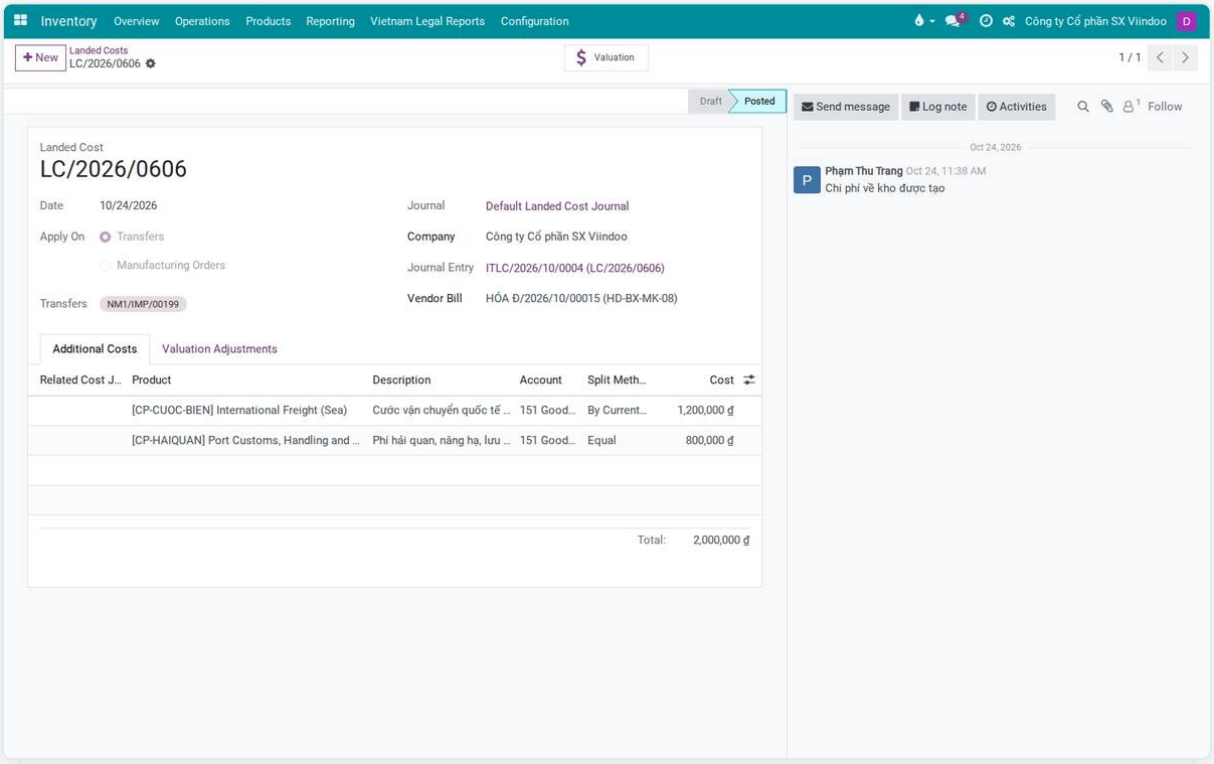
Step 8 - Look at the landed cost documents

Click the **Landed Cost** button and open each document.

> *Path:* `Inventory > Operations > Adjustments > Landed Costs`



What you should see: a document for import duty of 562,627 VND, **Posted**, linked to the transfer `NM1/IMP/xxxxx`.



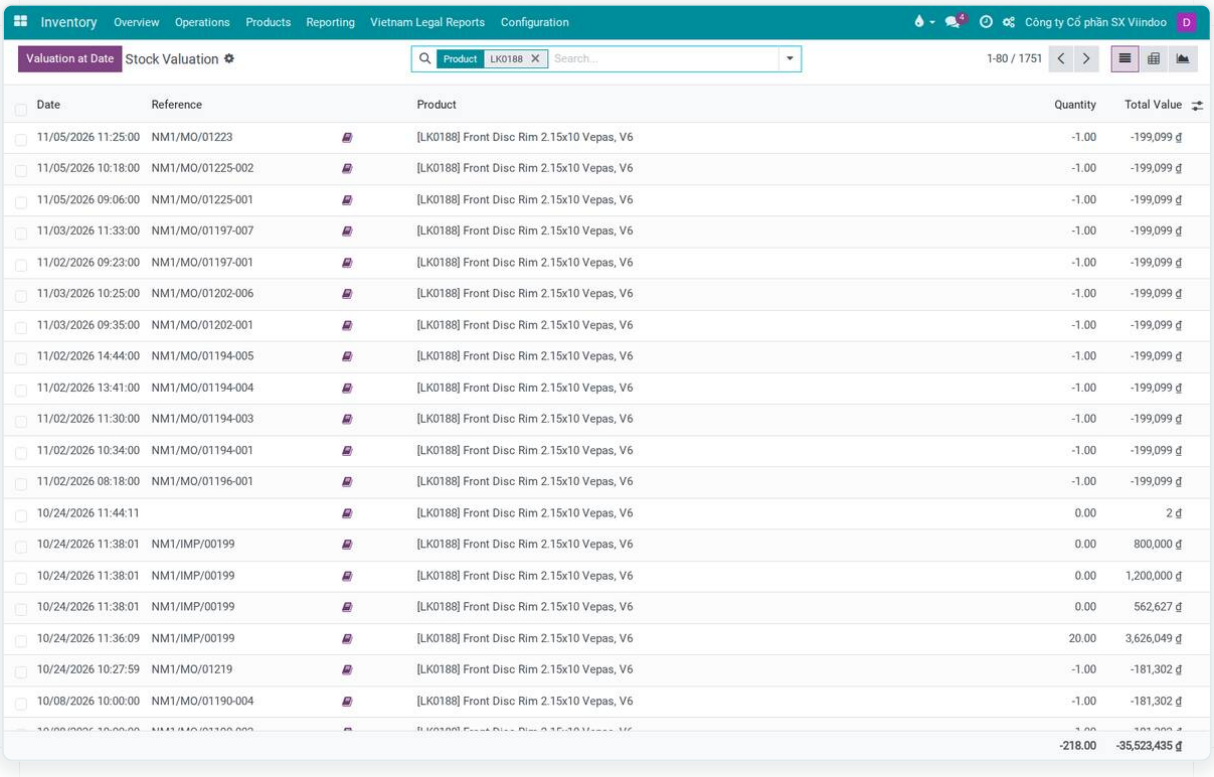
What you should see: a document for freight and customs fees totalling 2,000,000 VND, **Posted**, with the **Vendor Bill** field pointing to the freight forwarder's bill. The entry debit 152 / credit 151 of this document is offset by the debit to 151 on the bill, so 151 has no odd balance left. The **Import**

Exchange Diff document (a small amount, a few hundred dong) may still be **Draft**; it is the exchange-rate difference arising when duty is computed, not yet posted.

Step 9 - Check with the valuation layers

Open the **Valuation** report and filter on product `LK0188`.

> *Path:* `Inventory > Reporting > Valuation`



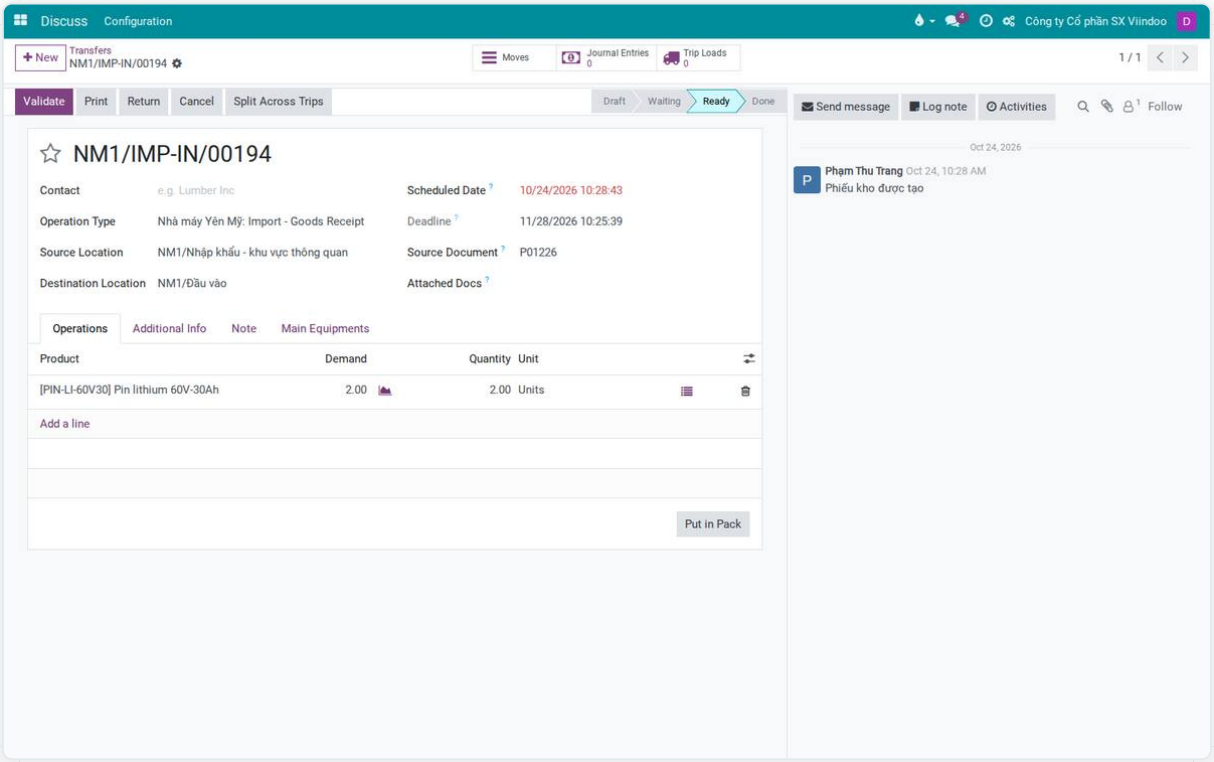
Date	Reference	Product	Quantity	Total Value
11/05/2026 11:25:00	NM1/MO/01223	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-199,099 ₫
11/05/2026 10:18:00	NM1/MO/01225-002	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-199,099 ₫
11/05/2026 09:06:00	NM1/MO/01225-001	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-199,099 ₫
11/03/2026 11:33:00	NM1/MO/01197-007	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-199,099 ₫
11/02/2026 09:23:00	NM1/MO/01197-001	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-199,099 ₫
11/03/2026 10:25:00	NM1/MO/01202-006	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-199,099 ₫
11/03/2026 09:35:00	NM1/MO/01202-001	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-199,099 ₫
11/02/2026 14:44:00	NM1/MO/01194-005	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-199,099 ₫
11/02/2026 13:41:00	NM1/MO/01194-004	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-199,099 ₫
11/02/2026 11:30:00	NM1/MO/01194-003	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-199,099 ₫
11/02/2026 10:34:00	NM1/MO/01194-001	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-199,099 ₫
11/02/2026 08:18:00	NM1/MO/01196-001	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-199,099 ₫
10/24/2026 11:44:11		[LK0188] Front Disc Rim 2.15x10 Vepas, V6	0.00	2 ₫
10/24/2026 11:38:01	NM1/IMP/00199	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	0.00	800,000 ₫
10/24/2026 11:38:01	NM1/IMP/00199	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	0.00	1,200,000 ₫
10/24/2026 11:38:01	NM1/IMP/00199	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	0.00	562,627 ₫
10/24/2026 11:36:09	NM1/IMP/00199	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	20.00	3,626,049 ₫
10/24/2026 10:27:59	NM1/MO/01219	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-181,302 ₫
10/08/2026 10:00:00	NM1/MO/01190-004	[LK0188] Front Disc Rim 2.15x10 Vepas, V6	-1.00	-181,302 ₫
			-218.00	-35,523,435 ₫

What you should see: the receipt line (20 units, value 3,626,049 VND) and the lines with **Quantity** 0.00 under the same reference `NM1/IMP/xxxxx`, with values of 562,627 VND (duty), 1,200,000 VND (freight) and 800,000 VND (customs fees), plus a rounding line of 2 VND. The quantity does not change, and the stock value rises by exactly the cost: 2,562,627 VND, from 3,626,049 to 6,188,676 VND.

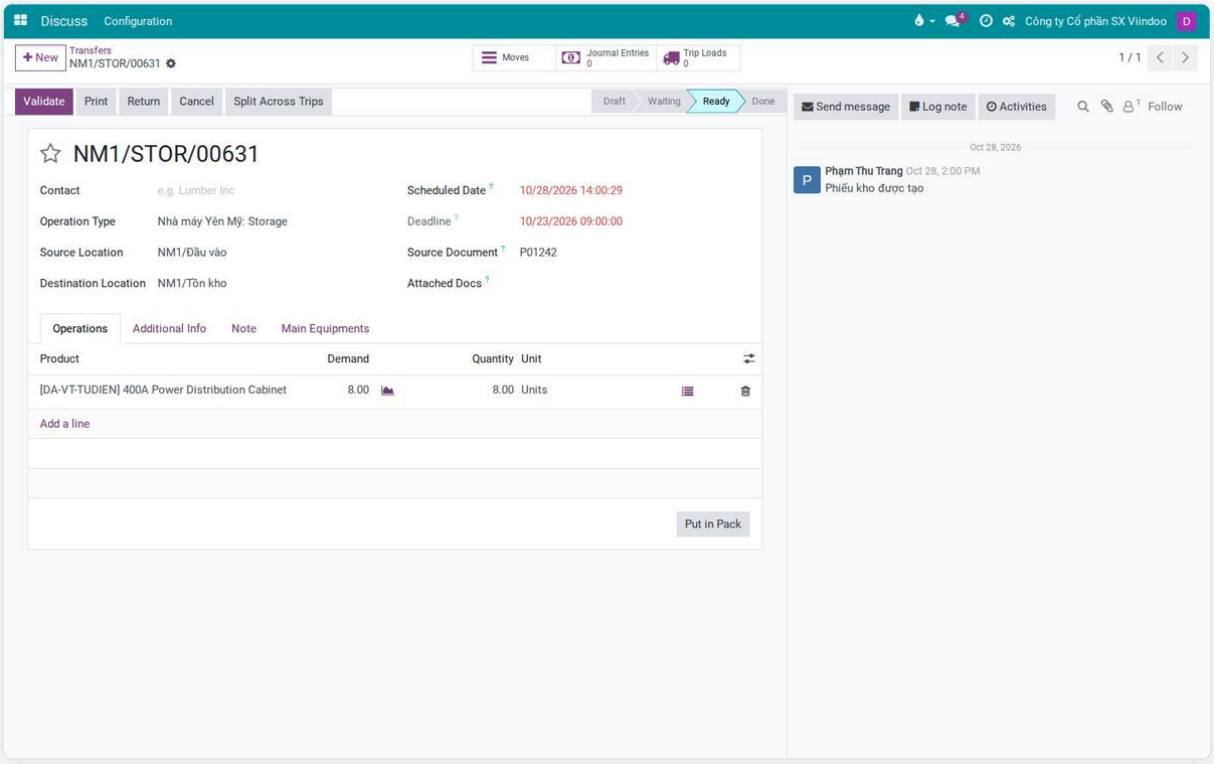
Step 10 - Receive the goods into the warehouse

Go back to the `IMP` transfer, click **Next Transfer**, open the transfer `NM1/IMP-IN/xxxxx`, click **Validate** and **Validate** in the date dialog. Then open the **Storage** transfer (`NM1/STOR/xxxxx`) and do the same.

> *Path:* on the transfer `NM1/IMP/xxxxx` , **Next Transfer** button



What you should see: the `IMP-IN` transfer moves the goods from **NM1/Nhập khẩu - khu vực thông quan** (NM1/Import - customs clearance area) to **NM1/Đầu vào** (NM1/Input).



What you should see: the `STOR` transfer moves goods from **NM1/Đầu vào** (NM1/Input) to **NM1/Tồn kho** (NM1/Stock). While the customs clearance request has not been confirmed by customs, the `IMP-IN` transfer is blocked (see the lesson *Receiving imports in stages*).

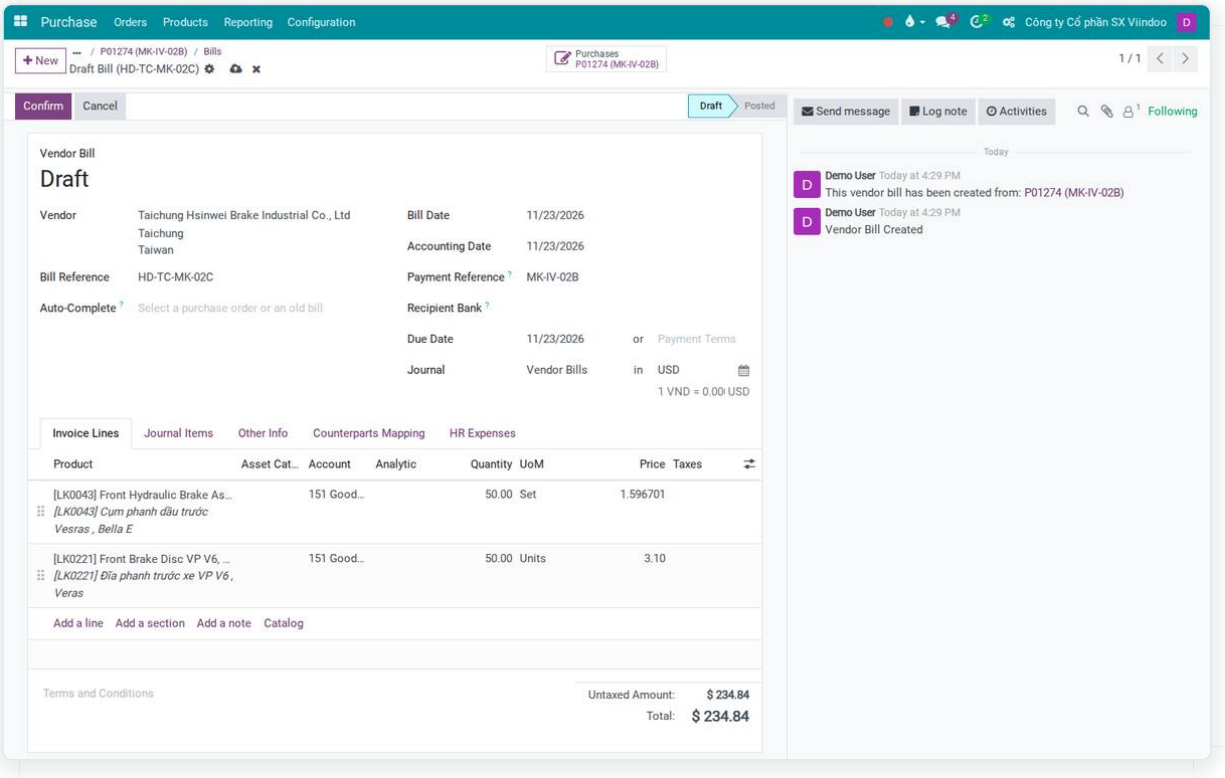
28 VENDOR BILLS AND PAYABLES

About 10 minutes. By the end of this lesson your company can create a vendor bill in a foreign currency from a purchase order and see the amount payable in the aged payable report.

Step 1 - Create the bill from the purchase order

Open an import purchase order whose goods have been received (for example the order for the vendor `Taichung Hsinwei`, two lines `LK0043` (Front Hydraulic Brake Assembly Veras, Bella E) and `LK0221` (Front Brake Disc VP V6, Veras), 50 each, created as in the lesson *Import purchase order in a foreign currency*), click **Create Bill**. Enter a **Bill Reference** of your own (for example `HD-TC-MK-02B`) and today as the **Bill Date**.

> *Path:* `Purchase > Orders > Purchase Orders` > (purchase order) > **Create Bill** button

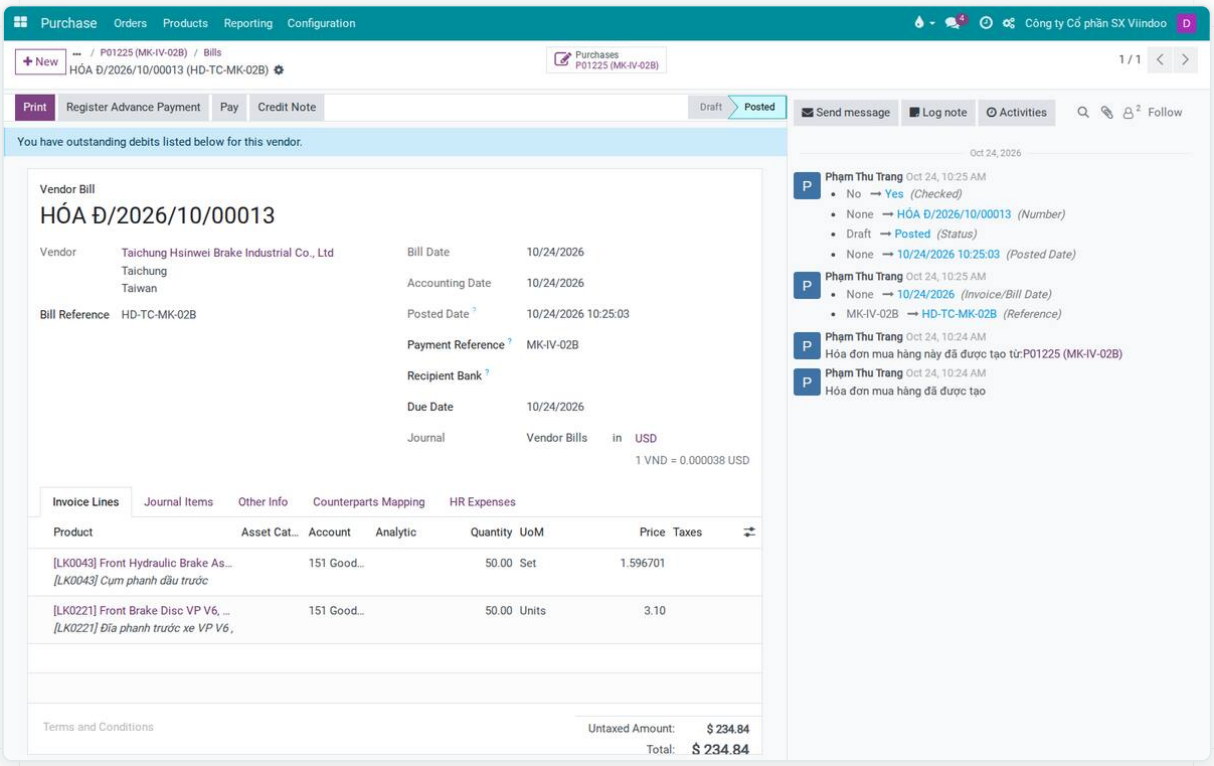


What you should see: a draft bill linked to the purchase order, vendor Taichung, two goods lines posted to account **151 Goods in transit**, total 234.84 USD.

Step 2 - Confirm the bill

Click **Confirm**.

> *Path:* on the bill you just created (`Purchase > Orders > Purchase Orders` > (order) > **Vendor Bills** button)

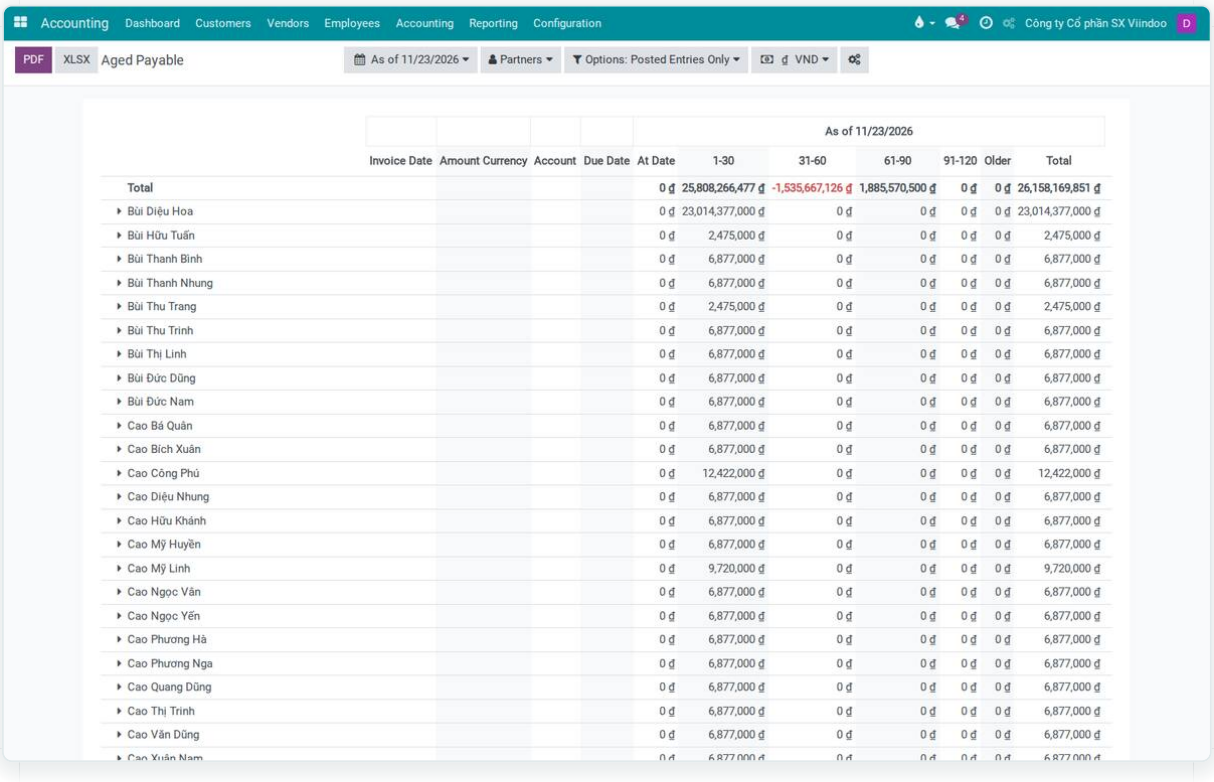


What you should see: the status is **Posted**, the bill number has the form `HÓA Đ/2026/10/xxxxx`, there is a rate line under **Journal**, and the **Pay**, **Register Advance Payment** and **Credit Note** buttons appear. If the vendor has outstanding prepayments, a blue banner reads "You have outstanding debits listed below for this vendor."

Step 3 - Read the vendor's payable balance

Open **Aged Payable** (it opens for all partners, as of today) and search for or expand the vendor Taichung.

> *Path:* `Accounting > Reporting > Partner Reports > Aged Payable`



What you should see: the report is dated today ("As of ...") with the columns **At Date**, **1-30**, **31-60**, **61-90**, **91-120**, **Older** and **Total**, one row per partner and a **Total** row at the top. The bill you just created sits in the **At Date** column of the vendor's row, converted from USD at the rate of the bill date. A negative figure is a prepayment or credit already held for that vendor, so a vendor's total can be negative: your company has prepaid more than it still owes.

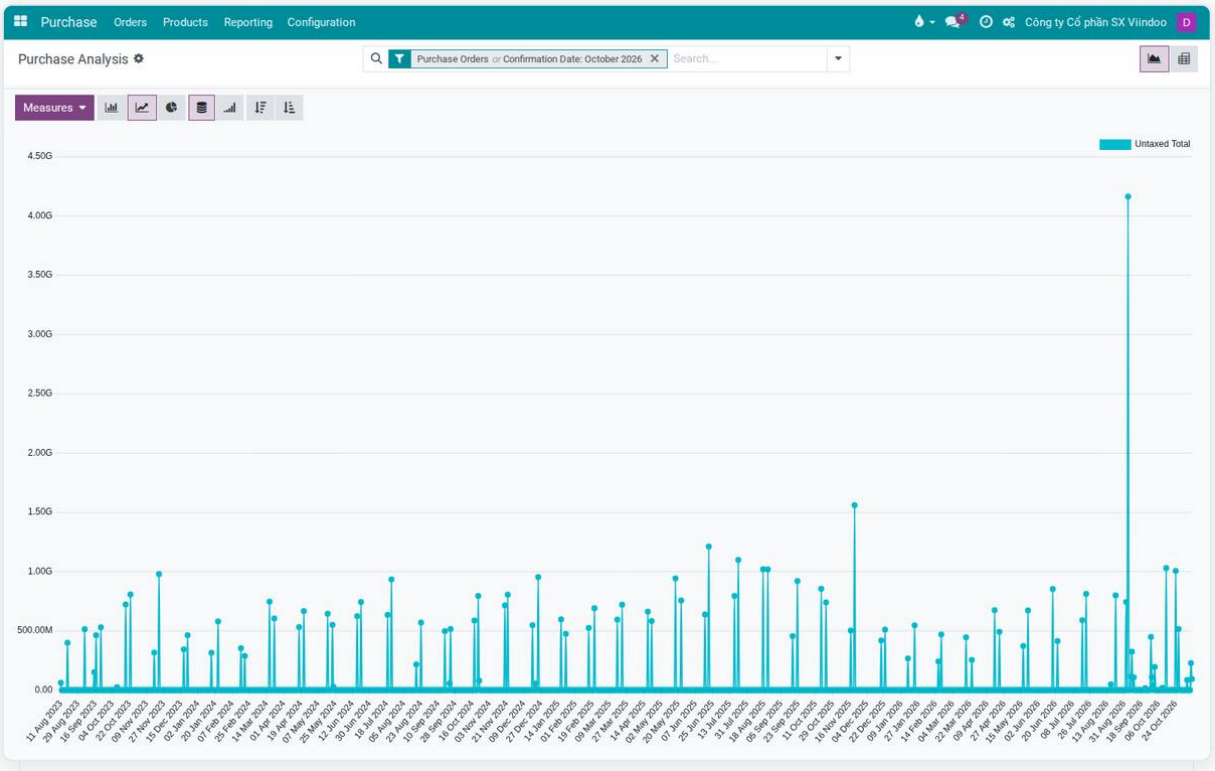
29 PURCHASING AND IMPORT REPORTS

About 10 minutes. The table below lists the reports your company uses for purchasing and importing.

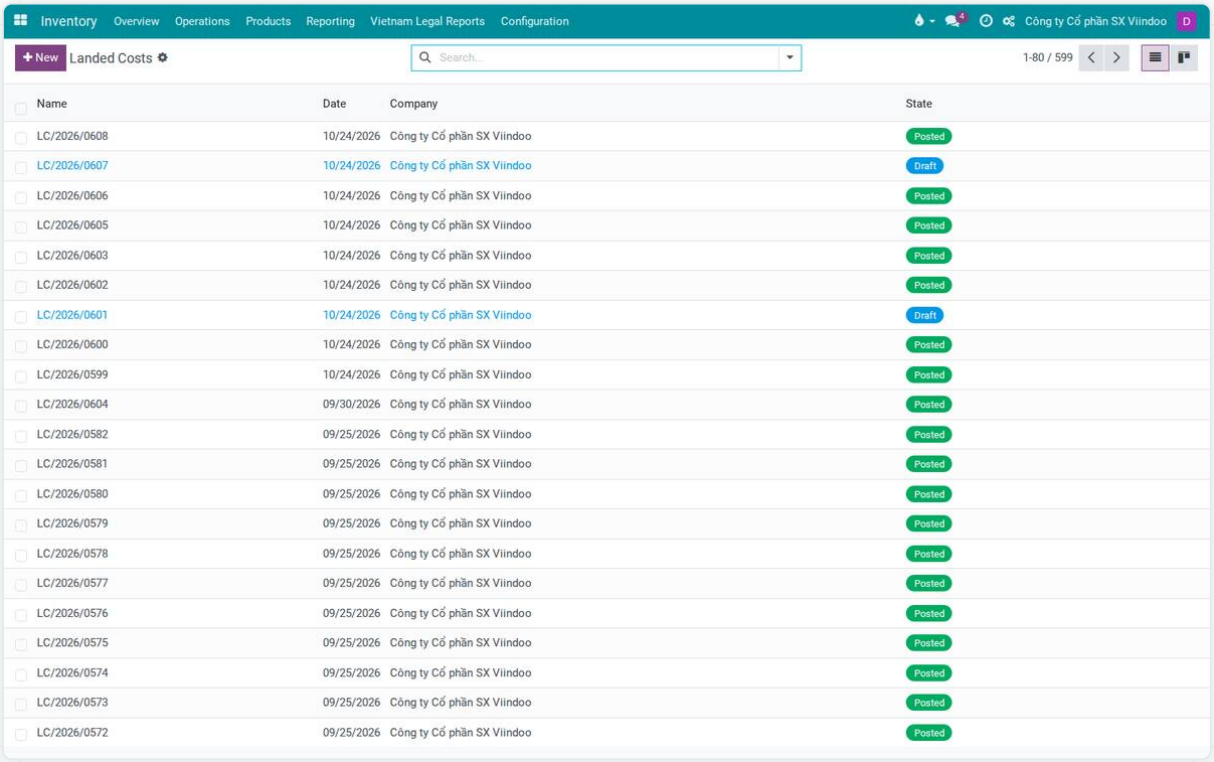
Report	Path	Question it answers
Purchase Analysis	`Purchase > Reporting > Purchase`	How much is bought, by vendor, product and month
Aged Payable	`Accounting > Reporting > Partner Reports > Aged Payable`	Which vendors you owe, and how overdue it is
Partner Ledger	`Accounting > Reporting > Partner Reports > Partner Ledger`	Each movement and payment for one vendor
Purchase Invoice List (form 01 - 2/GTGT)	`Accounting > Reporting > Invoice Lists`	Input VAT declared by invoice

Report	Path	Question it answers
Landed Costs	`Inventory > Operations > Adjustments > Landed Costs`	How much duty, freight and fees each import batch has added to cost
Landed Costs Analysis	`Inventory > Reporting > Landed Costs Analysis`	Landed costs by product and by period
Valuation	`Inventory > Reporting > Valuation`	Stock value of each component and the added cost layers
Stock-In Report	`Inventory > Vietnam Legal Reports`	Goods received into stock in the period, in the statutory format
Incoming quality control report by vendor	`Quality > Reporting > Quality Alerts`	Which vendors cause repeated defects (see Part V)

> *Path:* `Purchase > Reporting > Purchase`



What you should see: a line chart of **Untaxed Total** over time, filtered on **Purchase Orders** or the **Confirmation Date** of a month; change the chart type, the measure and the grouping with the toolbar above.



What you should see: the `LC/...` documents with **Name**, **Date**, **Company** and **State**; a **Draft** document is one not yet posted.

30 EXERCISE: RECEIVE AN IMPORT BATCH OF COMPONENTS FROM START TO FINISH

About 40 minutes. There are no step-by-step images; your company does it and checks the result itself.

1. Create a purchase order for the vendor `Tianjin Huaxin` in CNY, one line `LK0188` (Front Disc Rim 2.15x10 Vepas, V6) quantity 20. Confirm it.
2. Receive the goods at the customs clearance area. Create the freight forwarder's bill for one **Port Customs, Handling and Storage Fees** line of 500,000. Create the customs clearance request, in **Extra Expenses** choose the customs fee line of that bill, click **Allocate Expenses**, **Open**, **Confirmed by Custom**.
3. Receive the goods into the warehouse and store them. Create the vendor bill.
4. Check: do the landed cost documents of the batch add up to the duty plus 500,000? In **Valuation**, does the total added value of `LK0188` equal exactly that figure? Does the bill appear in **Aged Payable**?
5. Answer for yourself: why is it blocked if you choose **By Quantity** on a batch with several units of measure?

PART V. WAREHOUSE AND QUALITY

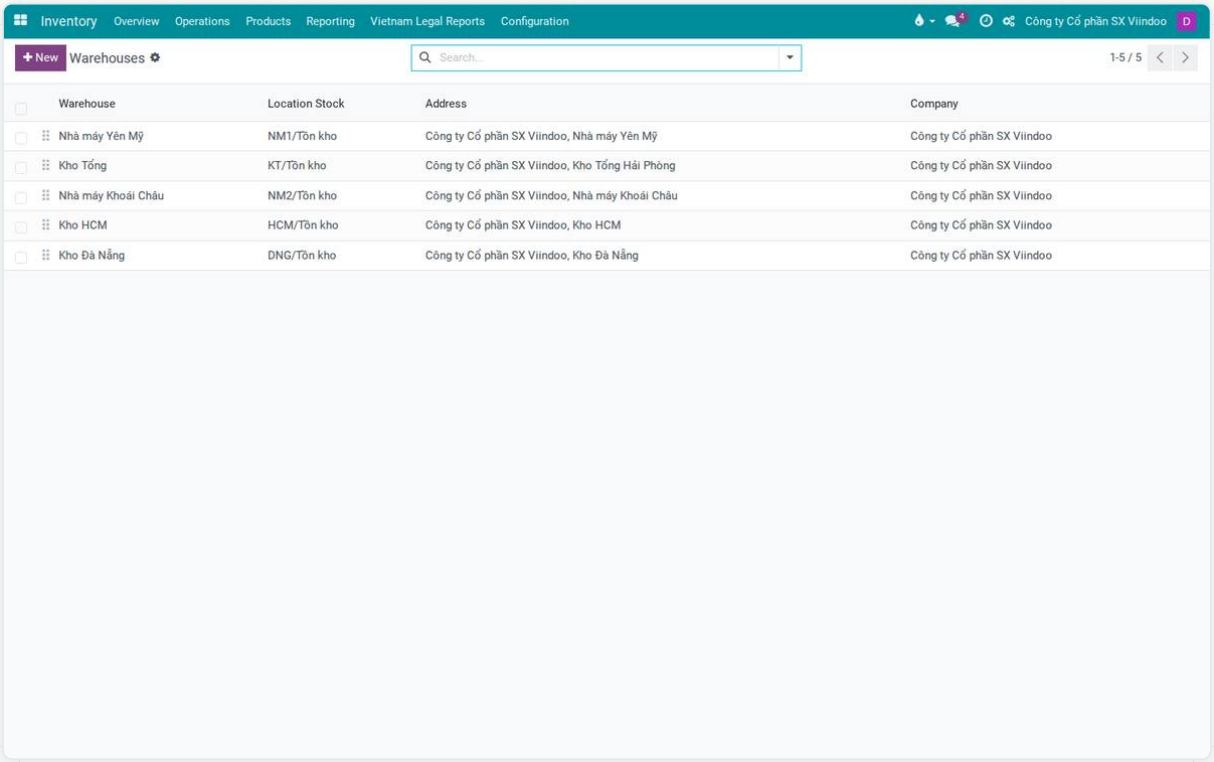
This part answers these questions: which warehouses and steps do goods pass through, can defective goods get into stock, which vendor's defects keep repeating, are components for the line taken by loose spare-part sales, and how are materials issued to the workshop? It is written for storekeepers, quality inspectors, team leaders and production planners.

31 WAREHOUSE AND QUALITY CONTROL CONFIGURATION IN USE

About 15 minutes. By the end of this lesson your company knows the number of receipt and delivery steps of each warehouse, the types of transfers, the supply routes, and which goods are inspected on arrival.

Step 1 - Look at the list of warehouses

> *Path:* `Inventory > Configuration > Warehouse Management > Warehouses`

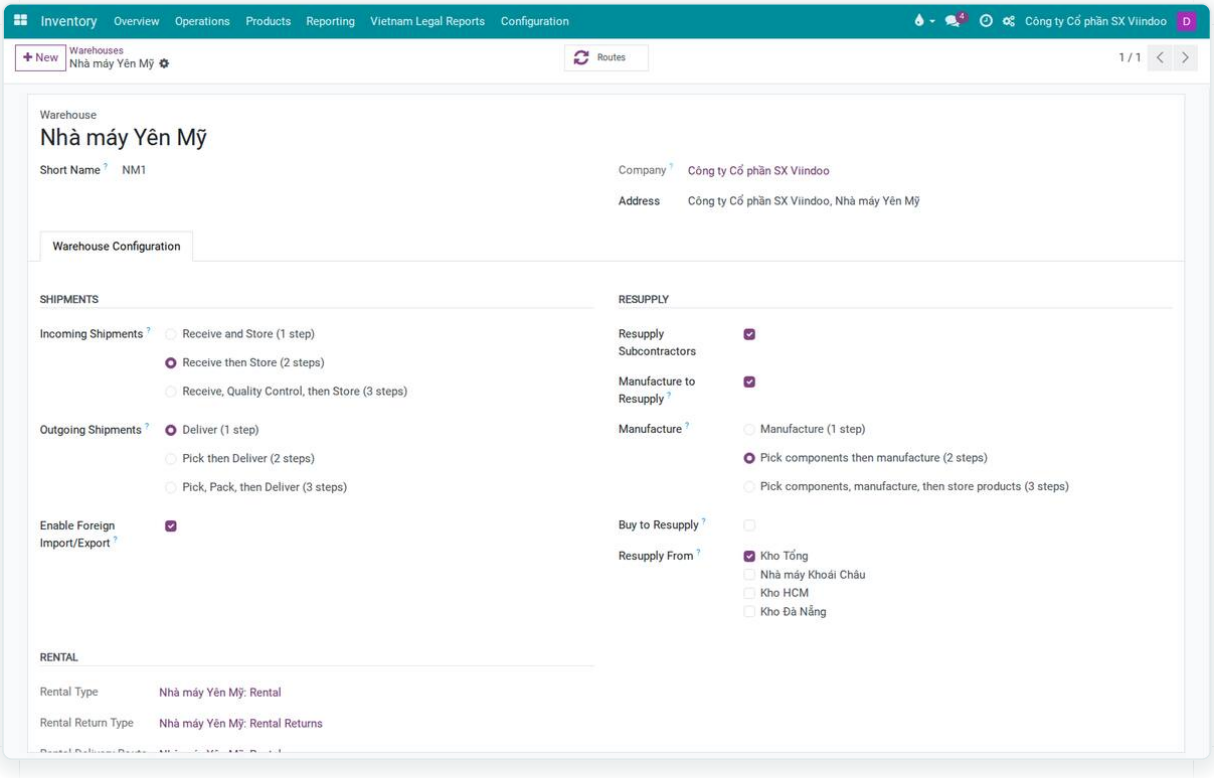


What you should see: five warehouses, Nhà máy Yên Mỹ (Yen My Factory), Kho Tổng (Central Warehouse), Nhà máy Khoái Châu (Khoai Chau Factory), Kho HCM (Ho Chi Minh Warehouse) and Kho Đà Nẵng (Da Nang Warehouse), each with a **Location Stock** such as `NM1/Tồn kho` (NM1/Stock), `KT/Tồn kho`, `NM2/Tồn kho`, `HCM/Tồn kho` and `DNG/Tồn kho`.

Step 2 - Read the receipt, delivery and manufacturing steps of Nhà máy Yên Mỹ

Open the warehouse **Nhà máy Yên Mỹ**.

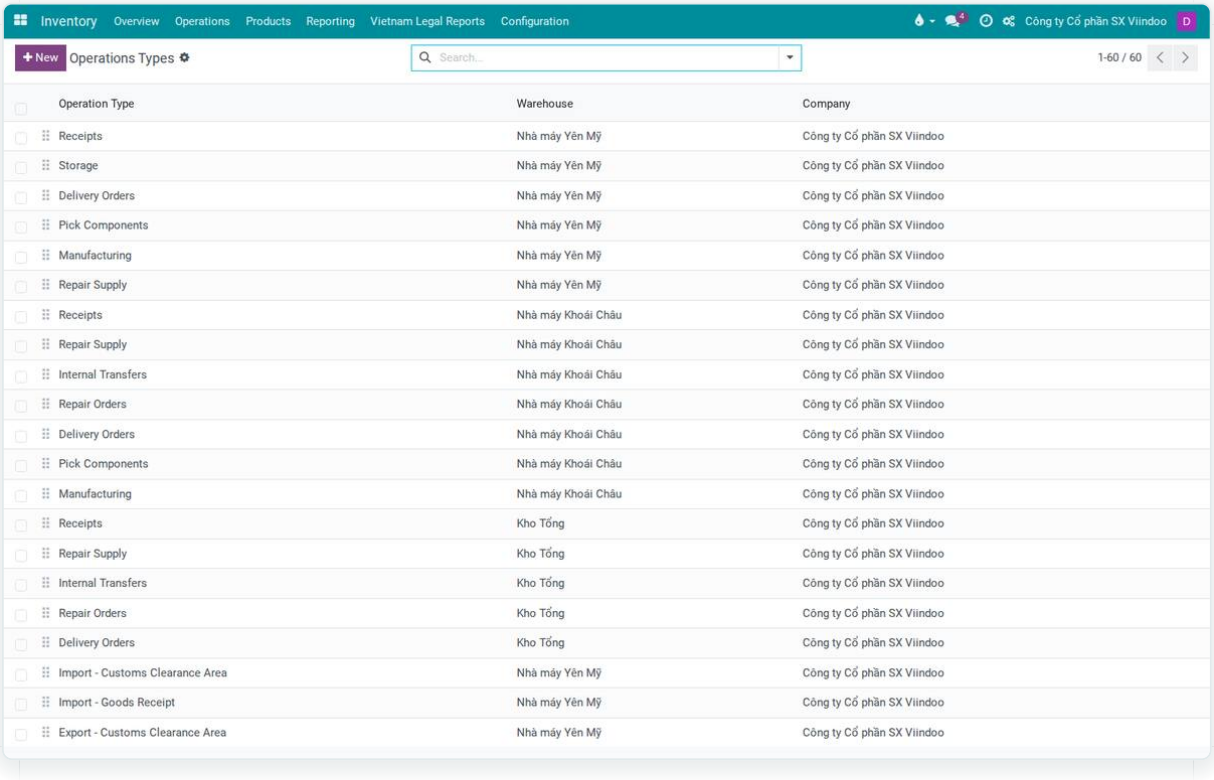
> *Path:* `Inventory > Configuration > Warehouse Management > Warehouses`, open the warehouse



What you should see: Incoming Shipments is set to **Receive then Store (2 steps)**; **Outgoing Shipments** is set to **Deliver (1 step)**; **Manufacture** is set to **Pick components then manufacture (2 steps)**; **Enable Foreign Import/Export** is ticked; **Resupply From** is **Kho Tổng**; and **Resupply Subcontractors** and **Manufacture to Resupply** are ticked. The other four warehouses receive goods in 1 step.

Step 3 - Read the transfer types and prefixes

> *Path:* `Inventory > Configuration > Warehouse Management > Operations Types`

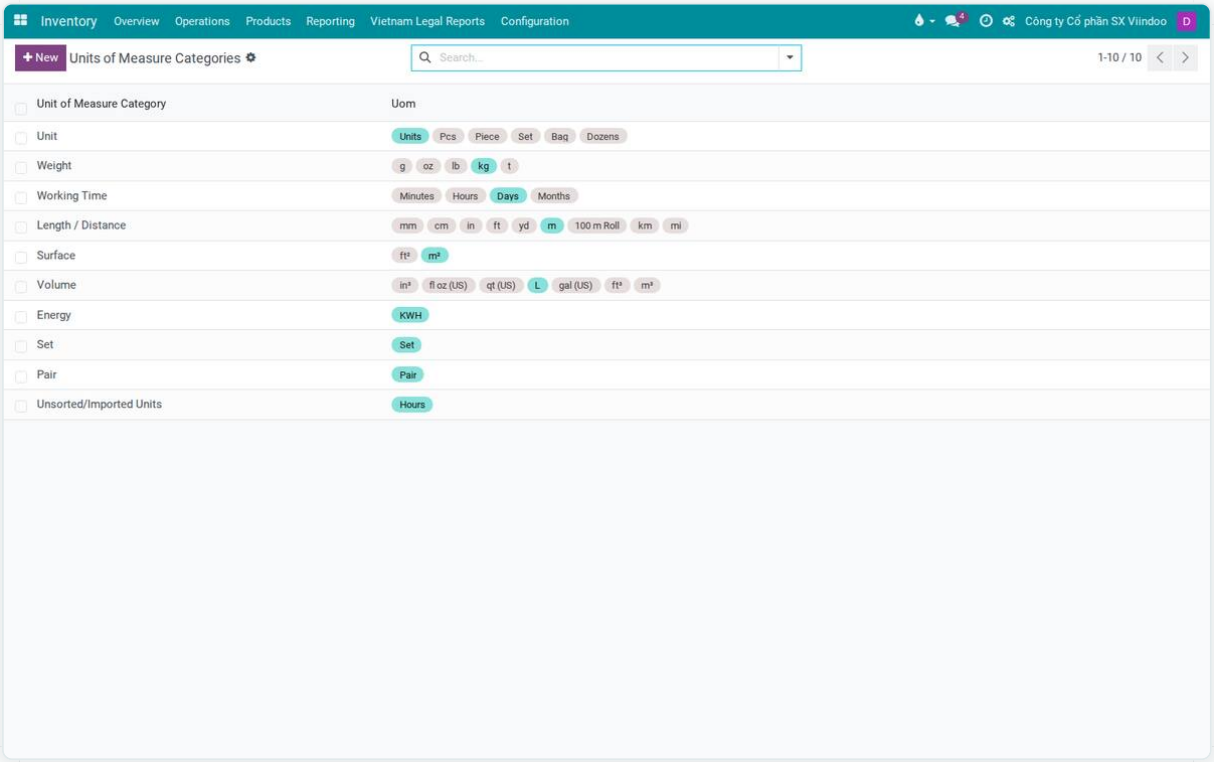


Operation Type	Warehouse	Company
Receipts	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Storage	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Delivery Orders	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Pick Components	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Manufacturing	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Repair Supply	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Receipts	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Repair Supply	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Internal Transfers	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Repair Orders	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Delivery Orders	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Pick Components	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Manufacturing	Nhà máy Khoái Châu	Công ty Cổ phần SX Viindoo
Receipts	Kho Tổng	Công ty Cổ phần SX Viindoo
Repair Supply	Kho Tổng	Công ty Cổ phần SX Viindoo
Internal Transfers	Kho Tổng	Công ty Cổ phần SX Viindoo
Repair Orders	Kho Tổng	Công ty Cổ phần SX Viindoo
Delivery Orders	Kho Tổng	Công ty Cổ phần SX Viindoo
Import - Customs Clearance Area	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Import - Goods Receipt	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo
Export - Customs Clearance Area	Nhà máy Yên Mỹ	Công ty Cổ phần SX Viindoo

What you should see: each warehouse has its own transfer types. The prefix shown on the transfer code is: `IN` receipt, `STOR` storage (the second step of Nhà máy Yên Mỹ), `OUT` delivery, `PC` pick components (step one of manufacturing), `MO` manufacturing order, `IMP` import customs clearance area, `IMP-IN` import receipt into the warehouse.

Step 4 - Read the units of measure

> *Path:* `Inventory > Configuration > Units of Measures > UoM Categories`



What you should see: each category holds units that convert into one another. **Set** and **Pair** are two separate categories; you cannot convert between Set and Unit. That is exactly why the system refuses when import costs are split "by quantity" across lines of different categories.

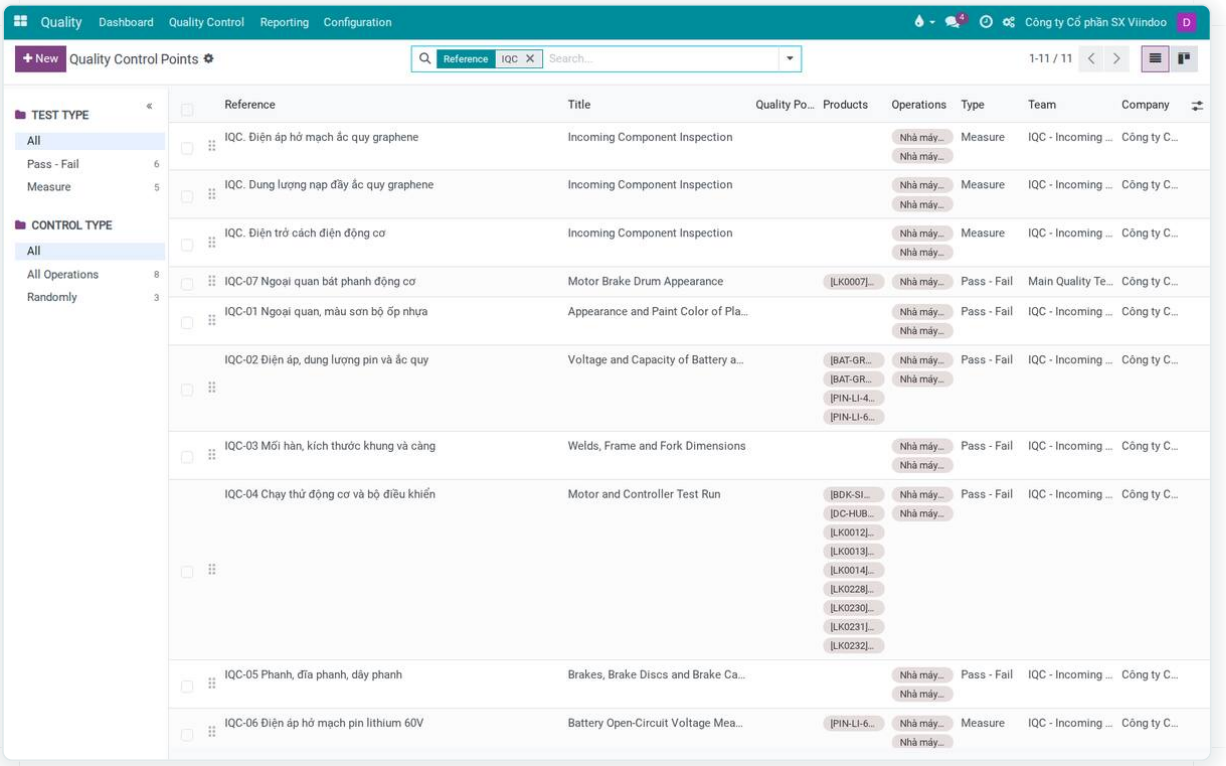
Step 5 - Read the supply routes by product group

The number of product codes on each route (at the time of writing; it changes when new codes are added):

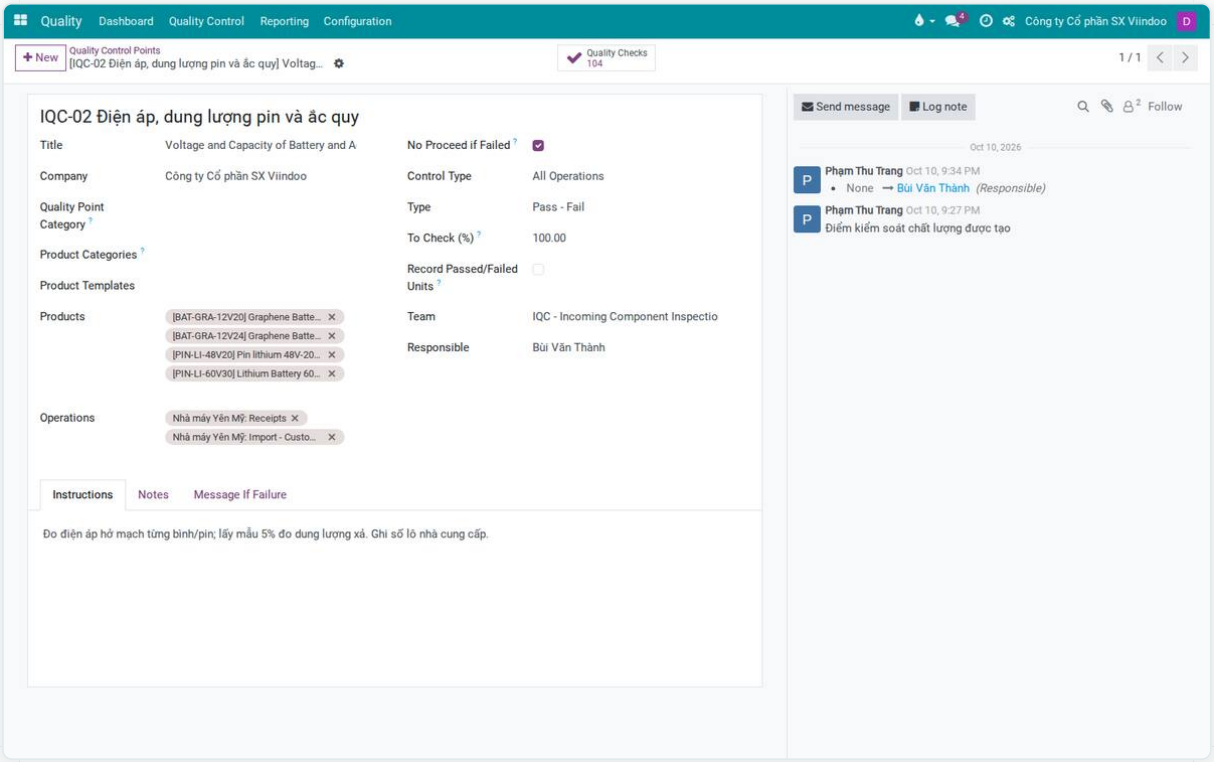
Route	Which product group it is attached to	What happens when stock runs short
Manufacture	Finished vehicles (13 codes), semi-finished frame and electrical assemblies (6 codes), electrical cabinet shell (1 code)	A manufacturing order is generated when the goods are needed
Buy	Components and supplies, loose spare parts and other groups (more than 350 codes)	It does not buy by itself. There has to be a reordering rule (there is 1 at present), or a plan that creates a supply request, or a purchasing clerk who creates the order by hand
Replenish on Order (MTO)	3 codes	Every sales order generates its own supply demand at once
Supply from another warehouse	Attached at warehouse level: Nhà máy Yên Mỹ takes from Kho Tổng, Kho HCM takes from Nhà máy Yên Mỹ	A supply request generates stock transfers

Step 6 - Read the incoming quality control points

> *Path:* `Quality > Quality Control > Quality Controls > Control Points`



What you should see: the points whose **Reference** starts with `IQC` (incoming inspection), with their **Title**, **Products**, **Operations**, **Type** and **Team**: appearance of the plastic kit, voltage of batteries and accumulators, frame welds, motor test run, brakes. Open one point:



What you should see: the **Title** Voltage and Capacity of Battery and Accumulator, the **Products** the point applies to (batteries and accumulators; a point can also be limited by **Product Categories** or **Product Templates**), **Operations** covering the ordinary receipt (**Receipts**) and the import receipt, **Type** Pass - Fail, **To Check (%)** 100, and the **No Proceed if Failed** box ticked. This box is the switch that blocks receiving into stock.

What you lose without it

> *Path:* still on the screen of the previous step (`Quality > Quality Control > Quality Controls > Control Points`)

Configuration	What you lose without it
2-step receipt at Nhà máy Yên Mỹ	Goods are received straight into the stock location, with no **Input** stage to wait for inspection and put-away
2-step manufacturing (Pick Components)	The workshop has no separate material pick and cannot reserve goods for each order
IQC control points	Defective goods enter stock and nobody inspects them
The No Proceed if Failed box	A failed check still does not stop the receipt
Resupply from another warehouse	A supply request does not generate transfers between warehouses by itself

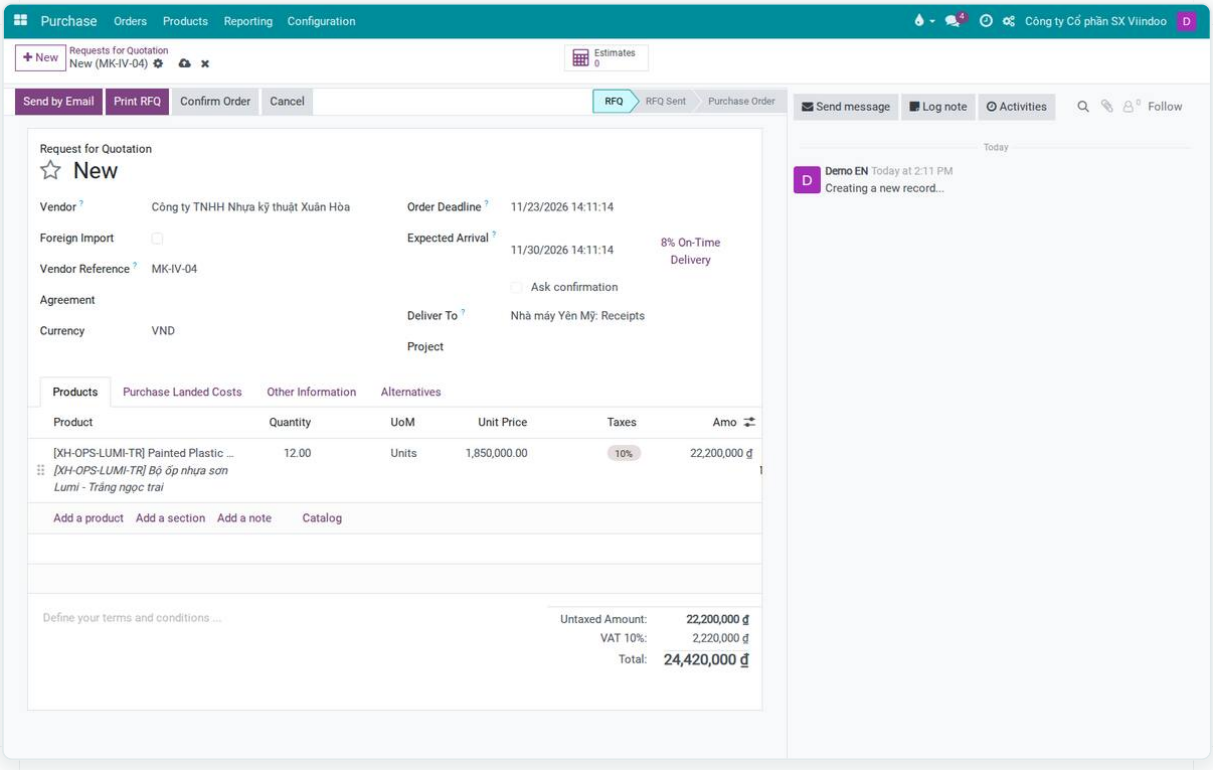
32 DOMESTIC RECEIPT WITH INCOMING INSPECTION

About 20 minutes. By the end of this lesson your company receives a domestic batch, passes an incoming inspection and puts the goods into stock through two steps.

Step 1 - Create the domestic purchase order

Create a **Request for Quotation**, vendor `Nhựa kỹ thuật Xuân Hòa`, vendor reference `MK-IV-04`, one line `OPS-LUMI-TR` (Painted Plastic Body Kit Lumi - Pearl White) quantity 12, unit price 1,850,000. Save and confirm.

> *Path:* `Purchase > Orders > Requests for Quotation`

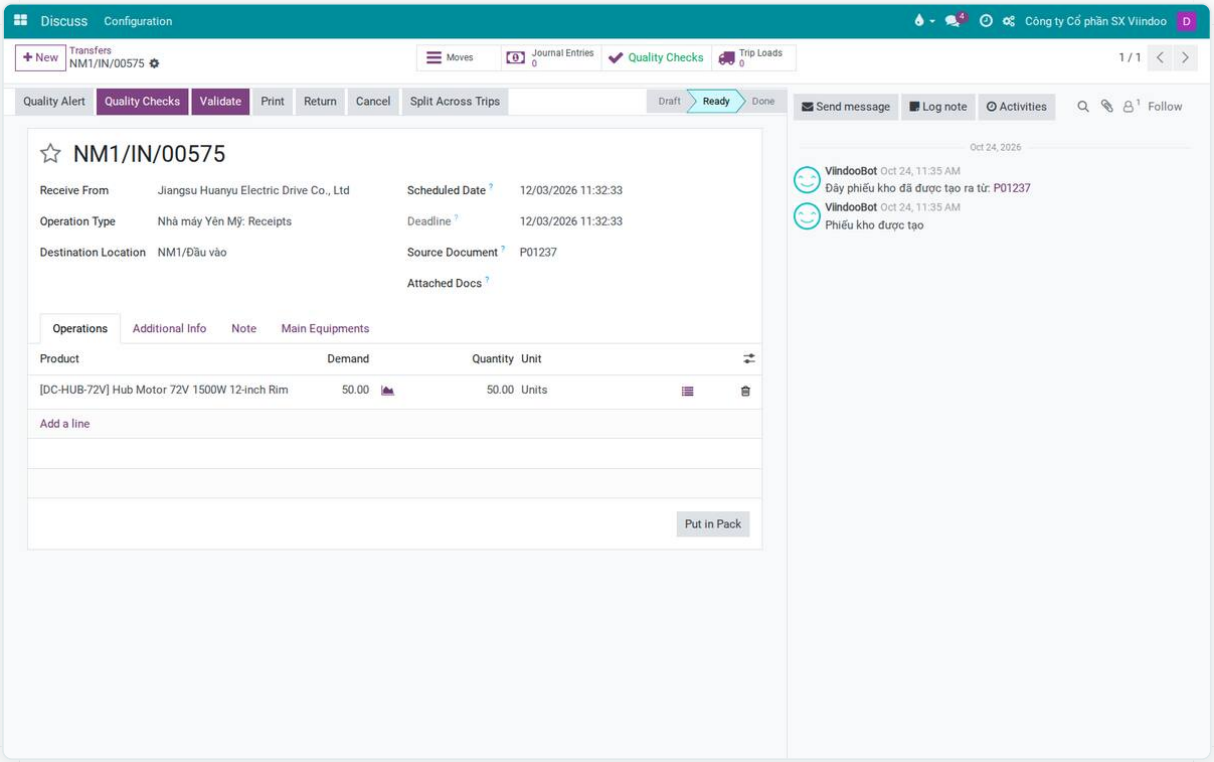


What you should see: the **Foreign Import** box is not ticked; **Deliver To** is **Nhà máy Yên Mỹ: Receipts**; the total is 24,420,000 VND (22,200,000 VND untaxed plus 2,220,000 VND of 10% VAT).

Step 2 - Open the receipt

On the purchase order click **Receipt**.

> *Path:* on the purchase order, **Receipt** button (`Purchase > Orders > Requests for Quotation`)

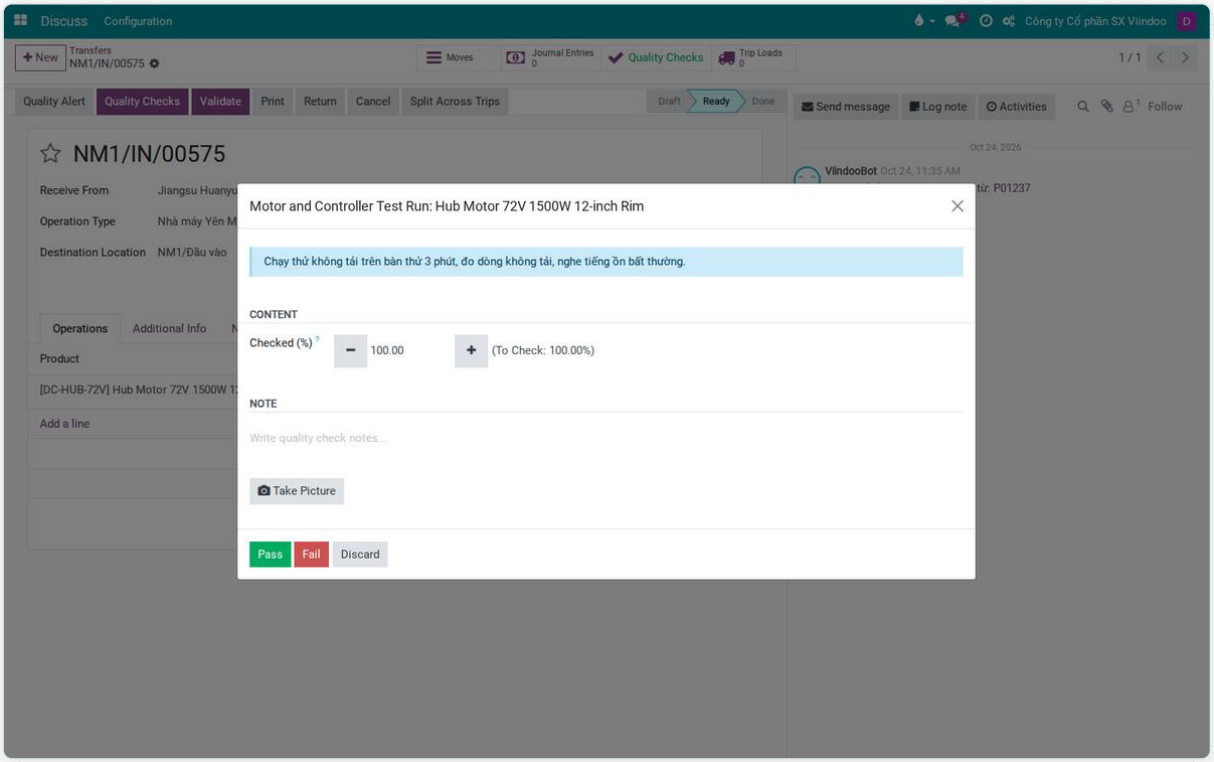


What you should see: a transfer `NM1/IN/xxxxx`, with a prominent purple **Quality Checks** button in the button bar (and a **Quality Checks** smart button), because the system has already generated the inspection checks for the received products; **Destination Location** is **NM1/Đầu vào** (NM1/Input).

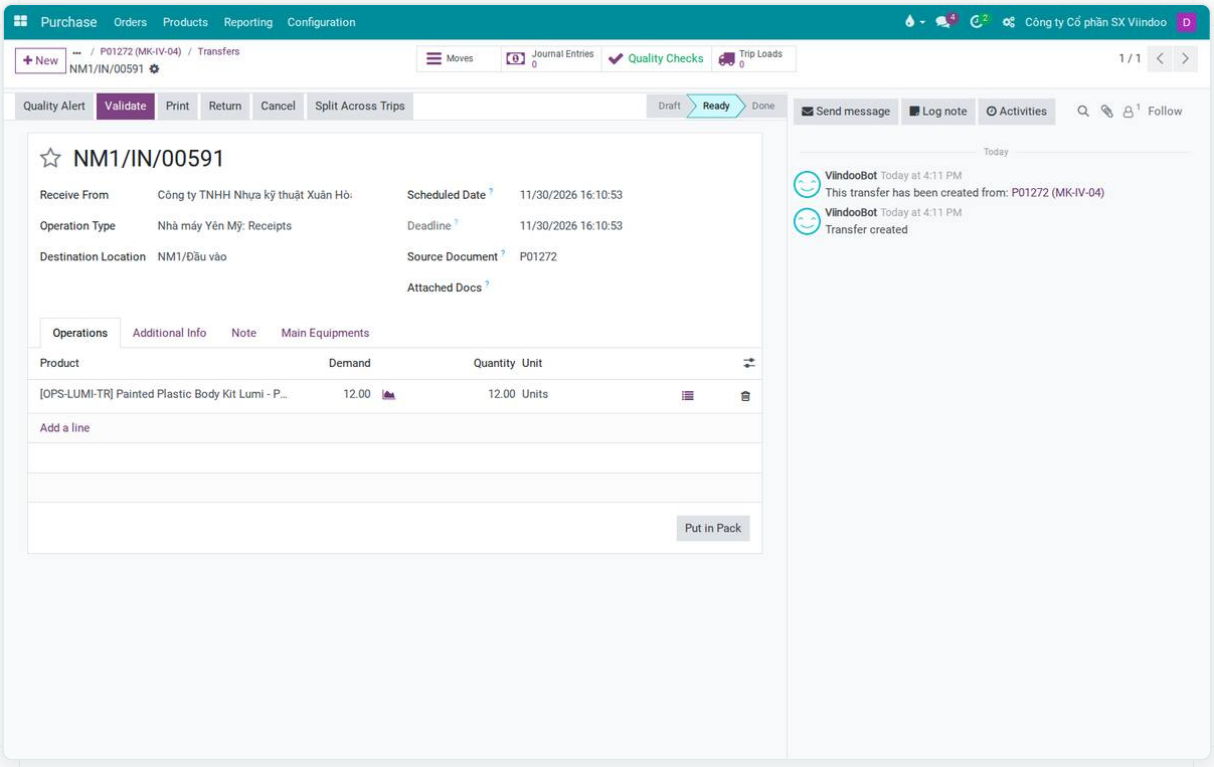
Step 3 - Do the check

Click **Quality Checks**. Read the inspection instructions in the dialog, then click **Pass**.

> *Path:* on the receipt, **Quality Checks** button (`Purchase > Orders > Requests for Quotation`)



What you should see: a dialog titled with the name of the check and the product (for example **Motor and Controller Test Run: Hub Motor 72V 1500W 12-inch Rim**), the inspection instructions in a blue box, **Checked (%)** 100 (**To Check: 100.00%**), and the buttons **Pass** (green), **Fail** (red) and **Discard**.

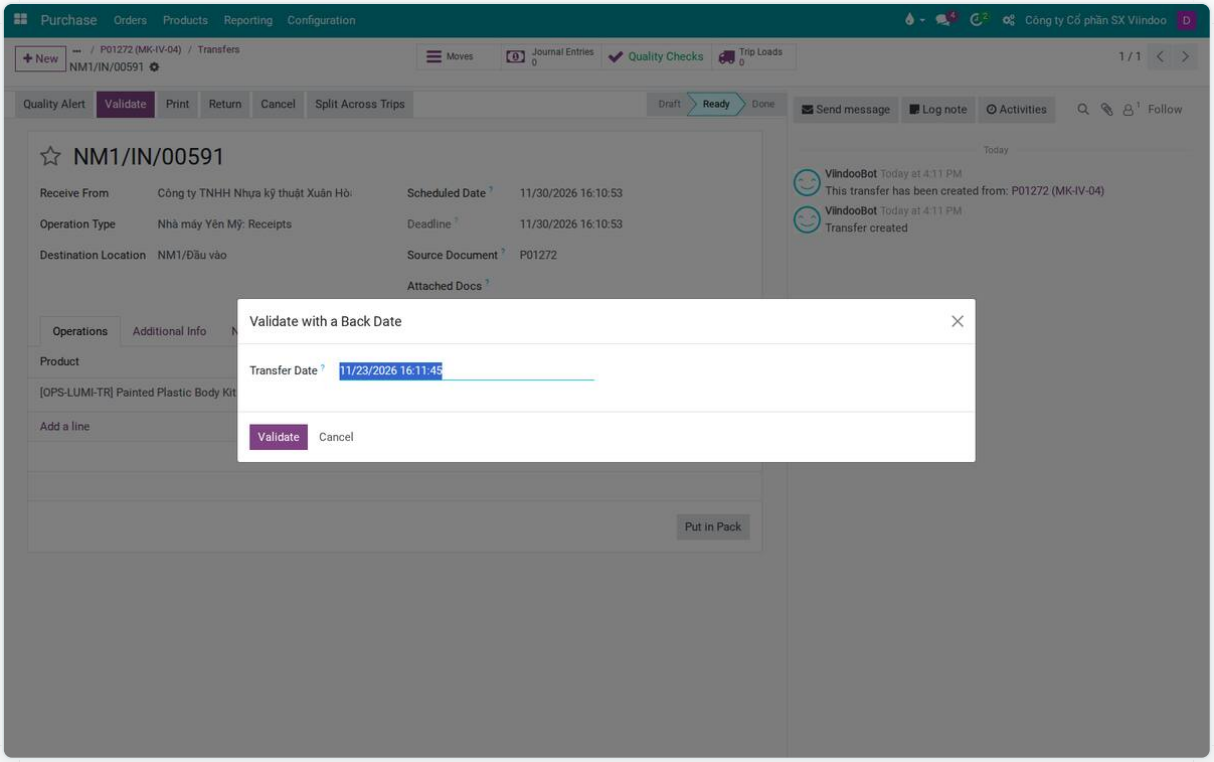


What you should see: the check button at the top of the receipt turns green with a tick, which means the check has passed.

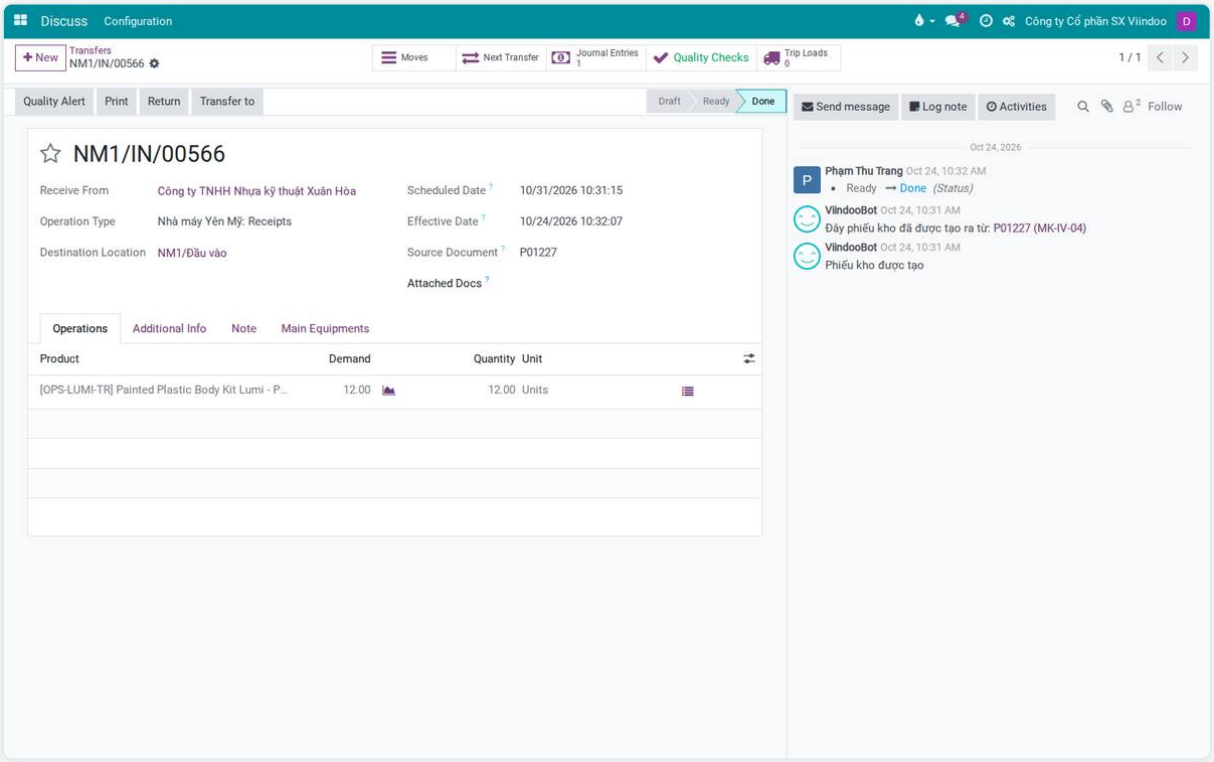
Step 4 - Confirm the receipt into stock

Click **Validate**; in the **Validate with a Back Date** dialog click **Validate**.

> *Path:* on the receipt, **Validate** button (`Purchase > Orders > Requests for Quotation`)



What you should see: the dialog **Validate with a Back Date**, with the **Transfer Date** field holding the current date and time (backdating is allowed) and the buttons **Validate** and **Cancel**.

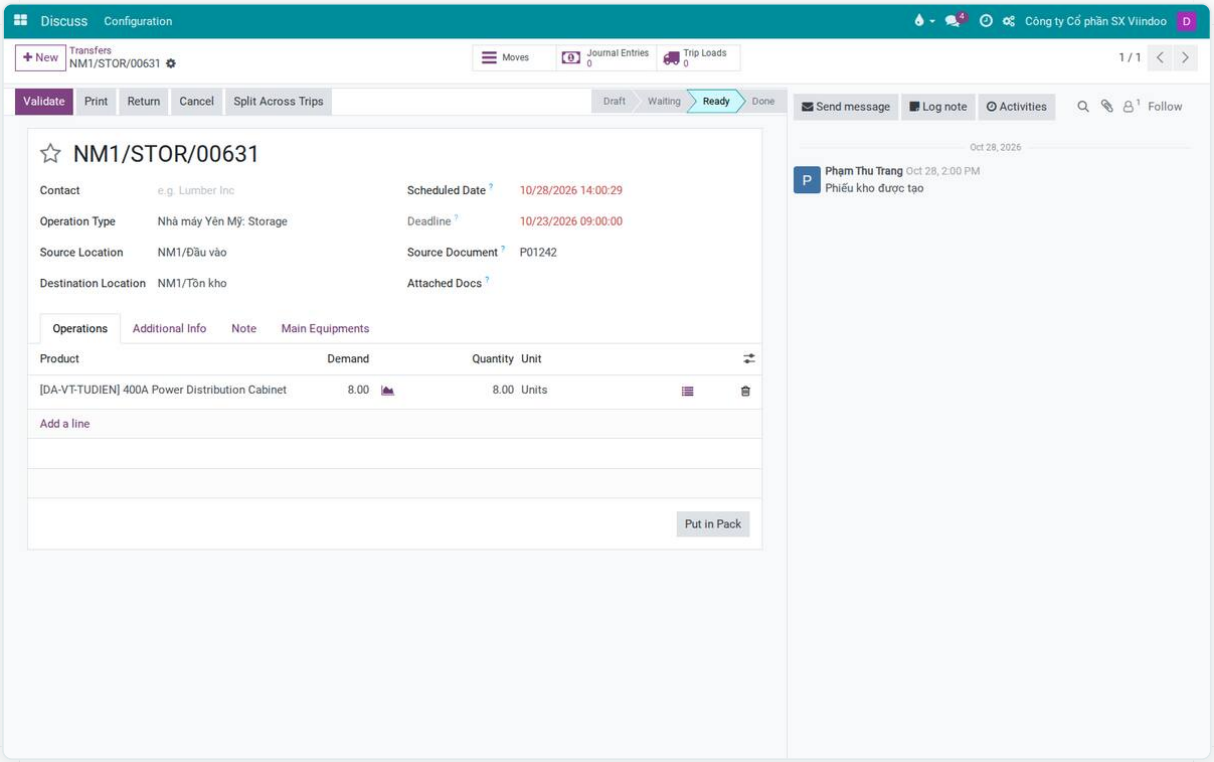


What you should see: the status is **Done**; the **Next Transfer** button appears because the goods are only at the **Input** location so far.

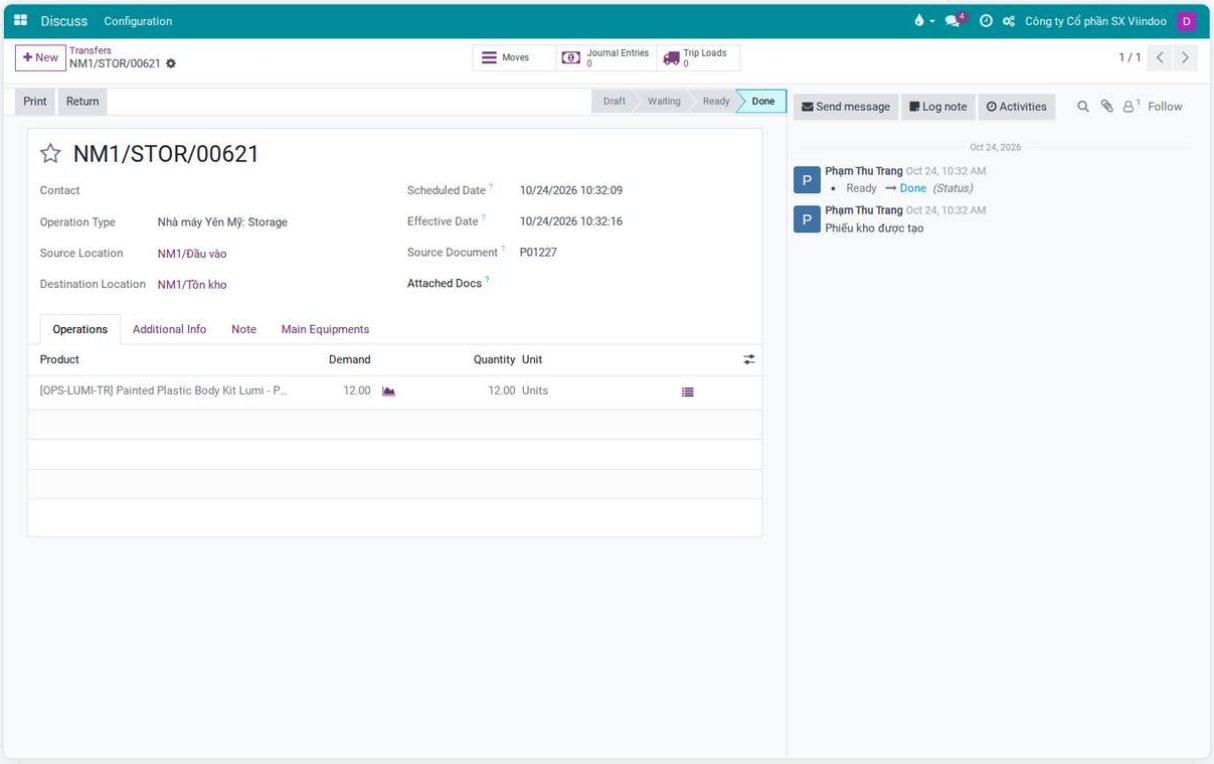
Step 5 - Store the goods

Click **Next Transfer**, open the transfer `NM1/STOR/xxxxx`, click **Validate** and **Validate** in the date dialog.

> *Path:* on the receipt, **Next Transfer** button (`Purchase > Orders > Requests for Quotation`)



What you should see: the storage transfer moves goods from **NM1/Đầu vào** (NM1/Input) to **NM1/Tồn kho** (NM1/Stock).



What you should see: the status is **Done**, and the goods are in stock and ready to use.

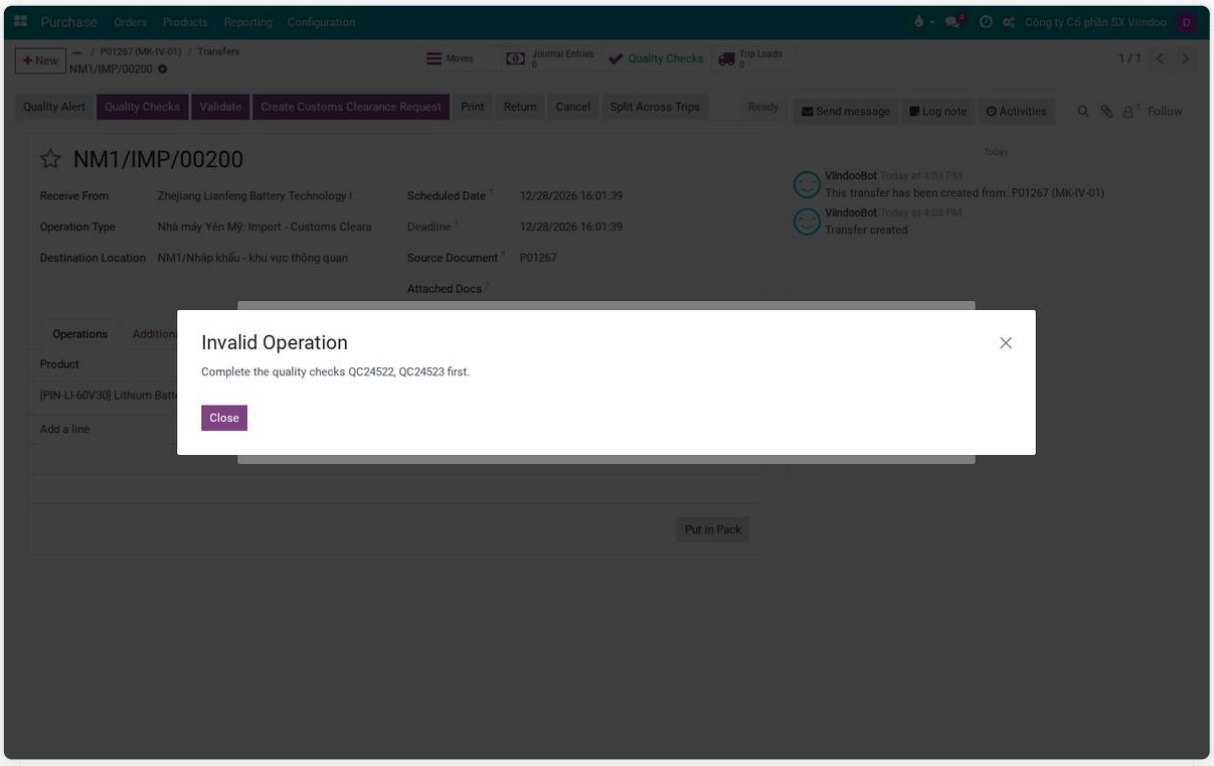
33 A FAILED INCOMING INSPECTION BLOCKS THE RECEIPT

About 20 minutes. By the end of this lesson your company has verified for itself that a failed check blocks receiving into stock, and understands the two different kinds of block.

Step 1 - Try to receive before inspection

On the import receipt for lithium batteries (the purchase order created in the lesson *Import purchase order in a foreign currency*), click **Validate** and then **Validate** in the date dialog.

> *Path:* on the transfer `NM1/IMP/xxxxx` of the lithium battery order

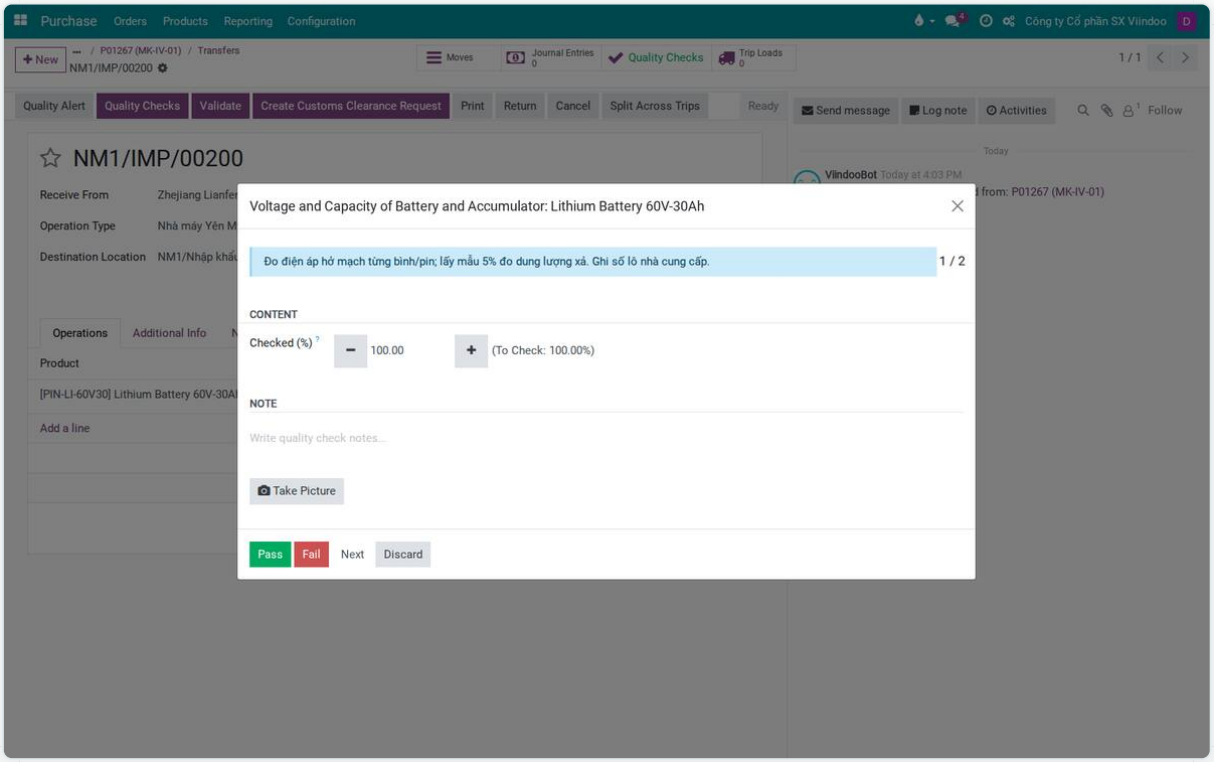


What you should see: the **Invalid Operation** dialog: "Complete the quality checks QC24522, QC24523 first." This is the first block: there are checks not yet done.

Step 2 - Do a check and click Fail

Click **Quality Checks**. For the first check (battery voltage and capacity), click **Fail**.

> *Path:* on the import receipt, **Quality Checks** button (`NM1/IMP/xxxxx`)

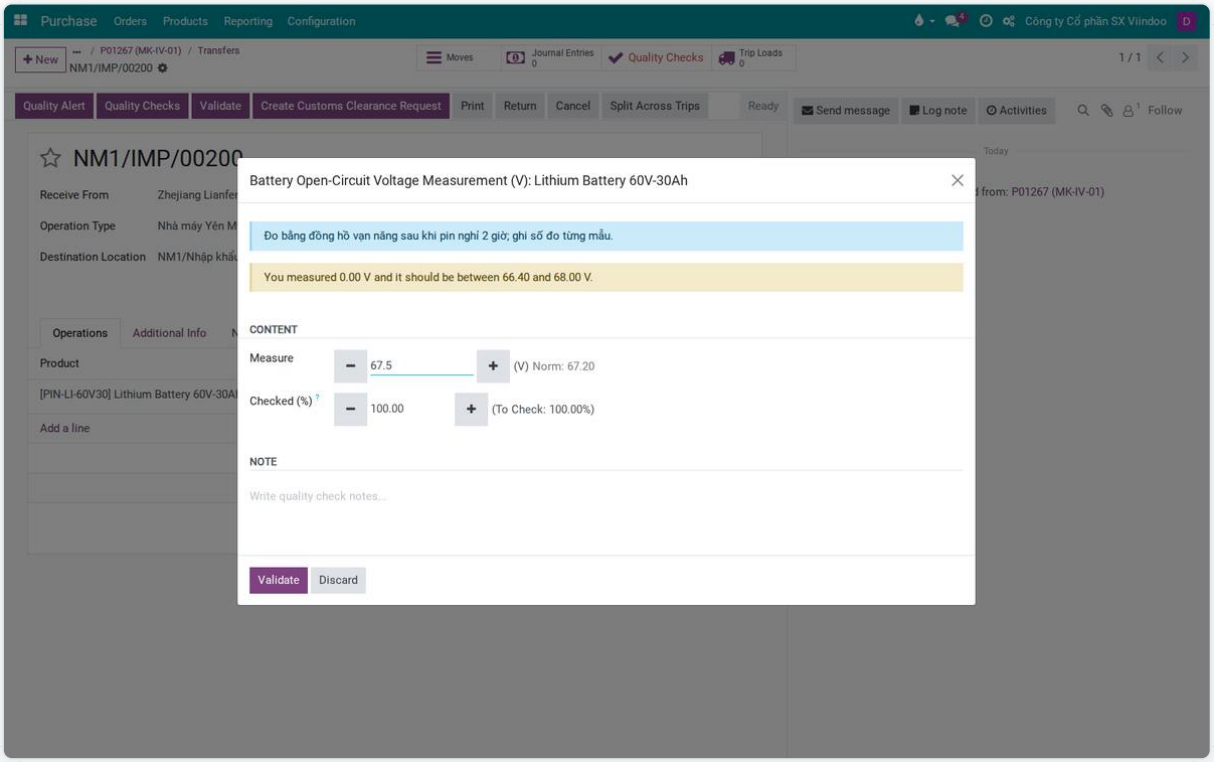


What you should see: a dialog titled **Voltage and Capacity of Battery and Accumulator: Lithium Battery 60V-30Ah** with a "1 / 2" counter, the inspection instructions, and the buttons **Pass**, **Fail**, **Next** and **Discard**; after you click **Fail** the dialog moves to check 2.

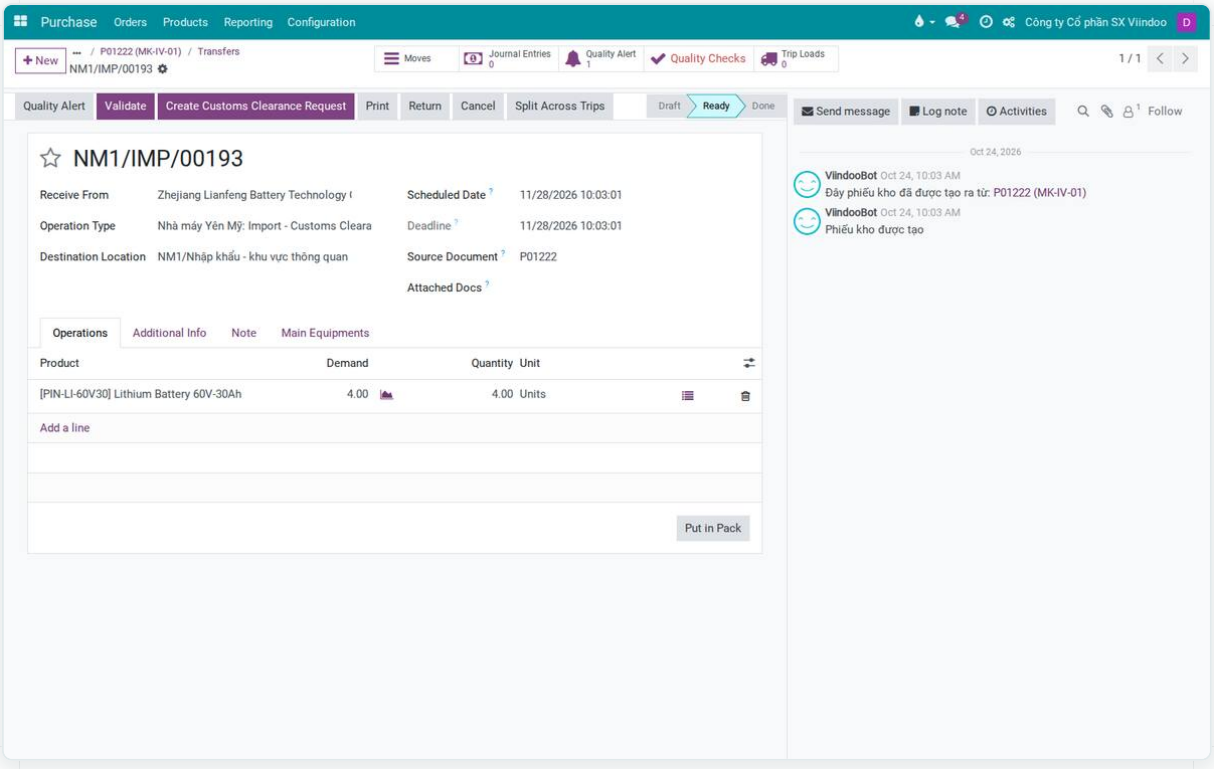
Step 3 - Complete the remaining check

The second check measures open-circuit voltage: enter `67.5` in **Measure** (reference level 67.20), click **Validate**.

> *Path:* the quality check dialog (`NM1/IMP/xxxxx`)



What you should see: the dialog **Battery Open-Circuit Voltage Measurement (V): Lithium Battery 60V-30Ah** shows a yellow notice with the allowed range ("... it should be between 66.40 and 68.00 V.") and the norm 67.20 beside **Measure**; the value 67.5 is inside the range, so check 2 passes.

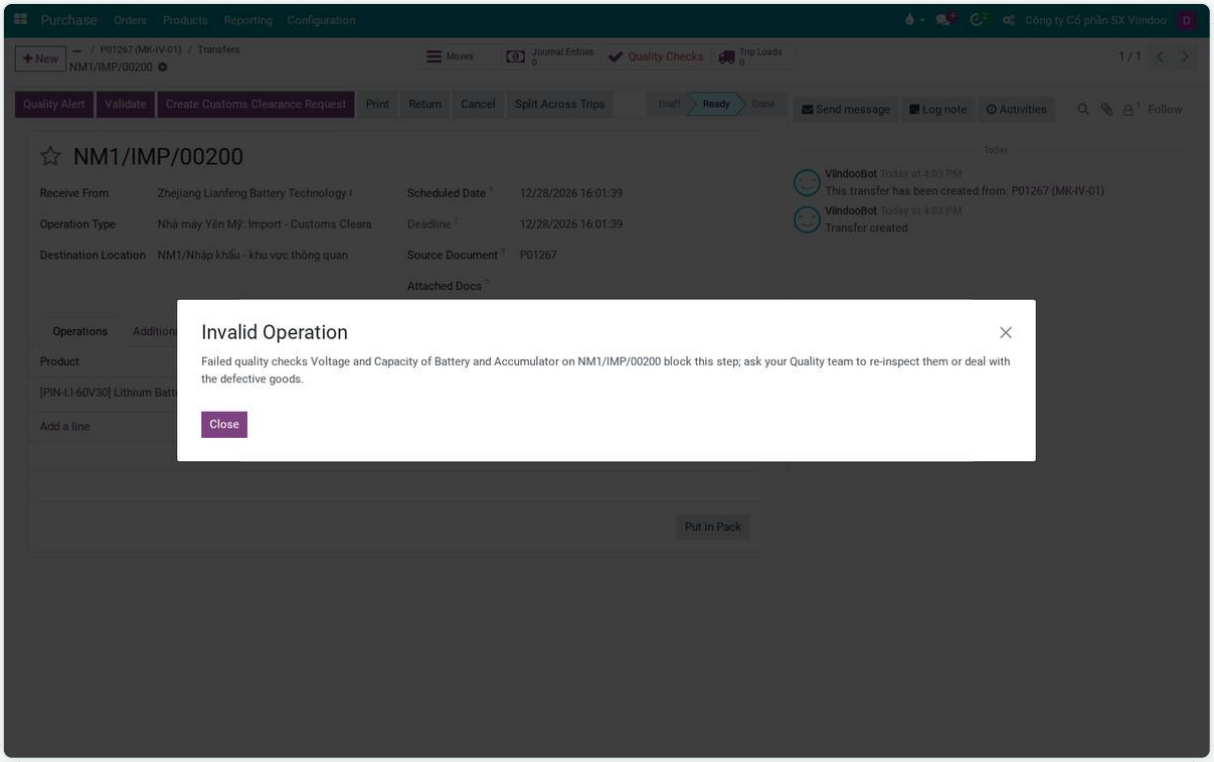


What you should see: the **Quality Checks** smart button of the receipt turns red because one check has failed.

Step 4 - Try to receive again

Click **Validate** and **Validate** in the date dialog.

> *Path:* on the import receipt (`NM1/IMP/xxxxx`)



What you should see: "Failed quality checks Voltage and Capacity of Battery and Accumulator on NM1/IMP/xxxxx block this step; ask your Quality team to re-inspect them or deal with the defective goods." This is the second block and the conclusion: **a failed check does block the receipt** when the control point has **No Proceed if Failed** ticked.

> *Note from the live run:* if the control point does not have this box ticked, a failed check does not block.

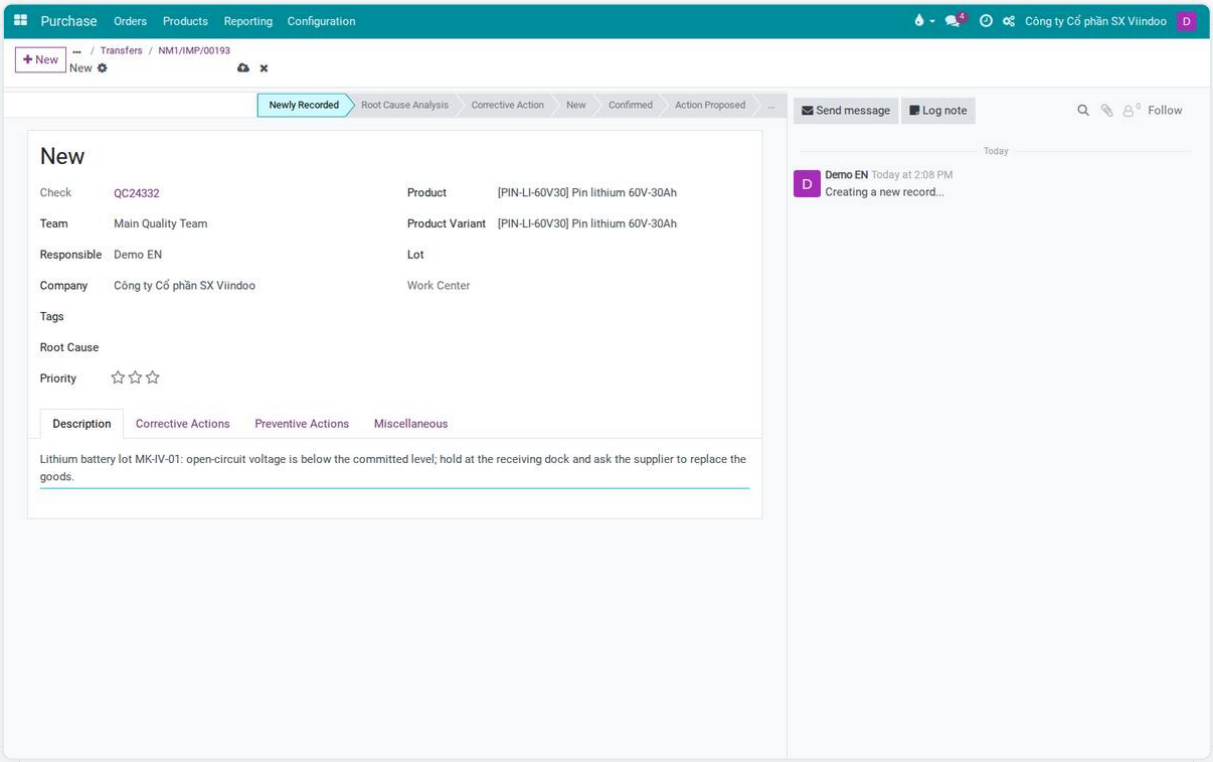
34 QUALITY ALERTS VIEWED BY VENDOR

About 15 minutes. By the end of this lesson your company records a receipt defect as a quality alert tied to a vendor, and can see which vendor has the most defects.

Step 1 - Create an alert from the receipt

On the receipt that was blocked in the previous lesson, click **Quality Alert**. In **Description** write the cause.

> *Path:* on the receipt, **Quality Alert** button

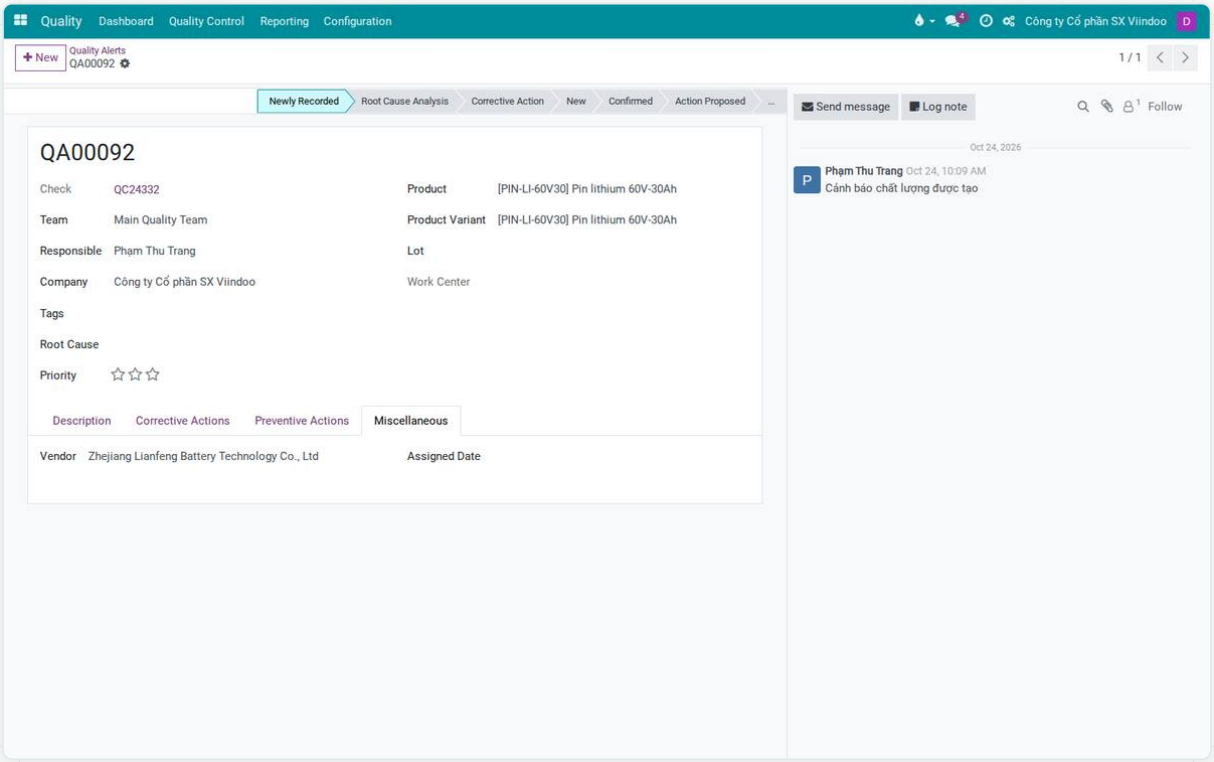


What you should see: the alert fills in **Check**, **Team** (Main Quality Team), **Responsible**, **Product** and **Product Variant** by itself; the stage is **Newly Recorded**, and the tabs are **Description**, **Corrective Actions**, **Preventive Actions** and **Miscellaneous**.

Step 2 - Attach the vendor

Click save, open the **Miscellaneous** tab, choose **Vendor** `Zhejiang Lianfeng` , click save.

> *Path:* on the alert, **Miscellaneous** tab

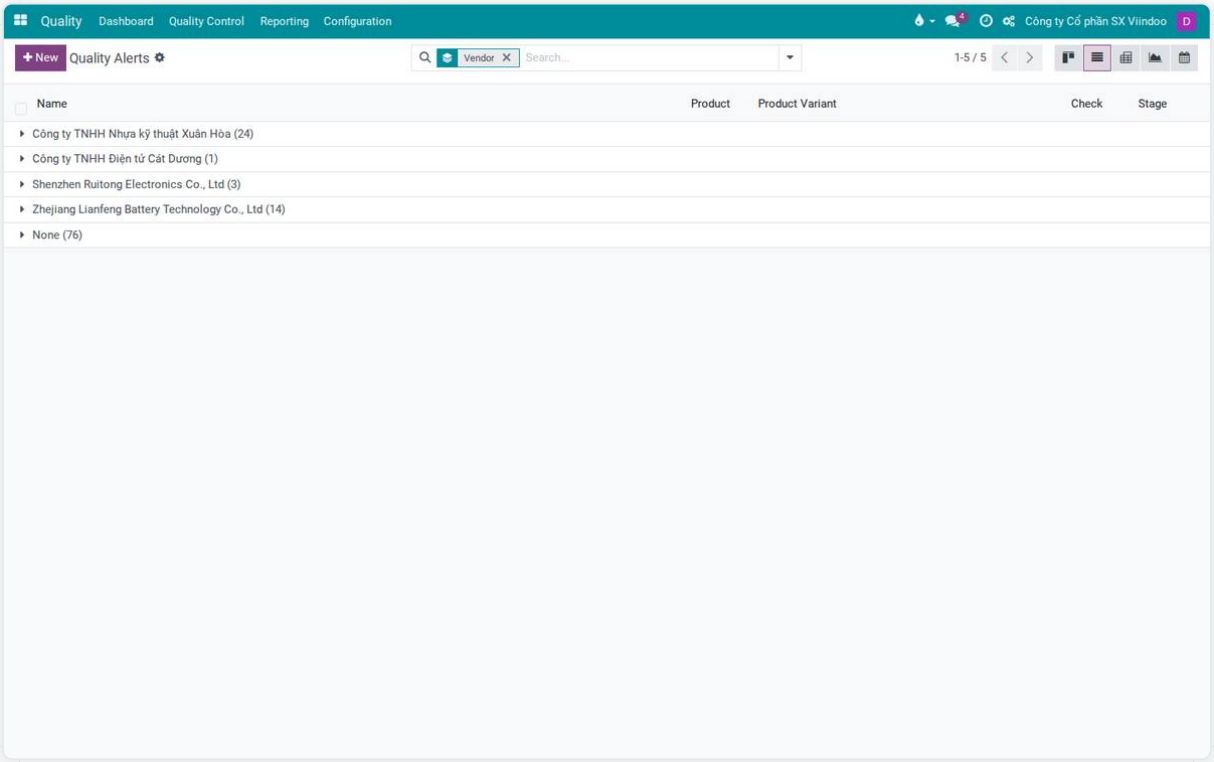


What you should see: the **Vendor** field has a name. The alert does not take the vendor from the receipt by itself, so this step is done by hand, otherwise the report cannot group by vendor.

Step 3 - Look at alerts by vendor

Open **Quality Alerts** as a list, open the search bar, under **Group By** choose **Add Custom Group** and then choose **Vendor**.

> *Path:* `Quality > Reporting > Quality Alerts`



What you should see: one group per vendor with the number of alerts in brackets (for example Công ty TNHH Nhựa kỹ thuật Xuân Hòa (24) and Zhejiang Lianfeng Battery Technology Co., Ltd (14)); the group **None** (76) holds alerts not yet tied to a vendor. A vendor with a large number is a vendor with repeated defects.

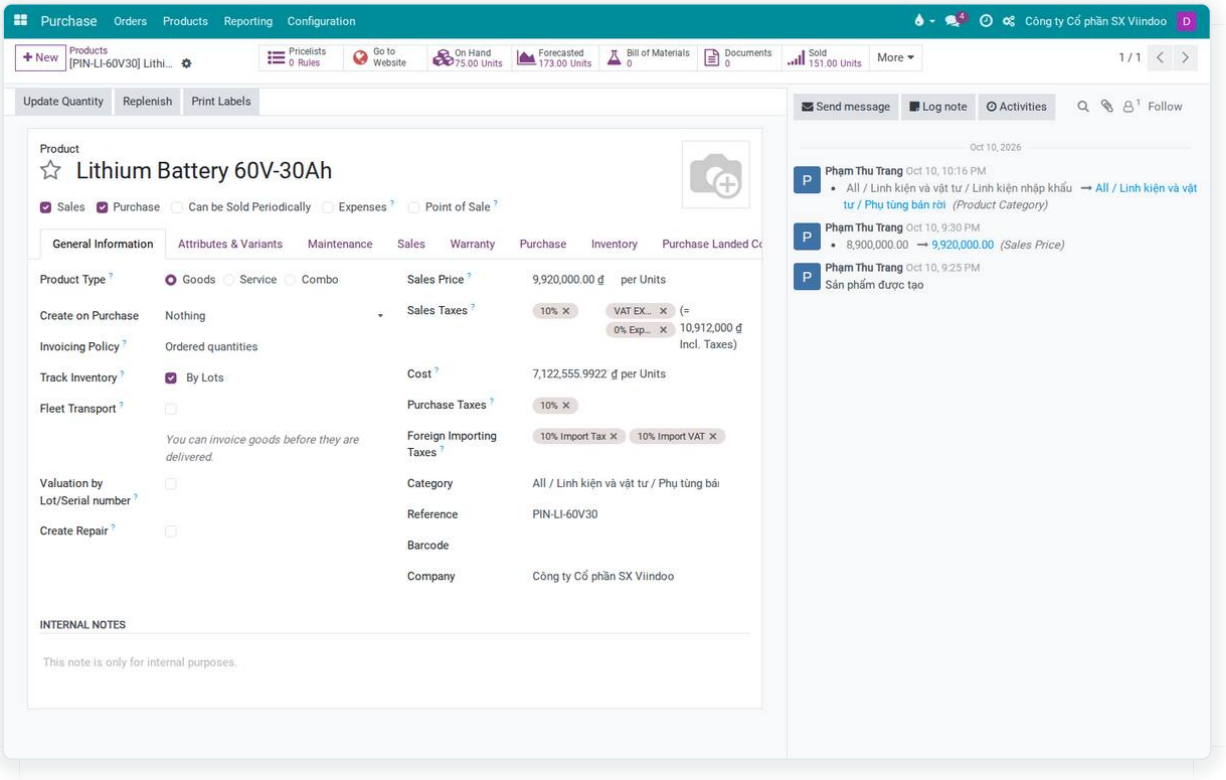
35 LOTS AND SERIAL NUMBERS

About 15 minutes. By the end of this lesson your company enters a lot number for lot-tracked goods and can look that lot up in stock.

Step 1 - Look at a lot-tracked product

Open the product **Lithium Battery 60V-30Ah**, **General Information** tab.

> *Path:* `Purchase > Products > Products`



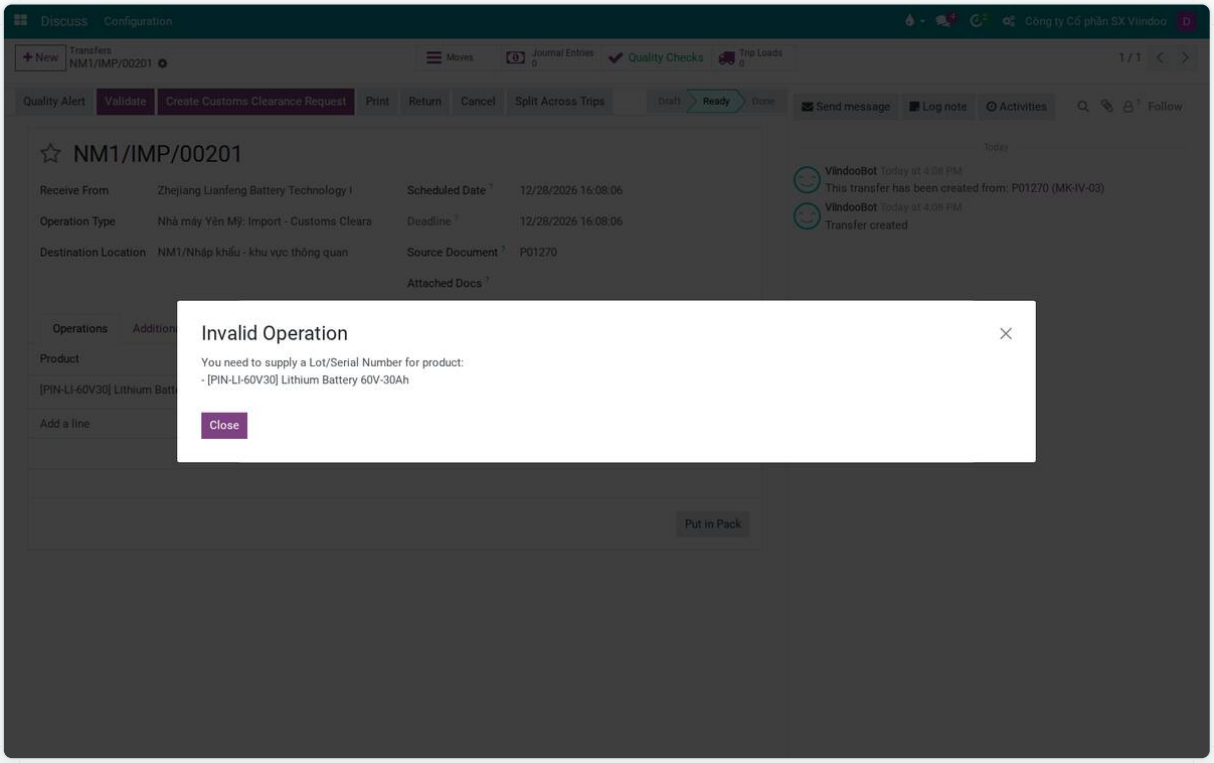
What you should see: the **Track Inventory** box is ticked, with **By Lots** selected. Finished vehicles are tracked by serial number (one frame number per vehicle).

Step 2 - Receive without a lot number

> *Path:* still on the screen of the previous step (`Purchase > Products > Products`)

Create an import purchase order for `PIN-LI-60V30` quantity 2 (vendor reference `MK-IV-03`), pass the two checks, and click **Validate** on the receipt.

> *Path:* on the import receipt (`Purchase > Products > Products`)



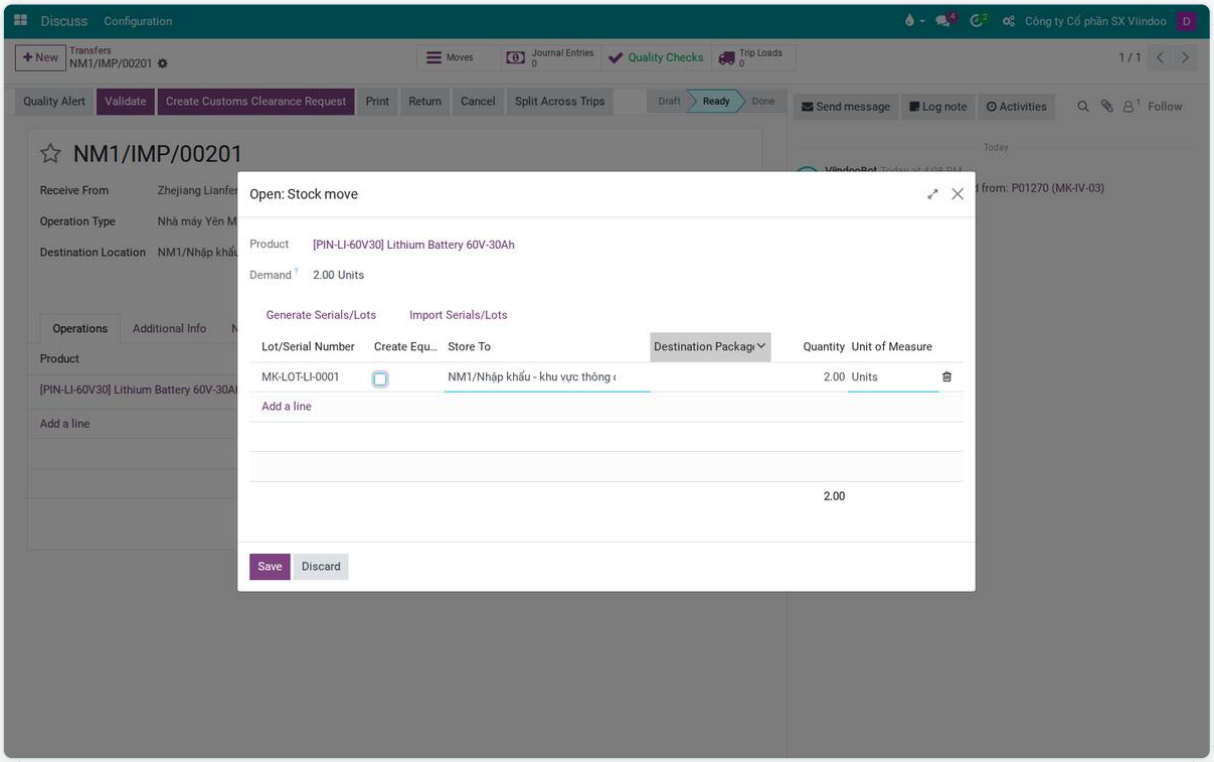
What you should see: the **Invalid Operation** dialog: "You need to supply a Lot/Serial Number for product: - [PIN-LI-60V30] Lithium Battery 60V-30Ah".

Step 3 - Enter the lot number

> *Path:* still on the screen of the previous step (`Purchase > Products > Products`)

On the product line click the list icon at the end of the line. In the dialog type `MK-LOT-LI-0001` in **Lot/Serial Number**, press Tab, click **Save**.

> *Path:* on the receipt, at the end of the product line (`Purchase > Products > Products`)

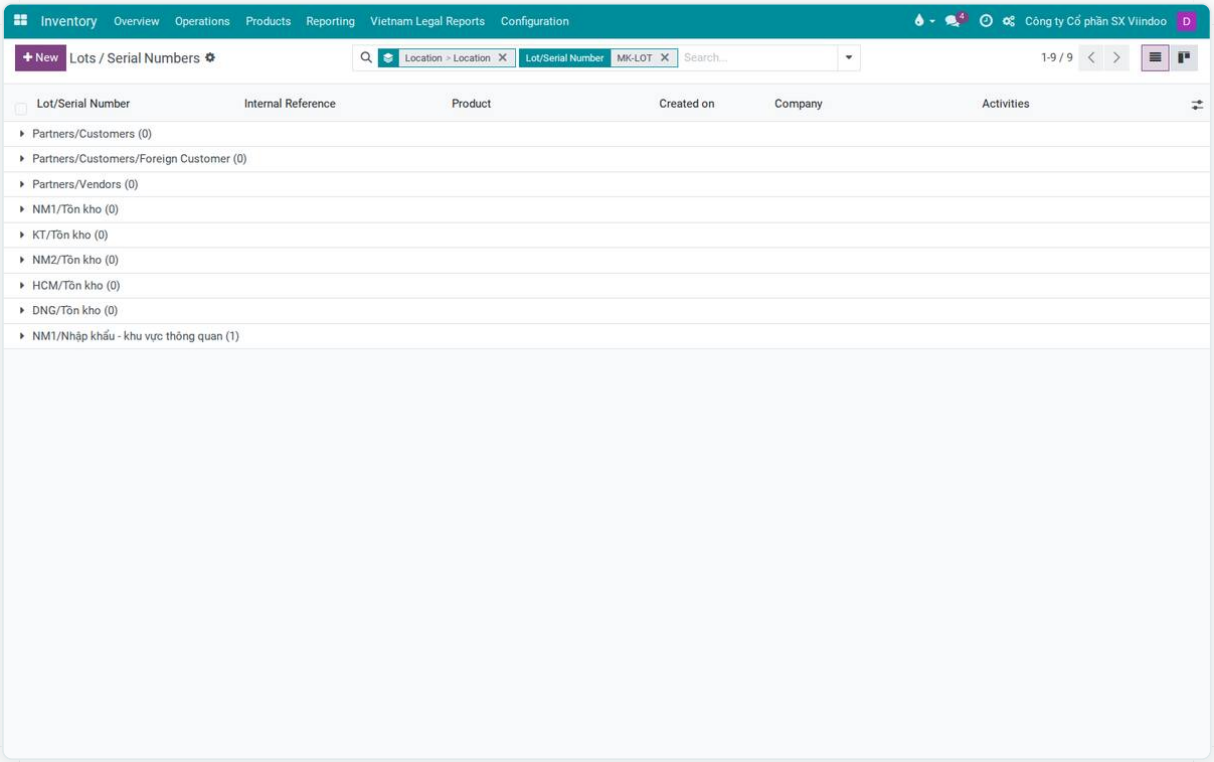


What you should see: the dialog **Open: Stock move** shows the line with **Lot/Serial Number** `MK-LOT-LI-0001`, **Quantity** 2.00, and **Store To** the customs clearance area.

Step 4 - Validate the receipt and look up the lot

Click **Validate** on the receipt. Then open the list of lot numbers.

> *Path:* `Inventory > Products > Lots / Serial Numbers`



What you should see: the receipt is done; in the list of lot numbers (search **Lot/Serial Number** for `MK-LOT`, grouped by **Location**), the location **NM1/Nhập khẩu - khu vực thông quan** (NM1/Import - customs clearance area) holds 1 lot, the lot you just received.

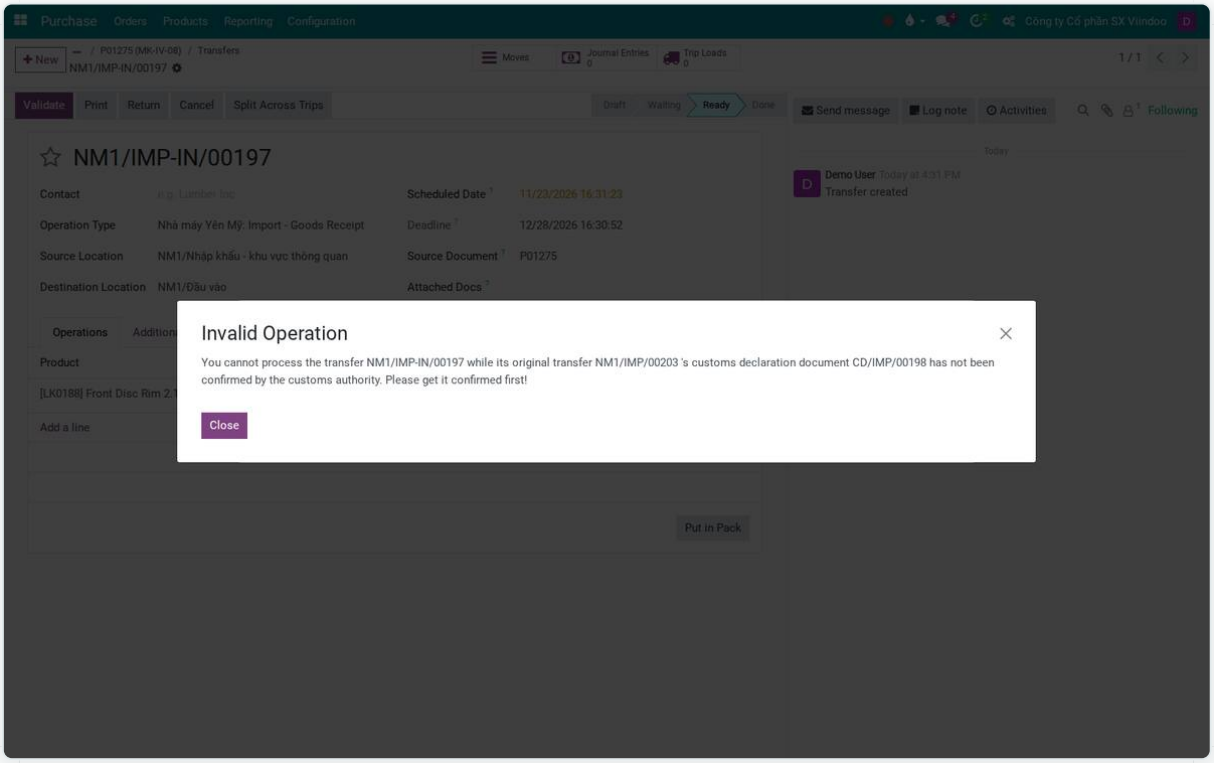
36 RECEIVING IMPORTS IN STAGES

About 10 minutes. By the end of this lesson your company knows why the receipt of imported goods into the warehouse is blocked before customs clearance.

Step 1 - Try to receive into the warehouse before customs confirmation

For an import batch whose customs clearance request is not yet confirmed (for example the front disc rim batch of the lesson *Import costs in inventory cost*), open the transfer `NM1/IMP-IN/xxxxx` (the **Next Transfer** button on the `IMP` transfer), click **Validate**.

> *Path:* on the transfer `NM1/IMP/xxxxx` , **Next Transfer** button



What you should see: "You cannot process the transfer NM1/IMP-IN/00197 while its original transfer NM1/IMP/00203 's customs declaration document CD/IMP/00198 has not been confirmed by the customs authority. Please get it confirmed first!" Your company has to go through the whole lesson *Import costs in inventory cost* (steps 4 to 7) before the goods can be received into the warehouse.

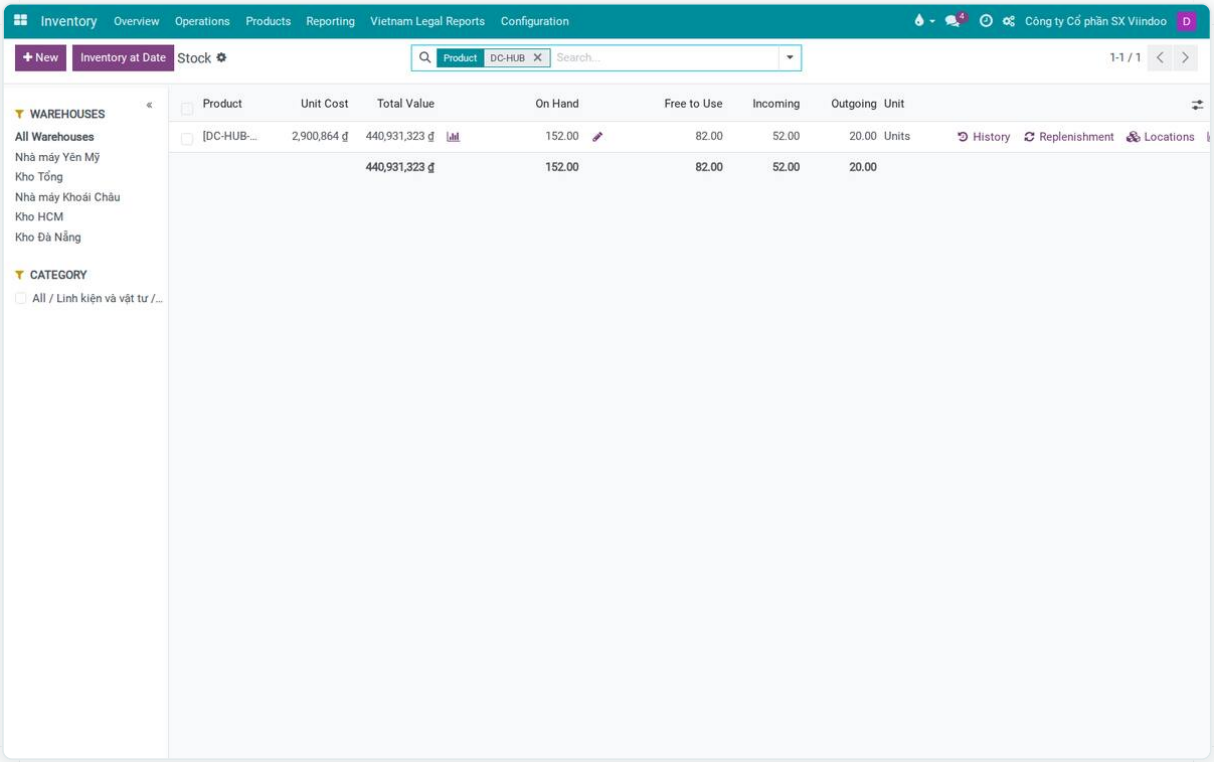
37 RESERVING COMPONENTS FOR THE LINE WHEN SPARE PARTS SHARE THE WAREHOUSE

About 15 minutes. By the end of this lesson your company can tell goods on hand from goods available for use, and sees how a manufacturing order reserves components so that loose spare-part sales cannot take them.

Step 1 - Read the stock of one component

Open the **Stock** report and search `DC-HUB`.

> *Path:* `Inventory > Reporting > Stock`

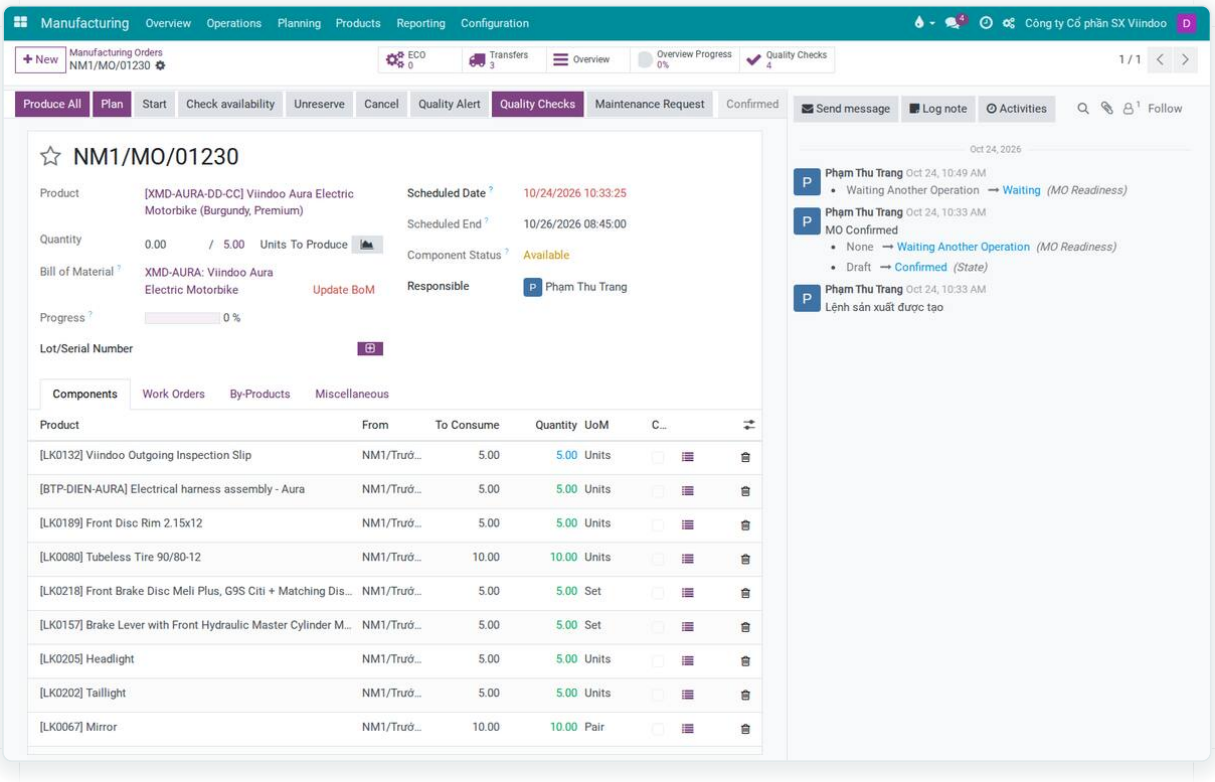


What you should see: the **On Hand** column (all real stock, 152 here) is larger than the **Free to Use** column (82): the difference is goods already reserved by other orders (the **Incoming** and **Outgoing** columns show the quantities still to come in and go out). Loose spare parts and line components share one warehouse, so look at **Free to Use**, not **On Hand**.

Step 2 - See how the manufacturing order reserves components

Open again the Aura manufacturing order from the lesson *Check material availability and buy the shortfall for a manufacturing order*, **Components** tab, after the component pick has been completed (the next lesson).

> *Path:* `Manufacturing > Operations > Manufacturing Orders`



What you should see: the green **Quantity** column is what has been reserved and moved to **NM1/Trước sản xuất** (NM1/Pre-production); components that could not be reserved still show **0.00**. Goods that already sit in **Pre-production** can no longer be taken by loose spare parts or other orders.

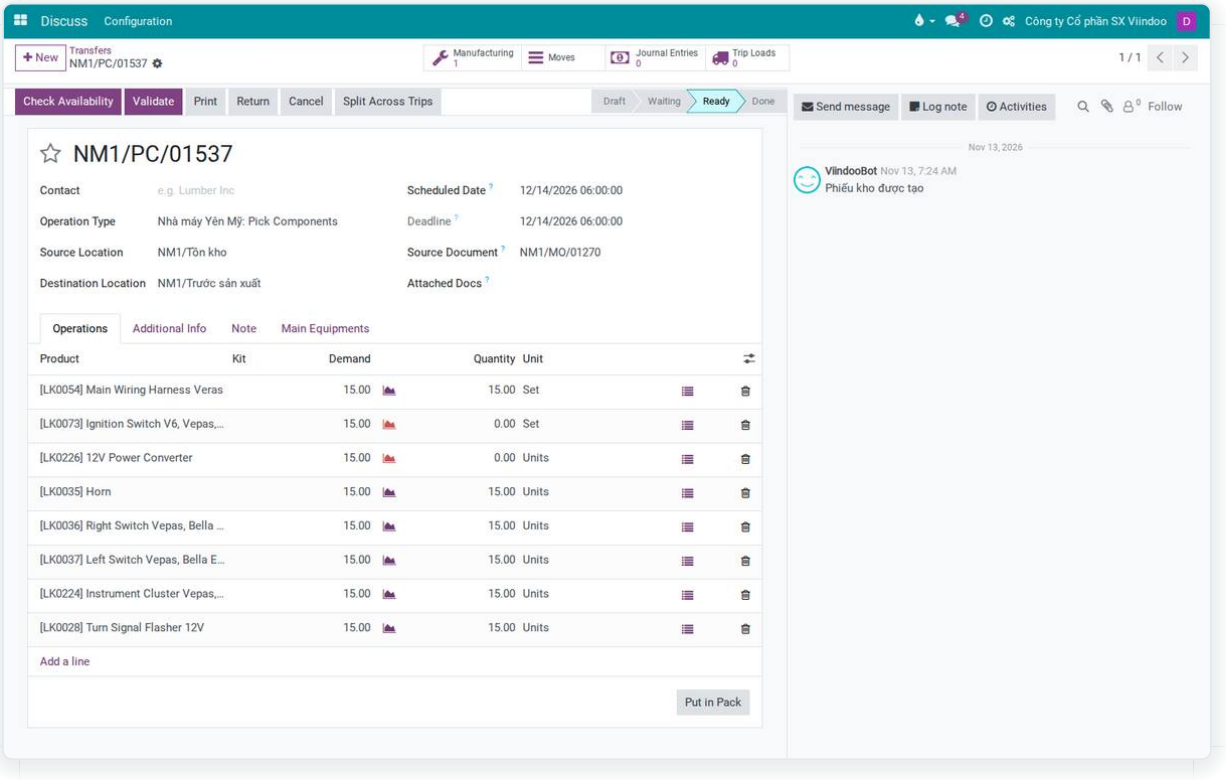
38 ISSUING MATERIALS TO THE WORKSHOP: THE WAREHOUSE'S PART

About 15 minutes. By the end of this lesson your company issues materials for a manufacturing order to the area in front of the line, even when some components are short.

Step 1 - Open the component pick of the order

Open the Aura manufacturing order, click **Transfers**, open the transfer `NM1/PC/xxxxx`.

> *Path:* on the manufacturing order, **Transfers** button

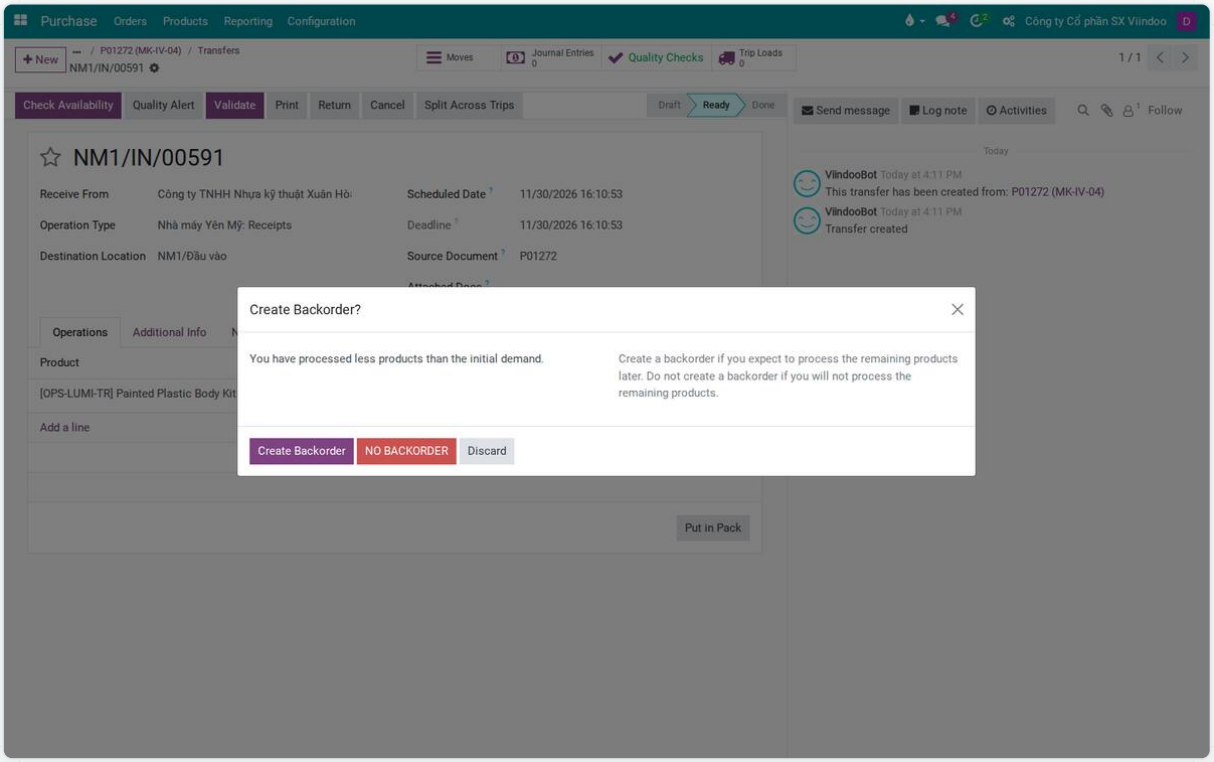


What you should see: Operation Type Nhà máy Yên Mỹ: Pick Components, **Source Location NM1/Tồn kho** (NM1/Stock), **Destination Location NM1/Trước sản xuất** (NM1/Pre-production), **Source Document** is the manufacturing order, and the list of components with quantities. If some line is not fully reserved, the **Check Availability** button appears so you can reserve again.

Step 2 - Validate the transfer

Click **Validate**, then **Validate** in the date dialog.

> *Path:* on the component pick, **Validate** button

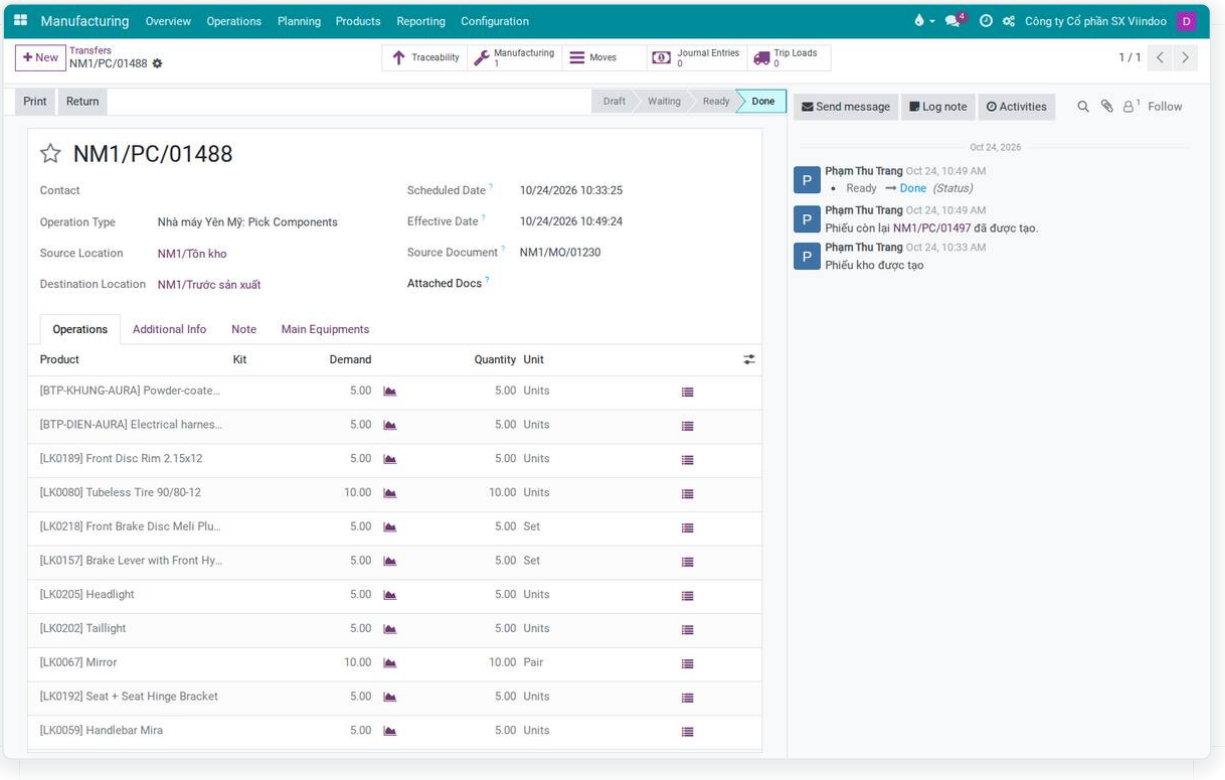


What you should see: if some component is not complete, the **Create Backorder?** dialog appears with the message "You have processed less products than the initial demand." and three buttons, **Create Backorder**, **NO BACKORDER** and **Discard**.

Step 3 - Create the backorder

Click **Create Backorder**.

> *Path:* the **Create Backorder?** dialog



What you should see: the transfer is **Done**; the missing components sit in a new `PC` transfer (the backorder, here `NM1/PC/01497`), waiting for goods. The workshop can start with what is available.

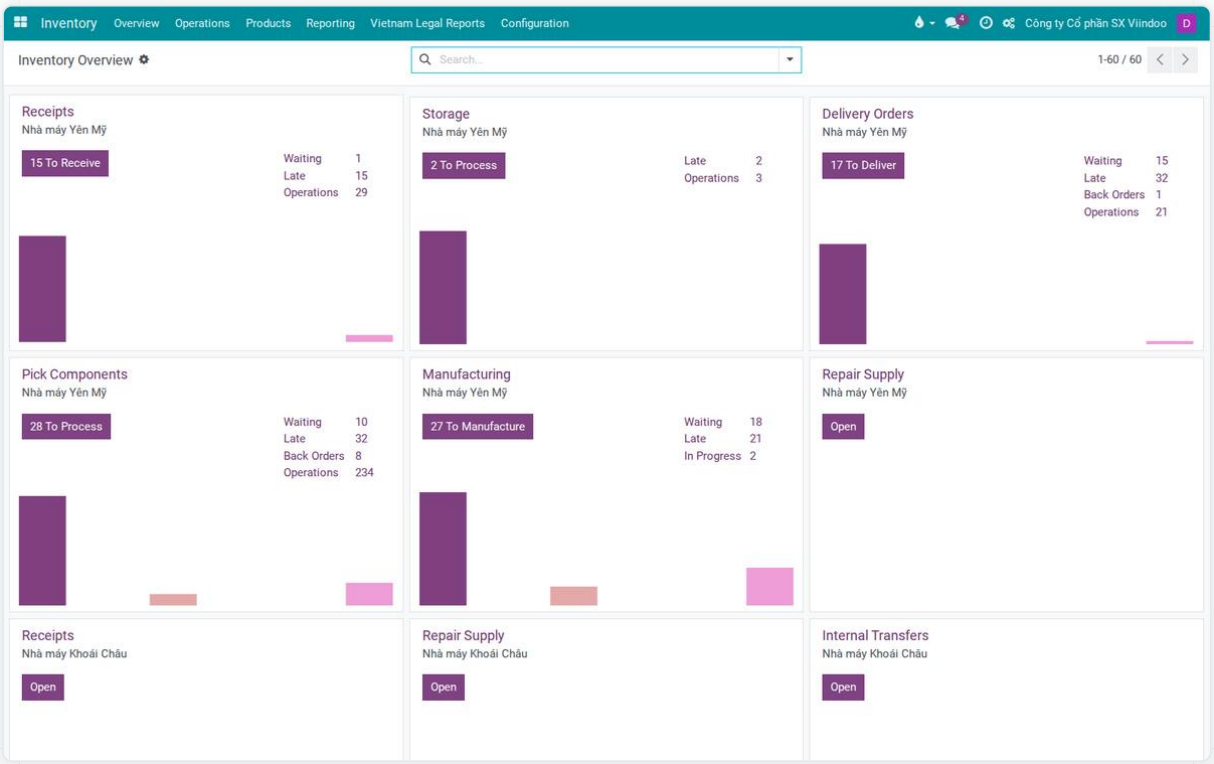
39 WAREHOUSE REPORTS

About 10 minutes. The table below lists the warehouse and quality reports.

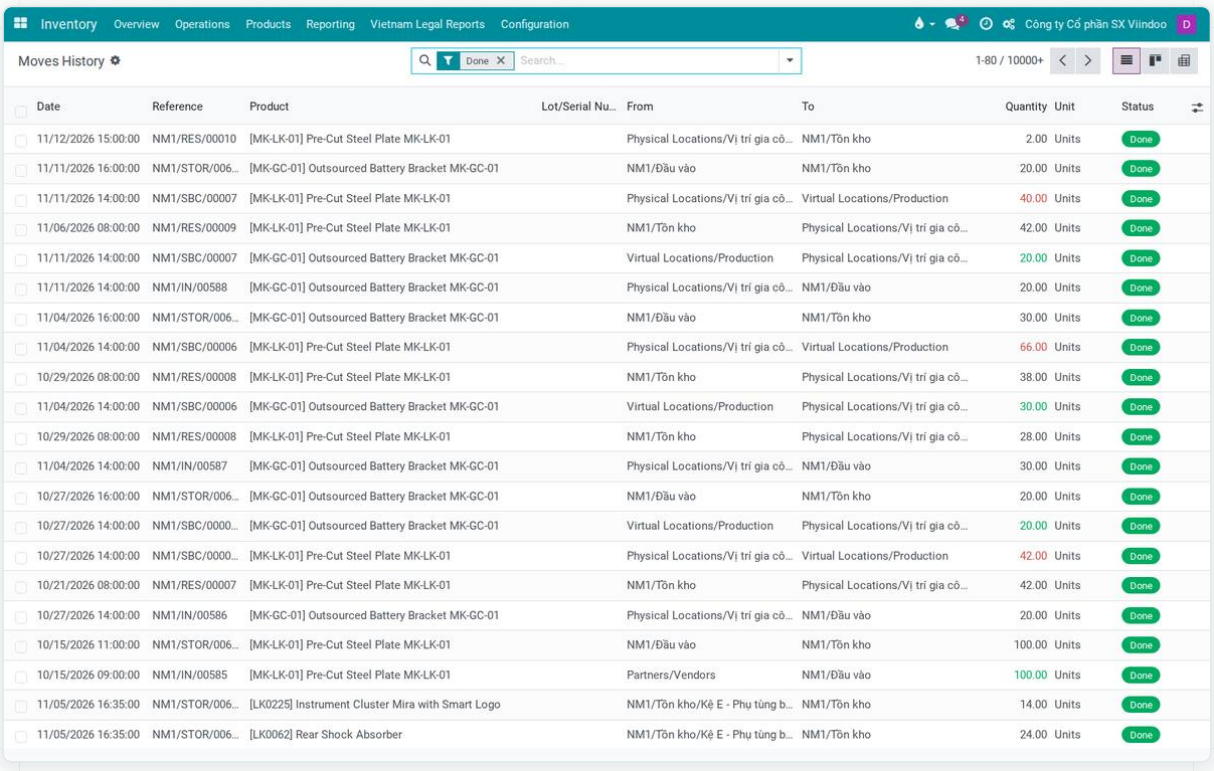
Report	Path	Question it answers
Overview	`Inventory > Overview`	How many transfers each warehouse has to process, late, waiting
Stock	`Inventory > Reporting > Stock`	On hand and available quantity of each product, by warehouse
Valuation	`Inventory > Reporting > Valuation`	Stock value and each cost layer
Stock Age Report	`Inventory > Reporting > Stock Age Report`	How long goods have sat in the warehouse
Moves History	`Inventory > Reporting > Moves History`	Every receipt, issue and transfer of goods
Moves Analysis	`Inventory > Reporting > Moves Analysis`	Moves by period and by operation type

Report	Path	Question it answers
Warehouse Analysis	`Inventory > Reporting > Warehouse Analysis`	Stock by many dimensions
Locations	`Inventory > Reporting > Locations`	Which location the goods are in
Landed Costs Analysis	`Inventory > Reporting > Landed Costs Analysis`	Cost added to inventory cost, by product
Product Journal (S10-DN)	`Inventory > Vietnam Legal Reports`	Detailed ledger in the statutory format
General Inventory Journal (S11-DN)	`Inventory > Vietnam Legal Reports`	Receipts, issues and stock in the period
Stock Card (S12-DN)	`Inventory > Vietnam Legal Reports`	Stock card of each item
Stock-In Report and Stock-Out Report	`Inventory > Vietnam Legal Reports`	List of receipts and deliveries in the period
Quality Checks	`Quality > Reporting > Quality Checks`	Pass and fail rate over time
Quality Alerts	`Quality > Reporting > Quality Alerts`	Defects by vendor, product and cause
Alert Actions Analysis	`Quality > Reporting > Alert Actions Analysis`	Corrective and preventive actions still pending

> *Path:* `Inventory > Overview`



What you should see: one card per transfer type and warehouse, with buttons such as **To Receive**, **To Process**, **To Deliver** and **To Manufacture** and figures such as **Waiting**, **Late**, **Back Orders**, **In Progress** and **Operations** showing the backlog; click a card to open the list of transfers.



What you should see: every line is one move, with the product, from where to where, and the quantity.

40 EXERCISE: TAKE ONE COMPONENT FROM PURCHASE ORDER TO WORKSHOP

About 45 minutes. There are no step-by-step images.

1. Create a purchase order for `OPS-LUMI-DN` (Painted Plastic Body Kit Lumi - Matte Black) quantity 6 from `Nhựa kỹ thuật Xuân Hòa`, and confirm it.
2. Receive the goods: do the appearance check, try clicking **Fail**, then try to validate the receipt to see the block. (A check that has failed cannot be changed back; do this step on a separate trial order, and use another order for the batch that passes.)
3. For the batch that passes: validate the `IN` transfer, then the `STOR` transfer.
4. Create a quality alert for the failed batch, attach the vendor, and check that the vendor appears in the grouping by **Vendor**.
5. Create a manufacturing order for one Lumi vehicle, confirm it, open **Overview**, find the matte black kit line, and read **Free to use / On Hand** and **Reserved**.
6. Validate the `PC` transfer of the order. Answer for yourself: after this step, at which location is the plastic kit you just received?

PART VI. MANUFACTURING ON THE SHOP FLOOR

This part answers these questions: how does an assembly order go from creation to the moment the vehicle enters the finished goods warehouse, what does the team leader record right at the line, what does the system block until quality has been checked, and what changes in the warehouse, in accounting and in the product cost when the order is closed. The main readers are the workshop manager, the line team leaders, the planner, the storekeeper who issues materials and the cost accountant. The bills of materials, work centers and hourly rates are set up in Part II. Manufacturing engineering; overall planning is in Part III. Production planning; this part starts from the moment a manufacturing order exists.

Every lesson in this part runs on the company "Công ty Cổ phần SX Viindoo" and the warehouse "Nhà máy Yên Mỹ" (Yen My Factory). When you open a path, check that the top right corner shows this company.

The three orders used as examples in this part are orders that this handbook created during its test run:

Order	Product	Used for
NM1/MO/01219	[XMD-LUMI-TR-TC] Viindoo Lumi Electric Motorbike (Pearl white, Standard), 1 vehicle	The order that goes all the way from draft to receipt into stock
NM1/MO/01217	[XMD-AURA-TR-CC] Viindoo Aura Electric Motorbike (Pearl white, Premium), 1 vehicle	The missing components situation
NM1/MO/01227	[BTP-KHUNG-AURA] Powder-coated frame assembly - Aura, 3 assemblies	The situations of consumption above the bill of materials, scrap, partial production and splitting the order

Your company follows the steps and creates its own new order, and the system issues a different order number. The figures in this handbook (hours, costs, journal entries) belong to the test-run order; your figures will differ according to the minutes actually recorded.

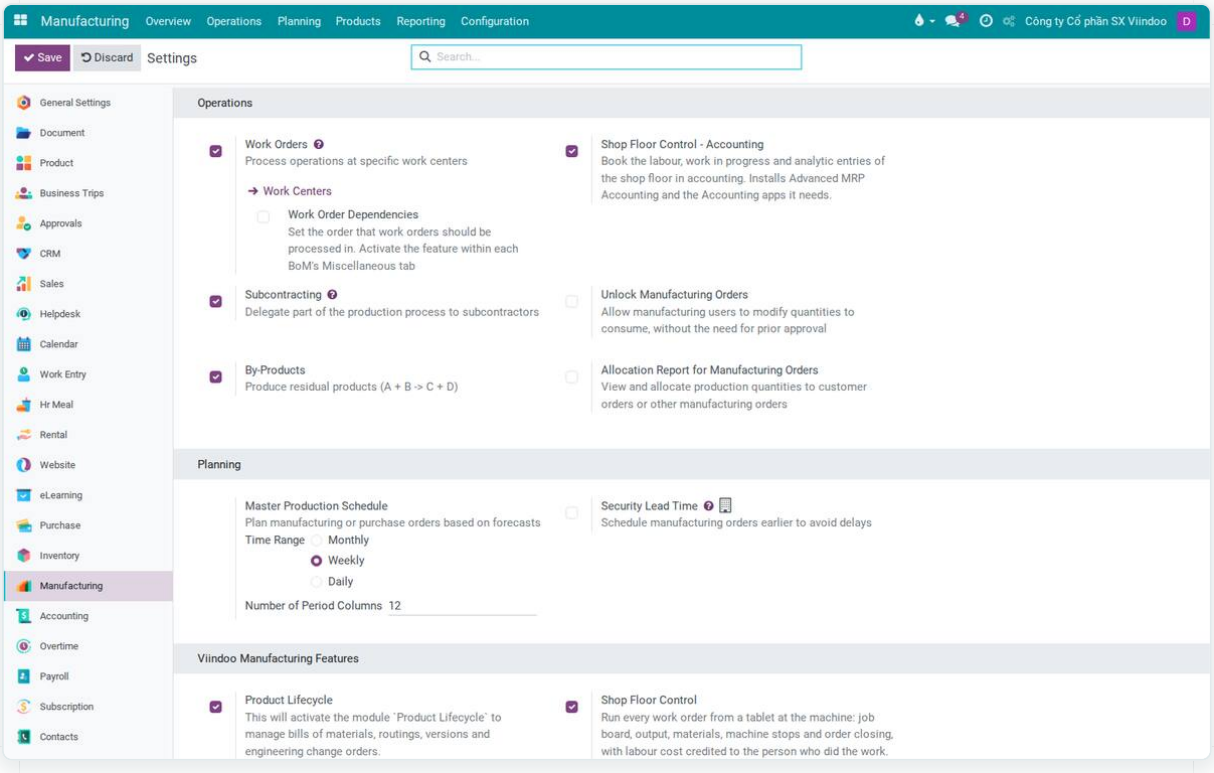
41 SHOP FLOOR MANUFACTURING CONFIGURATION

About 15 minutes. By the end of this lesson your company knows which settings make the shop floor work as the following lessons show: work orders, a two-step warehouse, the hourly rate of the work center, the consumption level of the bill of materials and a quality control point that blocks. This lesson is for viewing only; nothing is changed.

Step 1 - Open the Manufacturing settings

Open the settings of the Manufacturing application and look at the **Operations** block.

> *Path:* `Manufacturing > Configuration > Settings`



What you should see: the boxes **Work Orders**, **Subcontracting** and **By-Products** are ticked; **Work Order Dependencies** and **Unlock Manufacturing Orders** are not ticked. Scroll down to the block **Viindoo Manufacturing Features**: the boxes **Shop Floor Control**, **Manufacturing Progress Management**, **MRP Standard Consumption**, **Manufacturing Standard Consumption Analysis**, **Manufacturing Backdate**, **Manufacturing Quality Control** and **Maintenance - MRP** are all ticked.

The table below explains the settings that matter to the shop floor:

Setting	Turn it on to	What you lose if it is off
Work Orders	Each order generates work orders from the bill of materials, schedules each work center and records actual hours	The order only has components and finished products: no labor hours, no machine-hour cost, no shop floor screen
Shop Floor Control (block Viindoo Manufacturing Features)	The **Shop Floor** screen for tablets: record work for the right worker, stop the machine, record consumption, close the order at the line	The team leader has to record on the manufacturing order screen in the office; labor is costed only at the hourly rate of the work center, not per person
Work Order Dependencies	Make a later operation wait for an earlier one in the order declared on the bill of materials	Currently off: the operations still run one after another in the order sequence, but you cannot declare a dependency such as "operation 3 waits for both 1 and 2"
Unlock Manufacturing Orders	Let manufacturing users edit the quantity to consume without unlocking each order	Currently off: to edit the quantity to consume on a confirmed order you must use **Lock/Unlock** under the gear icon of the order
By-Products	The bill of materials can declare by-products and split the cost proportionally	By-products cannot be recorded; the report **Loss By-products Analysis** has no data
Manufacturing Progress Management	The **Manufacturing Orders Progress** screen groups the orders of one demand and computes the percentage complete	You only follow orders one by one
MRP Standard Consumption, Manufacturing Standard Consumption Analysis	Each bill of materials line has a standard quantity and a loss rate; the report **Loss Components Analysis** compares actual with standard	You cannot measure the consumption difference per component
Manufacturing Backdate	When you validate a transfer, scrap or complete an order, the system asks for the date of the operation and lets you back-date it	Every operation takes the date and time of the click; you cannot post yesterday's operations afterwards
Manufacturing Quality Control	Quality checks are generated per order and per operation; they block starting and finishing an operation and closing the order until the checks are done	There are no in-process checks and no finished product checks tied to the order

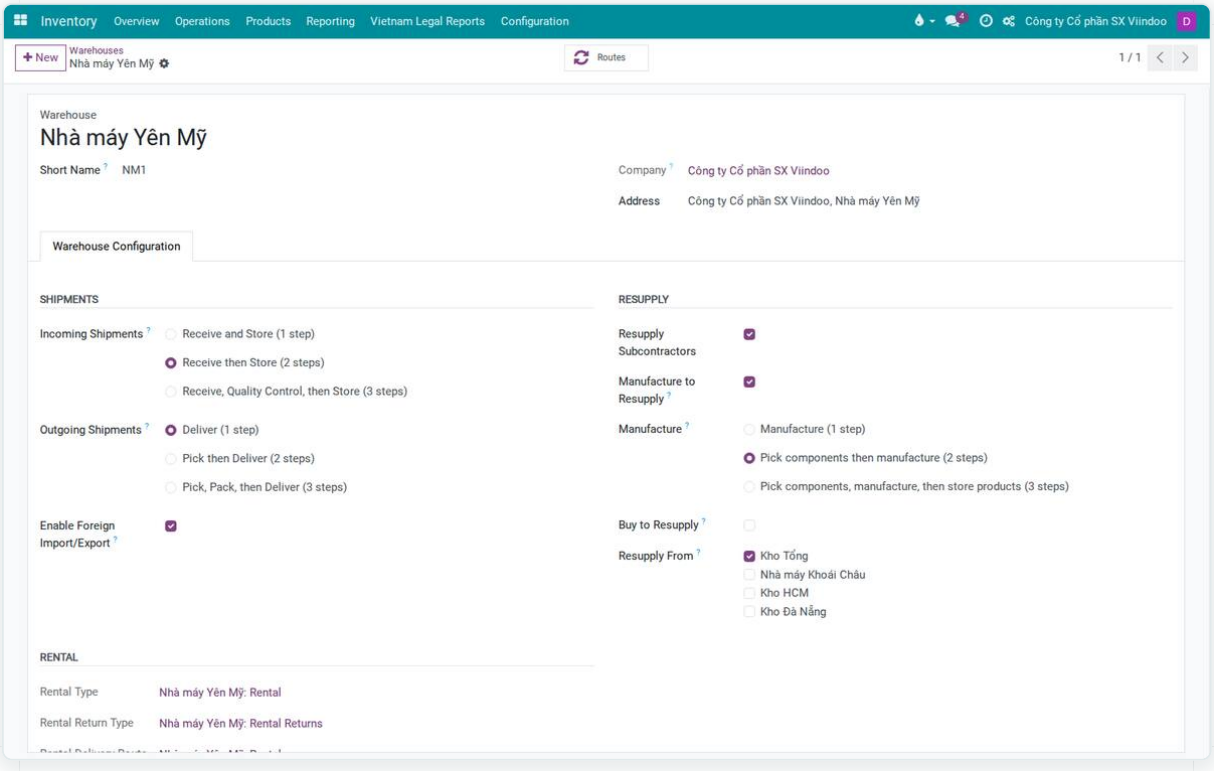
Setting	Turn it on to	What you lose if it is off
Maintenance - MRP	Equipment is attached to work centers; the maintenance request button on the order and at the shop floor (see Part X. Equipment maintenance)	A broken machine can only be recorded as a "stop", it does not generate a maintenance request

> **Trap when configuring on your own:** unticking **Work Orders** and clicking **Save** archives all the operations of every bill of materials. Ticking it again does not restore them completely. Do not turn this box off on a running system.

Step 2 - See how many steps the warehouse manufactures in

Open the warehouse Nhà máy Yên Mỹ (Yen My Factory) and look at the **Manufacture** field in the **RESUPPLY** block.

> *Path:* `Inventory > Configuration > Warehouse Management > Warehouses` > Nhà máy Yên Mỹ



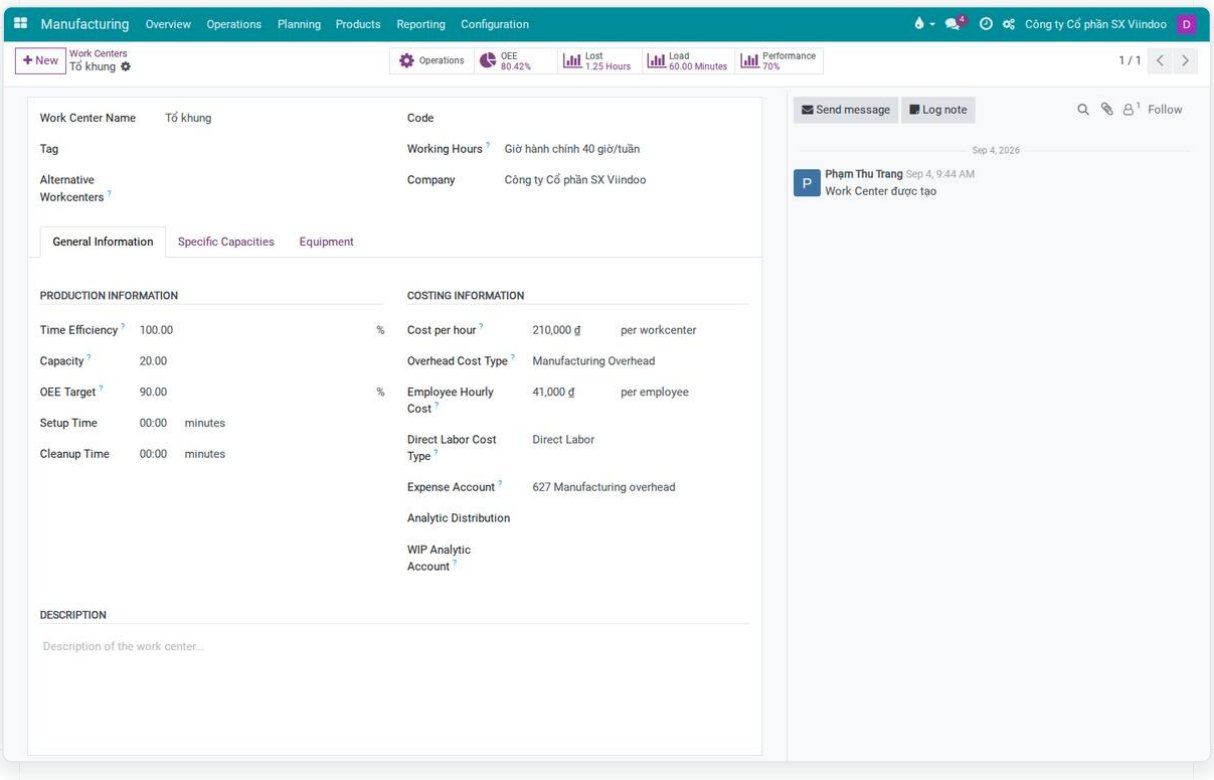
What you should see: the **Manufacture** field is set to **Pick components then manufacture (2 steps)**. This means that when you confirm an order the system generates a **Pick Components** transfer that moves the components from `NM1/Tồn kho` (stock) to the area `NM1/Trước sản xuất` (pre-production); the order takes its components from that area. Changing

to 1 step or to 3 steps (one more transfer to store the finished products) is only a matter of choosing another value in this field; it is not additional development.

Step 3 - See the hourly rate and the expense account of a work center

Open the work center Tổ khung (Frame team), tab **General Information**.

> *Path:* `Manufacturing > Configuration > Work Centers` > Tổ khung

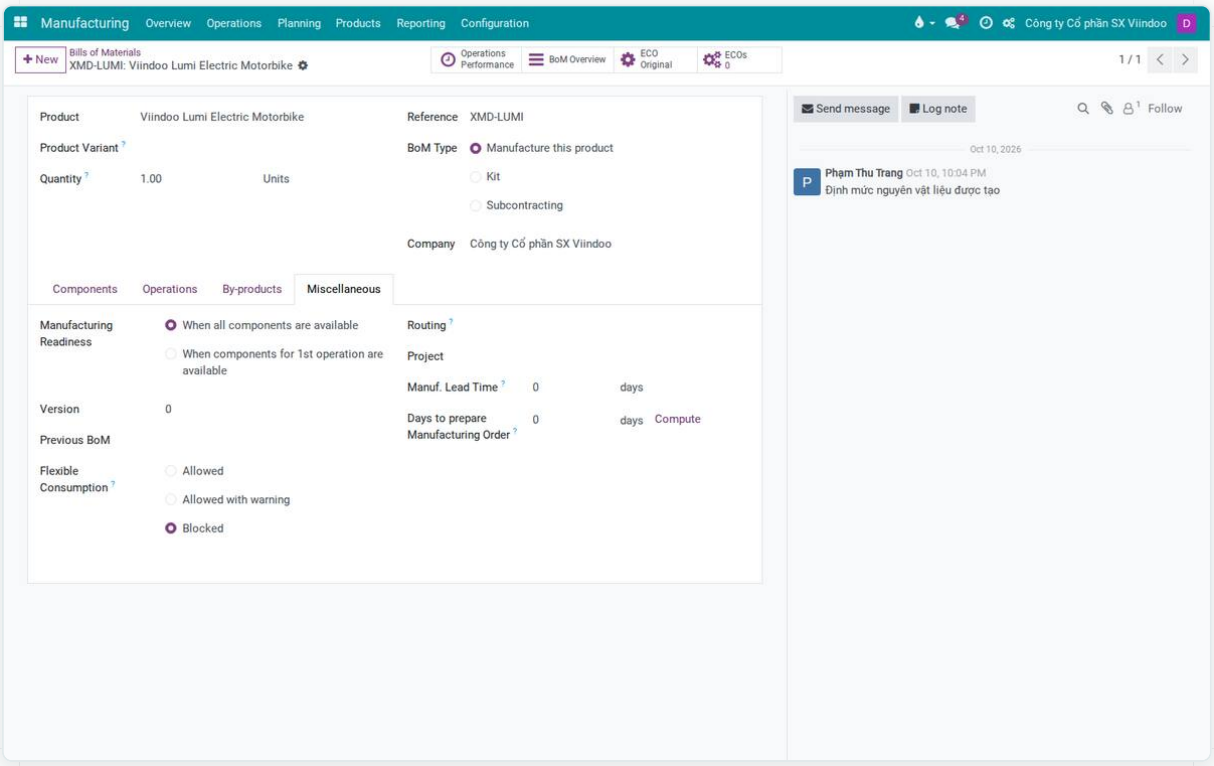


What you should see: Cost per hour 210,000 VND per workcenter (machine hour, shown in the Manufacturing overhead column of the cost report), **Employee Hourly Cost** 41,000 VND per employee (shown in the Direct labor cost column), **Overhead Cost Type** "Manufacturing Overhead", **Direct Labor Cost Type** "Direct Labor", **Expense Account** "627 Manufacturing overhead", **Working Hours** "Giờ hành chính 40 giờ/tuần" (Office hours, 40 hours/week). These three figures decide the hourly cost in the lesson "Actual hours, cost and journal entries when the order is completed". The other work centers have their own hourly rates: Tổ lắp ráp trên chuyền (Assembly line team) 230,000 VND, Tổ lốp (Tire team) 150,000 VND, Tổ kiểm tra xuất xưởng (Outgoing inspection team) 185,000 VND; each with the same 41,000 VND per employee.

Step 4 - See the consumption level on the bill of materials

Open the bill of materials of the Lumi motorbike, tab **Miscellaneous**, and look at the **Flexible Consumption** field.

> *Path:* `Manufacturing > Products > Bills of Materials` > XMD-LUMI: Viindoo Lumi Electric Motorbike



What you should see: three choices **Allowed**, **Allowed with warning**, **Blocked**; on the demonstration system the Lumi bill of materials is currently set to **Blocked**.

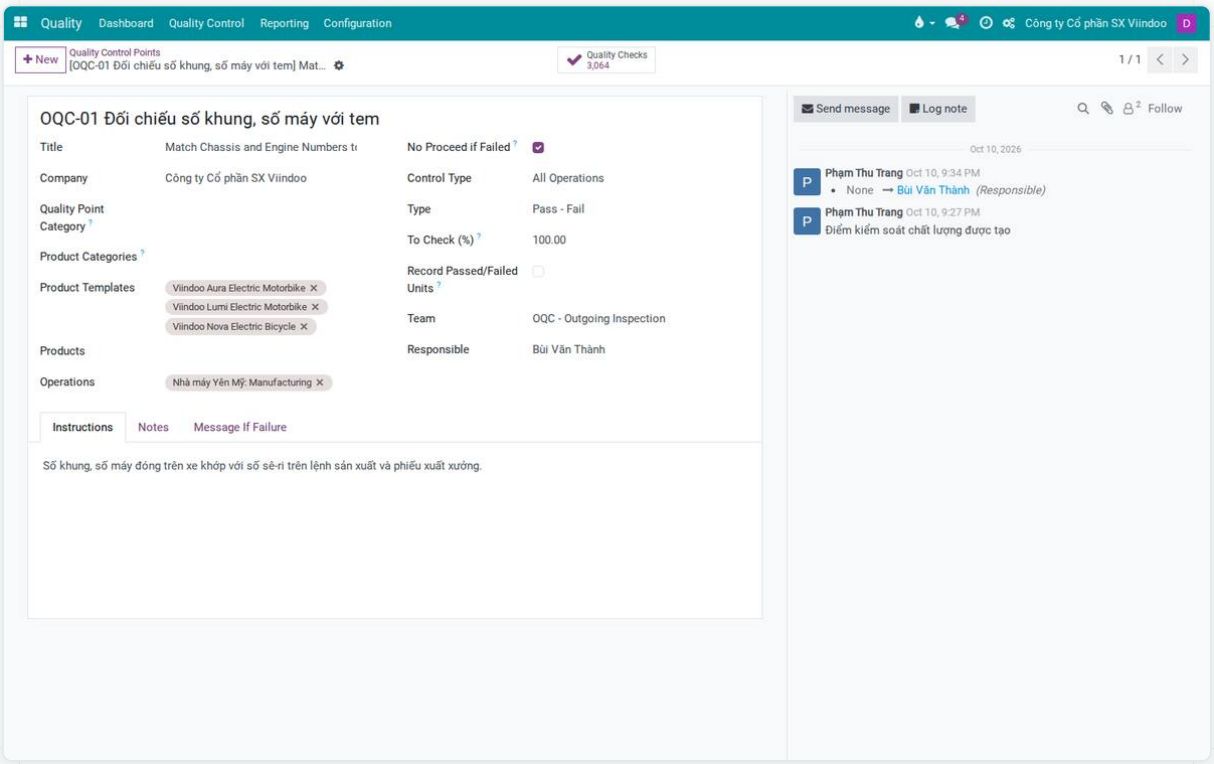
Choice	When the actual consumption differs from the bill of materials at completion	Suited to
Allowed	The order closes normally; the difference goes to the loss report	Materials that are hard to measure exactly (paint, glue, bolts by the set)
Allowed with warning	A warning lists the components that differ and the user must confirm before the order can close	Most assembly components
Blocked	The order cannot close until the consumed quantity matches the bill of materials; only the manufacturing manager can let it through	High-value components with serial numbers (motor, battery)

Each bill of materials carries its own setting, so different vehicles can follow different rules.

Step 5 - See a quality control point that blocks

Open the control point OQC-01.

> *Path:* `Quality > Quality Control > Quality Controls > Control Points` > OQC-01 (Đối chiếu số khung, số máy với tem)



What you should see: Title "Match Chassis and Engine Numbers to Label"; **Product Templates** are the Aura, Lumi and Nova vehicles; **Operations** "Nhà máy Yên Mỹ: Manufacturing"; the box **No Proceed if Failed** is ticked; **Control Type** "All Operations"; **Type** "Pass - Fail"; **To Check (%)** 100.00; **Team** "OQC - Outgoing Inspection"; **Responsible** Bùi Văn Thành. For the Lumi vehicle, each order generates 4 checks: 3 finished product checks OQC-01, OQC-02 and OQC-03 done when the order is closed, and check OQC-04 "Overall Test Run and Sign-Off of Outgoing Inspection Slip" done before the final inspection operation starts. The control points are set up in Part V. Warehouse and quality.

42 CREATE THE ORDER, CONFIRM IT AND PLAN THE OPERATIONS

About 10 minutes. By the end of this lesson your company has created an assembly order for a Lumi vehicle, confirmed it to reserve the components and scheduled the three operations in three teams: Tổ lắp ráp trên chuyền (Assembly line team), Tổ lốp (Tire team) and Tổ kiểm tra xuất xưởng (Outgoing inspection team).

Where a manufacturing order comes from and how to recognise it:

Source	When it is generated	State when generated	How to recognise it on the order
Created by hand	The planner clicks **New**	Draft	The **Source** field is empty
Sales order	Confirming a sales order for a product that has the Manufacture and Replenish on Order (MTO) routes	Confirmed (if there is a bill of materials); Draft if there is no bill of materials yet	**Source** is the sales order number, for example S00063
Reordering rule / Replenishment	Stock falls below the minimum	Draft, waiting for the planner to confirm	**Source** is the rule code
Master production schedule	Clicking replenish on the master schedule	Draft	**Source** reads MPS
Parent order	A vehicle order needs a semi-finished product (frame assembly, electrical assembly) that is out of stock	Confirmed	**Source** is the parent order number
Backorder	Completing an order before the full quantity is done	Confirmed	The order number ends in -002, -003

How orders are generated from a sales order, a reordering rule and the master schedule is covered in Part III. Production planning.

The states of a manufacturing order:

State	Meaning	Components reserved yet?	Have stock and accounting changed?
Draft	Just created, edit freely	Not yet	Not yet
Confirmed	The work orders, the Pick Components transfer and the quality checks have been generated	Yes: the Pick Components transfer reserves the components in the warehouse; after that transfer is done, the order reserves the components in the Pre-production area	No journal entry yet; components only change location in the warehouse
In Progress	At least one operation has been started or a quantity in progress has been recorded	Yes	No (unless work in progress is posted at period end, see Part XII. Accounting and costing)

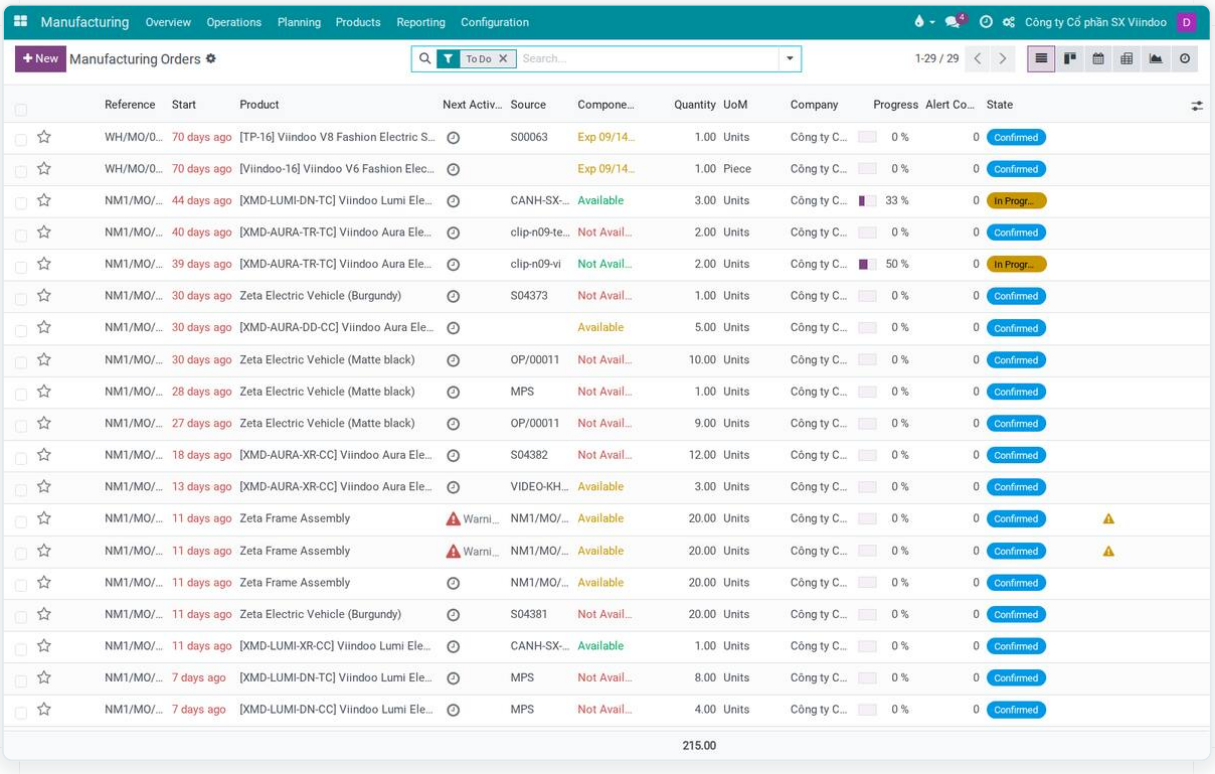
State	Meaning	Components reserved yet?	Have stock and accounting changed?
To Close	All operations are done, waiting for the order to be closed	Yes	Not yet
Done	The order is closed	The components have been deducted from stock	Yes: material, labor and finished product entries; the finished product is in stock
Cancelled	The order is cancelled	Released	No

The states of a work order: Waiting for another WO (the previous operation is not finished), **Waiting for components** (the components have not reached the pre-production area), **Ready**, **In Progress**, **Finished**, **Cancelled**.

Step 1 - Open the list of manufacturing orders

Open the list of manufacturing orders.

> *Path:* `Manufacturing > Operations > Manufacturing Orders`

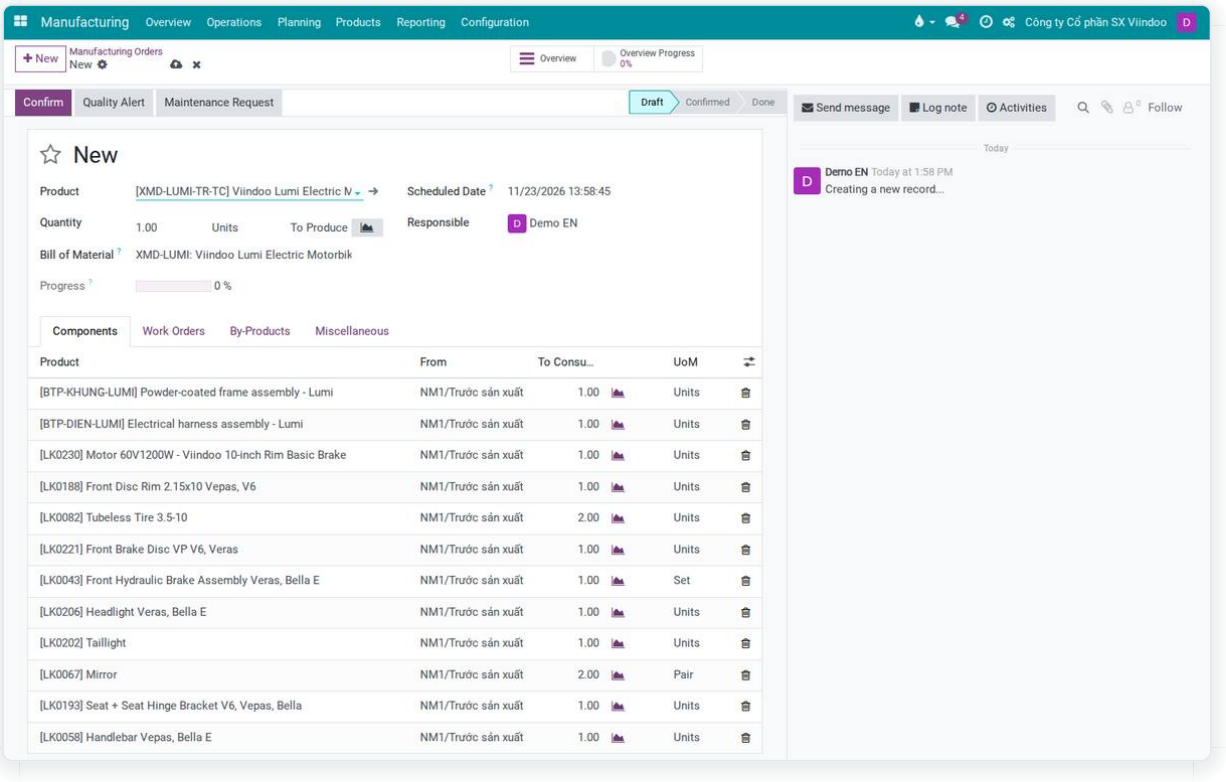


What you should see: the list is filtered by **To Do**, with the columns **Reference**, **Start**, **Product**, **Next Activity**, **Source**, **Component Status** (Available, Not Available, Expected date), **Quantity**, **UoM**, **Company**, **Progress**, **State**. The number of rows changes from day to day.

Step 2 - Create a new order and choose the product

Click **New**. In the **Product** field type `XMD-LUMI-TR-TC` and choose "[XMD-LUMI-TR-TC] Viindoo Lumi Electric Motorbike (Pearl white, Standard)". Keep **Quantity** at 1.00.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > **New**

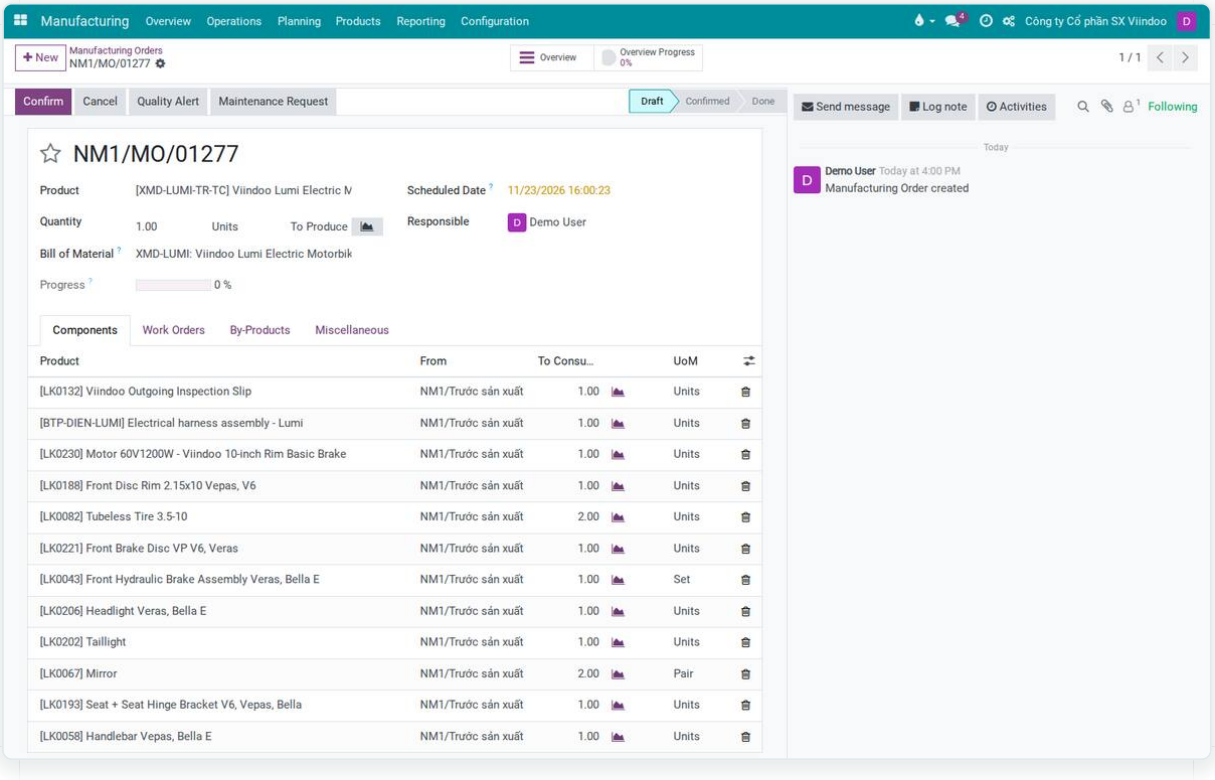


What you should see: the **Bill of Material** field fills in automatically with "XMD-LUMI: Viindoo Lumi Electric Motorbike"; the **Components** tab fills with 21 component lines for the Pearl white color, Standard version (frame assembly, electrical assembly, motor, Pearl white plastic body kit, 5 graphene batteries...), all taken from `NM1/Trước sản xuất`. One bill of materials is shared by every color and every version; the system picks the right body kit and electrical set for the variant.

Step 3 - Save the draft order

Click the save icon (cloud) next to the order name.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > the order you just created

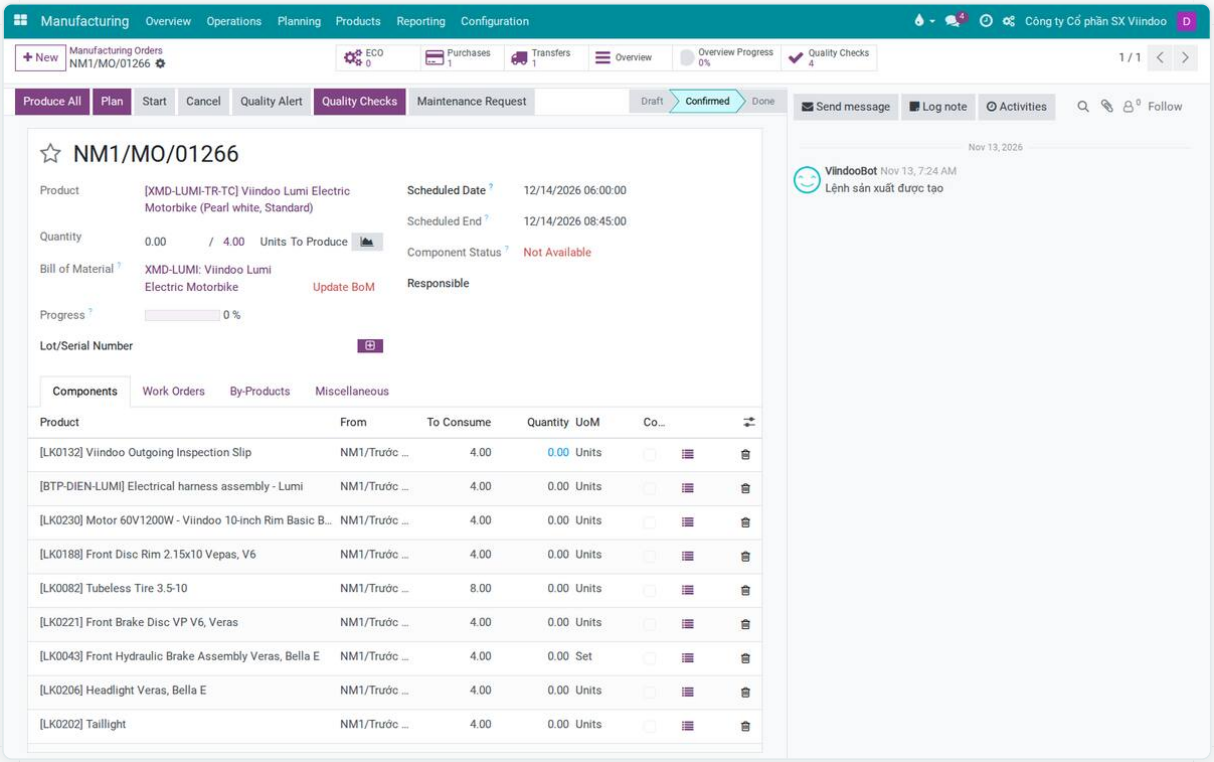


What you should see: the order has a number (for example NM1/MO/01277), the status bar is on **Draft**, and the buttons **Confirm**, **Cancel**, **Quality Alert** and **Maintenance Request** are shown. In this state the components are not reserved.

Step 4 - Confirm the order

Click **Confirm**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order

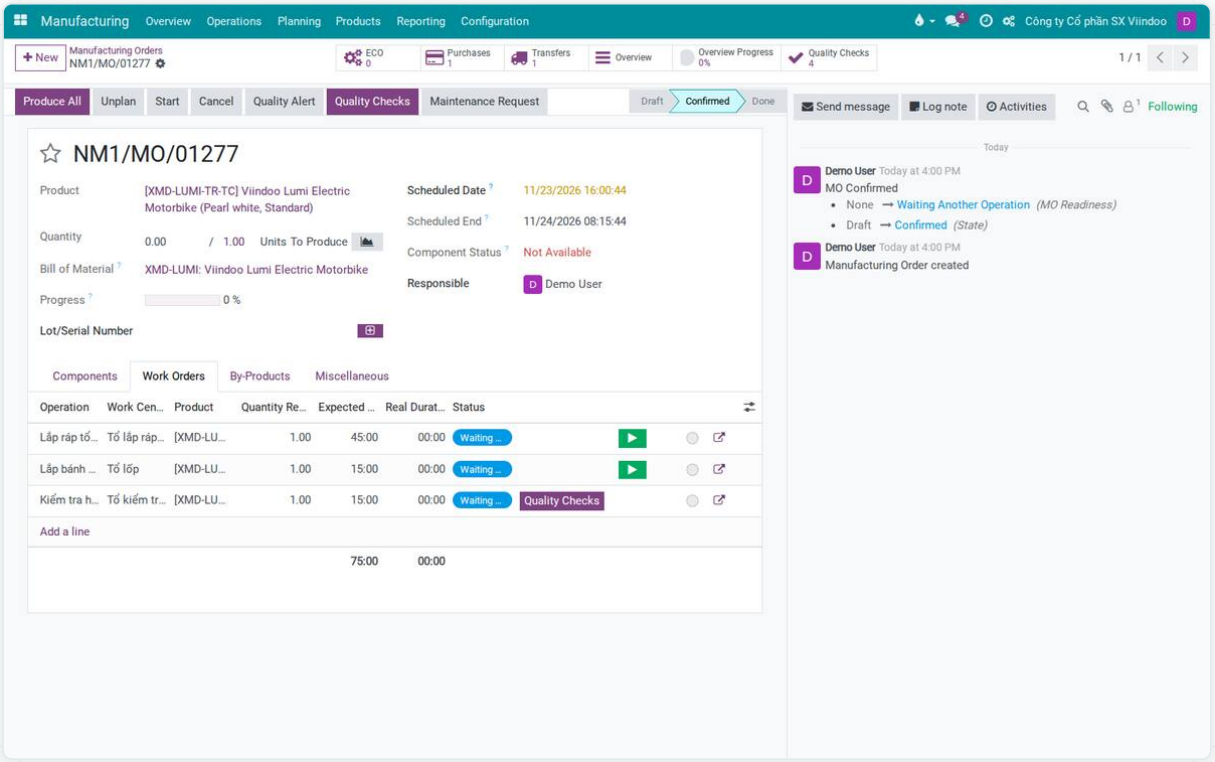


What you should see: the state **Confirmed**; the **Component Status** field shows **Available** (all components in stock) or, as in the screenshot, **Not Available** in red when some component has no stock yet; the smart button bar has **Purchases 1** when a purchase was generated for a missing component, **Transfers 1** and **Quality Checks 4**; the **Lot/Serial Number** field appears (the vehicle is tracked by serial number) and the buttons **Produce All**, **Plan** and **Start**. The history on the right reads "Draft -> Confirmed".

Step 5 - Plan the operations

Open the **Work Orders** tab, then click **Plan** on the button bar.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order > **Work Orders** tab

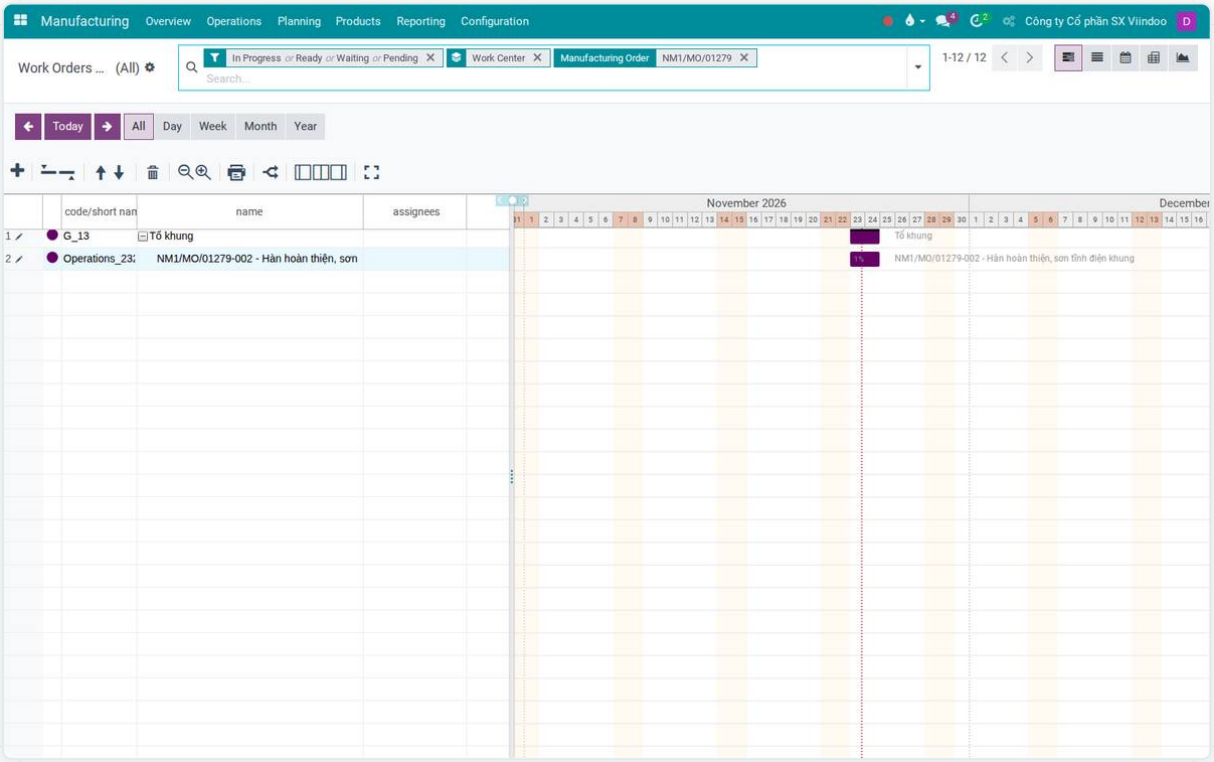


What you should see: three operation lines with the columns **Operation**, **Work Center**, **Product**, **Quantity Re...**, **Expected Duration**, **Real Duration** and **Status**: **Lắp ráp tổng thành trên chuyền** (Final assembly on the line; Tổ lắp ráp trên chuyền, 45:00 minutes), **Lắp bánh xe, phanh** (Fit wheels and brakes; Tổ lốp, 15:00) and **Kiểm tra hoàn thiện, đóng số khung** (Final inspection and chassis number stamping; Tổ kiểm tra xuất xưởng, 15:00), 75:00 minutes expected in total, all in the status **Waiting**. The **Plan** button changes to **Unplan**; **Scheduled Date** and **Scheduled End** jump to the nearest available working slot of the teams. The inspection operation line has a **Quality Checks** button: this operation has a check that must be done first.

Step 6 - See the schedule by work center

Open the planning screen by work center, type your order number in the search box and choose **Search Manufacturing Order for**.

> *Path:* `Manufacturing > Planning > Work Orders > Planning by Workcenter`

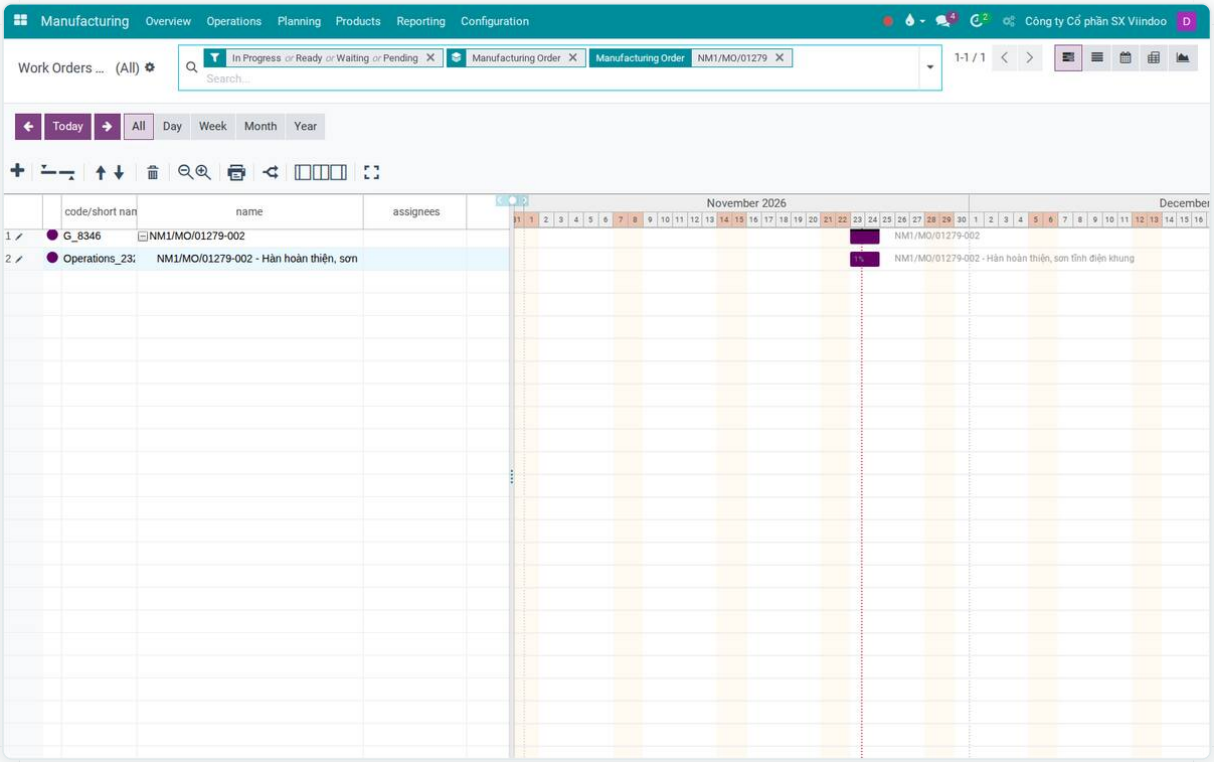


What you should see: the screen **Work Orders Planning** opens as a Gantt chart, filtered on the states In Progress, Ready, Waiting and Pending, grouped by **Work Center** and on your order. Each team that has an operation of the order is a group row (in the screenshot **Tổ khung**) with the operation below it, such as "NM1/MO/01279-002 - Hàn hoàn thiện, sơn tĩnh điện khung", drawn as a bar on its planned date; the red dotted line is today. Remove the order filter to see the whole load of each team; drag and drop a bar to move the schedule; the buttons **All**, **Day**, **Week**, **Month**, **Year** change the time scale, and the buttons at the top right switch to the list, calendar, pivot and graph views.

Step 7 - See the schedule by manufacturing order

Open the planning screen by order and filter on the same order as in the previous step.

> *Path:* `Manufacturing > Planning > Work Orders > Planning by Production`

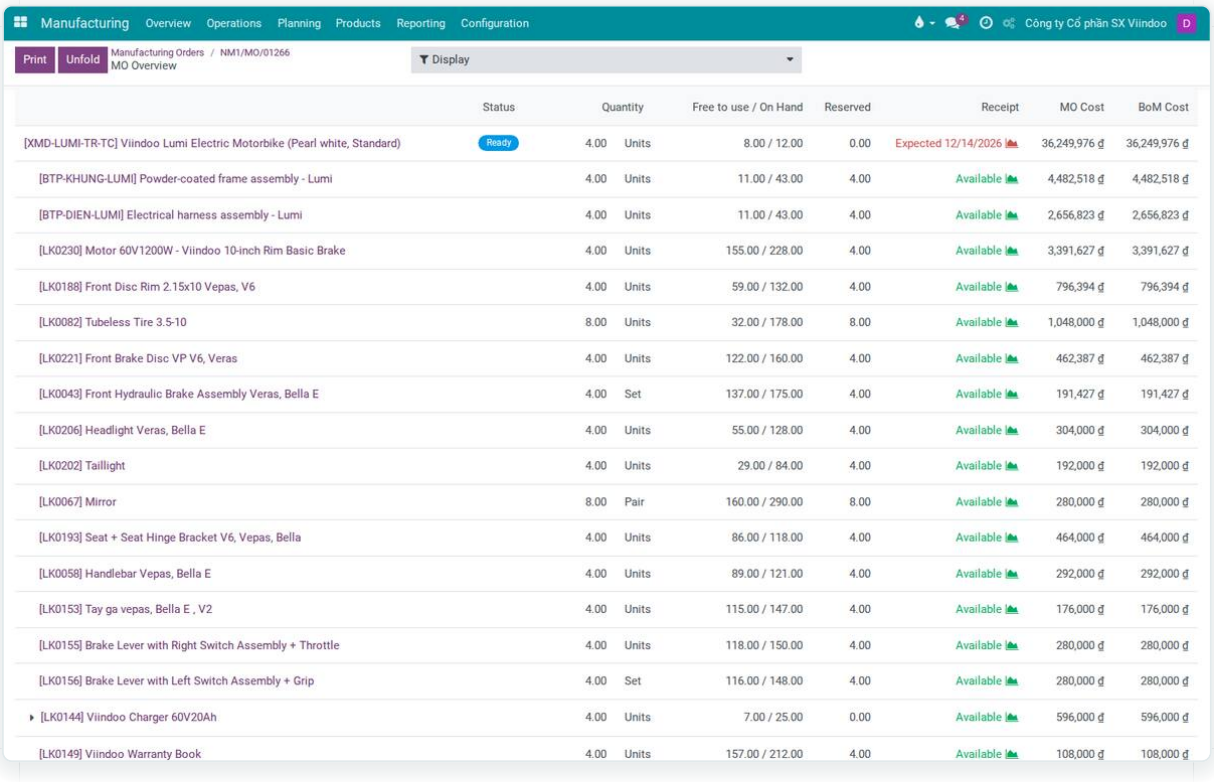


What you should see: the same Gantt chart, here grouped by **Manufacturing Order**: one group row carrying the order number, and below it the operations of the order as bars one after another (one operation in the screenshot). Use this screen to answer "when will this order be finished"; use the work center screen to answer "is this team overloaded".

Step 8 - See the component situation before starting

Go back to the order and click the smart button **Overview**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order > **Overview**



	Status	Quantity		Free to use / On Hand	Reserved	Receipt	MO Cost	BoM Cost
[XMD-LUMI-TR-TC] Viindoo Lumi Electric Motorbike (Pearl white, Standard)	Ready	4.00	Units	8.00 / 12.00	0.00	Expected 12/14/2026	36,249,976 ₫	36,249,976 ₫
[BTP-KHUNG-LUMI] Powder-coated frame assembly - Lumi		4.00	Units	11.00 / 43.00	4.00	Available	4,482,518 ₫	4,482,518 ₫
[BTP-DIEN-LUMI] Electrical harness assembly - Lumi		4.00	Units	11.00 / 43.00	4.00	Available	2,656,823 ₫	2,656,823 ₫
[LK0230] Motor 60V1200W - Viindoo 10-inch Rim Basic Brake		4.00	Units	155.00 / 228.00	4.00	Available	3,391,627 ₫	3,391,627 ₫
[LK0188] Front Disc Rim 2.15x10 Vepas, V6		4.00	Units	59.00 / 132.00	4.00	Available	796,394 ₫	796,394 ₫
[LK0082] Tubeless Tire 3.5-10		8.00	Units	32.00 / 178.00	8.00	Available	1,048,000 ₫	1,048,000 ₫
[LK0221] Front Brake Disc VP V6, Veras		4.00	Units	122.00 / 160.00	4.00	Available	462,387 ₫	462,387 ₫
[LK0043] Front Hydraulic Brake Assembly Veras, Bella E		4.00	Set	137.00 / 175.00	4.00	Available	191,427 ₫	191,427 ₫
[LK0206] Headlight Veras, Bella E		4.00	Units	55.00 / 128.00	4.00	Available	304,000 ₫	304,000 ₫
[LK0202] Taillight		4.00	Units	29.00 / 84.00	4.00	Available	192,000 ₫	192,000 ₫
[LK0067] Mirror		8.00	Pair	160.00 / 290.00	8.00	Available	280,000 ₫	280,000 ₫
[LK0193] Seat + Seat Hinge Bracket V6, Vepas, Bella		4.00	Units	86.00 / 118.00	4.00	Available	464,000 ₫	464,000 ₫
[LK0058] Handlebar Vepas, Bella E		4.00	Units	89.00 / 121.00	4.00	Available	292,000 ₫	292,000 ₫
[LK0153] Tay ga vepas, Bella E , V2		4.00	Units	115.00 / 147.00	4.00	Available	176,000 ₫	176,000 ₫
[LK0155] Brake Lever with Right Switch Assembly + Throttle		4.00	Units	118.00 / 150.00	4.00	Available	280,000 ₫	280,000 ₫
[LK0156] Brake Lever with Left Switch Assembly + Grip		4.00	Set	116.00 / 148.00	4.00	Available	280,000 ₫	280,000 ₫
[LK0144] Viindoo Charger 60V20Ah		4.00	Units	7.00 / 25.00	0.00	Available	596,000 ₫	596,000 ₫
[LK0149] Viindoo Warranty Book		4.00	Units	157.00 / 212.00	4.00	Available	108,000 ₫	108,000 ₫

What you should see: the **MO Overview** screen has the columns **Status**, **Quantity**, **Free to use / On Hand**, **Reserved**, **Receipt** (Available, or the date the goods arrive), **MO Cost** and **BoM Cost**. The first line is the finished product (state **Ready**) and gives the expected cost of the order against the cost according to the bill of materials. A component that shows "Not Available", or an expected date later than the start date, is a component that will delay the order (see the lesson "When reality departs from the plan").

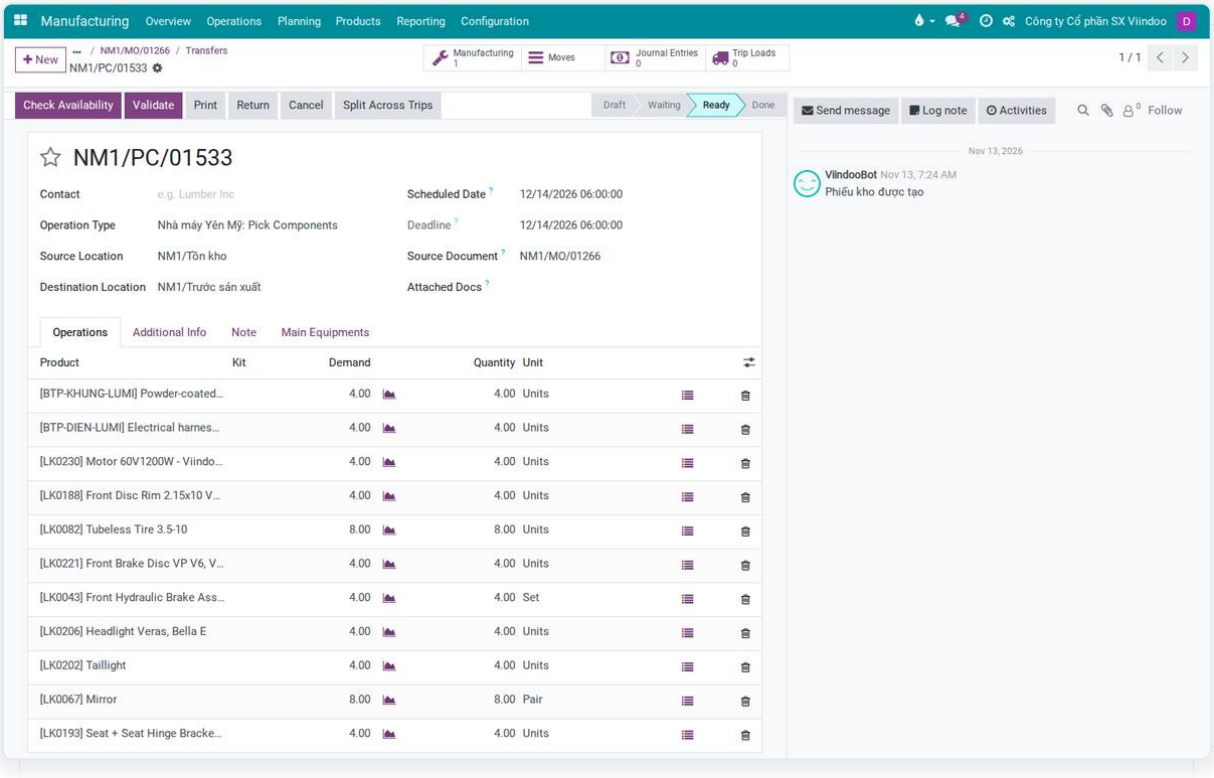
43 ISSUE MATERIALS TO THE SHOP FLOOR

About 5 minutes. By the end of this lesson the storekeeper has moved the order's components to the pre-production area and the order is ready.

Step 1 - Open the Pick Components transfer of the order

On the order, click the smart button **Transfers**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order > **Transfers**

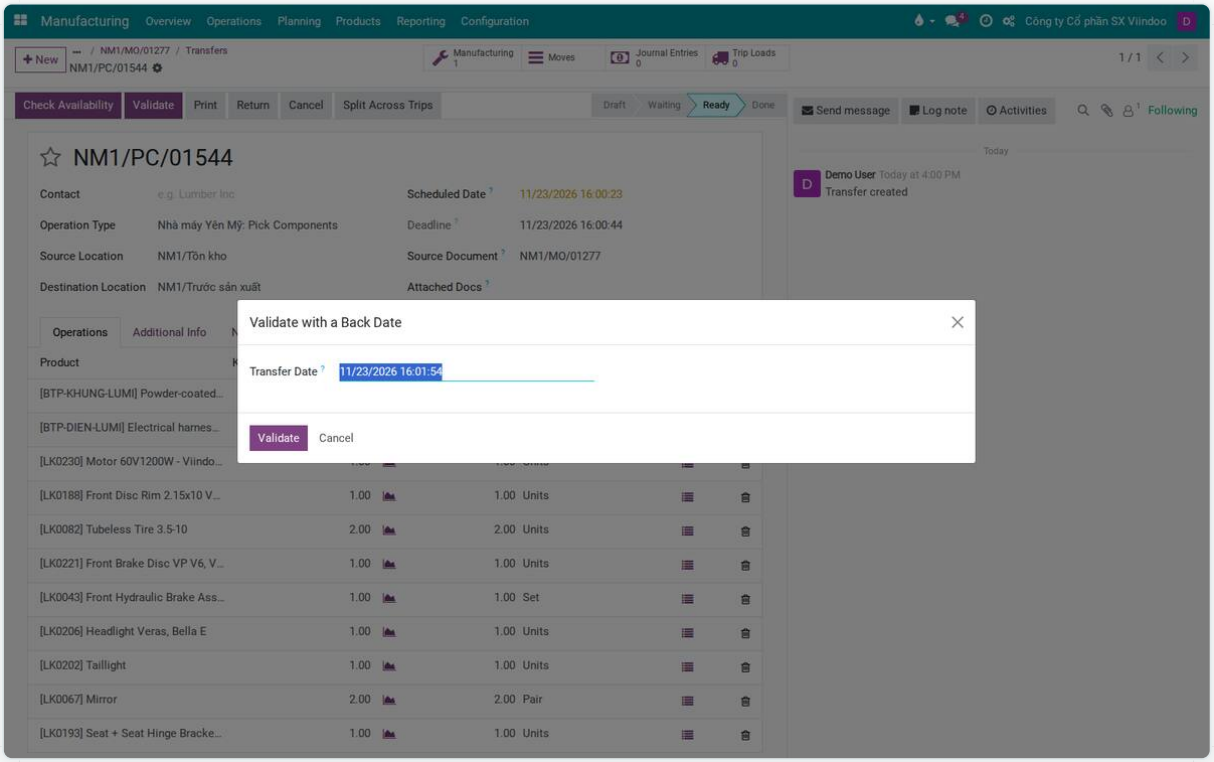


What you should see: the transfer (for example NM1/PC/01533), **Operation Type** "Nhà máy Yên Mỹ: Pick Components", **Source Location** `NM1/Tồn kho`, **Destination Location** `NM1/Trước sản xuất`, **Source Document** is the order number, and the state is **Ready**. Every line has the **Quantity** column equal to the **Demand** column: the goods are reserved. The transfer form offers the buttons **Check Availability**, **Validate**, **Print**, **Return**, **Cancel** and **Split Across Trips**, and the tabs **Operations**, **Additional Info**, **Note** and **Main Equipments**; the storekeeper prints the transfer with the **Print** button to pick the goods.

Step 2 - Validate the transfer

Click **Validate**. A box asking for the **Transfer Date** appears (the box title shows "Validate with a Back Date"); keep the current date and time and click **Validate**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order > **Transfers** > **Validate**

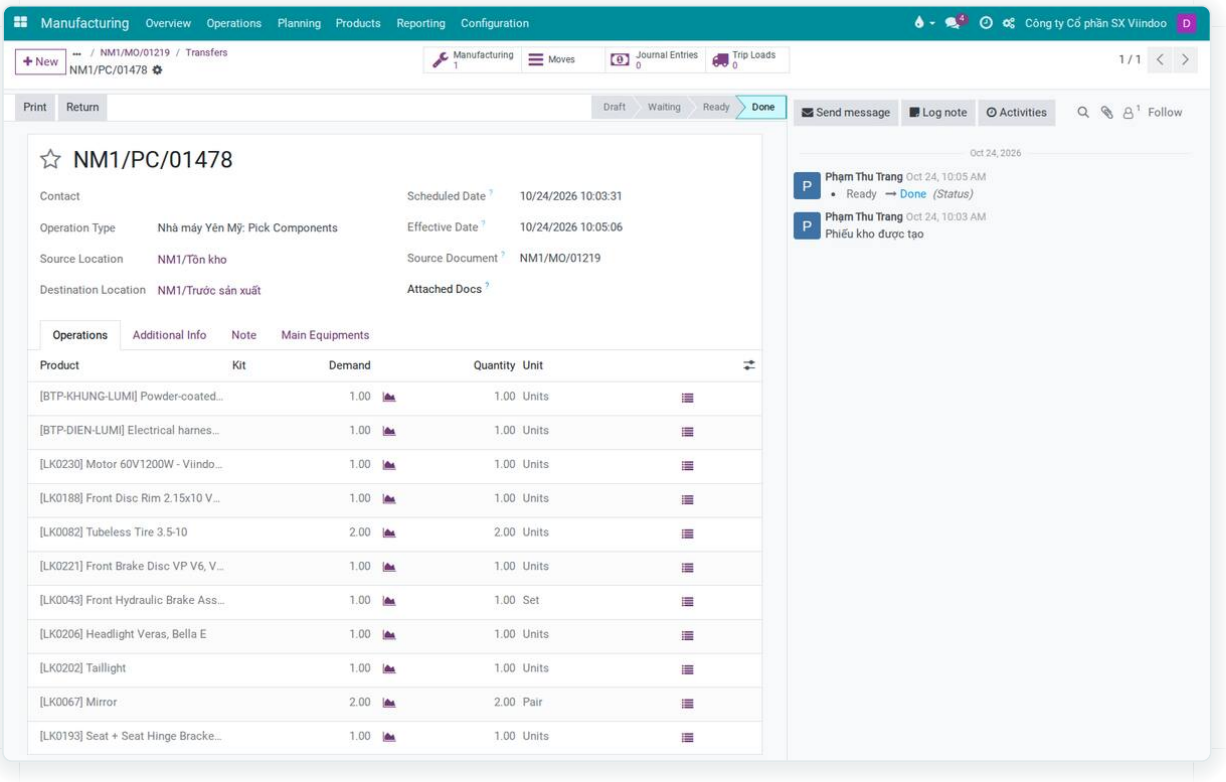


What you should see: the box has one **Transfer Date** field already filled with the current date and time. This box appears because the setting **Manufacturing Backdate** is on: when you need to post yesterday's transfer afterwards, change the date here.

Step 3 - Check that the transfer is done

Look at the transfer again after validating.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order > **Transfers**

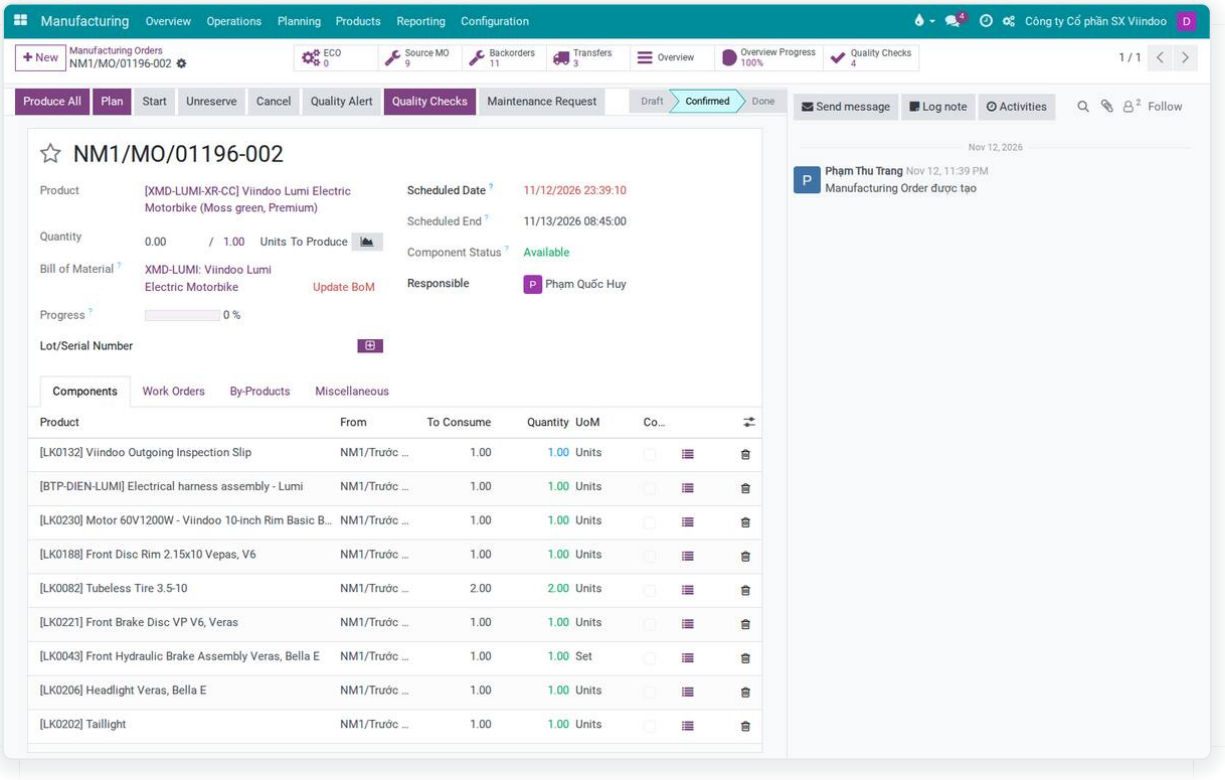


What you should see: the status bar is on **Done** and the **Effective Date** field has a value. The components are now in the pre-production area; this is an internal transfer, so it generates no journal entry.

Step 4 - Go back to the order and see the reserved components

Click the order number in the breadcrumb at the top to go back to the order.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order



What you should see: Component Status changes to **Available** in green; the **Quantity** column of each component equals **To Consume**; the **Unreserve** button appears. The first operation changes to **Ready**; the second and third operations stay **Waiting for another WO**.

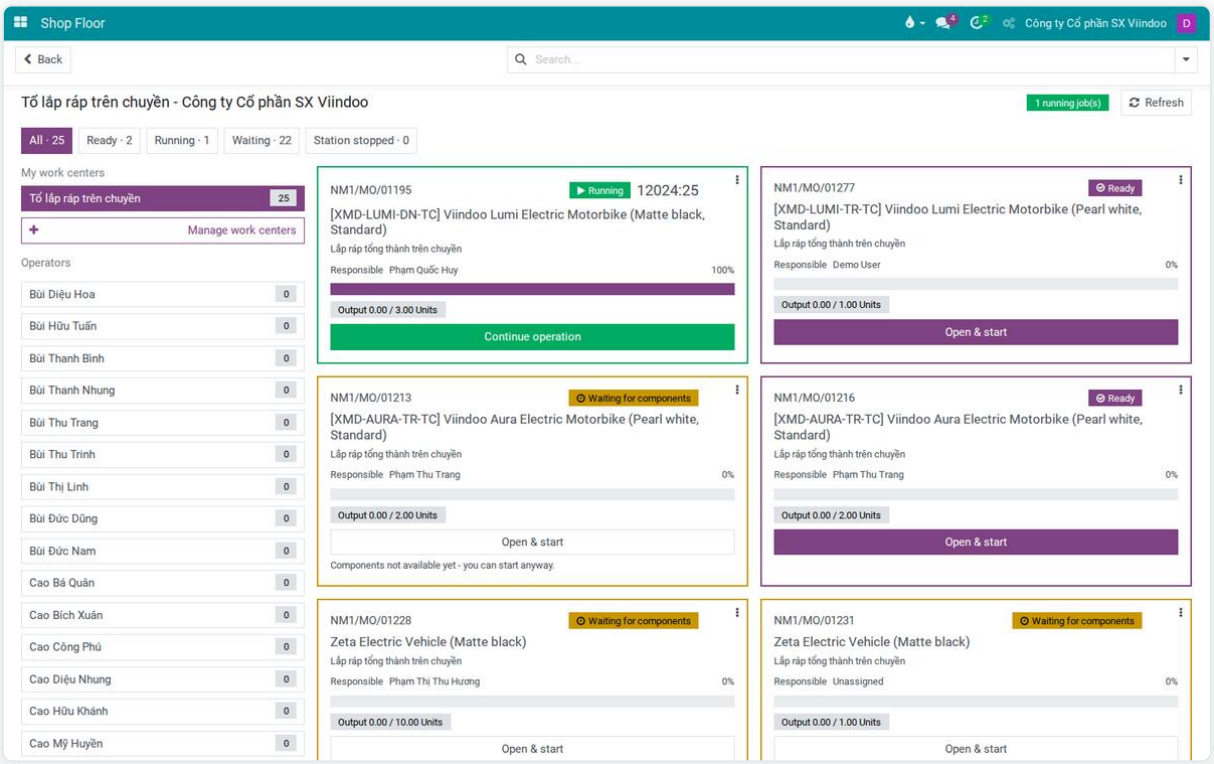
44 RUNNING THE SHOP FLOOR: START, RECORD LABOR, STOP THE MACHINE

About 15 minutes. By the end of this lesson your company has run the first two operations on the shop floor touch screen: recorded labor for the right worker, reported a line stop with a reason, restarted it and completed the operation. This screen is made for a tablet placed at the team; it works the same on a desktop computer.

Step 1 - Open the Shop Floor screen

Click the **Shop Floor** application tile on the home screen. The first team shown in this lesson is Tổ lắp ráp trên chuyền (Assembly line team).

> *Path:* `Shop Floor`

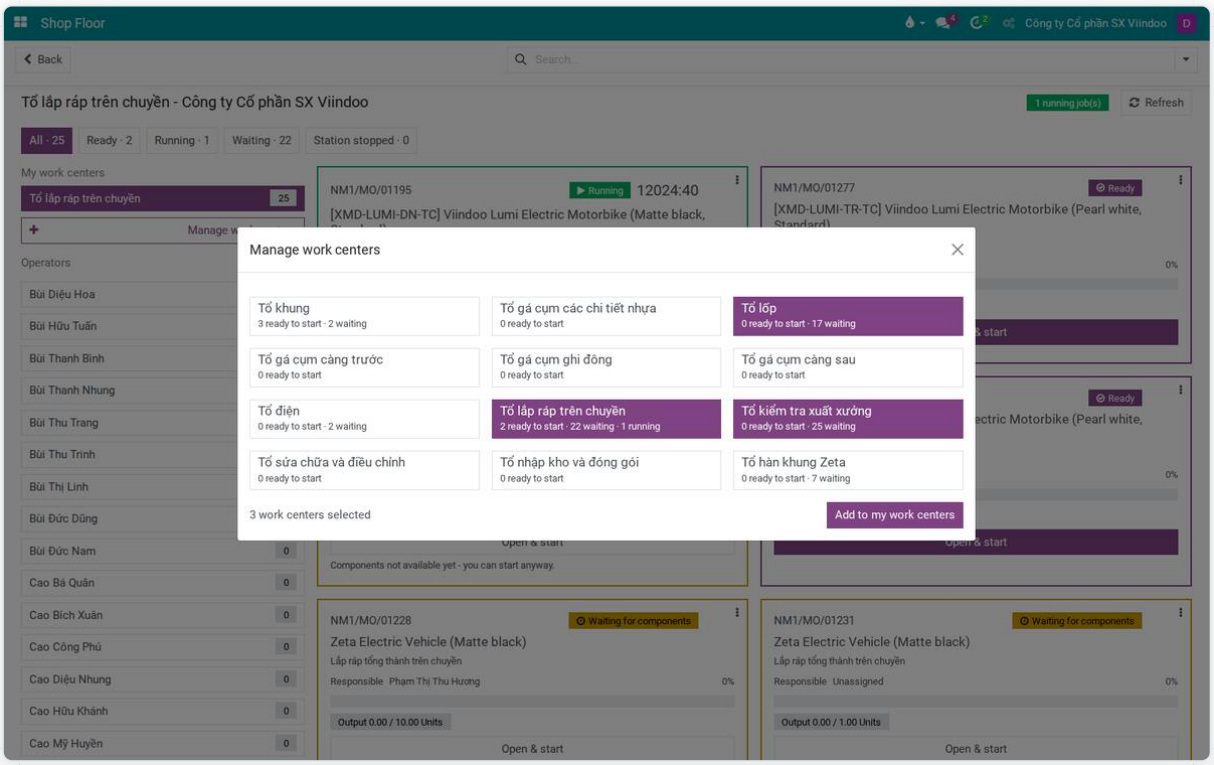


What you should see: a title with the name of the selected team, a green label with the number of running jobs and a **Refresh** button, and the filter buttons **All**, **Ready**, **Running**, **Waiting**, **Station stopped** with counts; on the left **My work centers** (with **Manage work centers**) and the list of **Operators**; each card is one operation with the order number, product, operation name, **Responsible**, a progress bar, the line "Output 0.00 / 1.00 Units" and a large button (**Open & start**, **Continue operation**). The label on the card is **Ready**, **Running** or **Waiting for components**; a card that waits for components says "Components not available yet - you can start anyway." The number of cards changes from day to day.

Step 2 - Add the order's teams to my work centers

Click **Manage work centers**, tap **Tổ lốp** (Tire team) and **Tổ kiểm tra xuất xưởng** (Outgoing inspection team) (keep **Tổ lắp ráp trên chuyền**, Assembly line team), then click **Add to my work centers**.

> *Path:* `Shop Floor` > **Manage work centers**

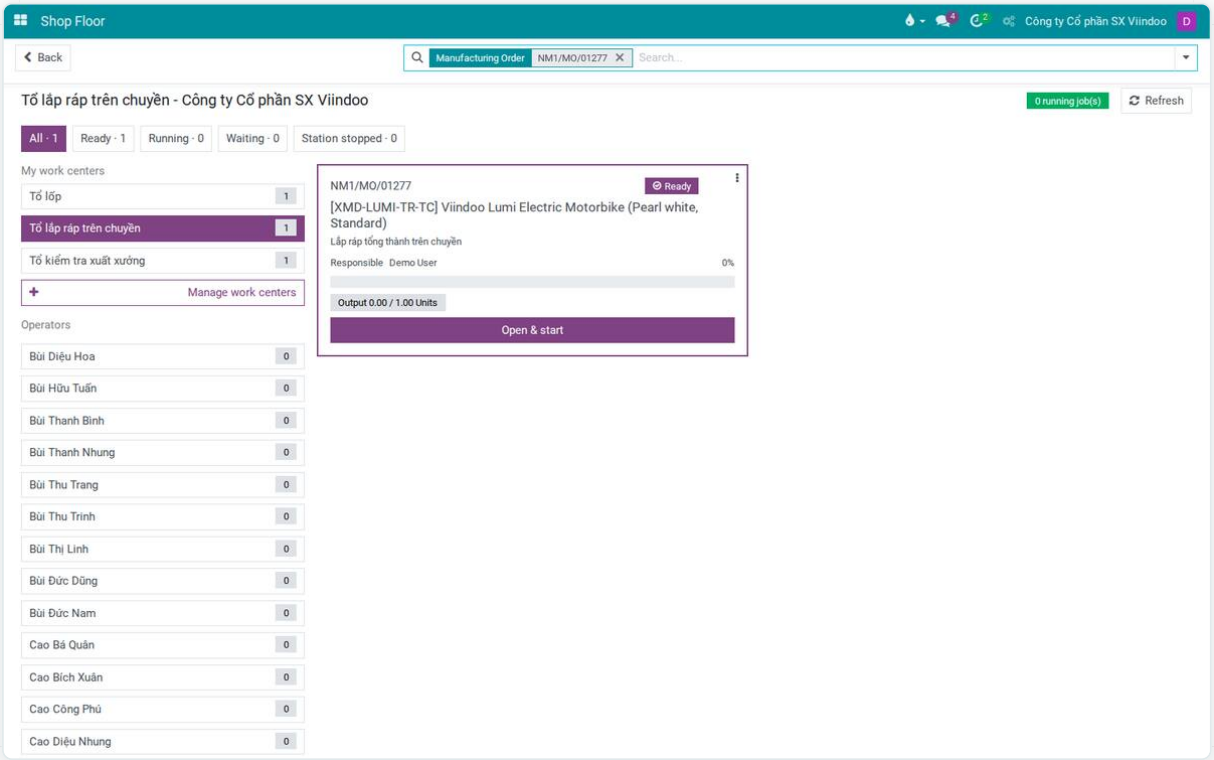


What you should see: each team tile shows the number of ready and waiting operations; the three chosen tiles are highlighted and the line below reads "3 work centers selected". After adding, the left column has three teams; click a team name to change the work board. Each tablet at a team normally selects just one team.

Step 3 - Find the order's operation

Select **Tổ lắp ráp trên chuyền** in the left column. Type the order number in the **Search...** box and choose **Search Manufacturing Order for**.

> *Path:* `Shop Floor` > Tổ lắp ráp trên chuyền

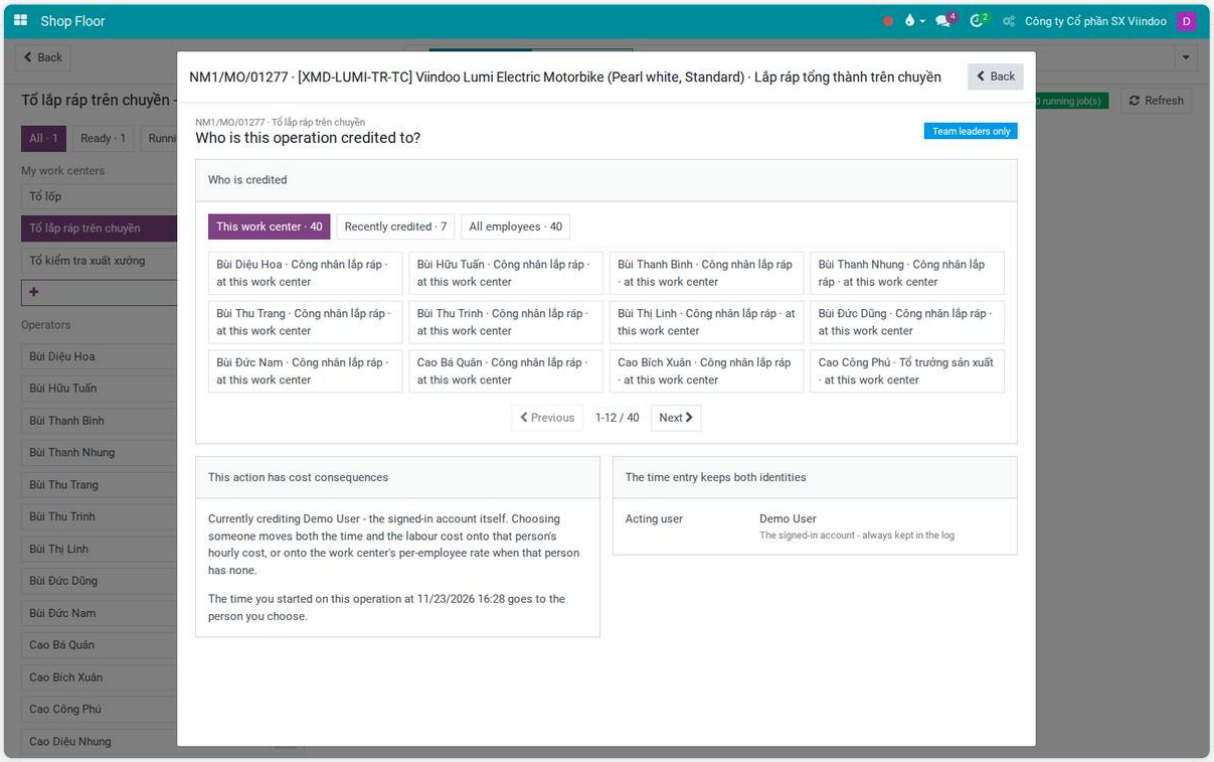


What you should see: exactly one card, labeled **Ready**, with the line "Output 0.00 / 1.00 Units" and the button **Open & start**.

Step 4 - Open the operation and choose whom to credit

Click **Open & start**. The operation opens and starts running at once under the account you are logged in with. Click **On behalf** next to the timer.

> *Path:* `Shop Floor` > operation card > **Open & start** > **On behalf**

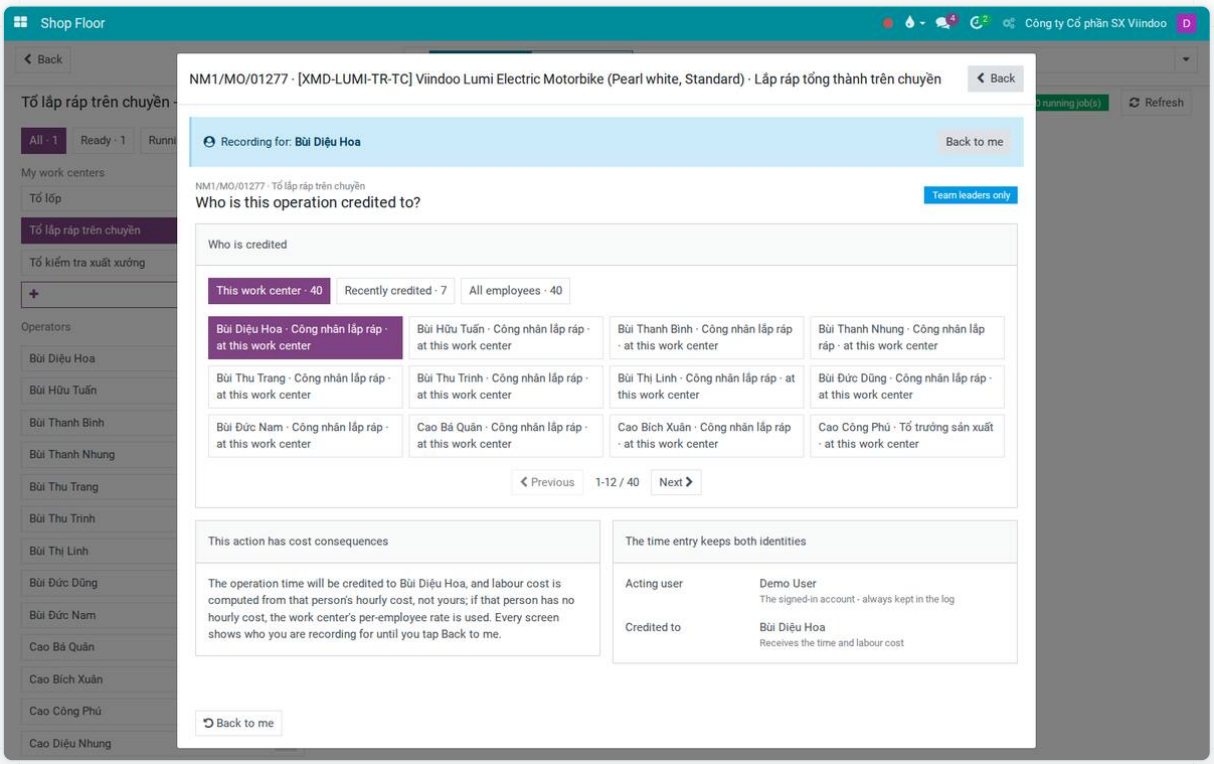


What you should see: the box **Who is this operation credited to?** with the label **Team leaders only**, the block **Who is credited** with three tabs **This work center**, **Recently credited** and **All employees** (each with a count) and the list of workers, and two panels: **This action has cost consequences** (choosing another person moves both the time and the labor cost to that person's hourly cost, or to the work center's per-employee rate when that person has none) and **The time entry keeps both identities** (**Acting user**, the account you are logged in with).

Step 5 - Choose the worker

Tap the name of a worker, for example **Bùi Diệu Hoa**, then click **Back**.

> *Path:* `Shop Floor` > operation card > **On behalf**

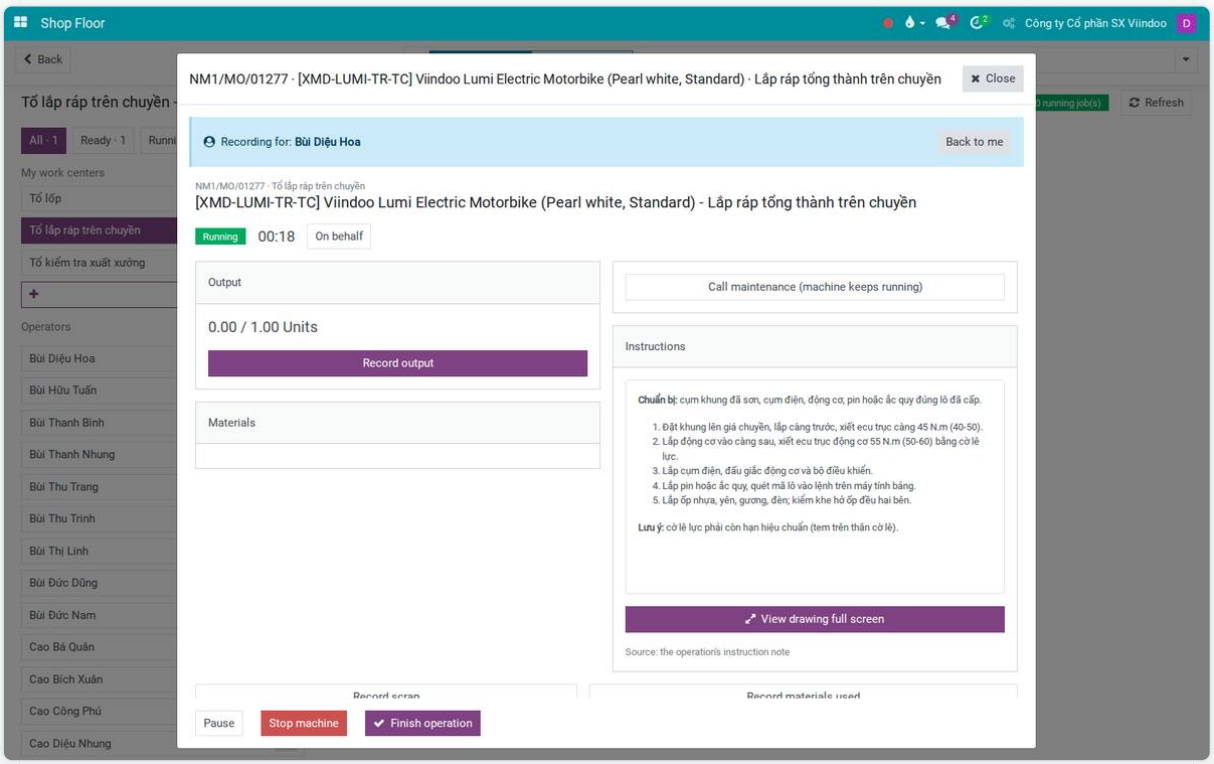


What you should see: a blue strip at the top reads "Recording for: Bùi Diệu Hoa" with a **Back to me** button; the bottom panel now shows **Acting user** (your account) and **Credited to** (the worker you chose, who "Receives the time and labour cost"). The time entry keeps both identities. This choice is kept only while the screen stays open; when you open the card again in another session, choose again. The time that ran before the switch stays recorded for your own account.

Step 6 - Check that the operation is running

Click **Back** to return to the operation.

> *Path:* `Shop Floor` > operation card



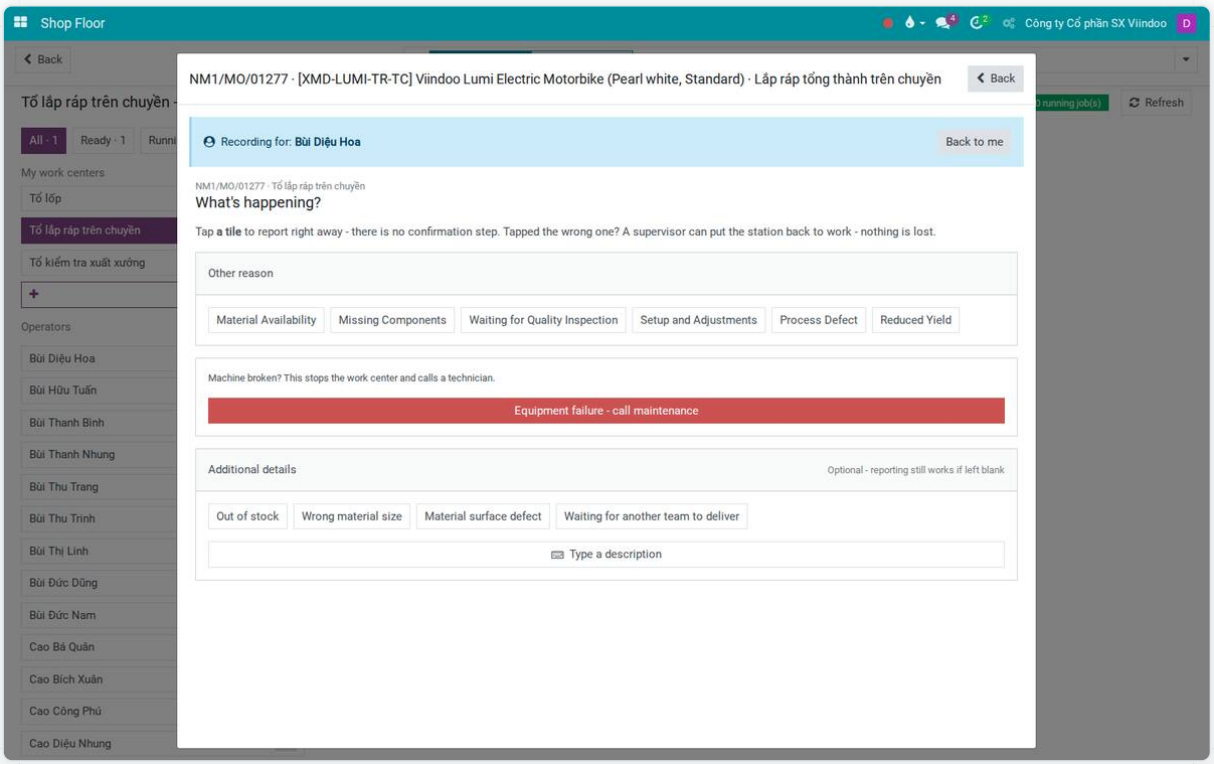
What you should see: a green **Running** label and the minute:second timer counting, the button **On behalf**, the strip "Recording for: Bùi Diệu Hoa" still there; the blocks **Output** (0.00 / 1.00 Units with **Record output**), **Materials**, **Call maintenance (machine keeps running)** and **Instructions** (the operation's instruction note, with **View drawing full screen**); the buttons **Record scrap** and **Record materials used**; and at the bottom **Pause**, **Stop machine** and **Finish operation**. The manufacturing order changes to **In Progress**.

> If you pause the operation, the button **Pause** changes to **Resume**; choose **On behalf** again if the next person is different.

Step 7 - Report a machine stop with a reason

Click **Stop machine**.

> *Path:* `Shop Floor` > operation card > **Stop machine**

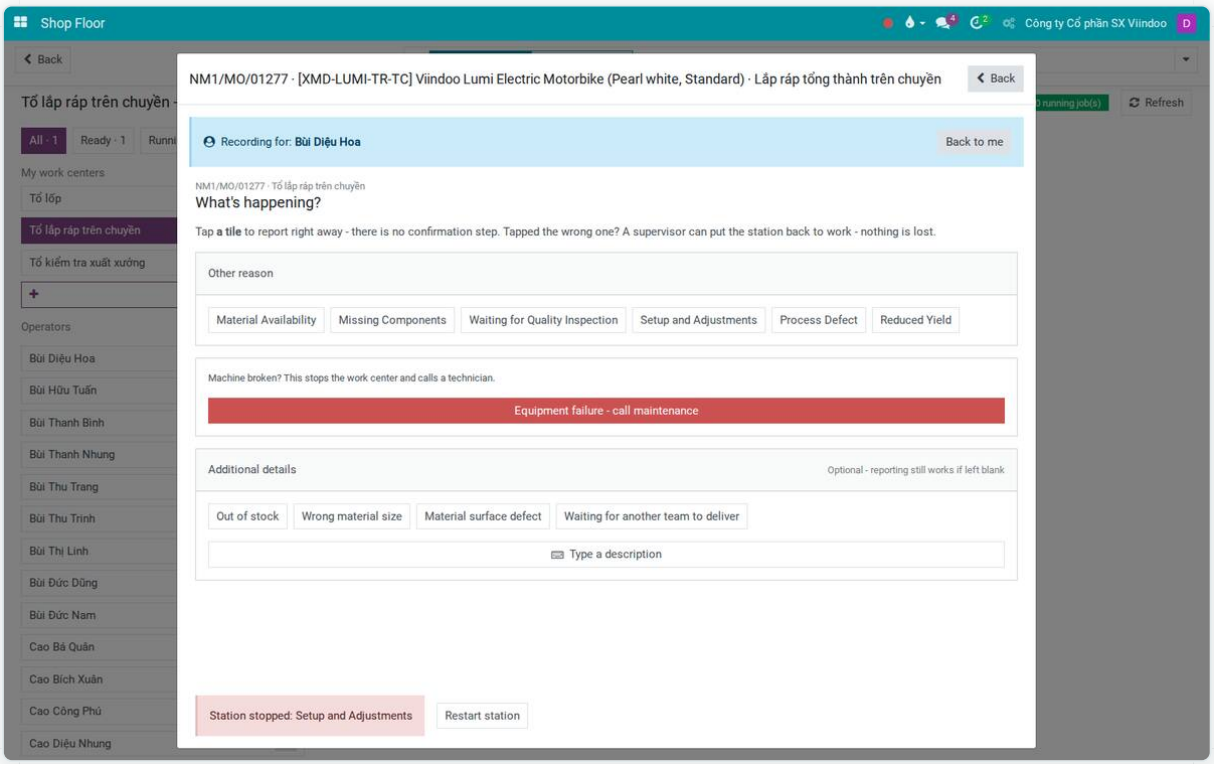


What you should see: the box **What's happening?** with the line "Tap a tile to report right away - there is no confirmation step. Tapped the wrong one? A supervisor can put the station back to work - nothing is lost."; the block **Other reason** with six tiles **Material Availability**, **Missing Components**, **Waiting for Quality Inspection**, **Setup and Adjustments**, **Process Defect**, **Reduced Yield**; a red button **Equipment failure - call maintenance** (see Part X. Equipment maintenance); and an optional block **Additional details** with the tiles **Out of stock**, **Wrong material size**, **Material surface defect**, **Waiting for another team to deliver** and **Type a description**.

Step 8 - Choose the stop reason

Tap **Setup and Adjustments**.

> *Path:* `Shop Floor` > operation card > **Stop machine**



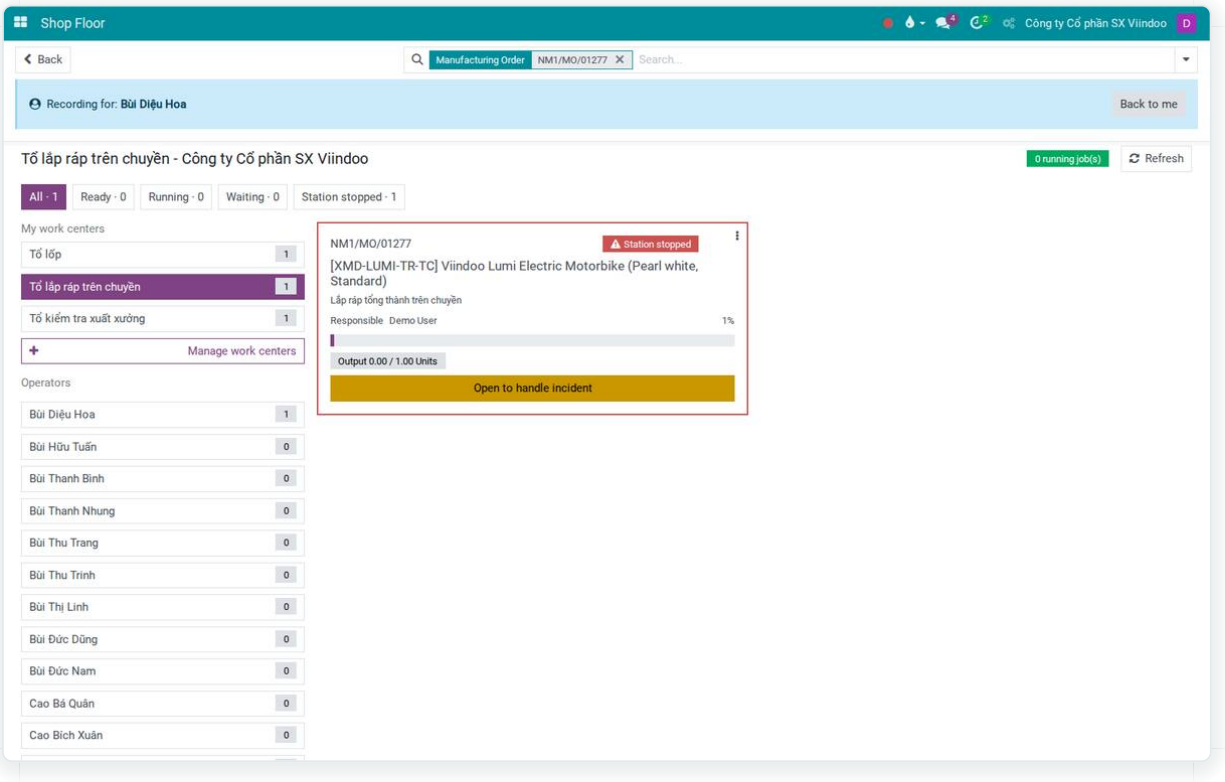
What you should see: a red strip at the bottom "Station stopped: Setup and Adjustments" and the button **Restart station**. The whole work center switches to stopped, not just this order.

> **Note for team leaders:** reporting a station stop stops every operation running at that station, including those of other orders. Their timers stop too and they switch to paused; when the station restarts, the person doing each operation must resume it. Before reporting a stop, look at the **Running** filter button of the station to see who will be affected. The stop time is counted by the working calendar of the station (Giờ hành chính 40 giờ/ tuần): a stop outside working hours, for example on Saturday, records 0 minutes of loss.

Step 9 - See the work board while the station is stopped

Click **Back** to leave to the team's work board.

> *Path:* `Shop Floor` > Tổ lắp ráp trên chuyền

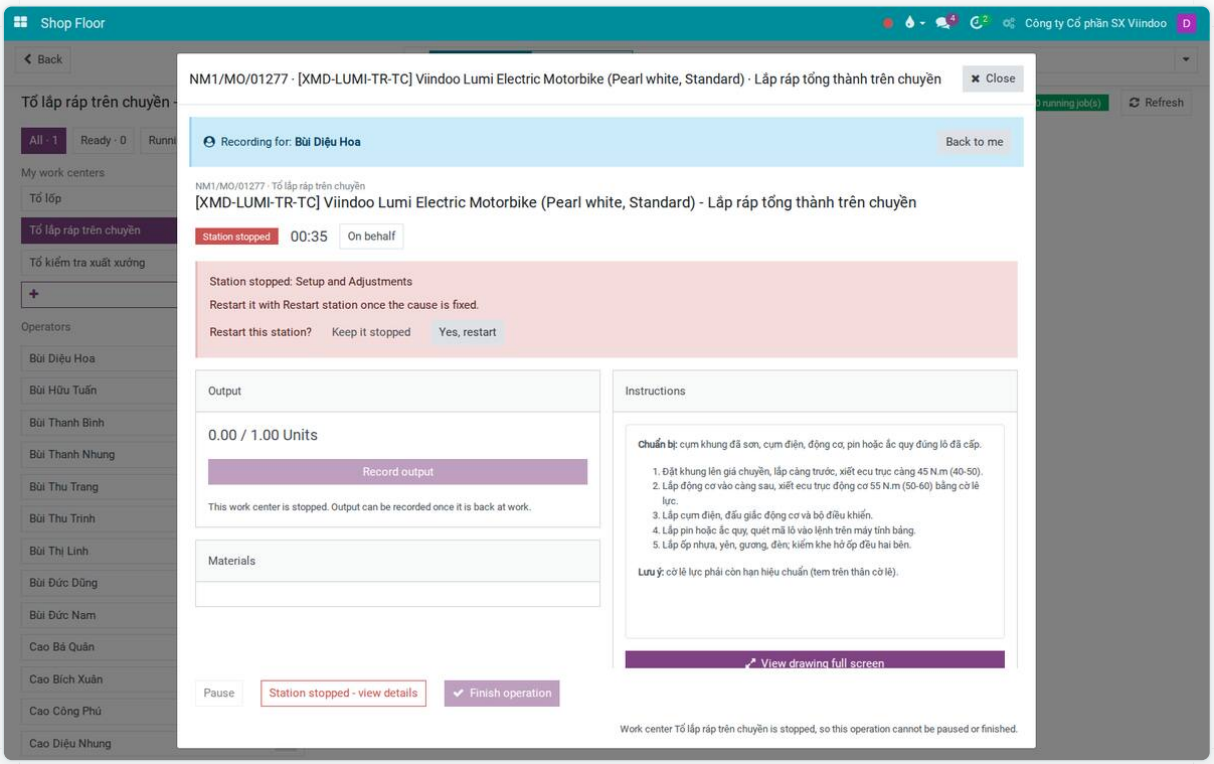


What you should see: the filter button **Station stopped · 1**; the card has a red **Station stopped** label and a yellow button **Open to handle incident**. The blue strip "Recording for: Bùi Diệu Hoa" is still shown at the top of the board with its **Back to me** button. The workshop manager looking at this board knows at once which team is standing still.

Step 10 - Restart the station

Click **Open to handle incident**, then click **Yes, restart**.

> *Path:* `Shop Floor` > operation card > **Open to handle incident**

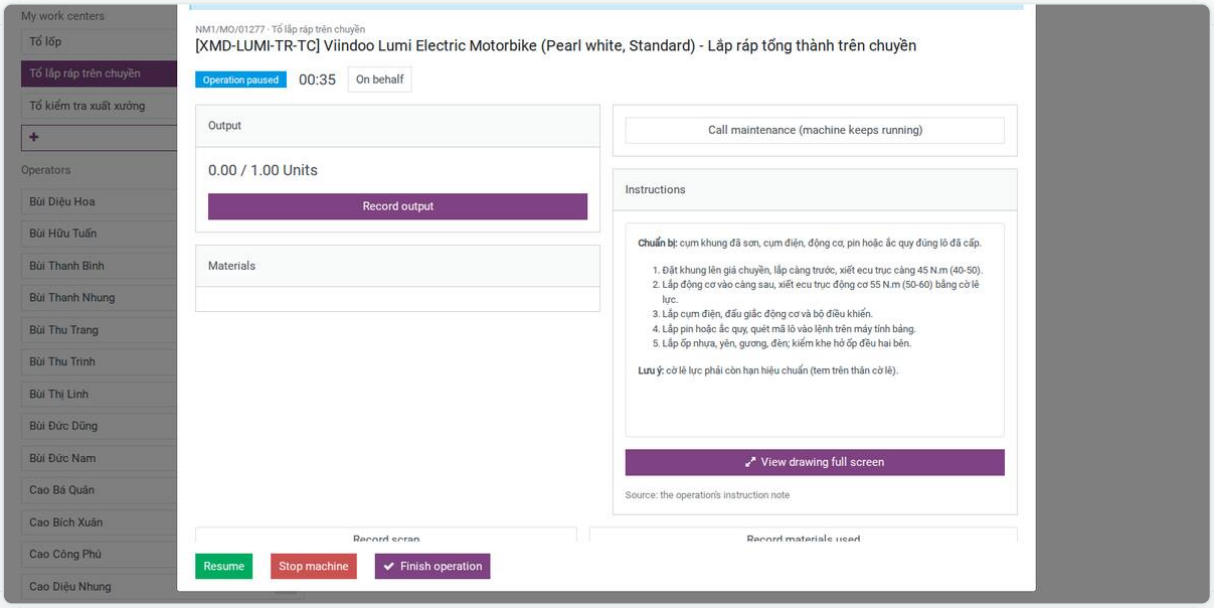


What you should see: a red frame "Station stopped: Setup and Adjustments" with the line "Restart it with Restart station once the cause is fixed.", the question **Restart this station?** and two buttons **Keep it stopped** and **Yes, restart**. While the station is stopped, **Record output**, **Pause** and **Finish operation** are all locked ("Work center Tổ lắp ráp trên chuyền is stopped, so this operation cannot be paused or finished."), and the operation label reads **Station stopped**. Restarting a station is the manager's job; a worker who tapped the wrong tile loses no data.

Step 11 - Confirm the restart

Click **Yes, restart**.

> *Path:* `Shop Floor` > operation card

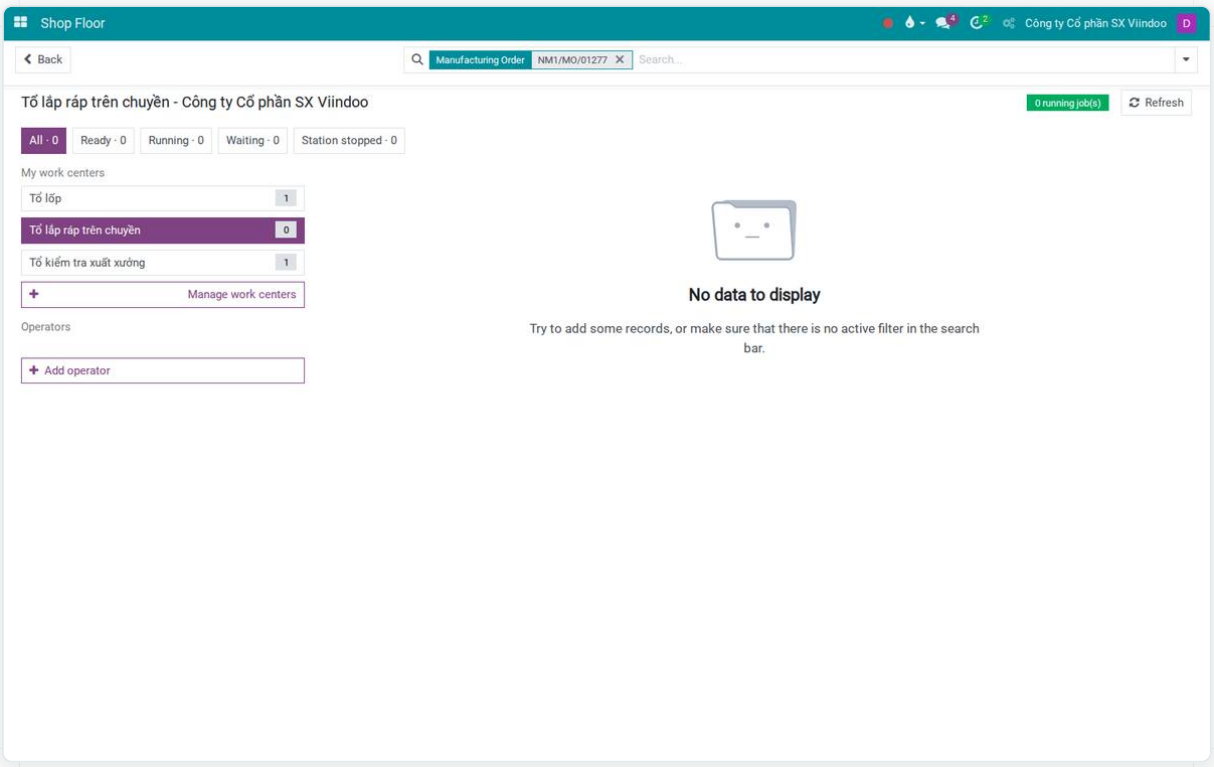


What you should see: the red frame disappears; the operation label reads **Operation paused**, and the buttons **Resume**, **Stop machine** and **Finish operation** work again. Click **Resume** (choose **On behalf** again if needed) so that the worker carries on.

Step 12 - Finish the assembly operation

When the team is done, click **Finish operation**.

> *Path:* `Shop Floor` > Tổ lắp ráp trên chuyền

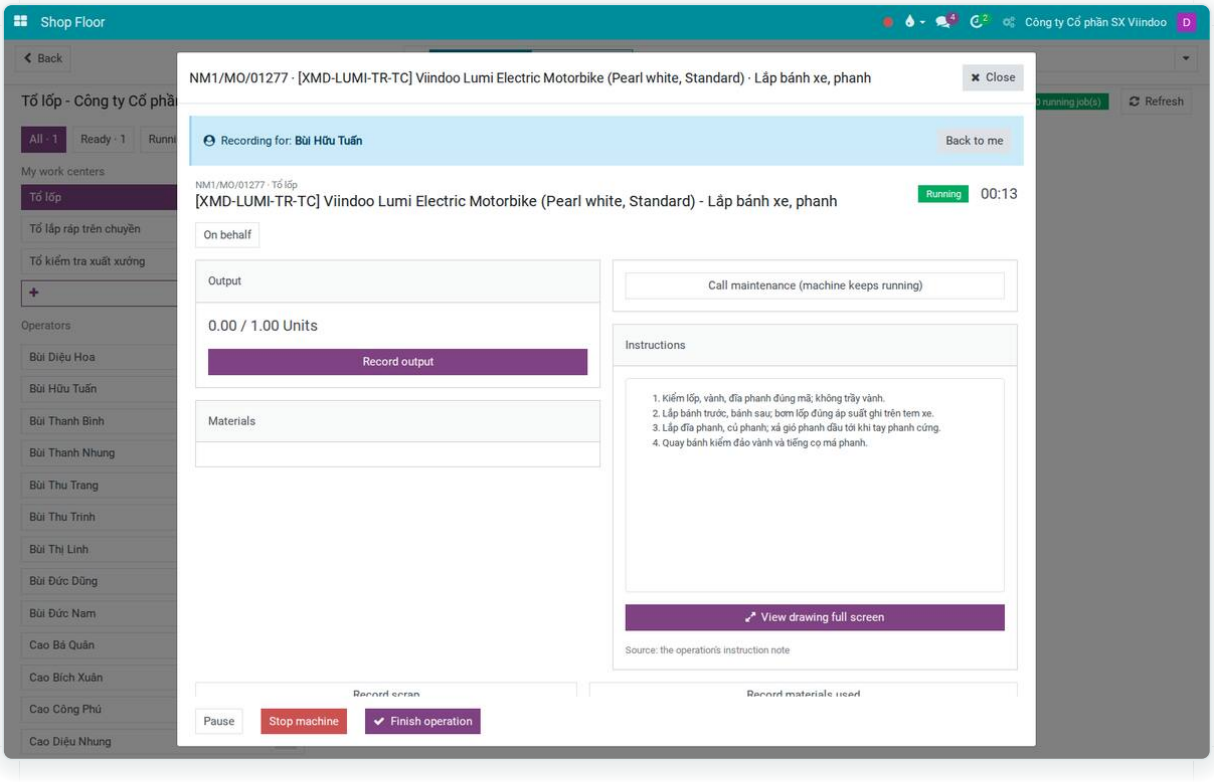


What you should see: the operation panel closes; the board of Tổ lắp ráp trên chuyền no longer has the order's card (**All · 0** and "No data to display" while filtered by the order), and the next operation shows one card at Tổ lốp. The operation **Lắp bánh xe, phanh** of Tổ lốp changes to **Ready**.

Step 13 - Run the second operation at Tổ lốp

Select **Tổ lốp** (Tire team) in the left column, find the order, click **Open & start**, choose **On behalf** for a worker (for example **Bùi Hữu Tuấn**). When done, click **Finish operation**.

> *Path:* `Shop Floor` > Tổ lốp



What you should see: "Recording for: Bùi Hữu Tuấn", the **Running** label, the operation name "Lắp bánh xe, phanh". From the moment you choose the worker, the operation time is credited to that worker. After it is finished, the final inspection operation changes to **Ready**.

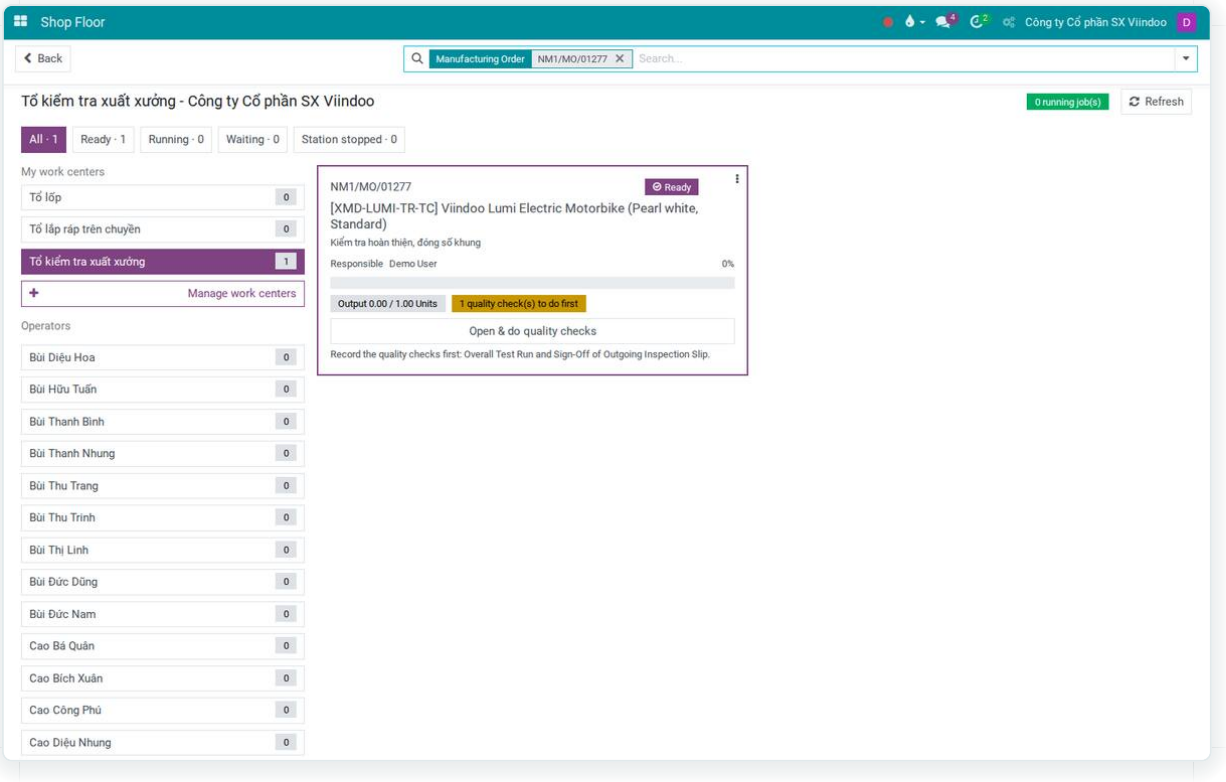
45 QUALITY CHECKS ON THE LINE, RECORDING CONSUMPTION, ASSIGNING THE CHASSIS NUMBER AND CLOSING THE ORDER

About 15 minutes. By the end of this lesson the vehicle has passed the in-process check, the components actually used have been recorded, the chassis number has been assigned, the vehicle has passed the finished product checks and entered stock. Your company will also see for itself how the system blocks when the checks have not been done.

Step 1 - Open the final inspection operation

Select **Tổ kiểm tra xuất xưởng** (Outgoing inspection team) in the left column and find the order.

> *Path:* `Shop Floor` > Tổ kiểm tra xuất xưởng

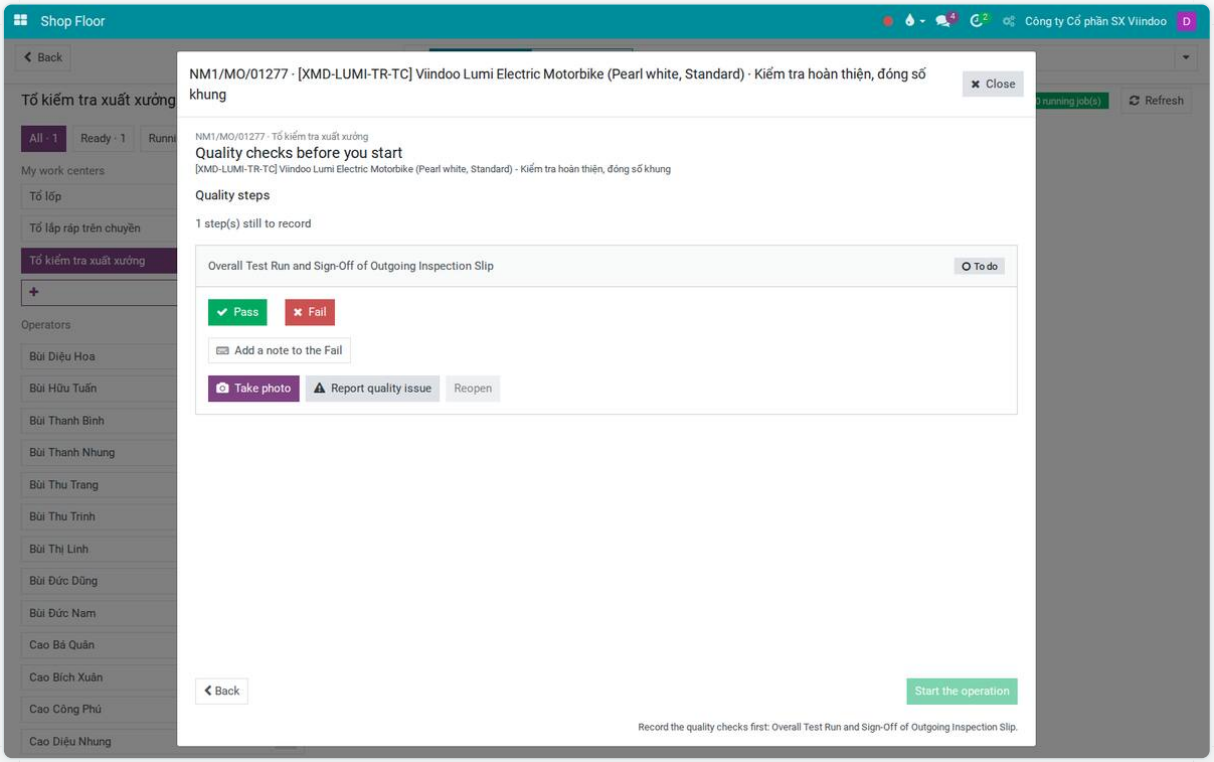


What you should see: the card of the operation "Kiểm tra hoàn thiện, đóng số khung" (Final inspection and chassis number stamping) is labeled **Ready** and has a yellow label **1 quality check(s) to do first**, the button reads **Open & do quality checks**, and the line below reads "Record the quality checks first: Overall Test Run and Sign-Off of Outgoing Inspection Slip."

Step 2 - Try to start before the check is done

Click **Open & do quality checks**.

> *Path:* `Shop Floor` > operation card > **Open & do quality checks**

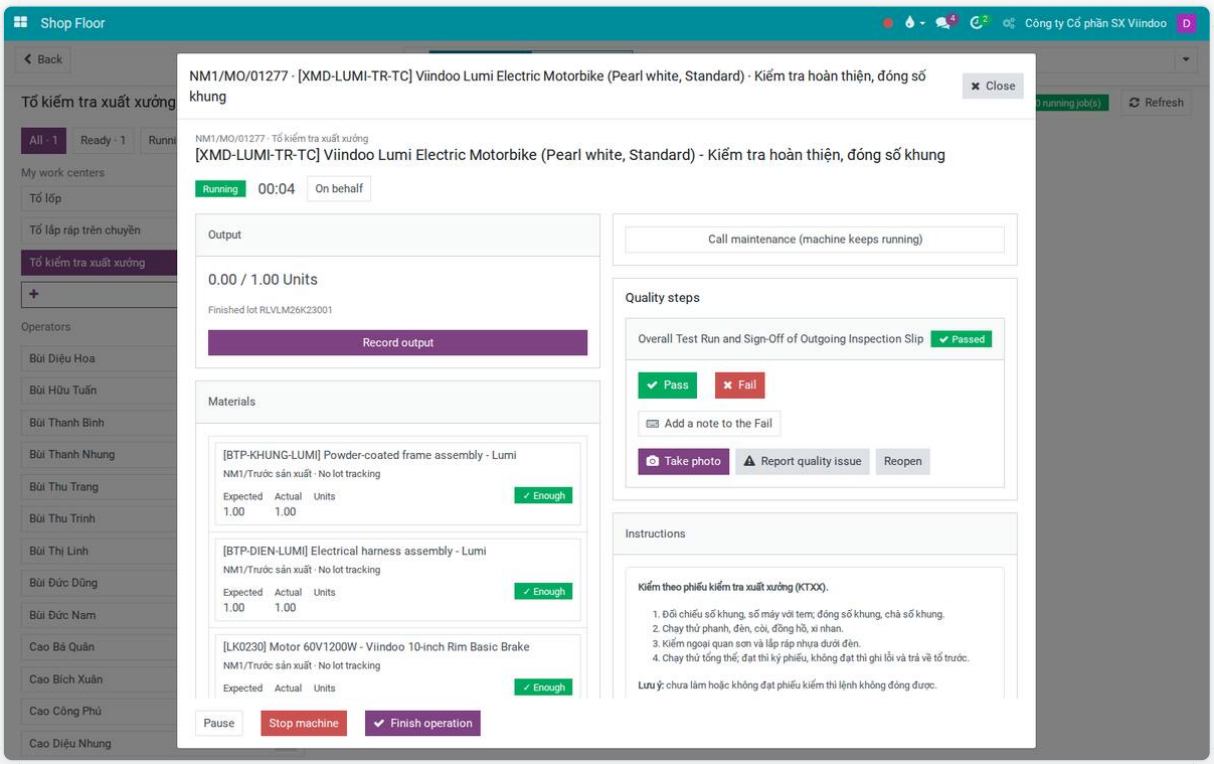


What you should see: the screen **Quality checks before you start** with the block **Quality steps**, "1 step(s) still to record", and the step **Overall Test Run and Sign-Off of Outgoing Inspection Slip** with the label **To do** and the buttons **Pass**, **Fail**, **Add a note to the Fail**, **Take photo**, **Report quality issue** and **Reopen** (dimmed). The button **Start the operation** is dimmed and cannot be clicked: no check, no work.

Step 3 - Record Pass and start the operation

Click **Pass**, then click **Start the operation**.

> *Path:* `Shop Floor` > operation card

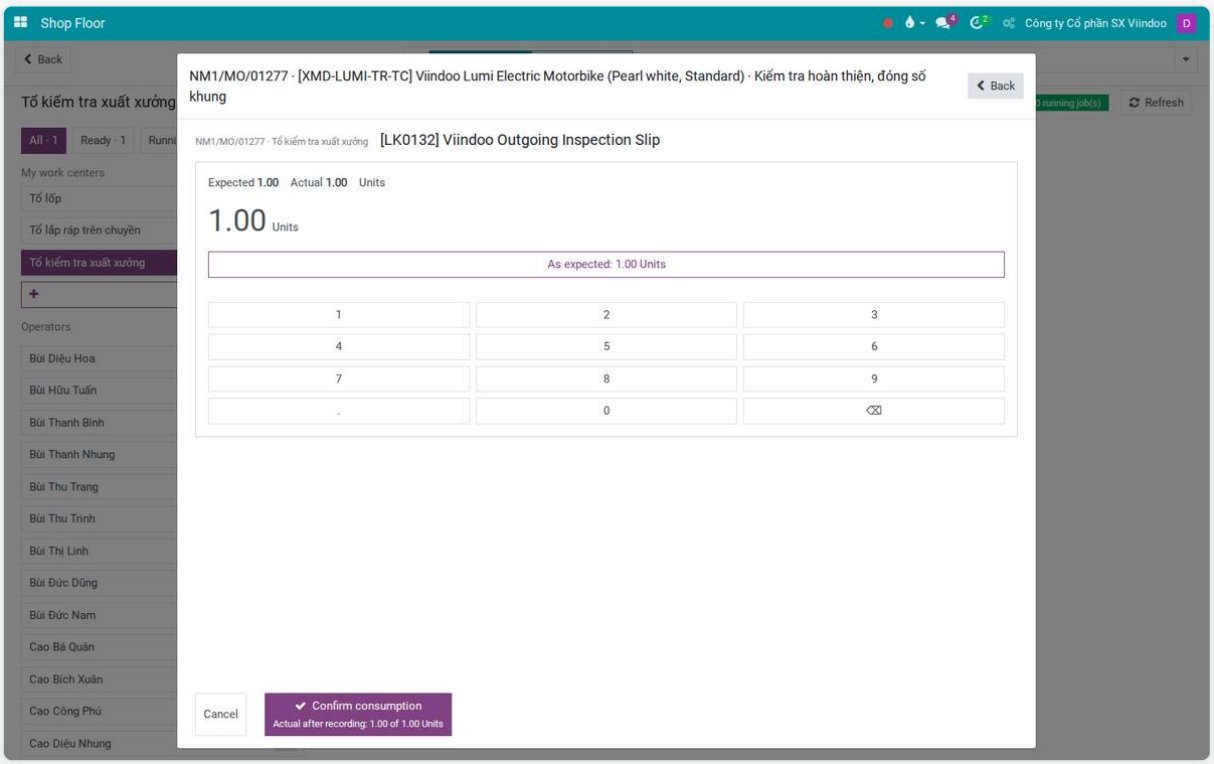


What you should see: the operation is **Running**; the block **Output** shows 0.00 / 1.00 Units with "Finished lot" and the lot number (the chassis number once it has been assigned, see Step 5) and **Record output**; the block **Materials** lists the order's components with **Expected**, **Actual**, the unit and the label ✓ **Enough**; the **Quality steps** block on the right shows the check as **Passed**; the buttons at the bottom are **Pause**, **Stop machine** and **Finish operation**. If a component has no recorded quantity yet, a yellow label ▲ **1 material(s) still short** appears, **Finish operation** is dimmed and the last line reads "1 material(s) still need a recorded quantity (enter 0 if none was used): [LK0132] Viindoo Outgoing Inspection Slip". If you had clicked **Fail** in the previous step, the system would record a failed check and still block, because the control point has **No Proceed if Failed**.

Step 4 - Record the consumption of a missing component

Scroll the **Materials** block to the line **[LK0132] Viindoo Outgoing Inspection Slip** and tap that line. Tap **As expected: 1.00 Units** (or type the quantity actually used on the numeric keypad), then click **Confirm consumption**.

> *Path:* `Shop Floor` > operation card > **Materials** block

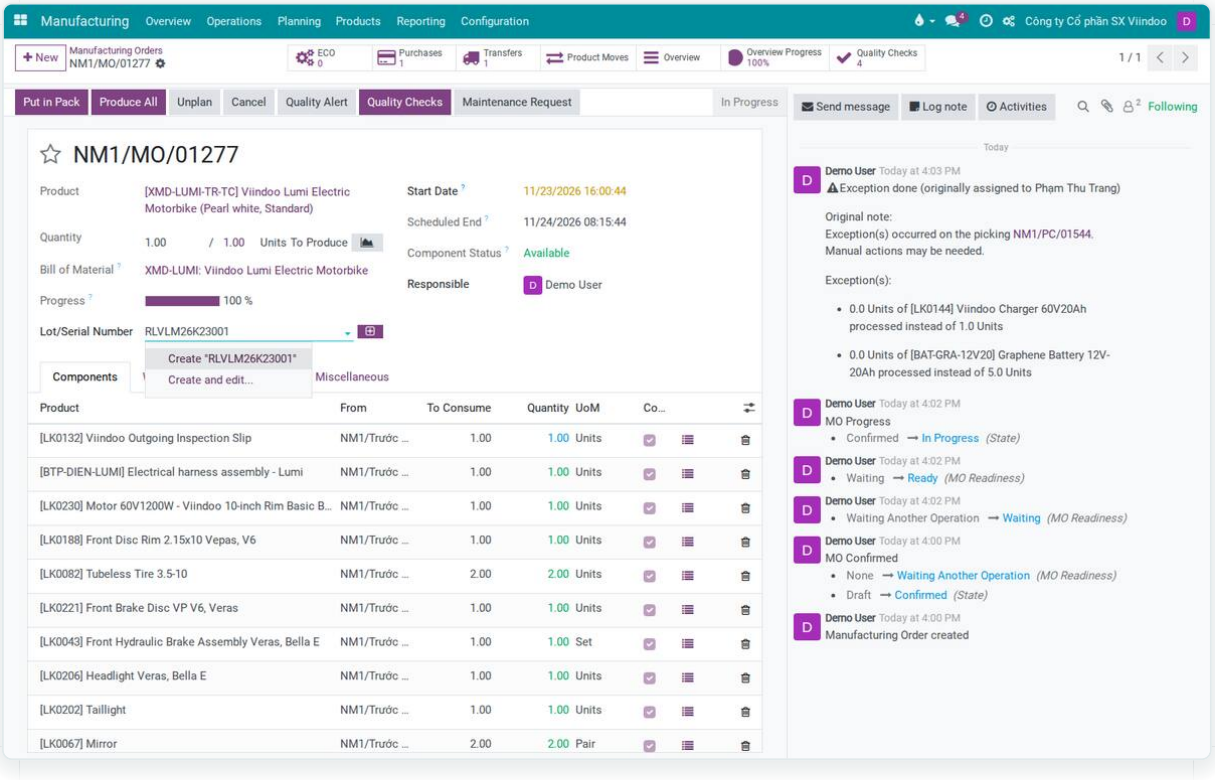


What you should see: the consumption screen for the component with **Expected** 1.00 and **Actual** (the quantity recorded so far), a large figure being entered, the button **As expected: 1.00 Units**, the keypad, and at the bottom **Cancel** and **Confirm consumption** with the line "Actual after recording: 1.00 of 1.00 Units". After you confirm, the screen **Record material consumption** lists every component with the label ✓ **Enough**; click **Back to operation** to return. The button **Record materials used** in the operation panel opens the same screen, together with **Add a component outside the bill of materials** for when you have to use an extra component that is not on the bill of materials. For a component that was used and spoiled, click **Record scrap** (see the lesson "When reality departs from the plan").

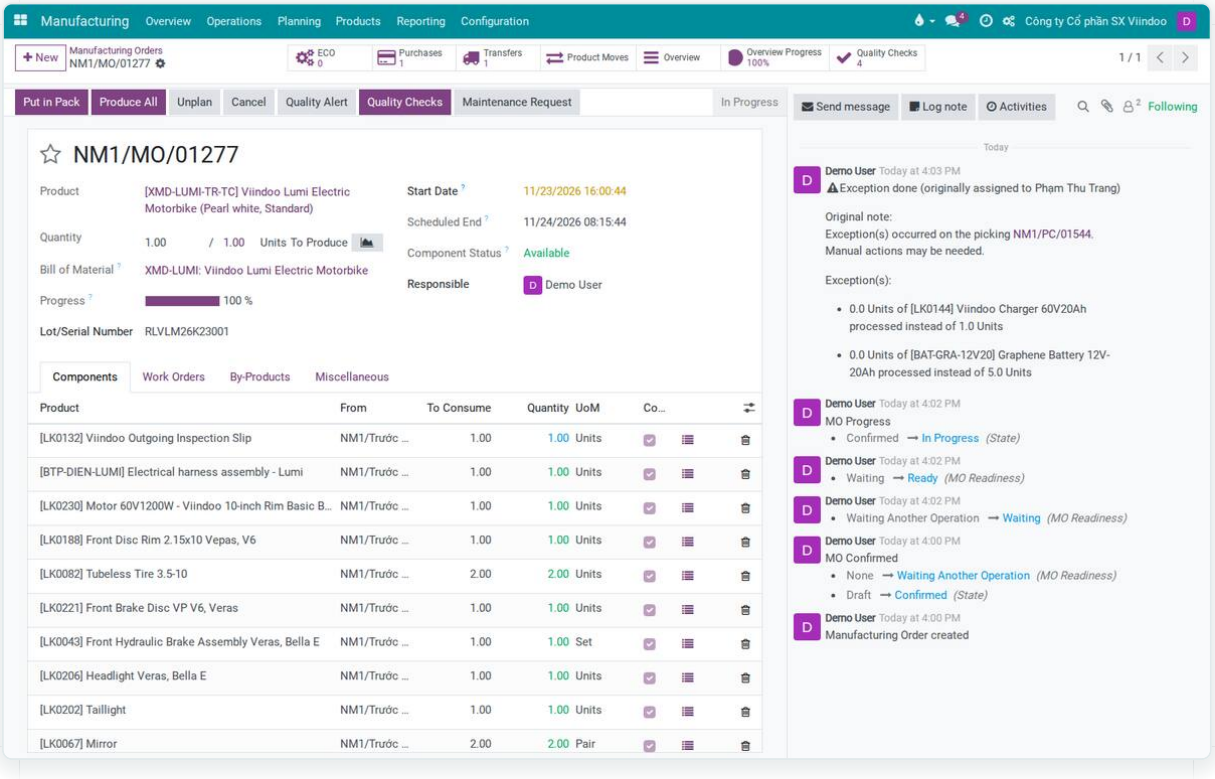
Step 5 - Type the chassis number as the serial number of the vehicle

On the office computer or at the team, open the manufacturing order, type the chassis number stamped on the vehicle in the **Lot/Serial Number** field (for example `RLVLM26K23001`), choose **Create "RLVLM26K23001"** and click the save icon.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order



What you should see: the suggestion list has **Create "RLVLM26K23001"** and **Create and edit...**. After saving:



the **Lot/Serial Number** field shows RLVLM26K23001 and **Progress** shows the percentage reached. The shop floor screen has no field for typing a serial number, only **Auto-generate lot** (a sequential number such as 0000003) or choosing an existing number; chassis and engine

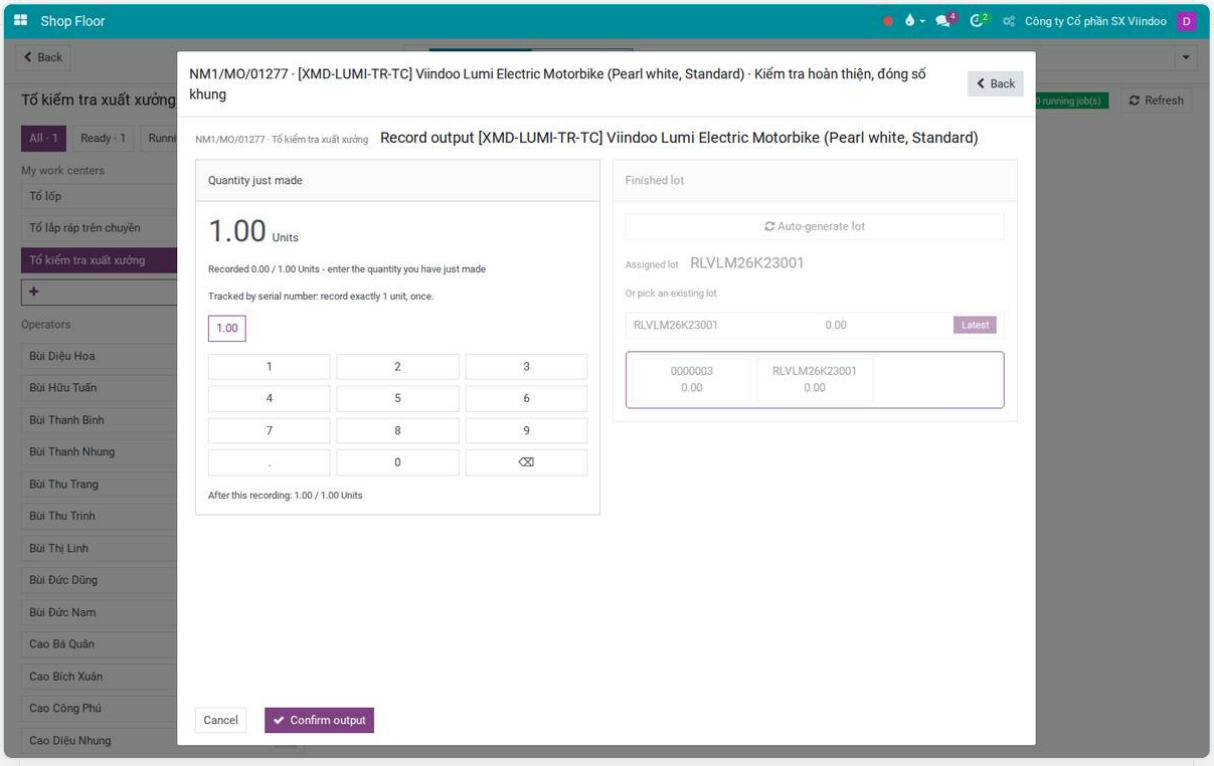
numbers follow the factory's own convention, so type them on the order as in this step, **before** recording the finished product.

> **Assign the chassis number before recording the finished product.** In the test run, **Auto-generate lot** was clicked first and the number was changed to the chassis number afterwards: the 3 finished product checks still carried the old automatic number (0000003) while the vehicle received into stock carried the new chassis number. Keep this in mind when operating (see the table of problems at the end of the handbook).
>
> Engine number: for the Premium version vehicles (Aura, Lumi), the hub motor and the lithium battery are managed by lot; the motor and battery lot numbers are recorded on the component line of the order and can be traced from the chassis number (lesson "Actual hours, cost and journal entries when the order is completed", traceability step). Standard version vehicles use a motor that is not managed by lot, and the engine number is matched at the check OQC-01.

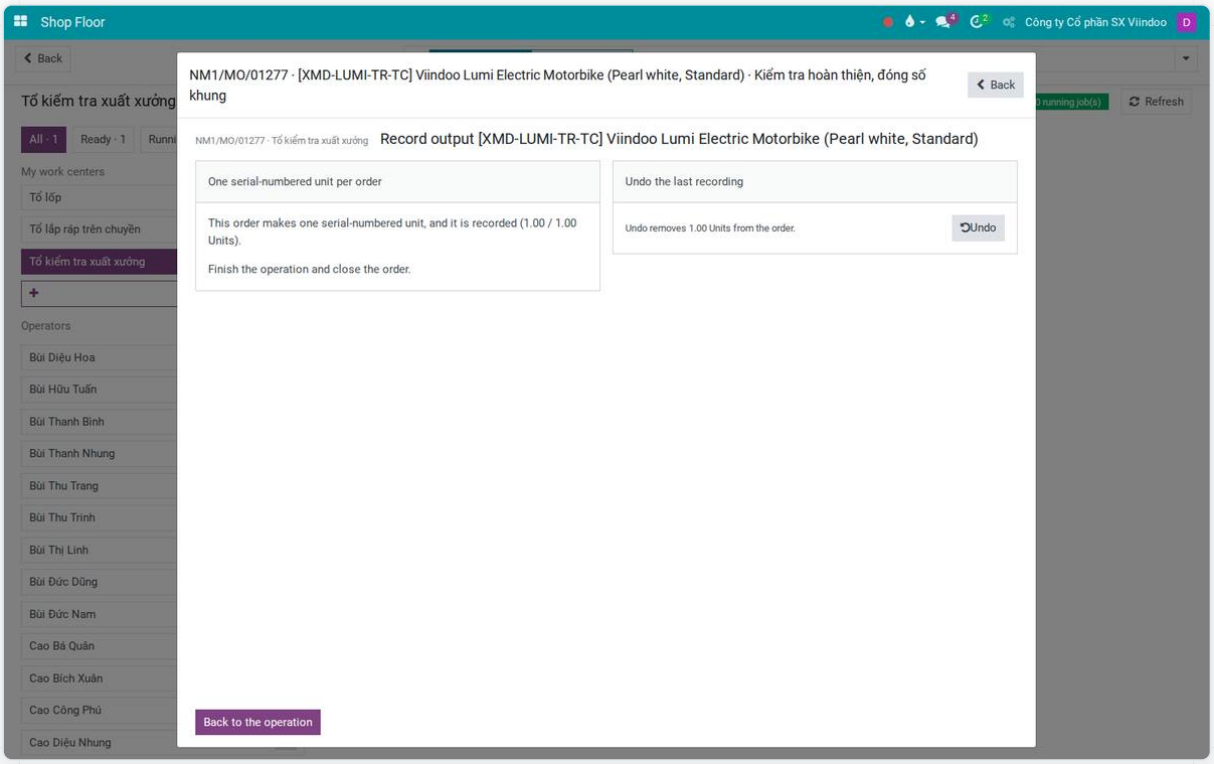
Step 6 - Record the finished product on the shop floor

Go back to the shop floor screen, open the operation again (**Continue operation**) and click **Record output**. Tap **1.00** to enter the quantity just made, check that **Assigned lot** is the chassis number, then click **Confirm output**.

> *Path:* `Shop Floor` > Tổ kiểm tra xuất xưởng > operation card > **Record output**



What you should see: the screen **Record output** with the panel **Quantity just made** (1.00 Units, "Recorded 0.00 / 1.00 Units - enter the quantity you have just made", "Tracked by serial number: record exactly 1 unit, once." and "After this recording: 1.00 / 1.00 Units") and the panel **Finished lot** with the button **Auto-generate lot**, **Assigned lot** RLVLM26K23001 and the list "Or pick an existing lot"; at the bottom **Cancel** and **Confirm output**. After you confirm:



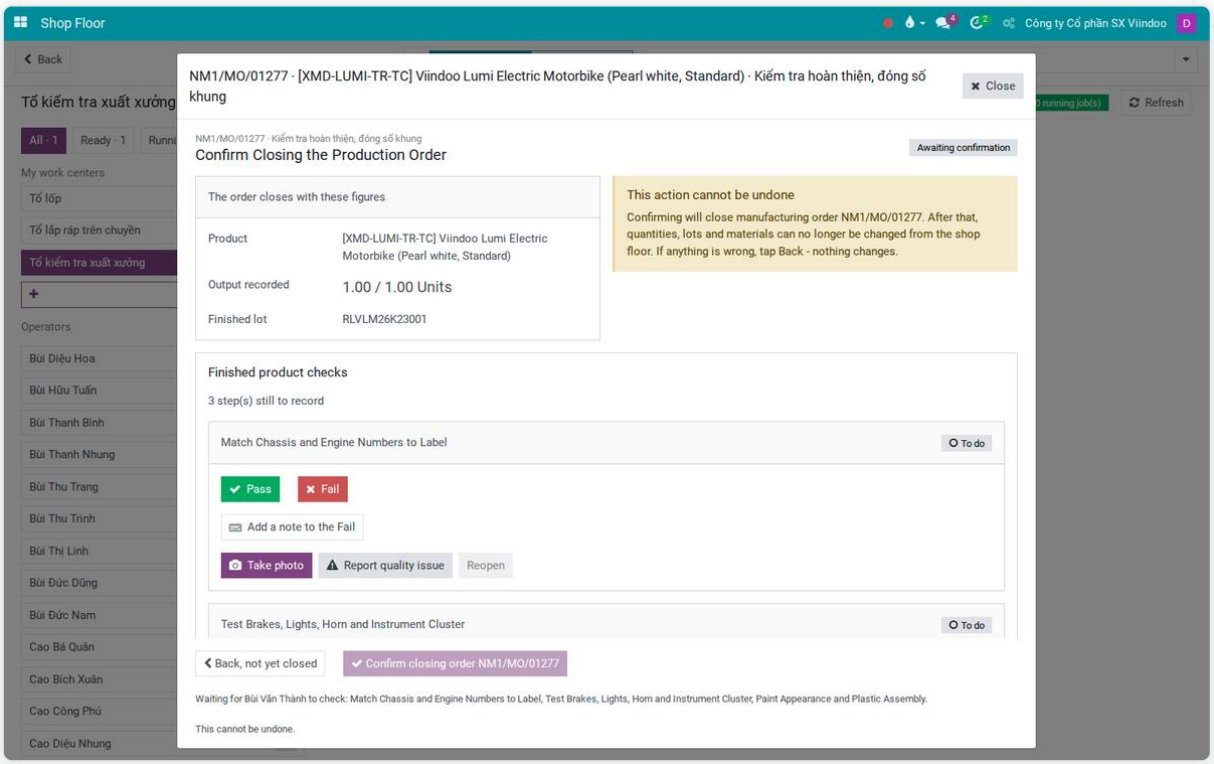
the screen shows the panel **One serial-numbered unit per order** ("This order makes one serial-numbered unit, and it is recorded (1.00 / 1.00 Units). Finish the operation and close the order.") and the panel **Undo the last recording** with an **Undo** button ("Undo removes 1.00 Units from the order."), used when you record by mistake while the order is still open. Click **Back to the operation**.

Step 7 - Finish the last operation

> *Path:* still on the screen of the previous step (`Manufacturing > Operations > Manufacturing Orders`)

Click **Finish operation**.

> *Path:* `Shop Floor` > operation card

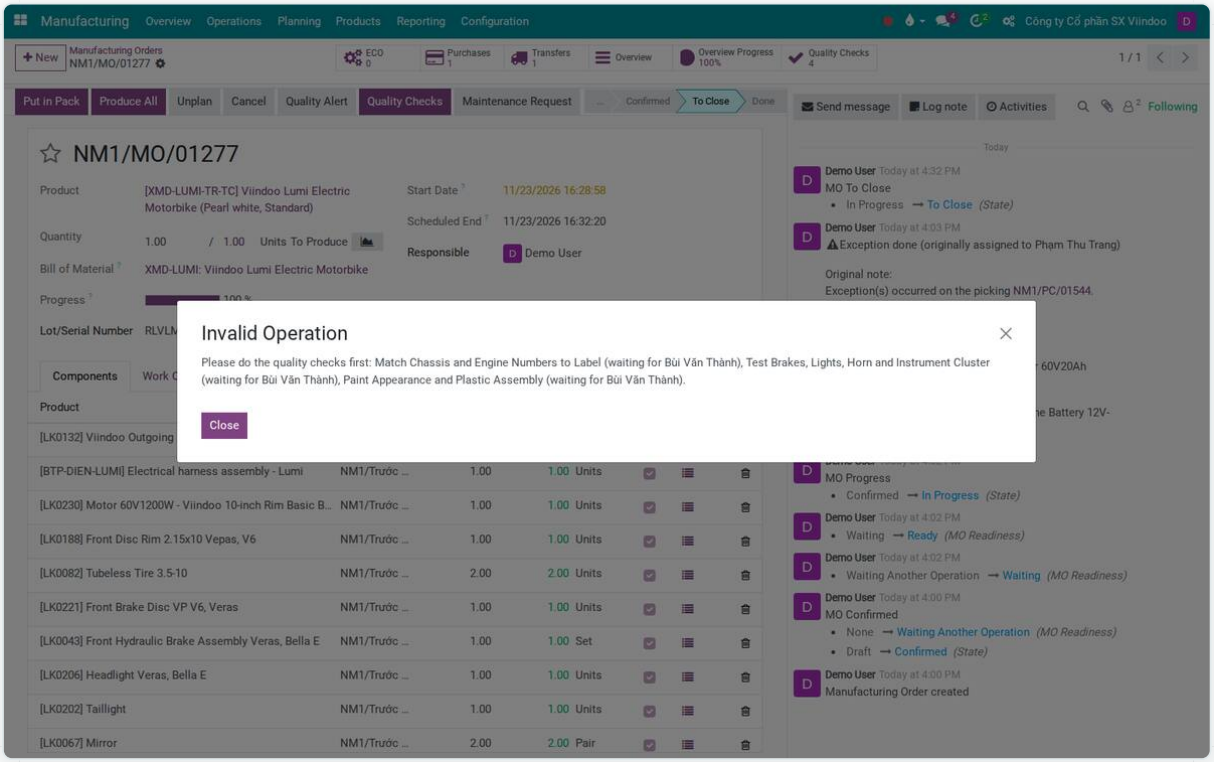


What you should see: the screen **Confirm Closing the Production Order** with the label **Awaiting confirmation**, the panel **The order closes with these figures** (**Product**, **Output recorded** 1.00 / 1.00 Units, **Finished lot** RLVLM26K23001), the warning **This action cannot be undone** ("Confirming will close manufacturing order NM1/MO/01277. After that, quantities, lots and materials can no longer be changed from the shop floor. If anything is wrong, tap Back - nothing changes."), and the block **Finished product checks** "3 step(s) still to record": **Match Chassis and Engine Numbers to Label**, **Test Brakes, Lights, Horn and Instrument Cluster**, **Paint Appearance and Plastic Assembly**, each with the label **To do**. The button **Confirm closing order NM1/MO/01277** is dimmed, next to **Back, not yet closed**, and the last line says it is waiting for Bùi Văn Thành to check. The manufacturing order is now in the state **To Close**.

Step 8 - Try to close the order before the finished product is checked

To see the system block for yourself, open the order on the computer and click **Produce All**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order > **Produce All**

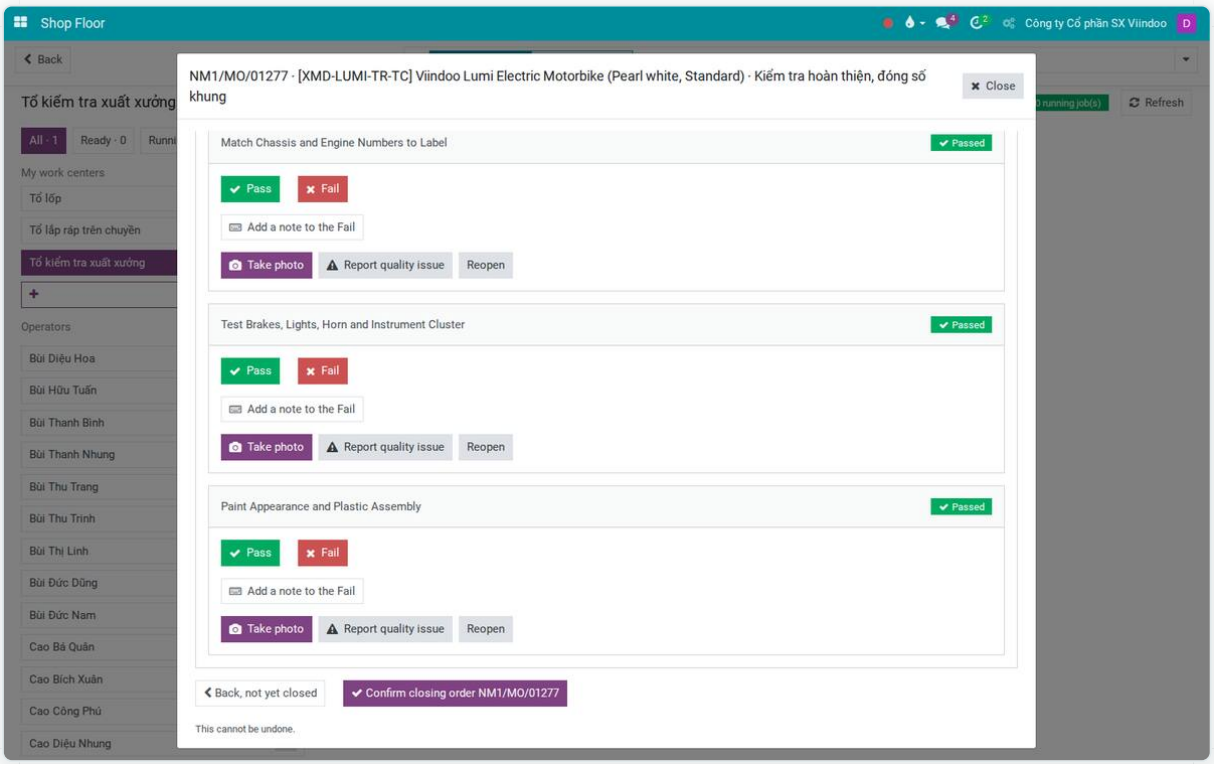


What you should see: the box **Invalid Operation**: "Please do the quality checks first: Match Chassis and Engine Numbers to Label (waiting for Bùi Văn Thành), Test Brakes, Lights, Horn and Instrument Cluster (waiting for Bùi Văn Thành), Paint Appearance and Plastic Assembly (waiting for Bùi Văn Thành)." The order stays in **To Close** and nothing has entered stock. Click **Close**.

Step 9 - Check the finished product

Go back to the shop floor screen; on the order card (label **Waiting to be closed**) click **Close the order**. Click **Pass** for all three checks.

> *Path:* `Shop Floor` > Tổ kiểm tra xuất xưởng > order card > **Close the order**

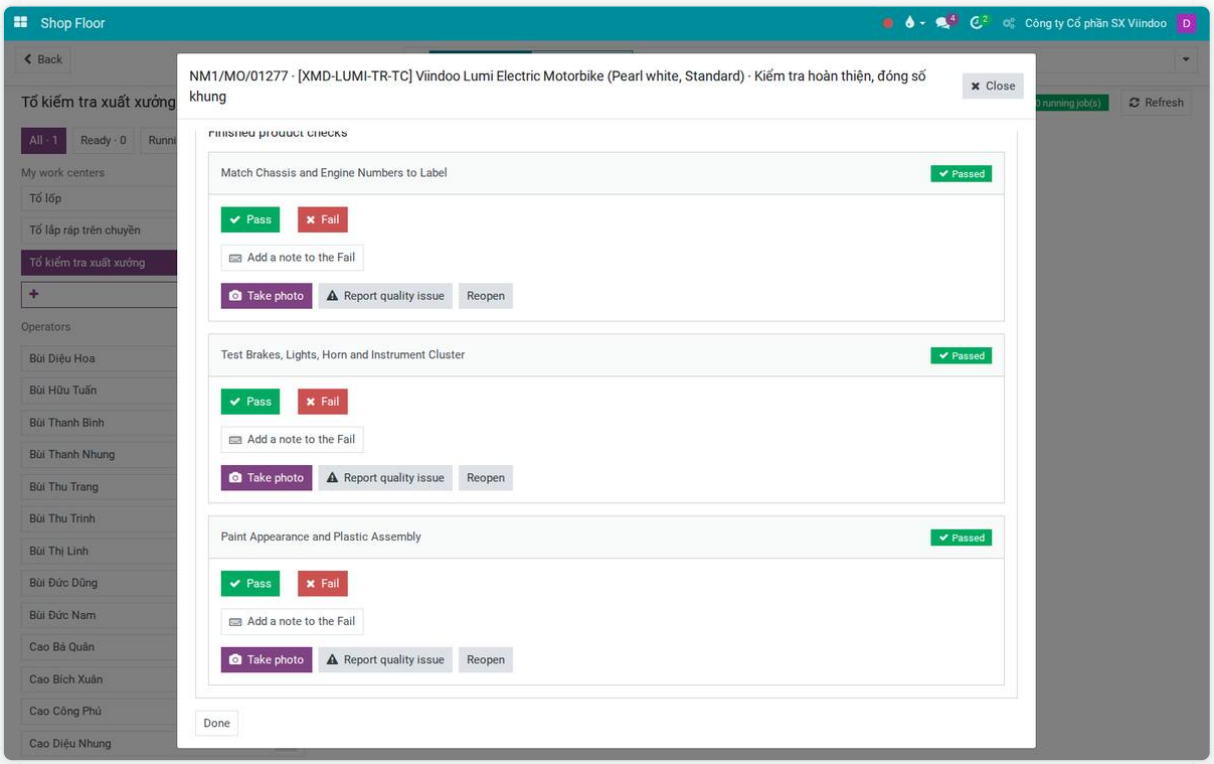


What you should see: each step has a green label **Passed**; the button **Confirm closing order NM1/MO/01277** can now be clicked, with the line "This cannot be undone." underneath. If a step is **Fail**, the button stays locked, because the finished product control points all have **No Proceed if Failed**; the vehicle must be repaired and checked again (click **Reopen** on that step), or raise a quality alert with **Report quality issue**.

Step 10 - Confirm closing the order

Click **Confirm closing order NM1/MO/01277** (your company's order number).

> *Path:* `Shop Floor` > order card > **Close the order**

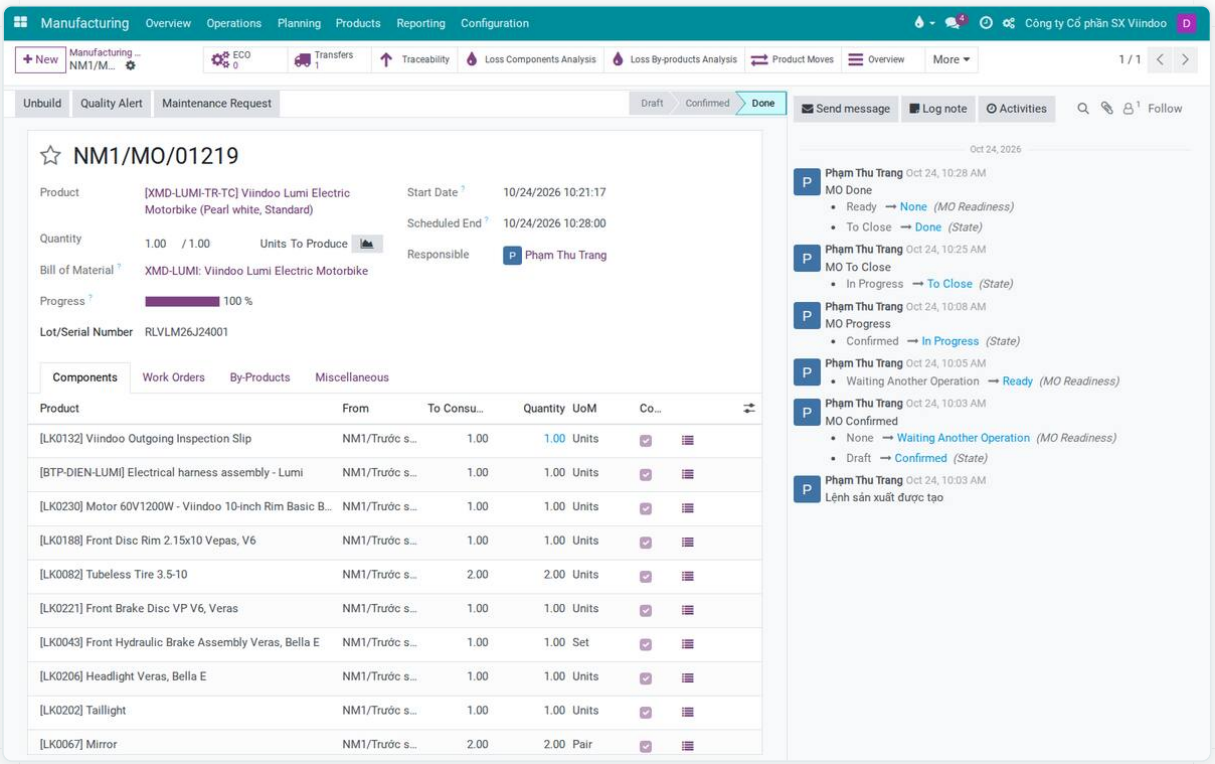


What you should see: the three finished product checks stay listed as **Passed** and only a **Done** button is left at the bottom; click it. The card leaves the team's board and the manufacturing order is **Done** with 1.00 Units produced.

Step 11 - See the completed order

Open the order again on the computer.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order



What you should see: the status bar is on **Done**; every component line has the **Consumed** box ticked; the smart button bar now also has **Traceability**, **Loss Components Analysis**, **Loss By-products Analysis**, **Product Moves**, **Overview**, and under **More** there are **Cost Analysis** and **Journal Entries**; the button **Unbuild** appears (used when you have to take the vehicle apart to recover components). The history lists the changes of state through Confirmed, In Progress, To Close and Done.

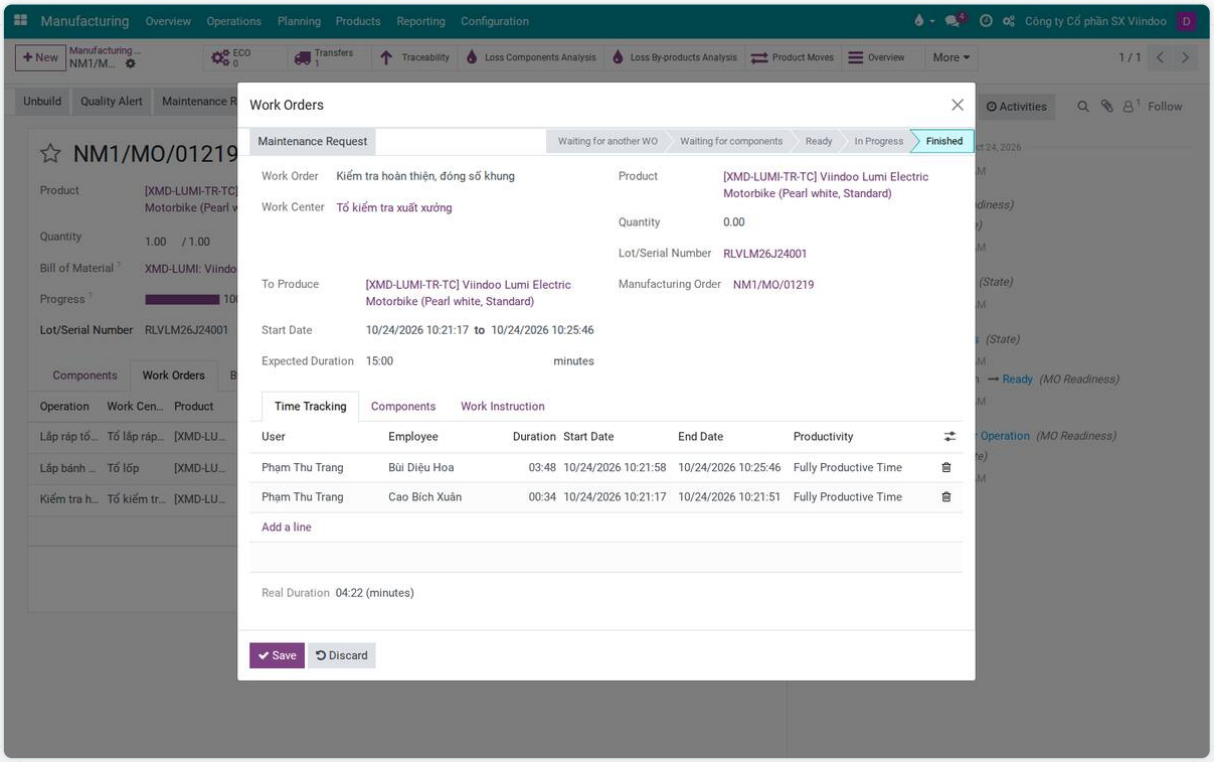
46 ACTUAL HOURS, COST AND JOURNAL ENTRIES WHEN THE ORDER IS COMPLETED

About 10 minutes. By the end of this lesson your company can read how many minutes the vehicle took at each team, what the cost consists of, and which journal entries accounting has posted. The lesson is for viewing only; nothing more is created.

Step 1 - See the actual hours of each operation

On the order, open the **Work Orders** tab, click the open icon at the end of the line **Kiểm tra hoàn thiện, đóng số khung** (Final inspection and chassis number stamping), and choose the tab **Time Tracking**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order > **Work Orders** tab > open an operation line



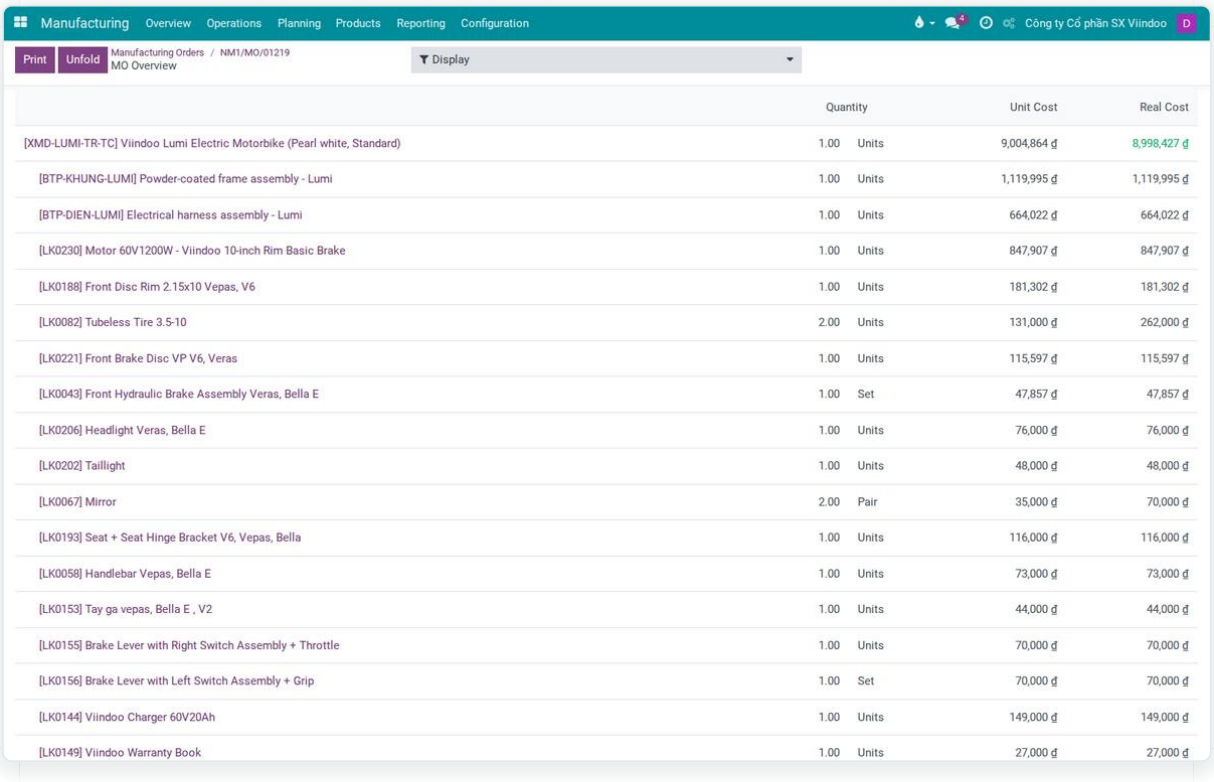
What you should see: the operation opens as the box **Work Orders** with its status bar (here **Finished**), the fields **Work Order**, **Work Center**, **Product**, **Quantity**, **Lot/Serial Number**, **Manufacturing Order**, **Start Date** and **Expected Duration**, and the tabs **Time Tracking**, **Components** and **Work Instruction**. In **Time Tracking**, each click of start - pause - finish is one line with **User**, **Employee**, **Duration**, **Start Date**, **End Date** and **Productivity** (for example "Fully Productive Time"), and the total **Real Duration** is shown below. The test-run order: the assembly operation 4 minutes, wheel fitting 1.05 minutes, inspection 4.37 minutes; a total of 9 minutes 25 seconds against 75 minutes expected (very quick because they were clicked as a trial). The workshop manager can edit a line or **Add a line** when a worker forgot to click; the hours here are the hours used to compute the cost.

> The **Work Orders** table on the order shows a duration of 3.9999 minutes as "03:60" because of display rounding; the number of minutes used for costing is still exactly 4 minutes.

Step 2 - See the order overview after completion

Click the smart button **Overview**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order > **Overview**



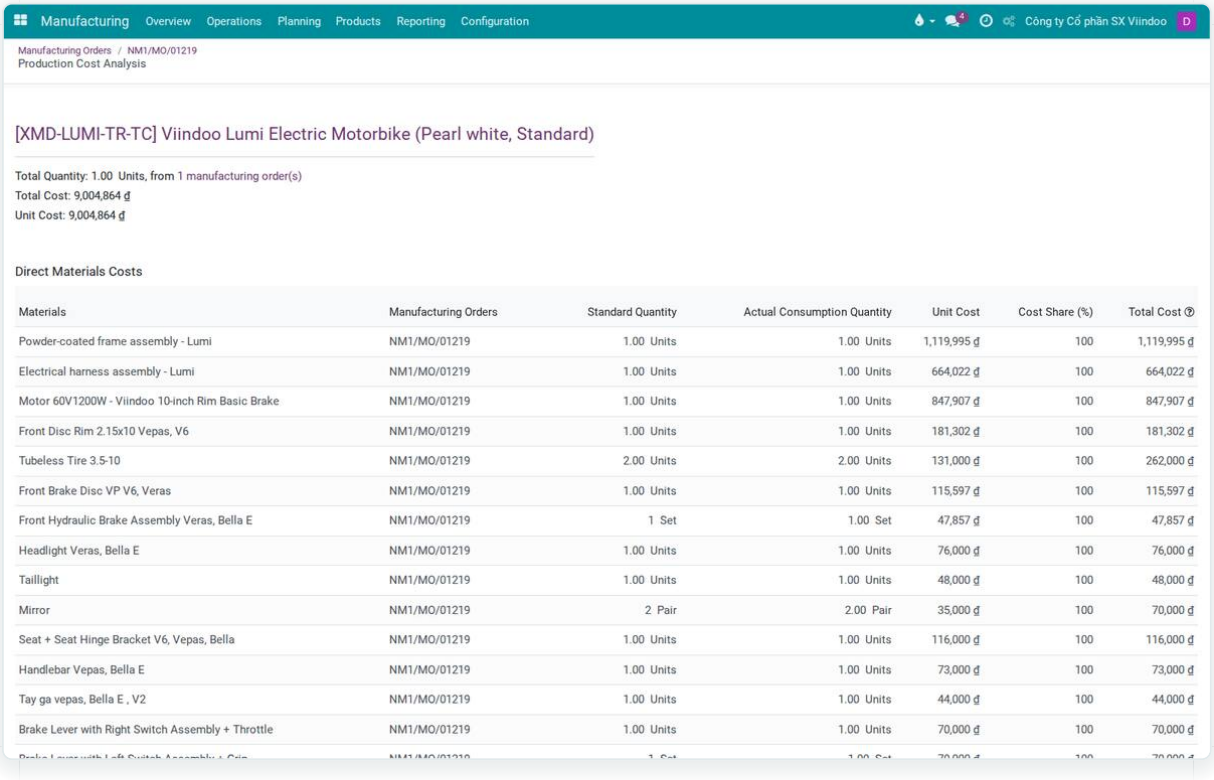
	Quantity		Unit Cost	Real Cost
[XMD-LUMI-TR-TC] Viindoo Lumi Electric Motorbike (Pearl white, Standard)	1.00	Units	9,004,864 ₫	8,998,427 ₫
[BTP-KHUNG-LUMI] Powder-coated frame assembly - Lumi	1.00	Units	1,119,995 ₫	1,119,995 ₫
[BTP-DIEN-LUMI] Electrical harness assembly - Lumi	1.00	Units	664,022 ₫	664,022 ₫
[LK0230] Motor 60V1200W - Viindoo 10-inch Rim Basic Brake	1.00	Units	847,907 ₫	847,907 ₫
[LK0188] Front Disc Rim 2.15x10 Vepas, V6	1.00	Units	181,302 ₫	181,302 ₫
[LK0082] Tubeless Tire 3.5-10	2.00	Units	131,000 ₫	262,000 ₫
[LK0221] Front Brake Disc VP V6, Veras	1.00	Units	115,597 ₫	115,597 ₫
[LK0043] Front Hydraulic Brake Assembly Veras, Bella E	1.00	Set	47,857 ₫	47,857 ₫
[LK0206] Headlight Veras, Bella E	1.00	Units	76,000 ₫	76,000 ₫
[LK0202] Taillight	1.00	Units	48,000 ₫	48,000 ₫
[LK0067] Mirror	2.00	Pair	35,000 ₫	70,000 ₫
[LK0193] Seat + Seat Hinge Bracket V6, Vepas, Bella	1.00	Units	116,000 ₫	116,000 ₫
[LK0058] Handlebar Vepas, Bella E	1.00	Units	73,000 ₫	73,000 ₫
[LK0153] Tay ga vepas, Bella E , V2	1.00	Units	44,000 ₫	44,000 ₫
[LK0155] Brake Lever with Right Switch Assembly + Throttle	1.00	Units	70,000 ₫	70,000 ₫
[LK0156] Brake Lever with Left Switch Assembly + Grip	1.00	Set	70,000 ₫	70,000 ₫
[LK0144] Viindoo Charger 60V20Ah	1.00	Units	149,000 ₫	149,000 ₫
[LK0149] Viindoo Warranty Book	1.00	Units	27,000 ₫	27,000 ₫

What you should see: the columns **Unit Cost** and **Real Cost** of each component; on the first line (the finished product) **Unit Cost** 9,004,864 VND, the cost at which the vehicle was received, and **Real Cost** 8,998,427 VND. This screen only adds the machine hours at the hourly rate of the work center; it does not yet add the labor part per person; the real receipt cost (9,004,864 VND) is seen in the next step.

Step 3 - See the cost analysis by item

Click **More** on the smart button bar and choose **Cost Analysis**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order > **More** > **Cost Analysis**



What you should see: the page **Production Cost Analysis** with "Total Quantity: 1.00 Units, from 1 manufacturing order(s)", **Total Cost** 9,004,864 VND and **Unit Cost** 9,004,864 VND, divided into three blocks: **Direct Materials Costs** 8,967,005 VND (a table with **Materials**, **Manufacturing Orders**, **Standard Quantity**, **Actual Consumption Quantity**, **Unit Cost**, **Cost Share (%)** and **Total Cost**), **Direct Labor** 6,437 VND, **Manufacturing Overheads** 31,422 VND. This button can only be opened once the order is completed.

The cost is computed as follows:

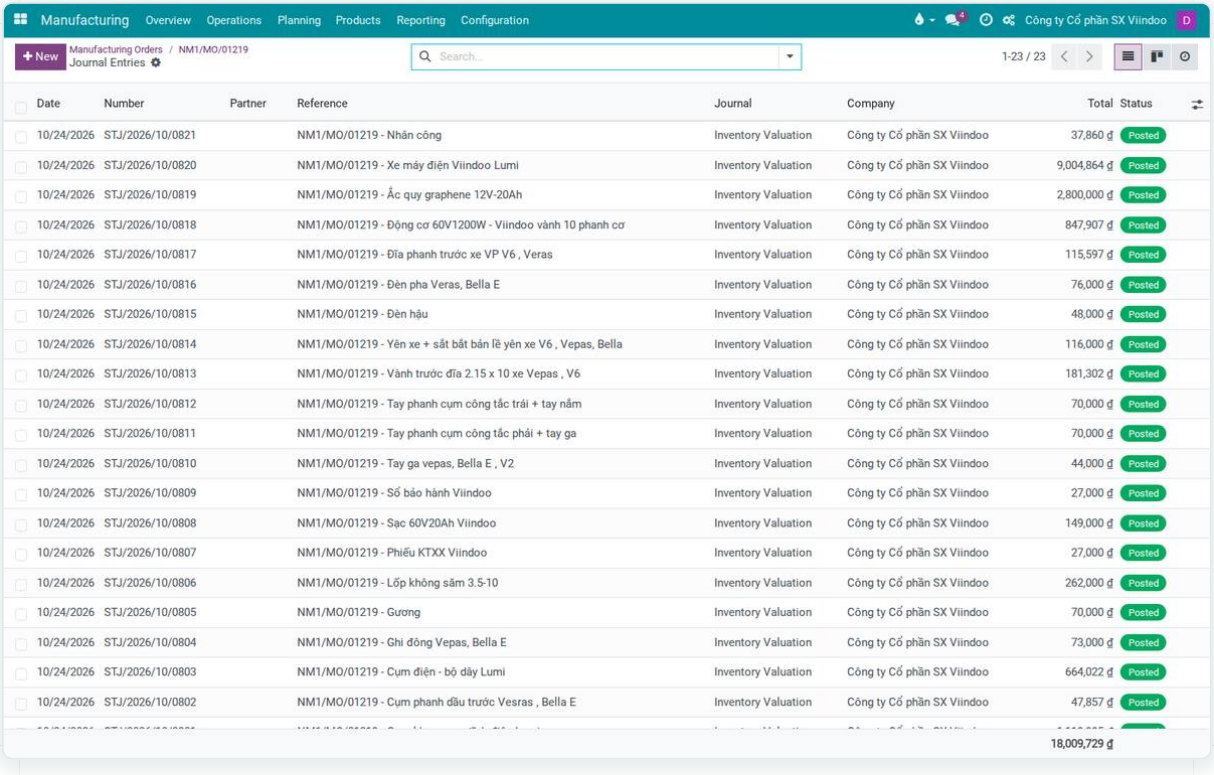
Item	How it is computed	Test-run order
Direct materials	Actual consumed quantity x average cost of each component	8,967,005 VND
Manufacturing overhead (machine hours)	Actual hours of the operation x **Cost per hour** of the work center	4/60 x 230,000 + 1.05/60 x 150,000 + 4.37/60 x 185,000 = 31,422 VND
Direct labor	Actual hours of each person x that person's hourly rate; for a person with no rate declared, the 41,000 VND of the work center; stop time is not counted	9.42/60 x 41,000 = 6,437 VND
Cost of the vehicle received into stock	Sum of the three items	**9,004,864 VND**

The actual salary from the payroll does not go into the cost of each order automatically; the difference between the actual salary and the hours already costed is allocated by the accountant at period end with the production cost allocation (see Part XII. Accounting and costing).

Step 4 - See the list of journal entries of the order

Click **More**, choose **Journal Entries**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order > **More** > **Journal Entries**

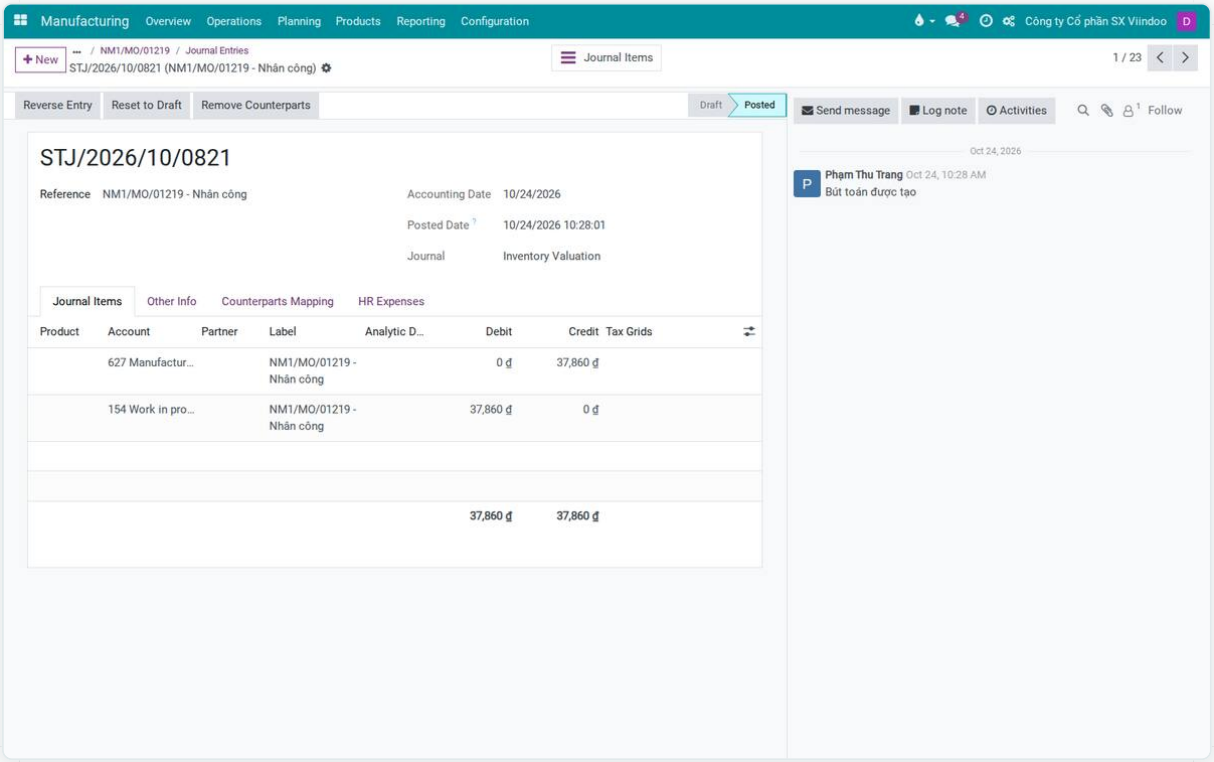


What you should see: 23 journal entries with the columns **Date**, **Number**, **Partner**, **Reference**, **Journal**, **Company**, **Total** and **Status**, all in the **Inventory Valuation** journal, state **Posted**, all on the date the order was completed: 21 entries for issuing each component, one entry "NM1/MO/01219 - Xe máy điện Viindoo Lumi" (receipt of the finished product) and one entry "NM1/MO/01219 - Nhân công" (labor); the references are generated in Vietnamese.

Step 5 - Open the labor journal entry

Click the line "NM1/MO/01219 - Nhân công".

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order > **More** > **Journal Entries** > the labor line

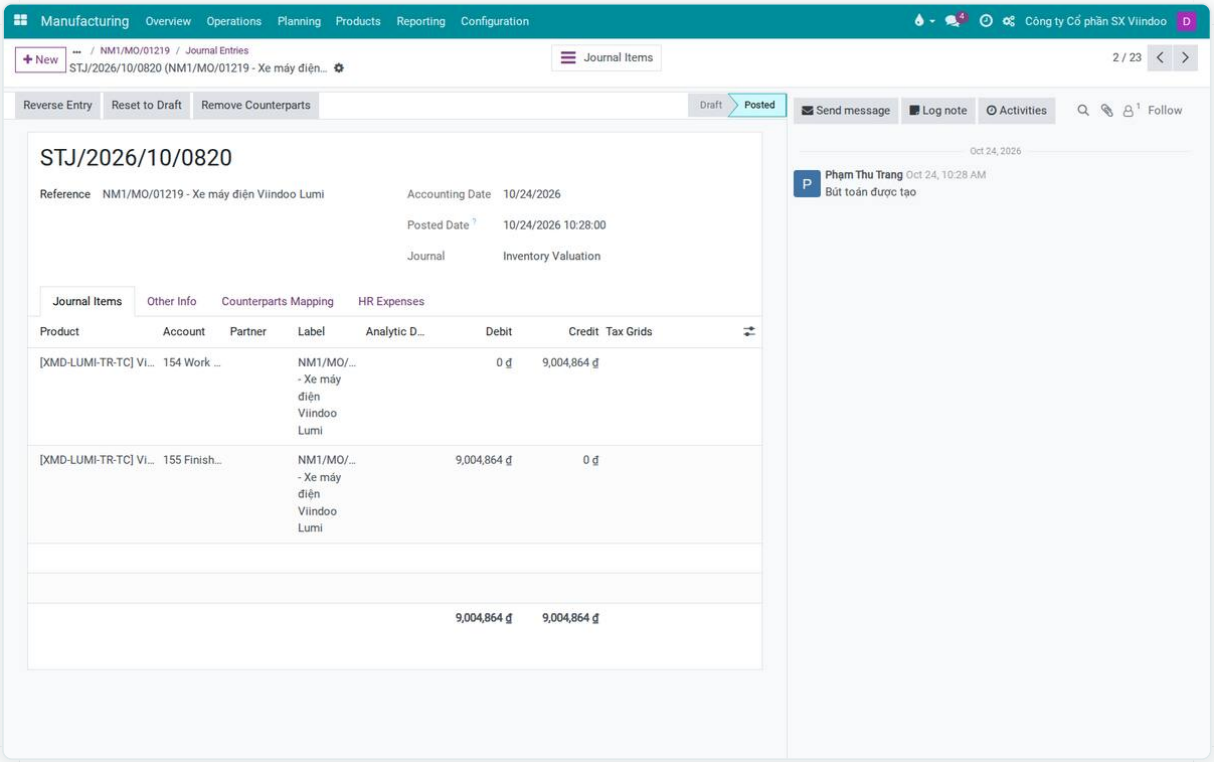


What you should see: two lines: **Debit** 154 Work in progress 37,860 VND; **Credit** 627 Manufacturing overhead 37,860 VND. Account 627 comes from the **Expense Account** of the work center (lesson "Shop floor manufacturing configuration", Step 3). Machine hours and person hours are posted in one entry to one account; splitting direct labor from manufacturing overhead is done in the cost report, not in the journal entry.

Step 6 - Open the finished product receipt entry

Go back to the list and click the line "NM1/MO/01219 - Xe máy điện Viindoo Lumi".

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order > **More** > **Journal Entries** > the finished product line



What you should see: Debit 155 Finished goods 9,004,864 VND; **Credit** 154 Work in progress 9,004,864 VND. Account 154 of the order returns to 0: materials and labor go to the debit side, the finished product comes out on the credit side.

Table of consequences when the order is closed (test-run order NM1/MO/01219):

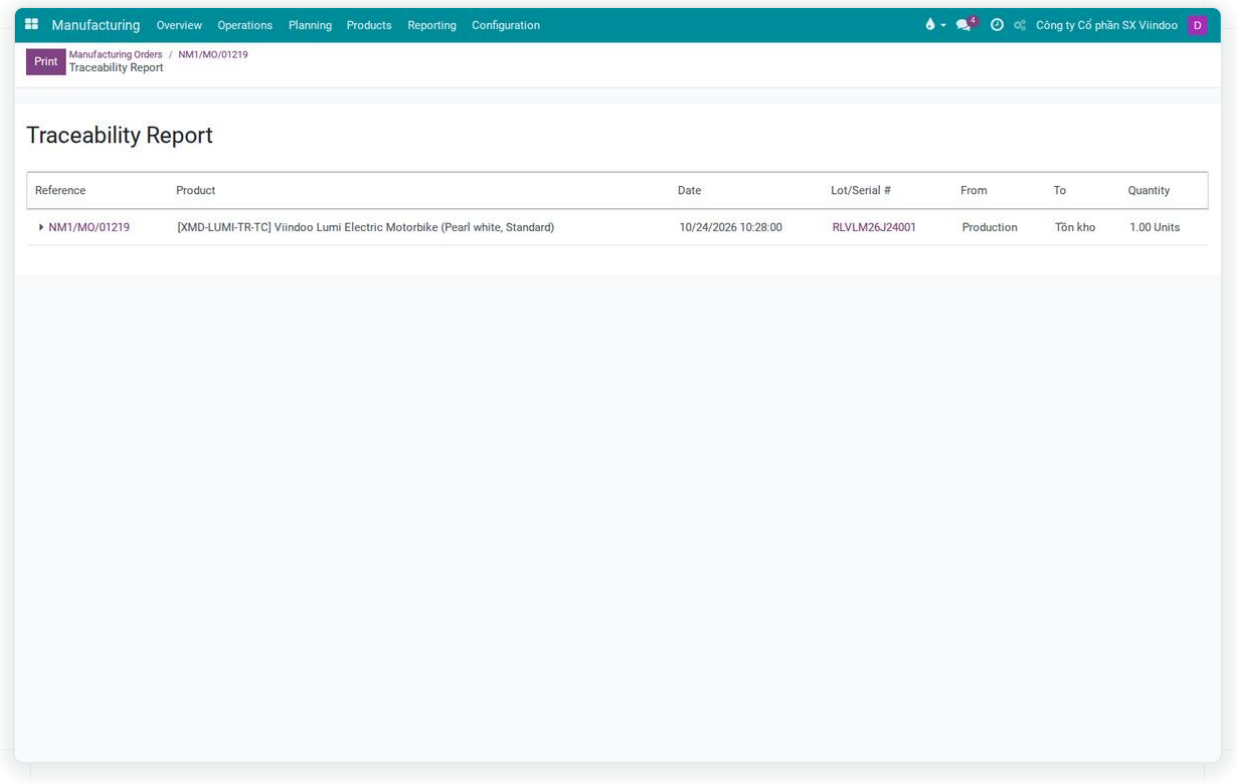
Where	What changes	Figures
Warehouse	21 component lines deducted from `NM1/Trước sản xuất`; 1 vehicle with chassis number RLVLM26J24001 received into `NM1/Tồn kho`	Stock of the Lumi Pearl white Standard vehicle goes up by 1
Accounting - materials	19 components: Debit 154 / Credit 152; 2 semi-finished products (frame assembly, electrical assembly): Debit 154 / Credit 155	Credit 152: 7,182,987 VND; Credit 155: 1,784,017 VND
Accounting - labor hours	Debit 154 / Credit 627	37,860 VND
Accounting - finished product	Debit 155 / Credit 154	9,004,864 VND
Cost	The average cost of the Lumi Pearl white Standard vehicle is recomputed with the receipt cost of 9,004,864 VND	See **Cost Analysis**
Quality	The 4 checks of the order are **Pass**	`Quality > Reporting > Quality Checks`

Where	What changes	Figures
Reports	The order appears in the **Production Cost Report**, **Loss Components Analysis**, **Work Orders**, **Overall Equipment Effectiveness**, **Shop Floor Entries**	Lesson "Shop floor manufacturing reports"

Step 7 - Trace the vehicle by chassis number

On the order, click **Traceability**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > your company's order > **Traceability**



What you should see: the **Traceability Report** has a line with the order, product, date, **Lot/Serial #** RLVLM26J24001, going from **Production** into "Tồn kho" (stock), 1.00 Unit; the columns are **Reference**, **Product**, **Date**, **Lot/Serial #**, **From**, **To** and **Quantity**. Click the arrow at the start of the line to open the details of the order's moves; for a Premium vehicle, components managed by lot (hub motor, lithium battery) show their lot numbers here. Tracing backwards from the chassis number when a dealer reports a defect is covered in Part IX. Warranty and repairs.

47 WHEN REALITY DEPARTS FROM THE PLAN

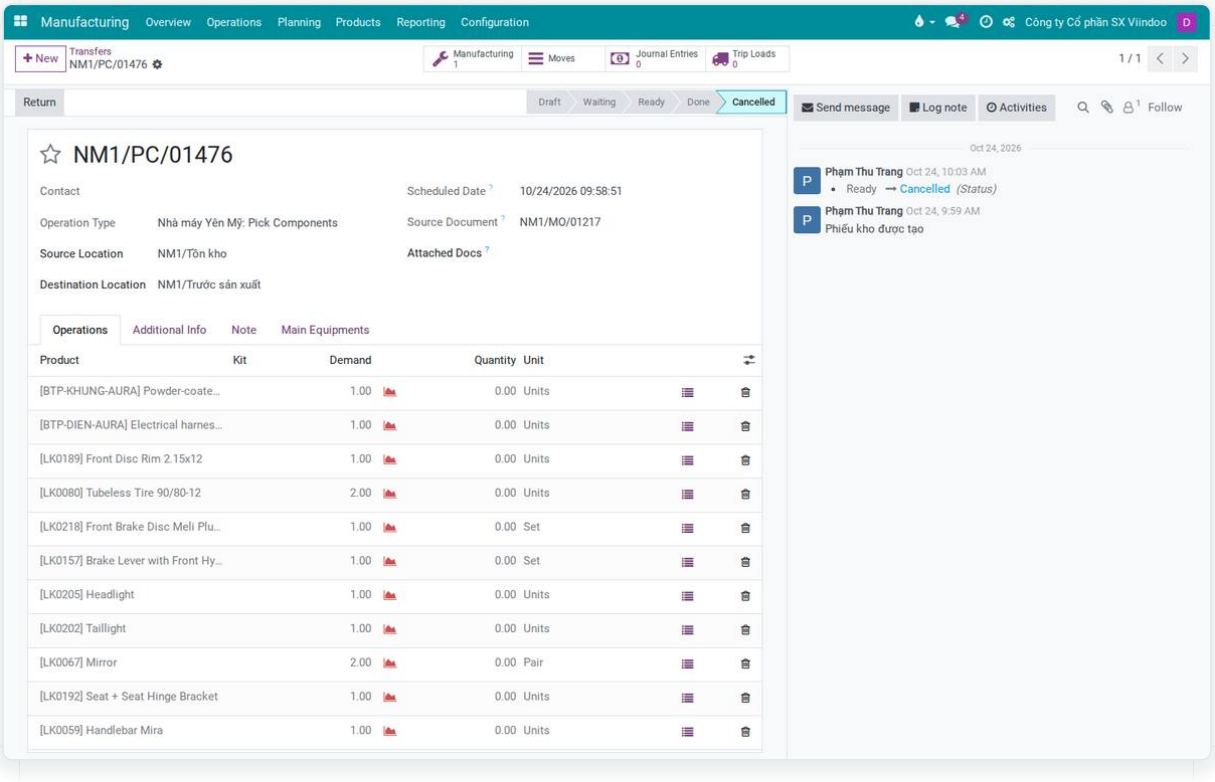
About 15 minutes. By the end of this lesson your company has met and handled the three most common situations: missing components, using more material than the bill of materials with

spoiled goods that must be scrapped, and making less than the full quantity so that the remainder must be split into a new order.

Step 1 - Recognise an order with missing components

Create an order for 1 vehicle "[XMD-AURA-TR-CC] Viindoo Aura Electric Motorbike (Pearl white, Premium)", click **Confirm**, then click the smart button **Transfers** and scroll to the bottom of the component list.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > **New** > **Confirm** > **Transfers**



What you should see: the lines whose **Quantity** is lower than **Demand**, with a red forecast icon, are the components for which the main warehouse has no more unreserved stock; the other lines are fully reserved. Stock quantities change from day to day, so your company may see other missing components.

This is correct behavior, not an error. Note that on the order, the **Component Status** field still shows "Available" because the system counts the goods in the pre-production area and the goods reserved for other orders; the reliable figure is in the Pick Components transfer and in the **Reserved** column of the **Overview** of the order. Ways to handle it:

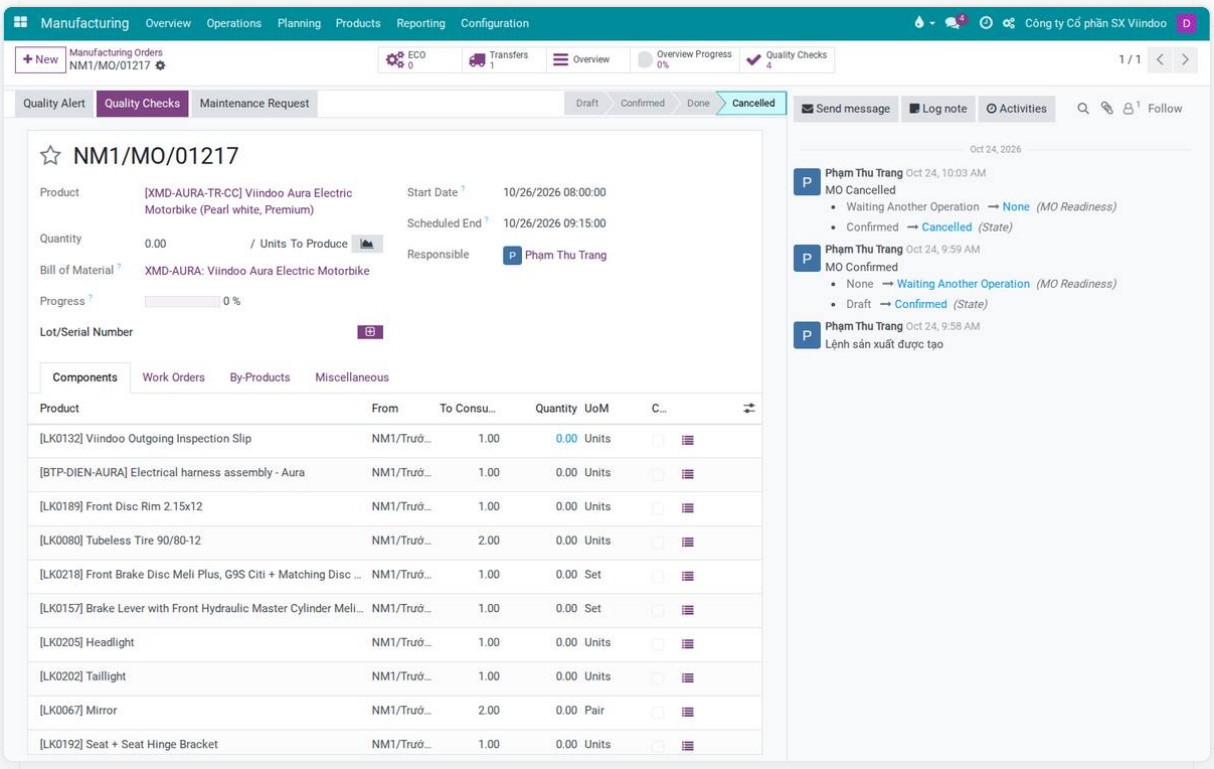
Way	What to do
Wait for the goods	Leave the Pick Components transfer waiting; when the purchase receipt is done, click **Check availability** on the Pick Components transfer to reserve the goods

Way	What to do
Buy the missing part	Open `Inventory > Operations > Procurement > Replenishment` to place a purchase (see Part IV. Purchasing and import)
Move goods from another order	Click **Unreserve** on the less urgent order, then **Check availability** on the order that must be done first (see Part V. Warehouse and quality: reserving components for the line)
Make part of the quantity	Take the part that is in stock, produce first the quantity for which components are complete, and split off the remainder (Steps 7 - 9)
Cancel the order	Click **Cancel** and confirm; the reserved components are returned to stock

Step 2 - Cancel an order that lacks goods

On the Aura order you just created, click **Cancel**, then click **Confirm** in the confirmation box.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > the Aura order > **Cancel**

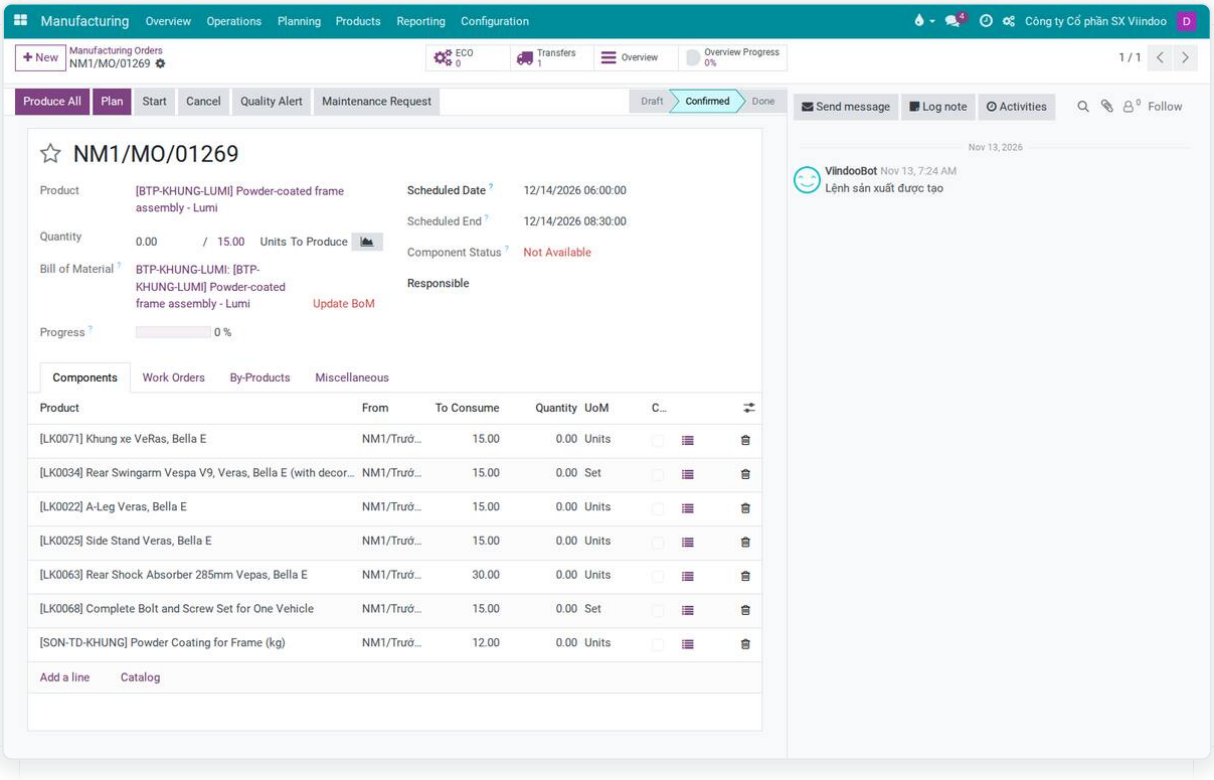


What you should see: the status bar is on **Cancelled**; the accompanying Pick Components transfer is cancelled too; the components that were reserved are released for other orders to use.

Step 3 - Create a semi-finished product order for 3 assemblies

Create a new order for "[BTP-KHUNG-AURA] Powder-coated frame assembly - Aura", **Quantity** 3, and click **Confirm**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > **New**

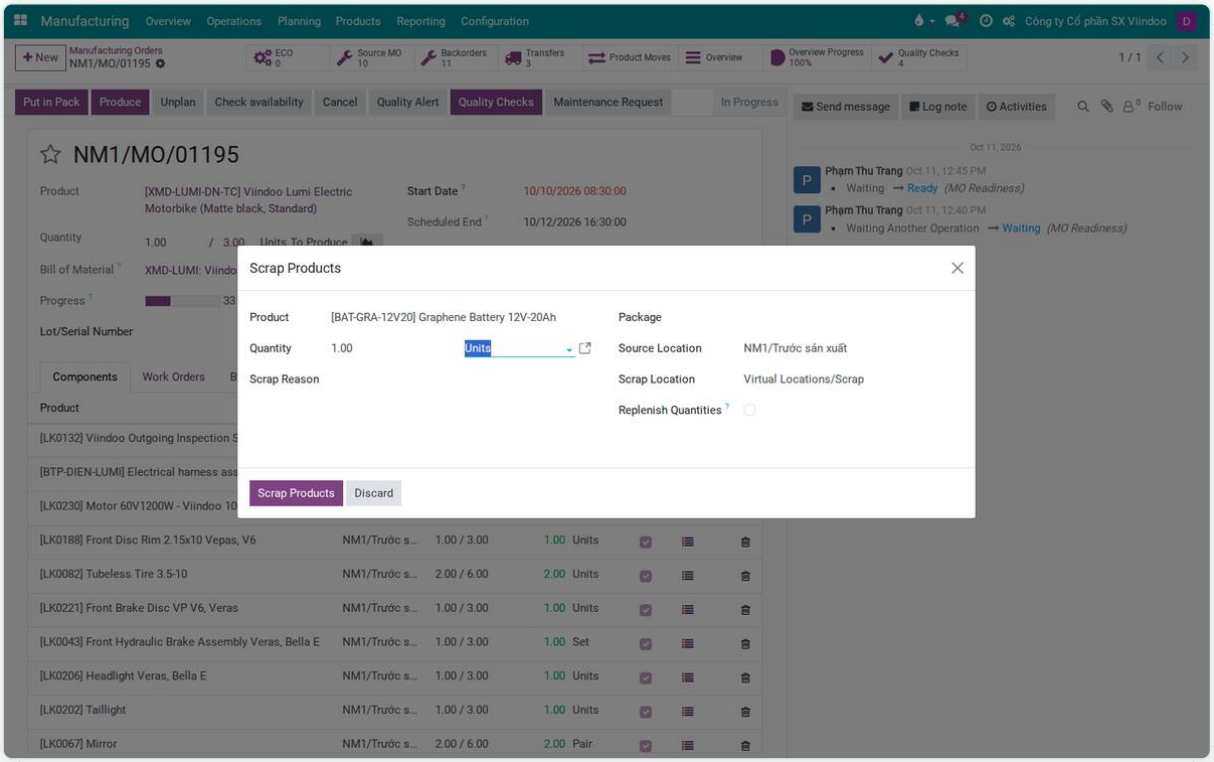


What you should see: 7 component lines (vehicle frame, rear swingarm, A-leg, side stand, rear shock absorber, bolt set, powder coating for the frame), with **To Consume** equal to the bill of materials quantity multiplied by the order quantity (the screenshot shows a larger order of 15 assemblies; with 3 assemblies the quantities are three times the bill of materials). Open **Transfers**, click **Validate** as in the lesson "Issue materials to the shop floor" to bring the components to the pre-production area, then go back to the order and click **Start**.

Step 4 - Record the scrap of a spoiled frame

On the order, click the gear icon next to the order number and choose **Scrap**. Choose as **Product** a component of the order (for example "[LK0070] Mira Motorbike Frame"), **Quantity** 1, click **Scrap Products**; in the box asking for the **Actual Scrap Date** click **Validate**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > the frame assembly order > gear icon > **Scrap**



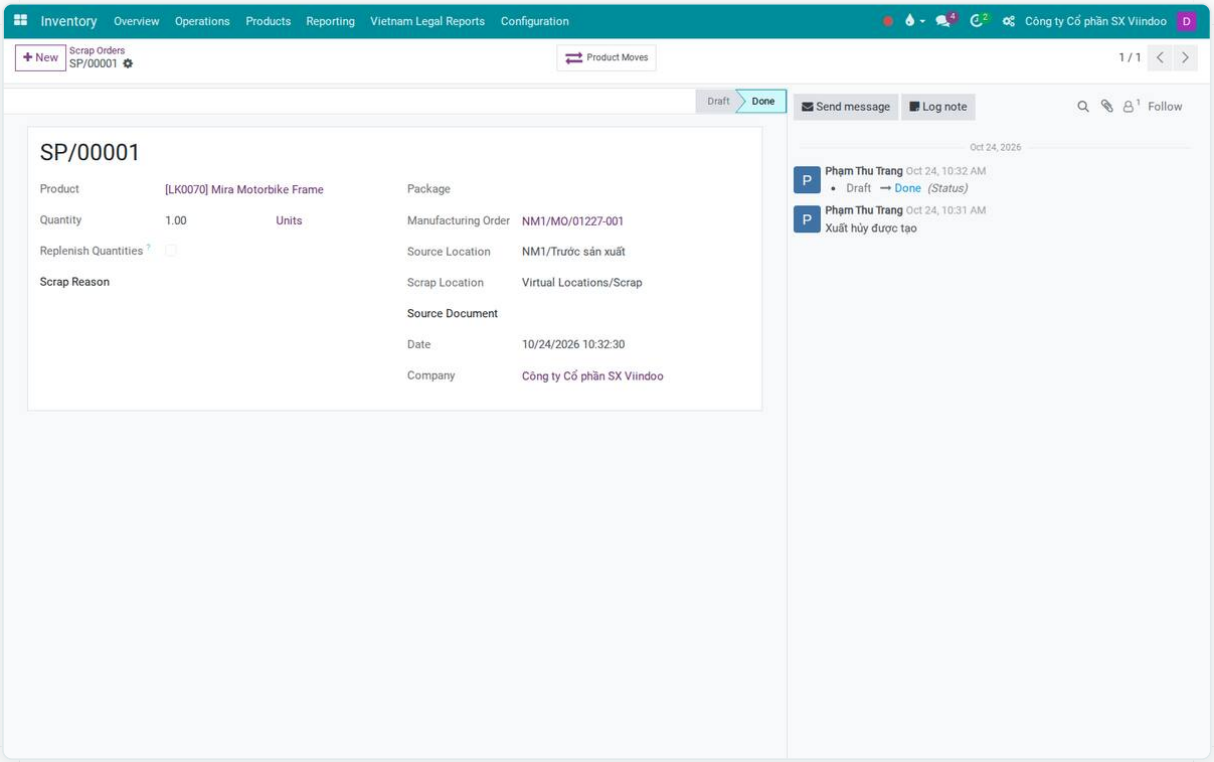
What you should see: the box **Scrap Products** with the fields **Product**, **Quantity**, **Scrap Reason**, **Package**, **Source Location** `NM1/Trước sản xuất`, **Scrap Location** "Virtual Locations/Scrap" and **Replenish Quantities**, and the buttons **Scrap Products** and **Discard**; it only lets you choose components of the order. The **Scrap Reason** field is empty because the company has not declared a list of reasons; your company can type to create a new reason.

Another way in: at the shop floor, click **Record scrap** in the operation panel.

Step 5 - Check the scrap document

Open the scrap document you just created.

> *Path:* `Manufacturing > Operations > Scrap`

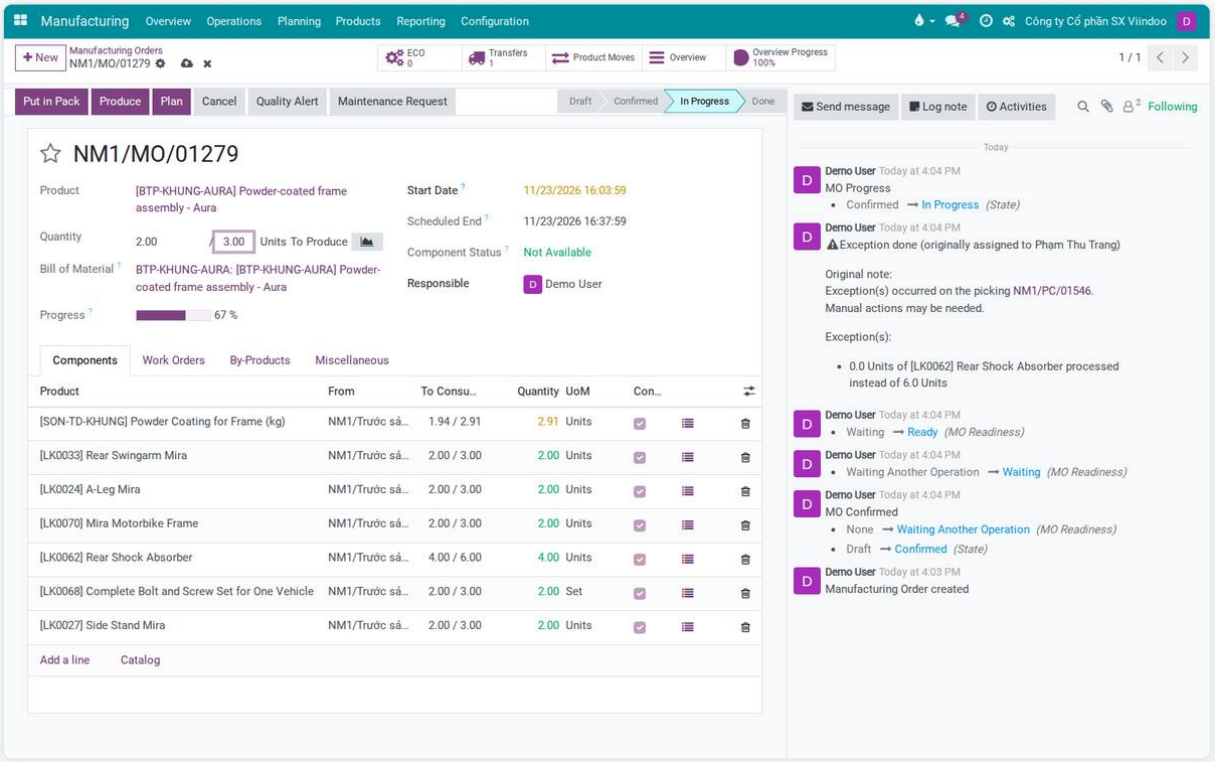


What you should see: the **Scrap Orders** document (for example SP/00001) in the state **Done**, with **Product** "[LK0070] Mira Motorbike Frame", **Quantity** 1.00, **Manufacturing Order** the frame assembly order, **Source Location**, **Scrap Location** and **Date**, and the smart button **Product Moves**. The order gets two more smart buttons, **Scraps 1** and **Journal Entries 1**. The journal entry of the document: Debit 632 / Credit 152 at the cost of the frame (549,000 VND in the test run).

Step 6 - Record the quantity in progress as 2

On the order, edit the quantity-in-progress field (the field to the left of the "/" on the **Quantity** line) to 2.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > the frame assembly order

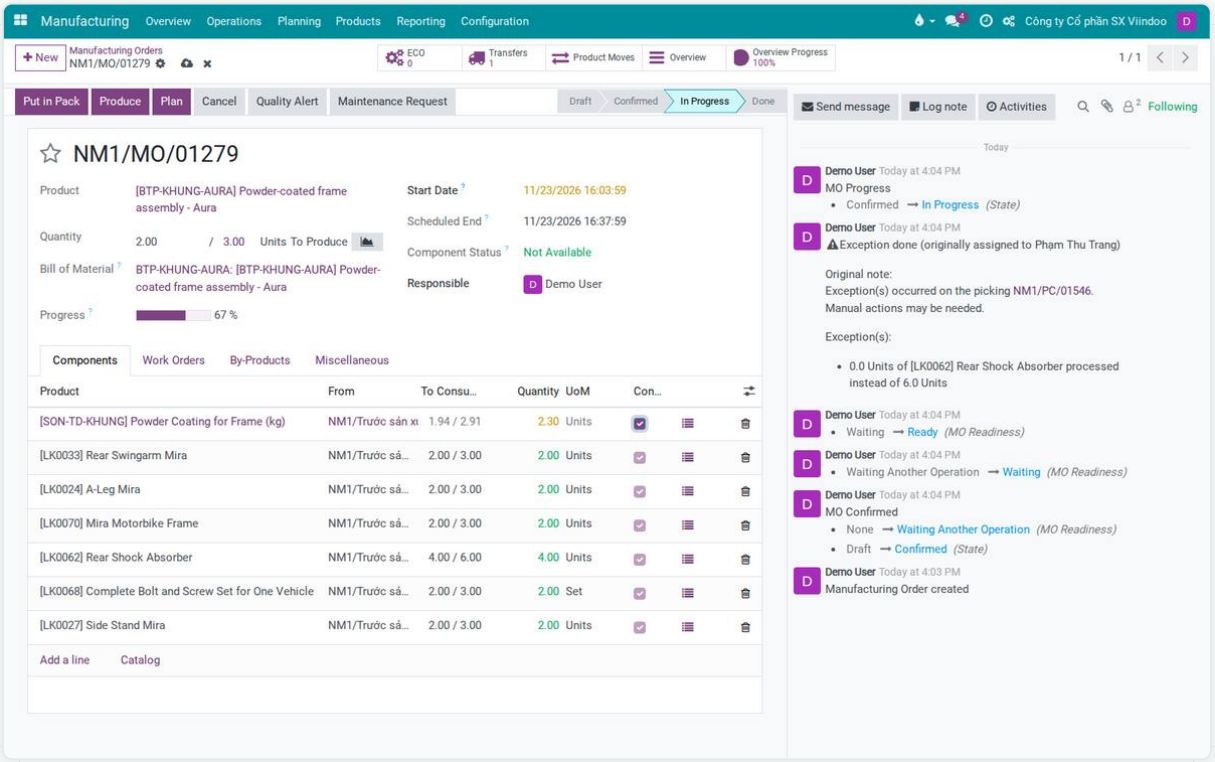


What you should see: Quantity 2.00 / 3.00; the **To Consume** column of each line reads for example "2.00 / 3.00" (the paint line reads 1.94 / 2.91); the **Quantity** column is recomputed for 2 assemblies; **Progress** 67 %.

Step 7 - Edit the actual paint consumption

Click the **Quantity** cell of the line **[SON-TD-KHUNG] Powder Coating for Frame (kg)**, type 2.3 (2.3 kg was actually sprayed for 2 assemblies instead of the 1.94 kg of the bill of materials), then save.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > the frame assembly order > **Components** tab

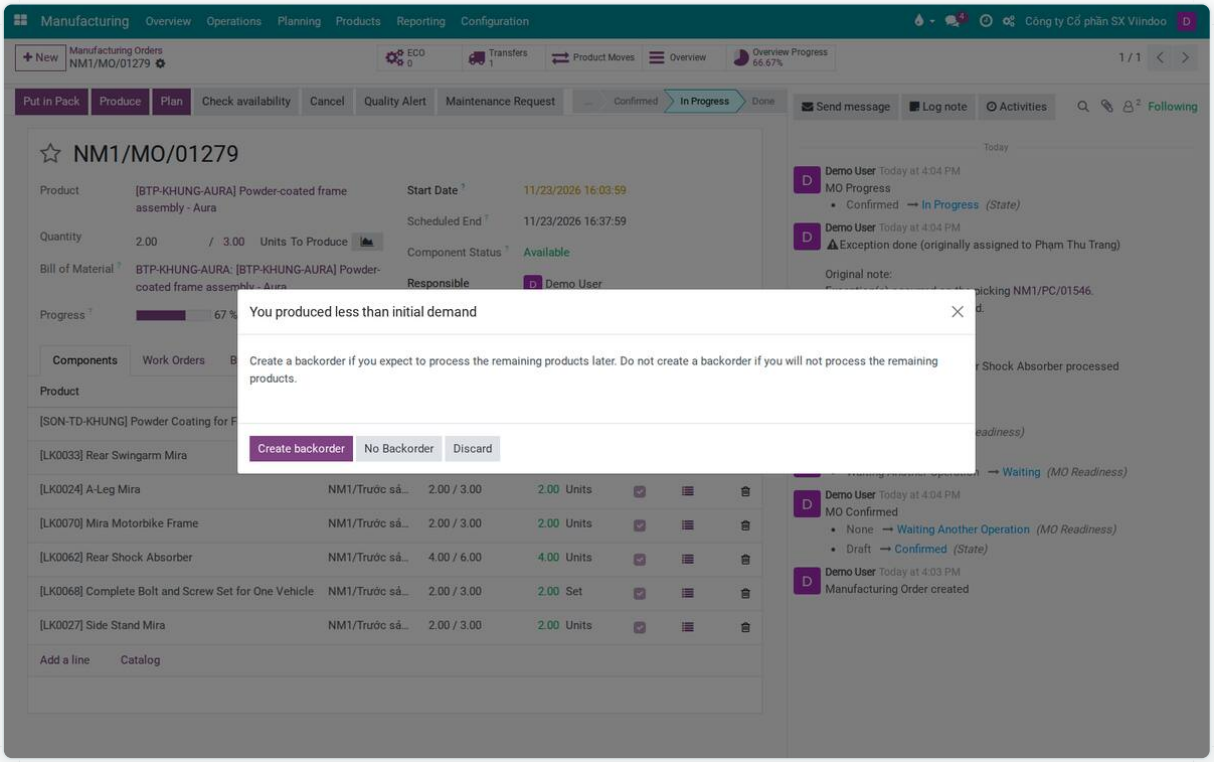


What you should see: the paint line shows 2.30 in orange (above the **To Consume** quantity of 1.94 / 2.91), and the **Consumed** box is ticked. Because the frame assembly's bill of materials is set to **Allowed**, the order does not ask again; with a bill of materials set to **Allowed with warning** the system lists the components that differ for confirmation, and with **Blocked** it does not let the order close.

Step 8 - Complete the part already made

Click **Produce** on the button bar, and click **Validate** in the **Date Done?** box.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > the frame assembly order > **Produce**

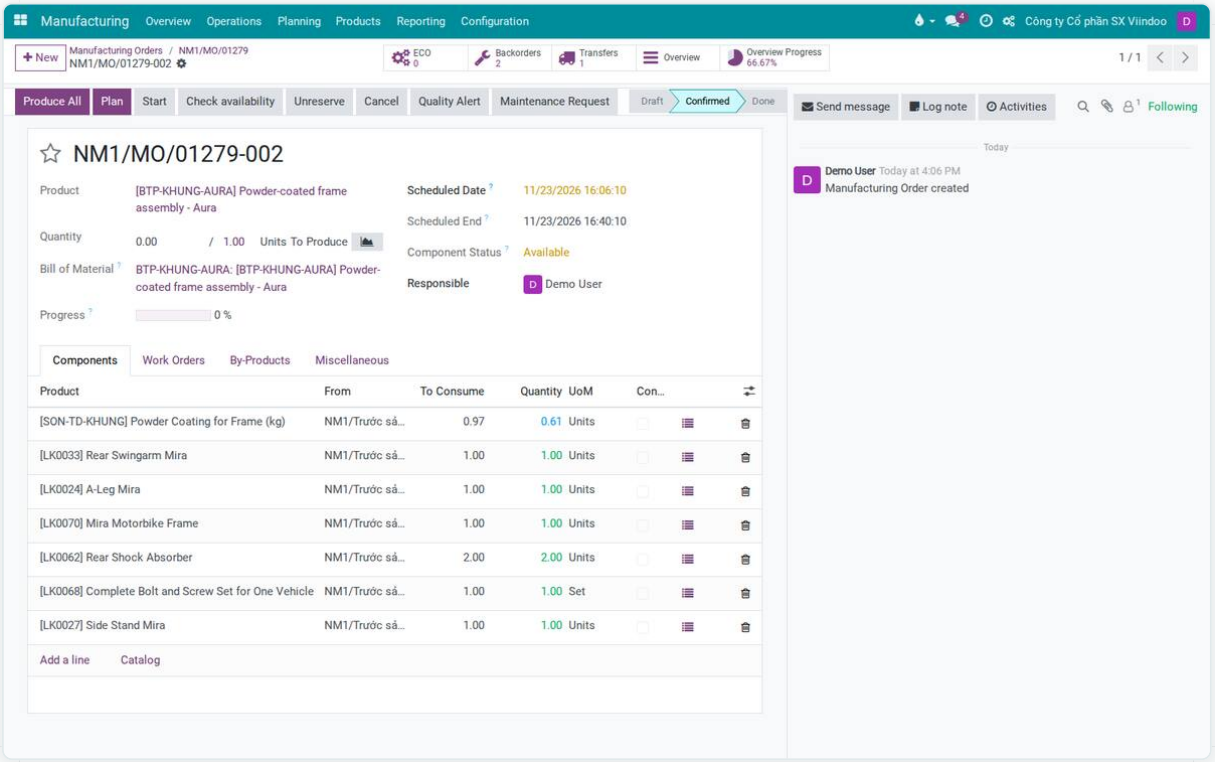


What you should see: the box **You produced less than initial demand** ("Create a backorder if you expect to process the remaining products later. Do not create a backorder if you will not process the remaining products.") with three buttons **Create backorder**, **No Backorder** and **Discard**.

Step 9 - Split the remainder into a new order

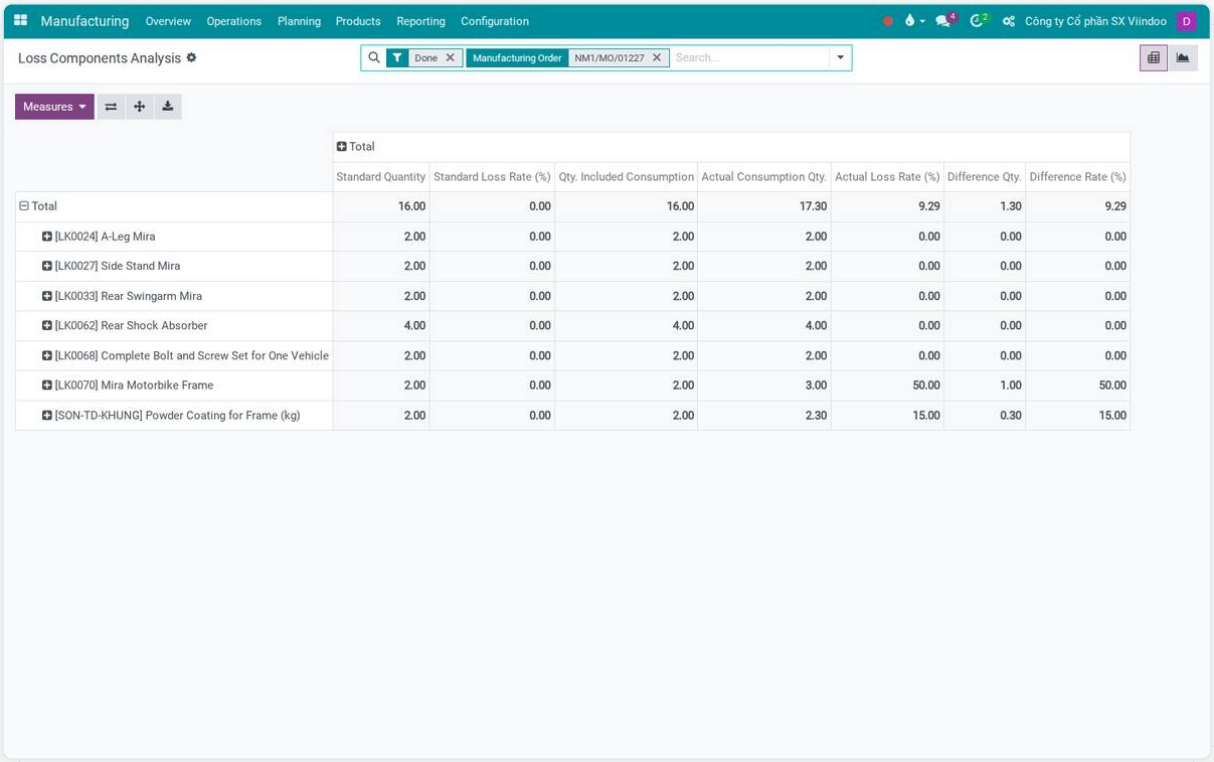
Click **Create backorder**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > the frame assembly order



What you should see: the original order is renumbered (-001), **Done** with 2 assemblies; the new order (-002) for 1 assembly is **Confirmed**, with the smart buttons **Backorders 2** and **Transfers 1** and **Overview Progress** 66.67 %. The paint line of the new order has 0.97 to consume but only 0.61 reserved (the paint left after the 2.30 kg already used), so **Component Status** shows "Available" in orange: you must reserve more paint with **Check availability** before doing the work. This is the correct consequence of using too much. The test-run order later cancelled the backorder to return the components.

The result of the deviating order is read in **Loss Components Analysis** (a pivot table filtered on the state Done and on the test-run order NM1/MO/01227):



Component	Standard Quantity	Actual Consumption Qty.	Actual Loss Rate (%)
[LK0070] Mira Motorbike Frame	2.00	3.00 (including 1 scrapped frame)	50 %
Powder Coating for Frame (kg)	2.00	2.30	15 %
The five remaining components	exactly the standard	exactly the standard	0 %

The cost of the 2 assemblies received into stock (Debit 155 / Credit 154) is 2,428,900 VND, including the paint used above the standard; the spoiled frame does not go into the product cost but into the cost of goods sold through the scrap document. An operation that is not timed on the shop floor is recorded at exactly the expected duration when the order is completed (30 minutes, labor cost 125,500 VND).

48 SHOP FLOOR MANUFACTURING REPORTS

About 10 minutes. By the end of this lesson your company knows which report to open to answer which question about the shop floor. The lesson is for viewing only; nothing is created.

The shop floor manufacturing part has 15 report screens and 5 print templates:

Report	Path	Which question it answers
Manufacturing Overview (work centers)	`Manufacturing > Overview`	Which team has work today, how many operations are to launch, are running, the performance figure of each team
Manufacturing Orders Progress	`Manufacturing > Operations > Manufacturing Orders Progress`	How many percent of each demand has been made, how much is left, which orders are late
Work Orders	`Manufacturing > Reporting > Work Orders`	Expected workload of each team, expected duration against actual
Overall Equipment Effectiveness	`Manufacturing > Reporting > Overall Equipment Effectiveness`	How many hours each team ran, how many hours were lost to each stop reason
Loss Components Analysis	`Manufacturing > Reporting > Loss Components Analysis`	Which component was used above the bill of materials, by how many percent
Loss By-products Analysis	`Manufacturing > Reporting > Loss By-products Analysis`	By-products obtained against the bill of materials (company 1 has no by-product bill of materials yet, so the screen is empty)
Shop Floor Entries	`Manufacturing > Reporting > Shop Floor Entries`	Who recorded what at the shop floor, credited to whom, whether it was undone
Production Cost Report	`Manufacturing > Reporting > Production Cost Report`	Cost by product and period, split into materials, labor and overhead (read in Part XII. Accounting and costing)
Manufacturing order overview	The **Overview** button on the order	Does this order have enough components, the cost of the order against the bill of materials
Cost Analysis	Button **More** > **Cost Analysis** on a completed order	What the cost of the vehicle consists of
Overview Progress	The **Overview Progress** button on the order	How much the order and its child orders have made
Traceability	Button on a completed order	Which components and lots this chassis number was made from
Planning by order / by work center	`Manufacturing > Planning > Work Orders > Planning by Production`; `Manufacturing > Planning > Work Orders > Planning by Workcenter`	This week's shop schedule, which team is overloaded

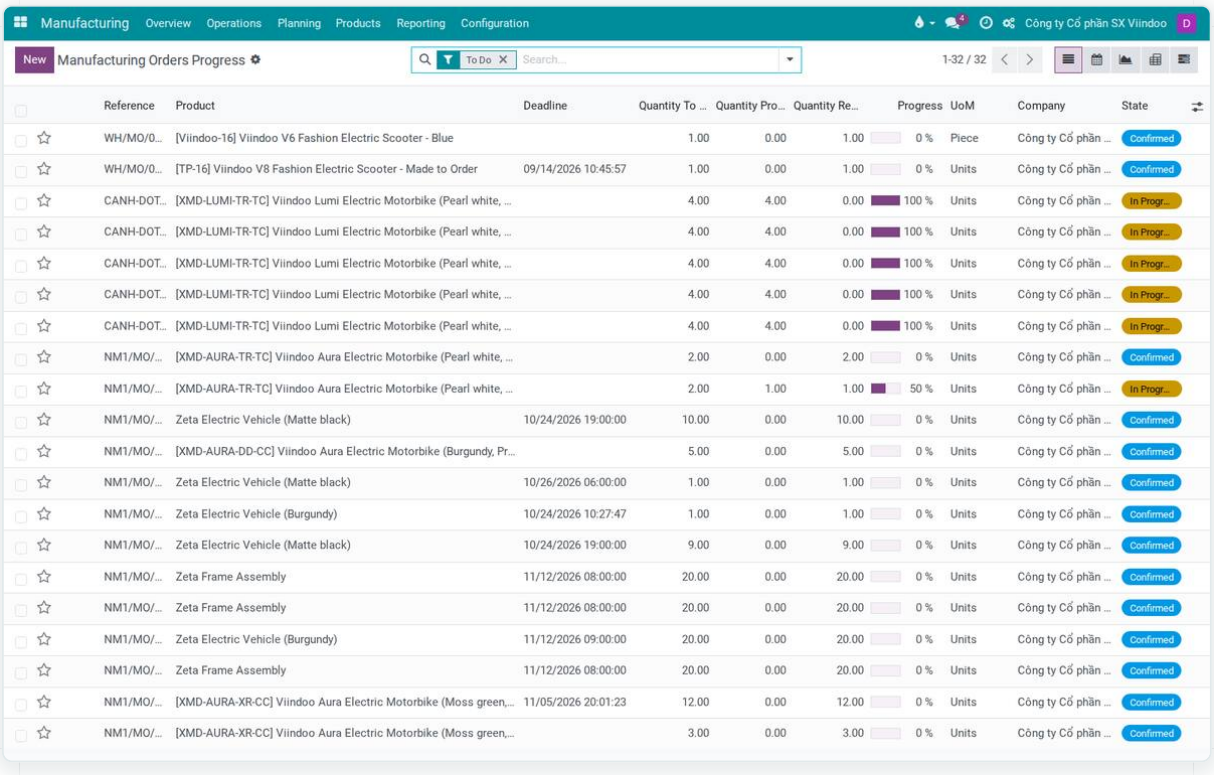
Report	Path	Which question it answers
Quality Checks	`Quality > Reporting > Quality Checks`	Which vehicle has passed which checks, who checked (in full in Part V. Warehouse and quality)
Scrap	`Manufacturing > Operations > Scrap`	Which goods were scrapped in production, on which order

Print templates from the order (gear button > **Print**): **Production Order**, **Finished Product Label (PDF)**, **Finished Product Label (ZPL)** for the label printer, **MO Overview**; from the work order: **Work Order**. The **Production Cost Report** has an **Export XLSX** button; list screens can be exported by selecting rows and then using **Actions** > **Export**.

Step 1 - See the progress of manufacturing orders

Open the progress screen.

> *Path:* `Manufacturing > Operations > Manufacturing Orders Progress`

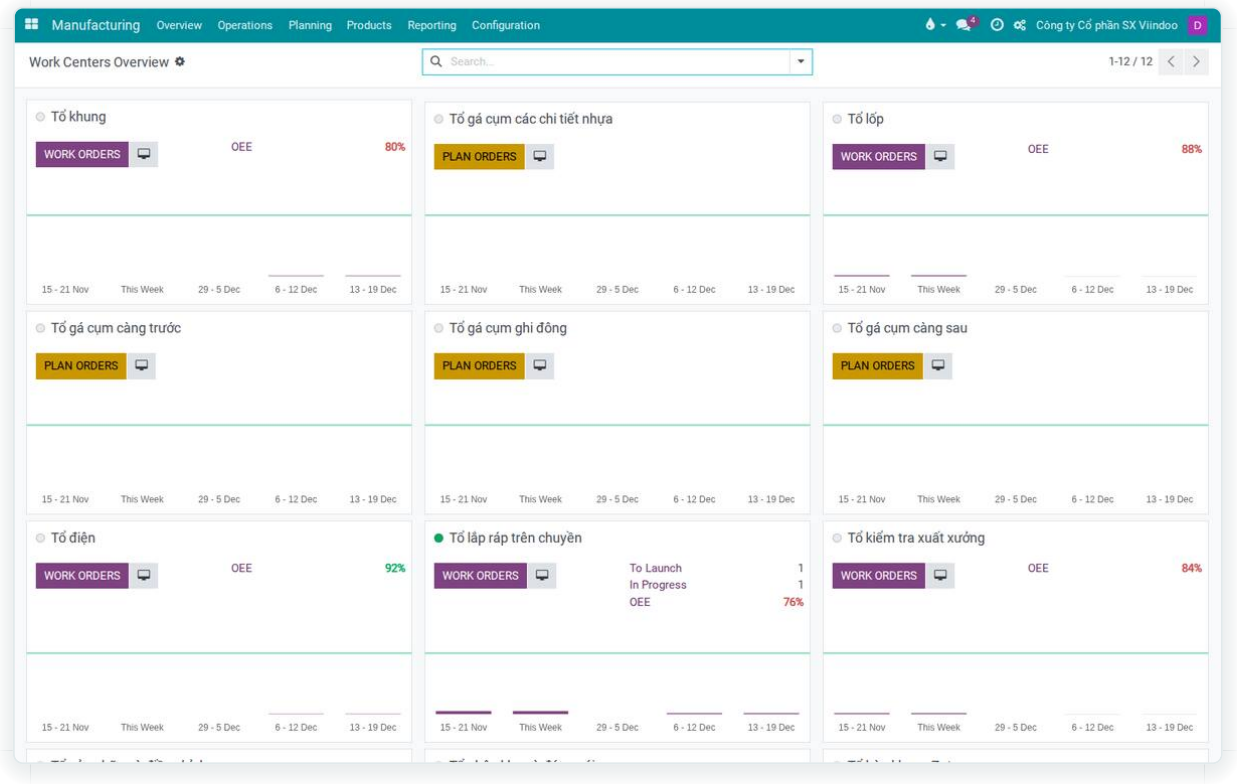


What you should see: each row is a demand with **Deadline**, **Quantity To Produce**, **Quantity Produced**, **Quantity Remaining**, a **Progress** bar and **State** (Confirmed, In Progress, To Close). An order in **To Close** is one that has been made but not closed: open it and close it right away so that the finished product enters stock.

Step 2 - See the work center overview

Click the **Overview** menu.

> *Path:* `Manufacturing > Overview`

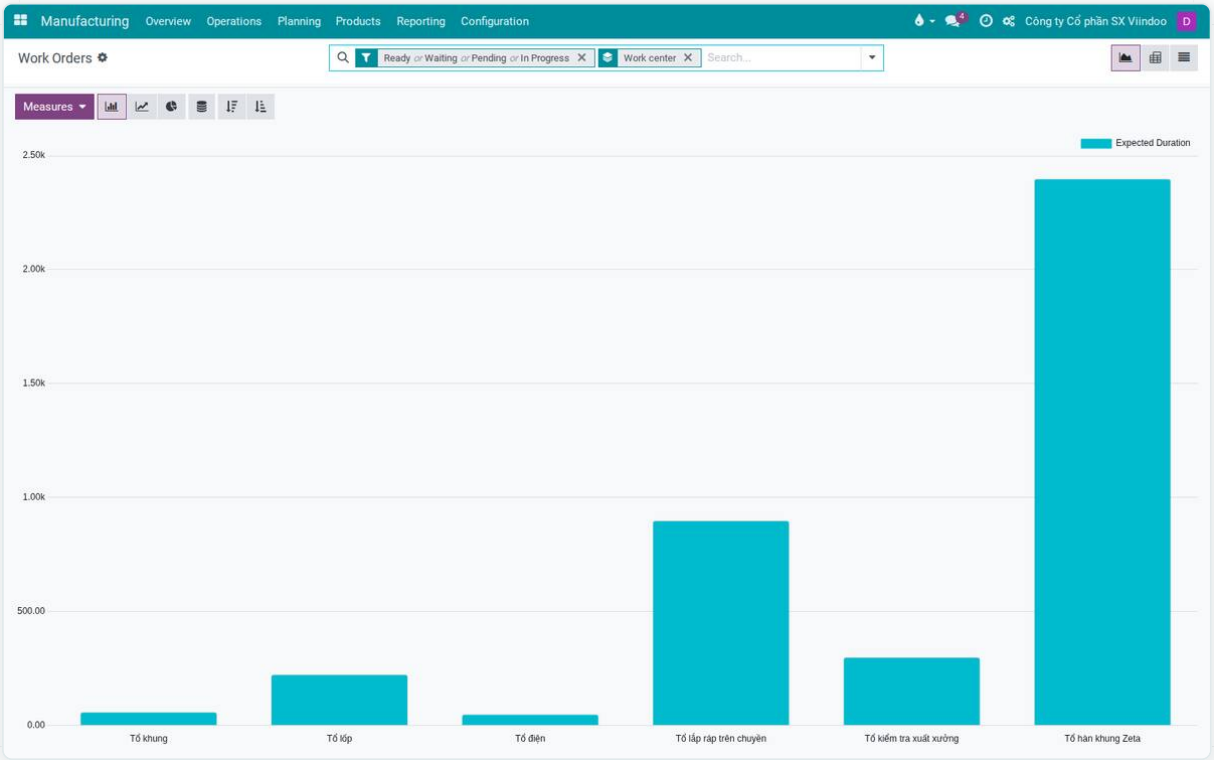


What you should see: each team has a tile with the button **WORK ORDERS** or **PLAN ORDERS**, the figures **To Launch**, **In Progress**, the **OEE** figure and a weekly load chart. Click a tile to go straight to the team's list of operations.

Step 3 - See the workload by team

Open the work orders report.

> *Path:* `Manufacturing > Reporting > Work Orders`

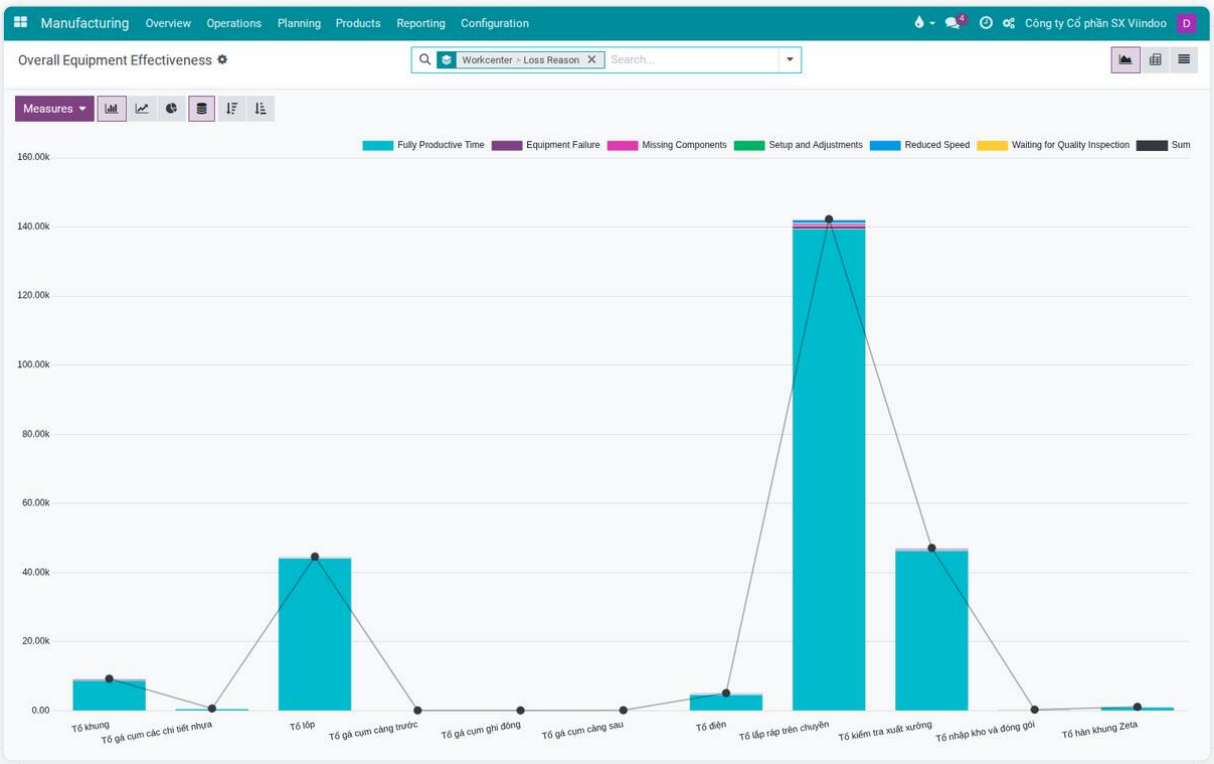


What you should see: a bar chart of the **Expected Duration** (minutes) of the operations that are **Ready**, **Waiting**, **Pending** and **In Progress**, grouped by **Work Center**. Change **Measures** to the actual duration, or remove the state filter to see the finished operations.

Step 4 - See equipment effectiveness and losses

Open the overall equipment effectiveness report.

> *Path:* `Manufacturing > Reporting > Overall Equipment Effectiveness`

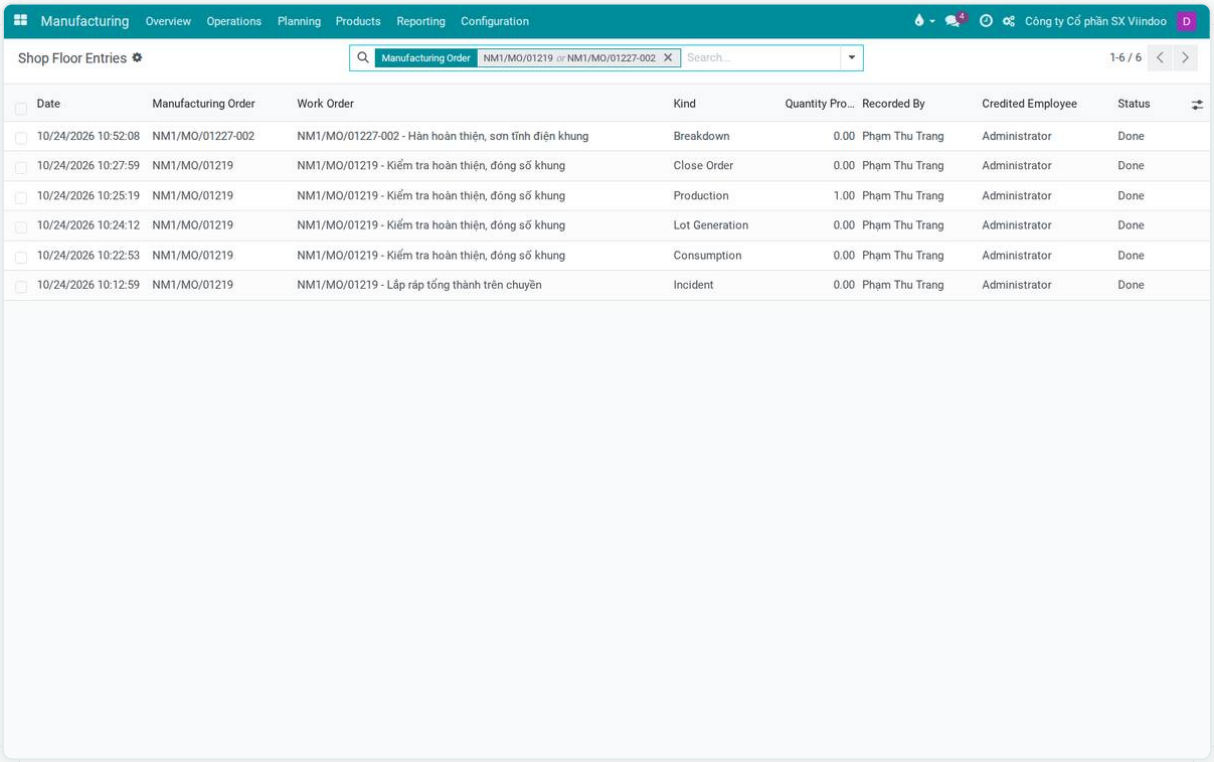


What you should see: stacked columns by **Workcenter > Loss Reason**: the part "Fully Productive Time" and the loss parts (Equipment Failure, Missing Components, Setup and Adjustments, Reduced Speed, Waiting for Quality Inspection). The system's equipment effectiveness figure equals the running time divided by (running + stopped) over the most recent month; the system does not compute the full three-component figure of availability x performance x quality.

Step 5 - See the shop floor entries

Open the shop floor entries.

> *Path:* `Manufacturing > Reporting > Shop Floor Entries`

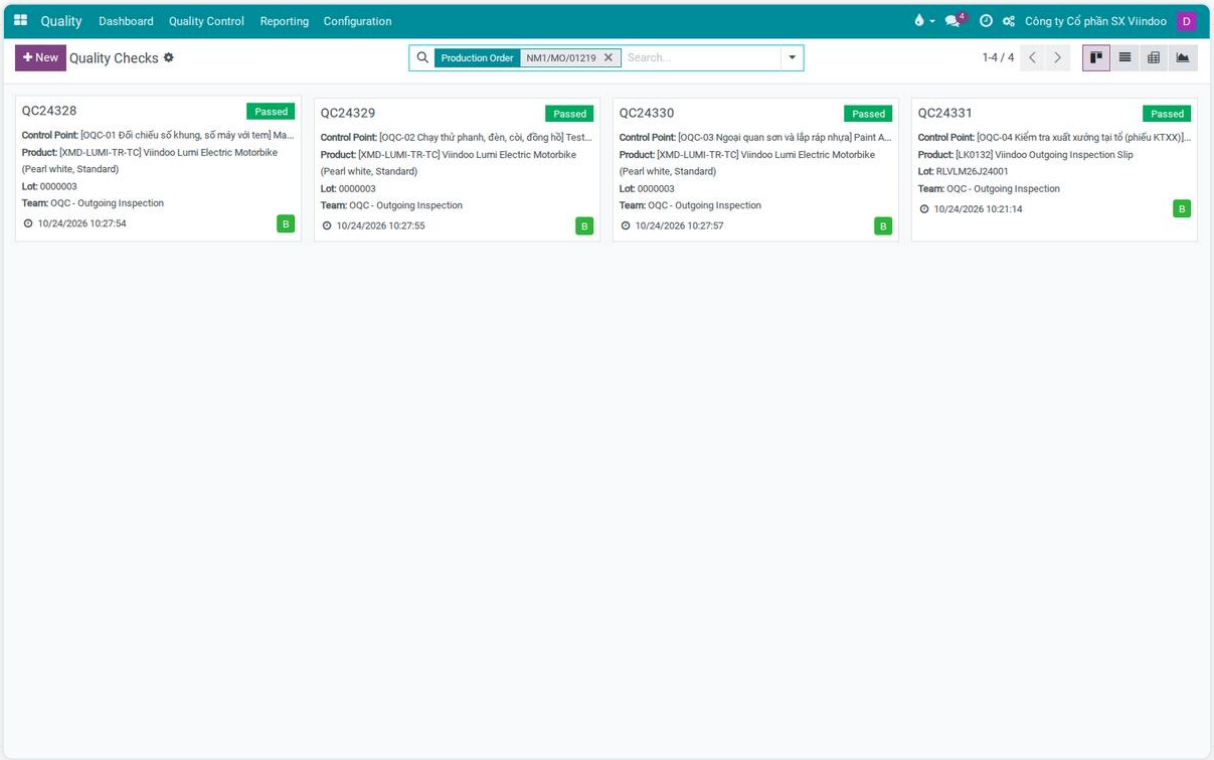


What you should see: each row is one action with **Date**, **Manufacturing Order**, **Work Order**, **Kind** (Incident, Consumption, Lot Generation, Production, Close Order, Breakdown...), **Quantity Produced**, **Recorded By**, **Credited Employee**, **Status**. This is the audit log when the shop floor figures are in doubt.

Step 6 - See the checks of an order

Open the quality checks and search by manufacturing order.

> *Path:* `Quality > Quality Control > Quality Controls > Quality Checks`



What you should see: four QC cards of the order, labeled **Passed**, each with the **Control Point**, the **Product**, the **Lot** (when the check has one), the **Team** and the time of the check; the filter on the order shows as **Production Order**. In the test run, the three finished product checks carried the number 0000003 instead of the chassis number (see the note in the lesson "Quality checks on the line, recording consumption, assigning the chassis number and closing the order", Step 5).

49 EXERCISE: COMPLETE AN ASSEMBLY ORDER ON YOUR OWN

About 30 minutes. Your company proves for itself that the shop floor works without looking at each image.

1. Create an order for 1 vehicle "[XDD-NOVA-TR] Viindoo Nova Electric Bicycle (Pearl white)" (or a Standard version variant of the Lumi vehicle that still has all its components), confirm it and plan it. Write down the expected dates of the three operations on the planning screen by work center.
2. Open the **Overview** of the order, and note which components are "Available" and which are not. If any are missing, handle them using the table in the lesson "When reality departs from the plan".
3. Validate the **Pick Components** transfer; check that the order changes to **Available** in green.
4. On **Shop Floor**: run the assembly operation crediting one worker, only when the station shows **Running · 0** apart from your own operation, report a **Missing Components** stop for 1 minute and then restart the station, finish it; run the wheel fitting operation.

5. At the inspection operation: try clicking **Start the operation** before the check is done (it must be locked), record **Pass**, record the consumption of the missing component.
6. Type your company's chassis number in the **Lot/Serial Number** field on the order, record the finished product at the shop floor, finish the operation.
7. Try **Produce All** on the order before checking the finished product and read the blocking box; then check the finished product **Pass** and close the order at the shop floor.
8. Open **Cost Analysis** and **Journal Entries**: add up materials + labor + overhead yourself and compare with the entry Debit 155 / Credit 154; check that the labor entry credits 627.
9. Open **Shop Floor Entries** and **Overall Equipment Effectiveness**, and find your own machine stop again.

Self-assessment: if you did it correctly the order is **Done**, the vehicle stock has gone up by 1, and the total of the Debit 154 entries of the order equals the Credit 154 entry of the finished product receipt.

PART VII. SUBCONTRACTING

This part answers these questions: when you hand part of production to an outside workshop, how do you supply materials, how do you receive the finished goods, and in the end how is the material left over at the outside workshop accounted for? It is written for purchasing staff, storekeepers and accountants.

Every hands-on lesson starts with your company creating its own data: a subcontractor, a subcontracted product, a raw material and a bill of materials of type **Subcontracting**. Your company does not need to edit any existing record.

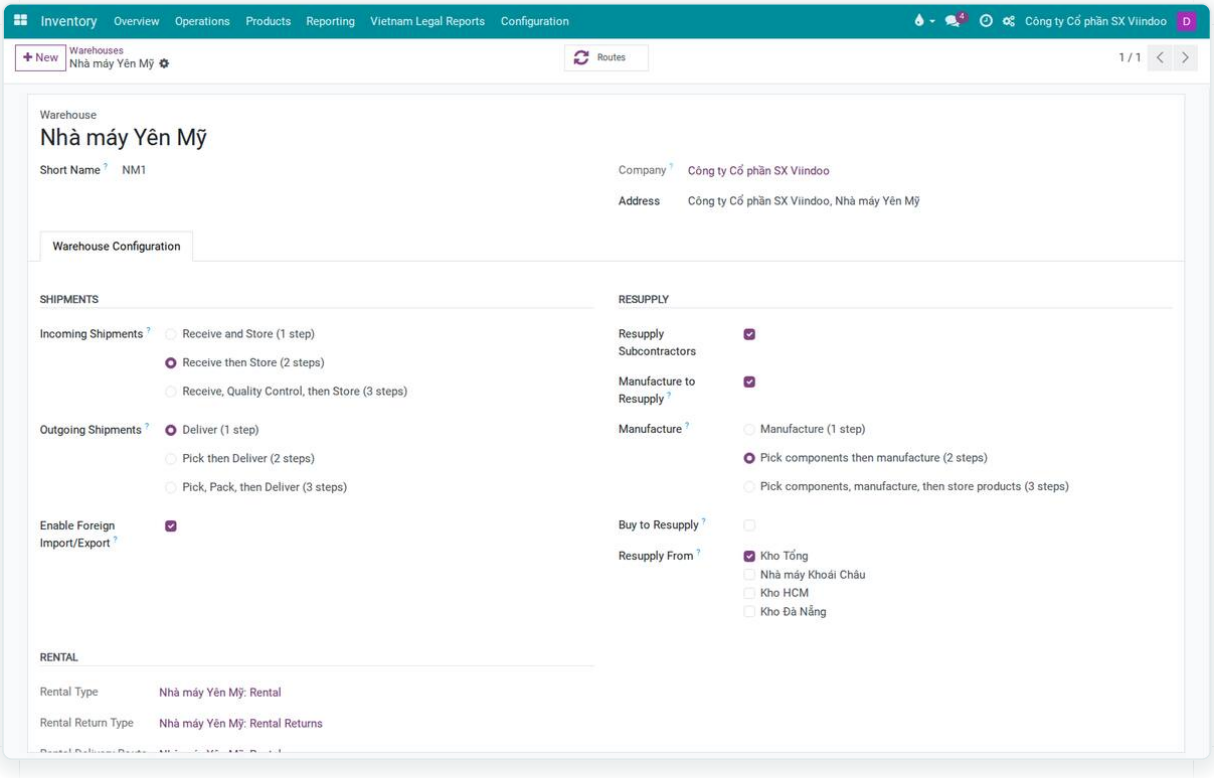
50 SUBCONTRACTING CONFIGURATION IN USE

About 10 minutes. By the end of this lesson your company knows which warehouse may supply materials to a subcontractor, which location the materials pass through, and which transfer does it.

Step 1 - Read the warehouse configuration

Open the warehouse **Nhà máy Yên Mỹ** (Yen My Factory). Look at the **Resupply** group.

> *Path:* `Inventory > Configuration > Warehouse Management > Warehouses` , open the warehouse



What you should see: the **Resupply Subcontractors** box is ticked. Thanks to this box the warehouse has the transfer type **Resupply Subcontractor** (prefix `RES`), which moves materials from **NM1/Tồn kho** (NM1/Stock) to **Vị trí gia công** (Subcontracting location).

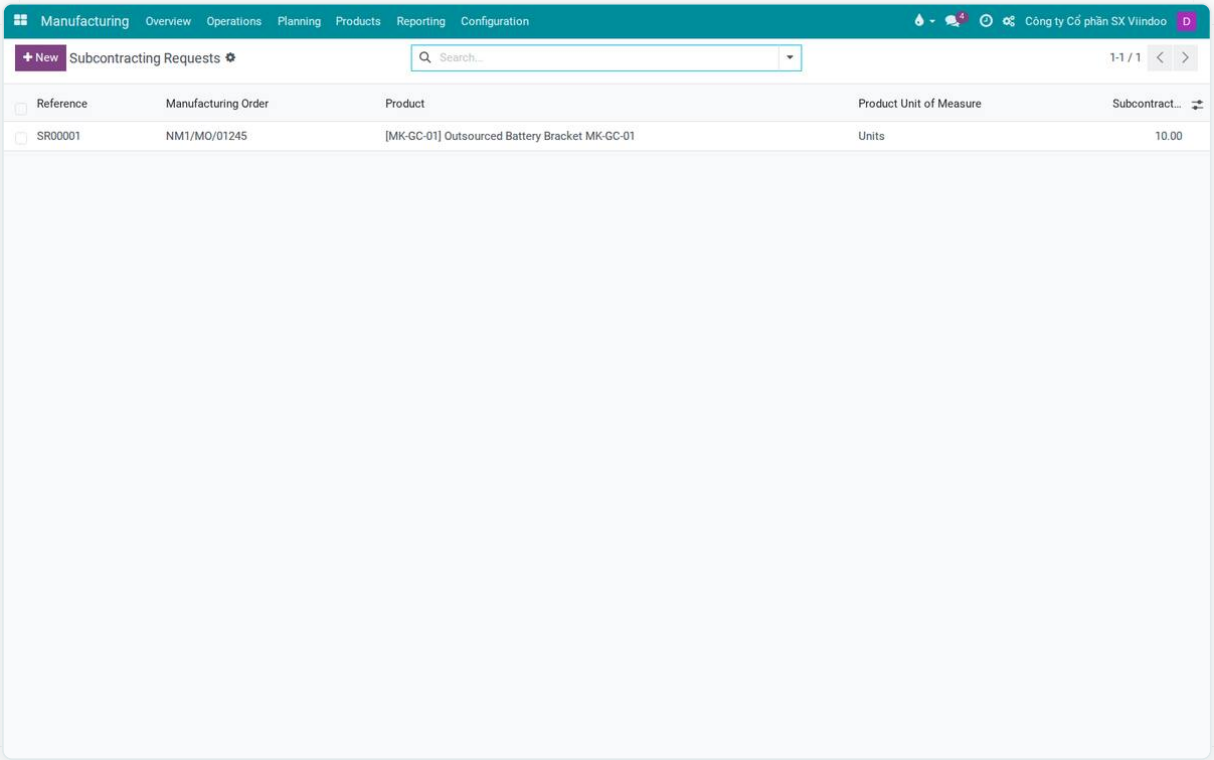
Step 2 - Read what the data must have

The system supplies materials by itself only when three conditions are met; your company checks them in the lesson *Prepare subcontracting data*:

Condition	What you lose without it
The product has a bill of materials of type **Subcontracting** attached to a subcontractor	A purchase order sent to the subcontractor is just an ordinary purchase order and does not generate a material supply need
The raw material has the route **Resupply Subcontractor on Order**	After confirming the purchase order there is no automatically generated material supply transfer; you have to supply by hand, and receiving the goods will be blocked as "not delivered enough"
The warehouse has **Resupply Subcontractors** ticked	There is no transfer type for supplying materials to an outside workshop

Step 3 - Read the list of subcontracting requests

> *Path:* `Manufacturing > Operations > Subcontracting Requests`



What you should see: the list has the columns **Reference**, **Manufacturing Order**, **Product**, **Product Unit of Measure** and **Subcontracting Quantity** (for example `SR00001` for `NM1/MO/01245`, quantity 10.00). If there is no request yet, the screen invites you to create one.

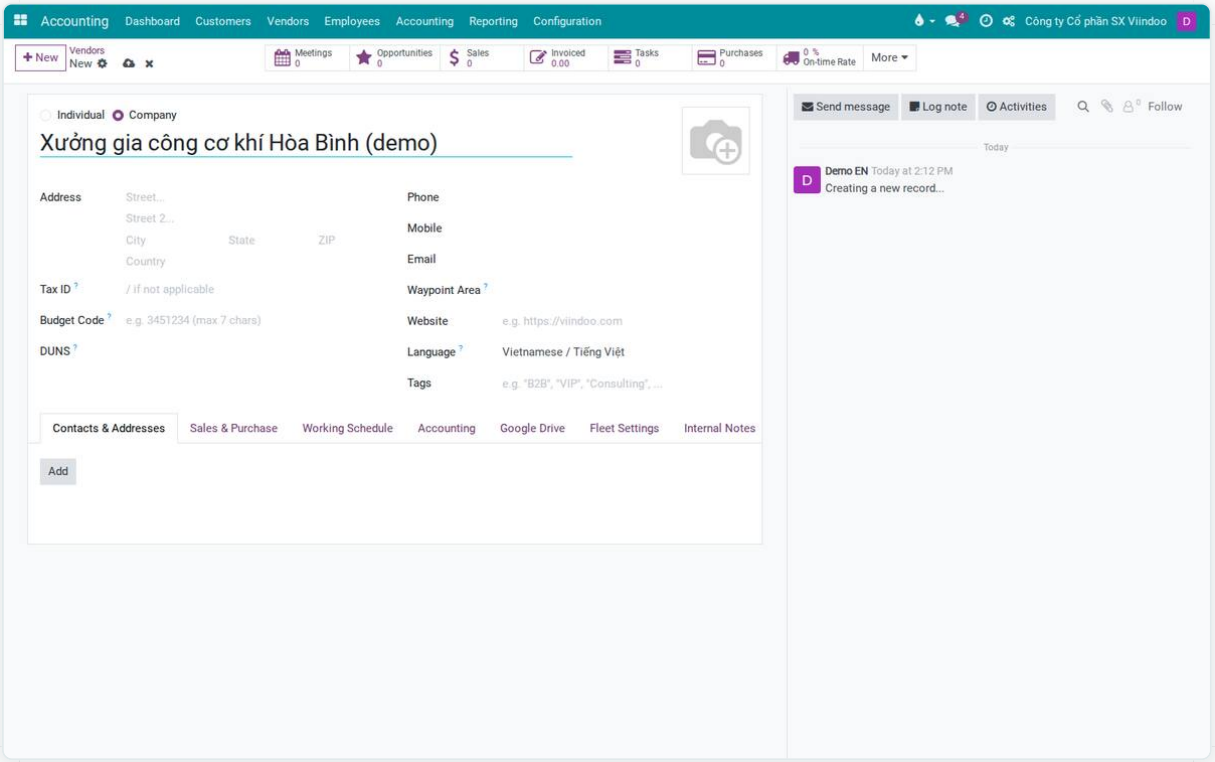
51 PREPARE SUBCONTRACTING DATA

About 20 minutes. By the end of this lesson your company has a subcontractor, a subcontracted product, a raw material and a **Subcontracting** bill of materials to run the next lessons.

Step 1 - Create the subcontractor

Open **Vendors**, click **New**, type the name `Xưởng gia công cơ khí Hòa Bình (demo)`, click save.

> *Path:* `Purchase > Orders > Vendors`

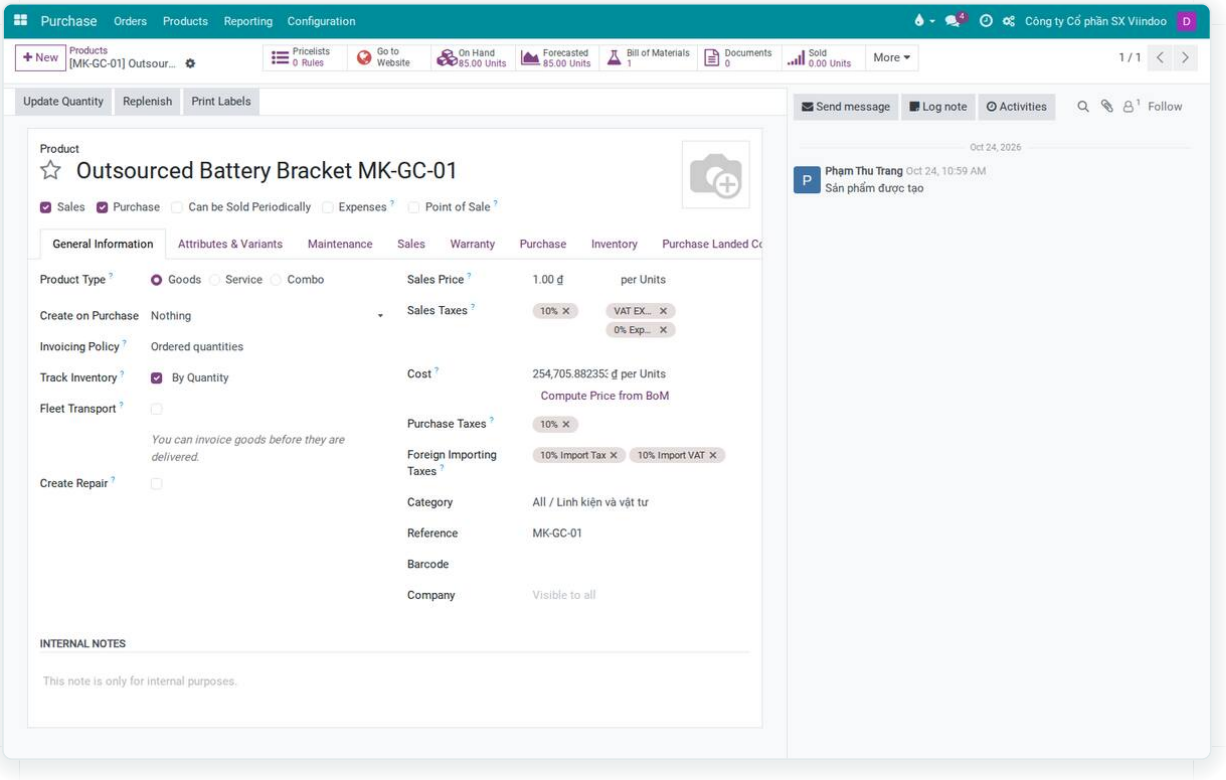


What you should see: the partner is created and belongs to the vendor group.

Step 2 - Create the subcontracted product

Open **Products**, click **New**. Name `Outsourced Battery Bracket MK-GC-01`, tick **Track Inventory** (by quantity), **Reference** `MK-GC-01`, **Category** `Linh kiện và vật tư` (Components and supplies), **Cost** 150,000. Click save.

> *Path:* `Purchase > Products > Products`

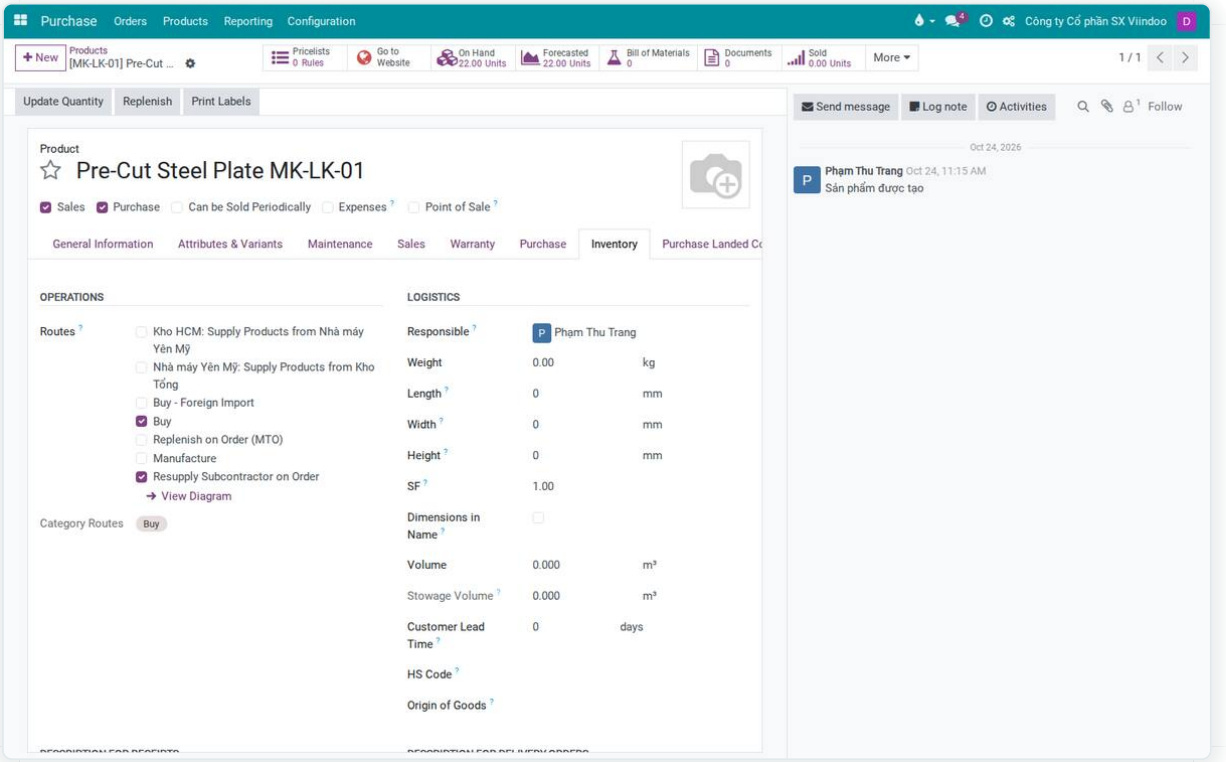


What you should see: the product has a **Bill of Materials** smart button that counts its bills of materials (0 until you create one in step 4).

Step 3 - Create the raw material with a resupply route

Create a new product `Pre-Cut Steel Plate MK-LK-01`, tracked in inventory, cost 50,000. Open the **Inventory** tab and, under **Routes**, also tick **Resupply Subcontractor on Order** (the **Buy** route is already ticked). Click save.

> *Path:* `Purchase > Products > Products` , **Inventory** tab

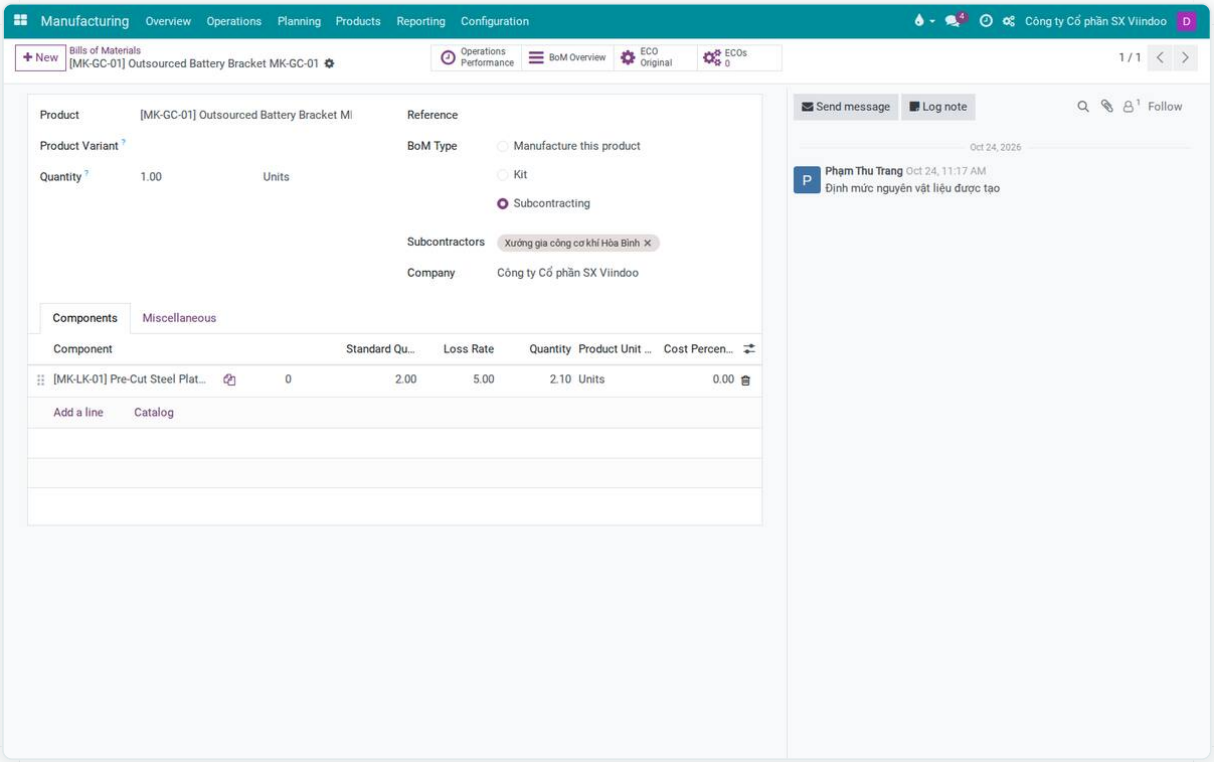


What you should see: both the **Buy** and **Resupply Subcontractor on Order** boxes are ticked. To have stock to supply, your company buys this raw material into the warehouse as in the lesson *Domestic receipt with incoming inspection* (for example 100 units at 50,000).

Step 4 - Create the Subcontracting bill of materials

Open **Bills of Materials**, click **New**. **Product** `MK-GC-01` ; in **BoM Type** choose **Subcontracting**; in **Subcontractors** choose the workshop you just created; on the **Components** tab add the component `MK-LK-01` with **Standard Quantity** 2 and **Loss Rate** 5. Click save.

> *Path:* `Manufacturing > Products > Bills of Materials`



What you should see: BoM Type is **Subcontracting**, the **Subcontractors** field holds the workshop name, and the **Components** tab has the steel plate line with **Standard Quantity** 2.00, **Loss Rate** 5.00 and **Quantity** 2.10.

52 SUBCONTRACTING REQUEST AND APPROVAL

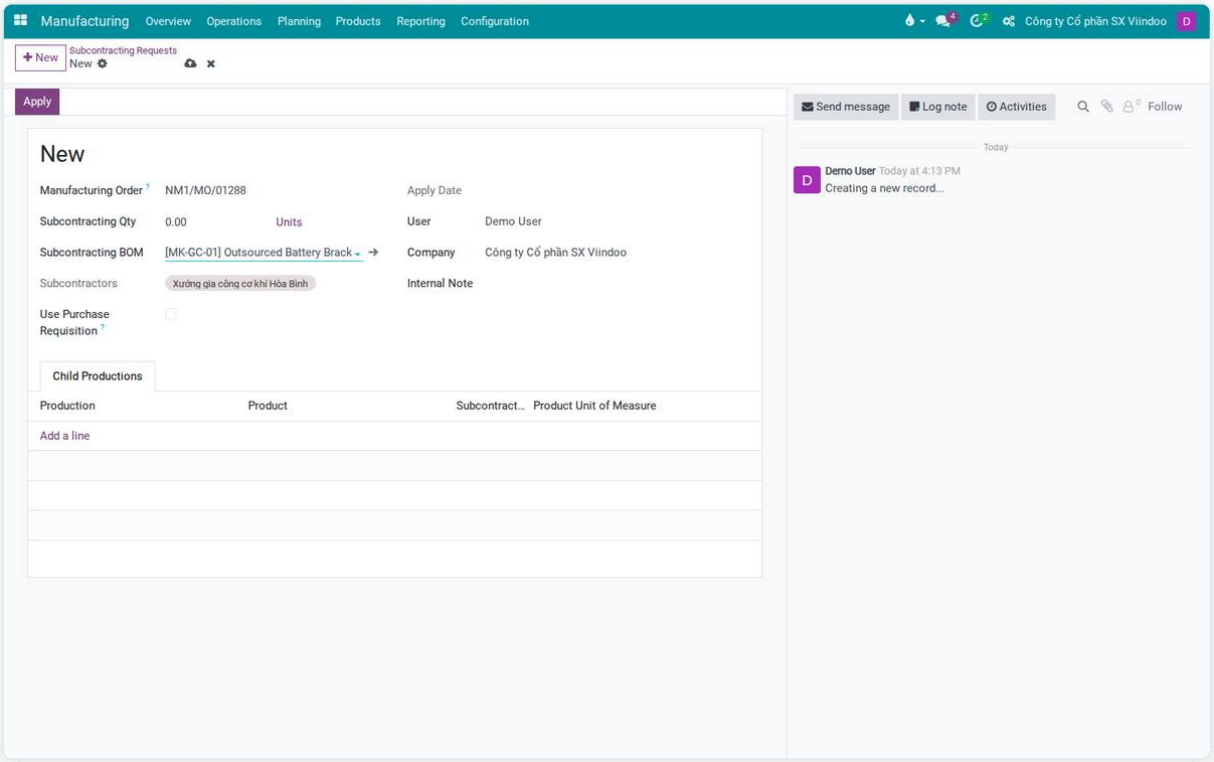
About 20 minutes. By the end of this lesson your company creates a subcontracting request tied to a manufacturing order, sends it for approval and gets it approved.

> *Prerequisite:* you need a confirmed manufacturing order for the very product that has the Subcontracting bill of materials (create the order as in the lesson *Check material availability and buy the shortfall for a manufacturing order*, and confirm it).

Step 1 - Create the subcontracting request

Open **Subcontracting Requests**, click **New**. In **Manufacturing Order** choose the confirmed order; **Subcontracting BOM** and **Subcontractors** fill in automatically; in **Subcontracting Qty** enter 10.

> *Path:* `Manufacturing > Operations > Subcontracting Requests`



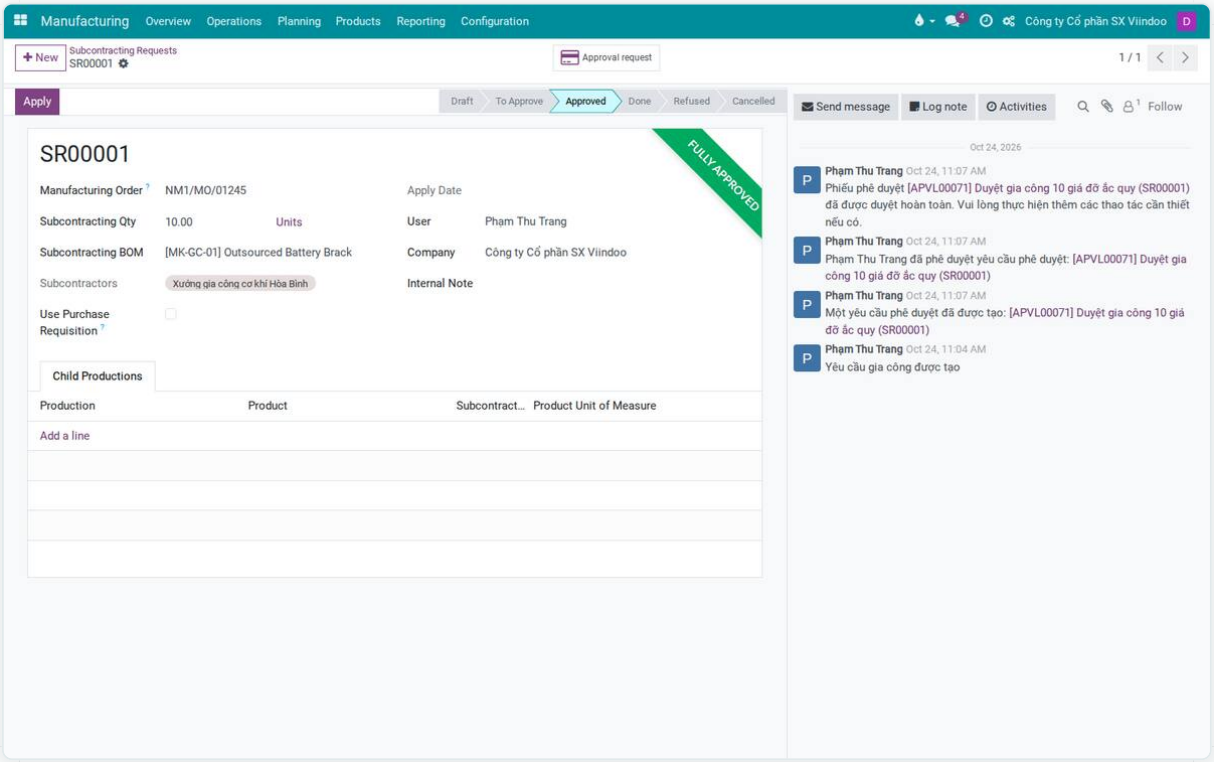
What you should see: the bill of materials field and the subcontractor field fill in after you choose the order.

Step 2 - Save the request

> *Path:* still on the screen of the previous step (`Manufacturing > Operations > Subcontracting Requests`)

Click save.

> *Path:* on the request itself (`Manufacturing > Operations > Subcontracting Requests`)

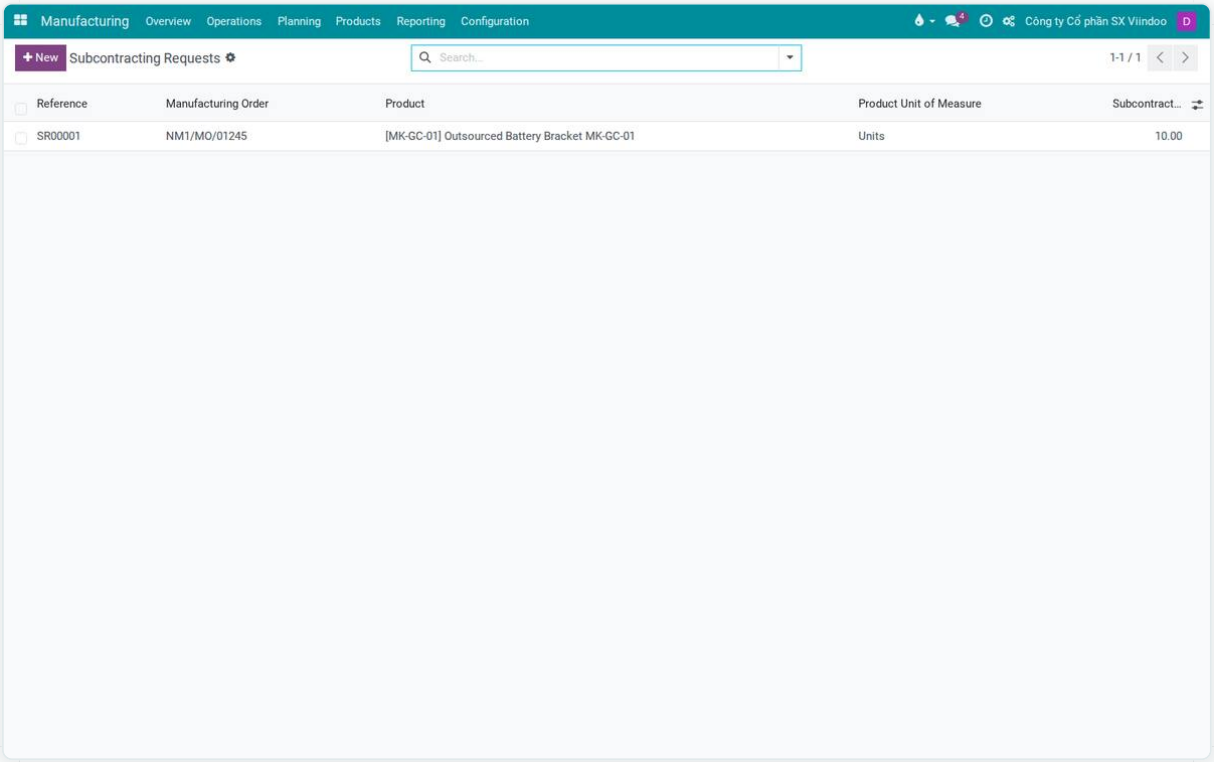


What you should see: the request carries a code of the form `SR00001`. Once it has been approved (see the next steps) it shows the green **Fully Approved** ribbon and an **Apply** button.

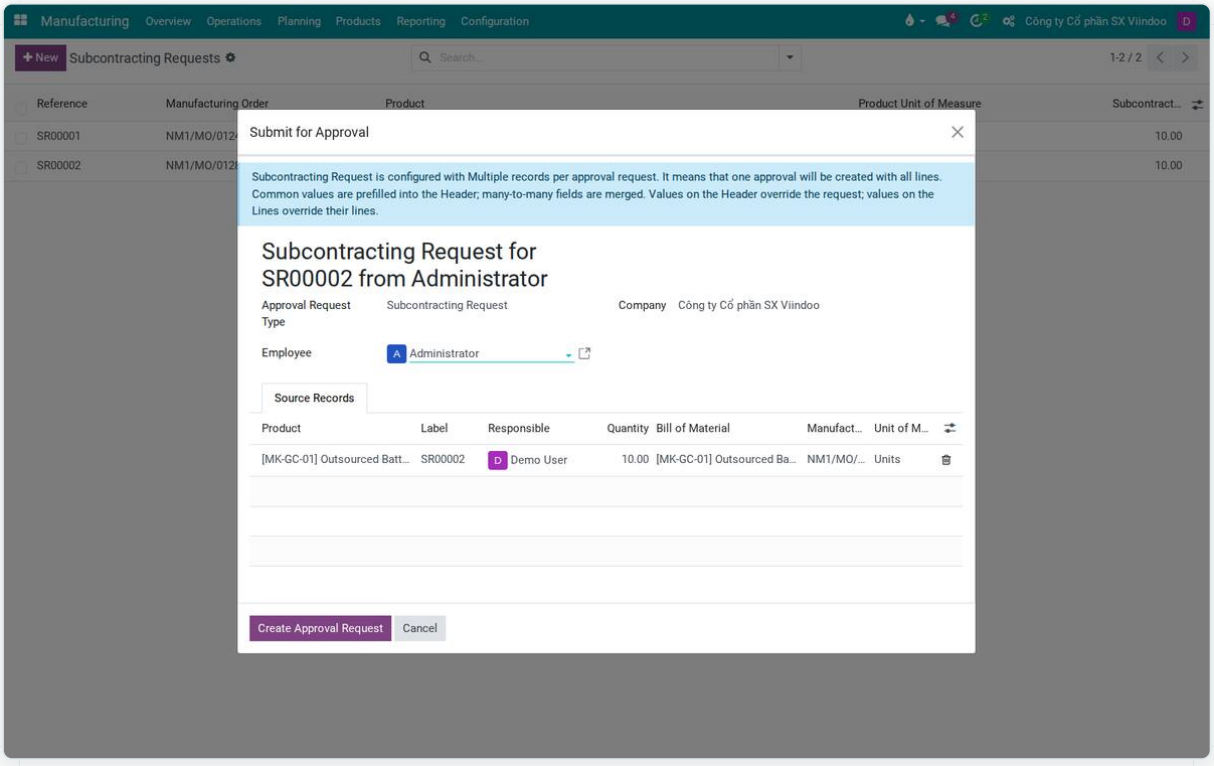
Step 3 - Send it for approval

Go back to the list, tick the request, click **Actions** and choose **Get Approved**.

> *Path:* `Manufacturing > Operations > Subcontracting Requests`



What you should see: the **Submit for Approval** box appears.

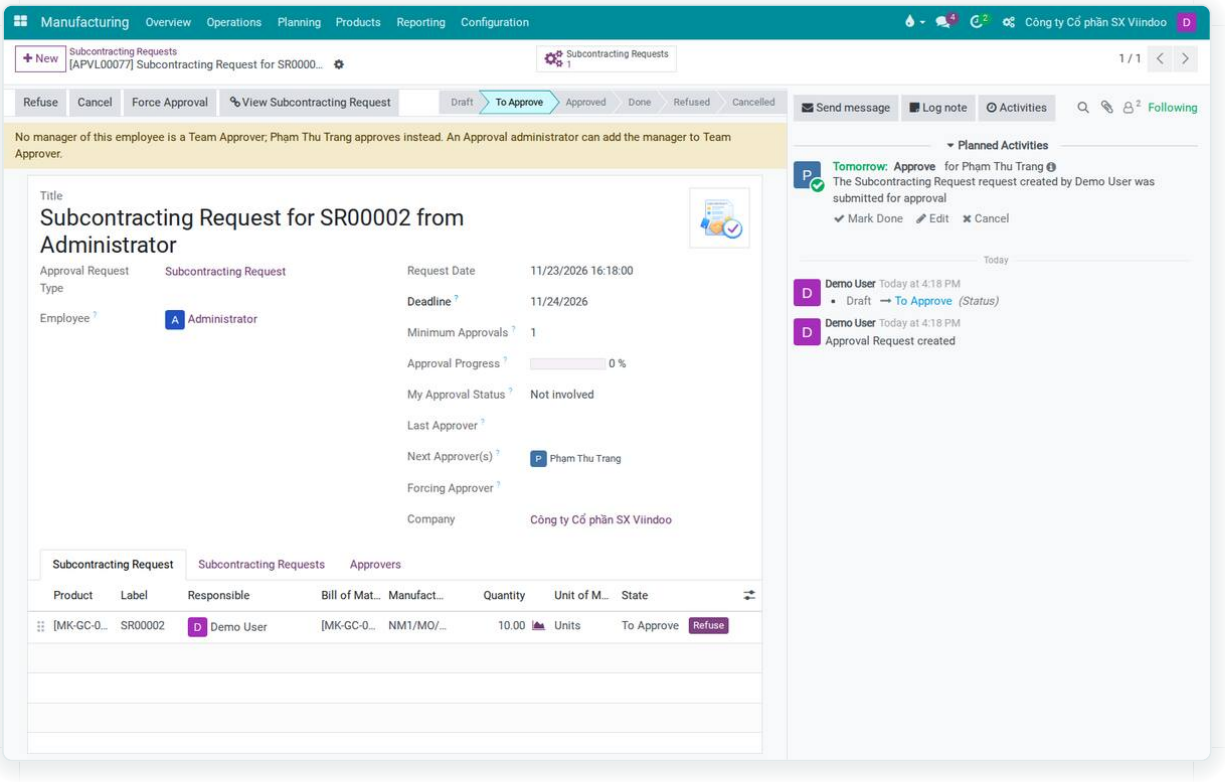


What you should see: Approval Request Type is **Subcontracting Request**, and the **Source Records** table holds the request you selected. The title is filled in automatically (for example "Subcontracting Request for SR00002 from Administrator"); choose the **Employee** (required), then click **Create Approval Request**.

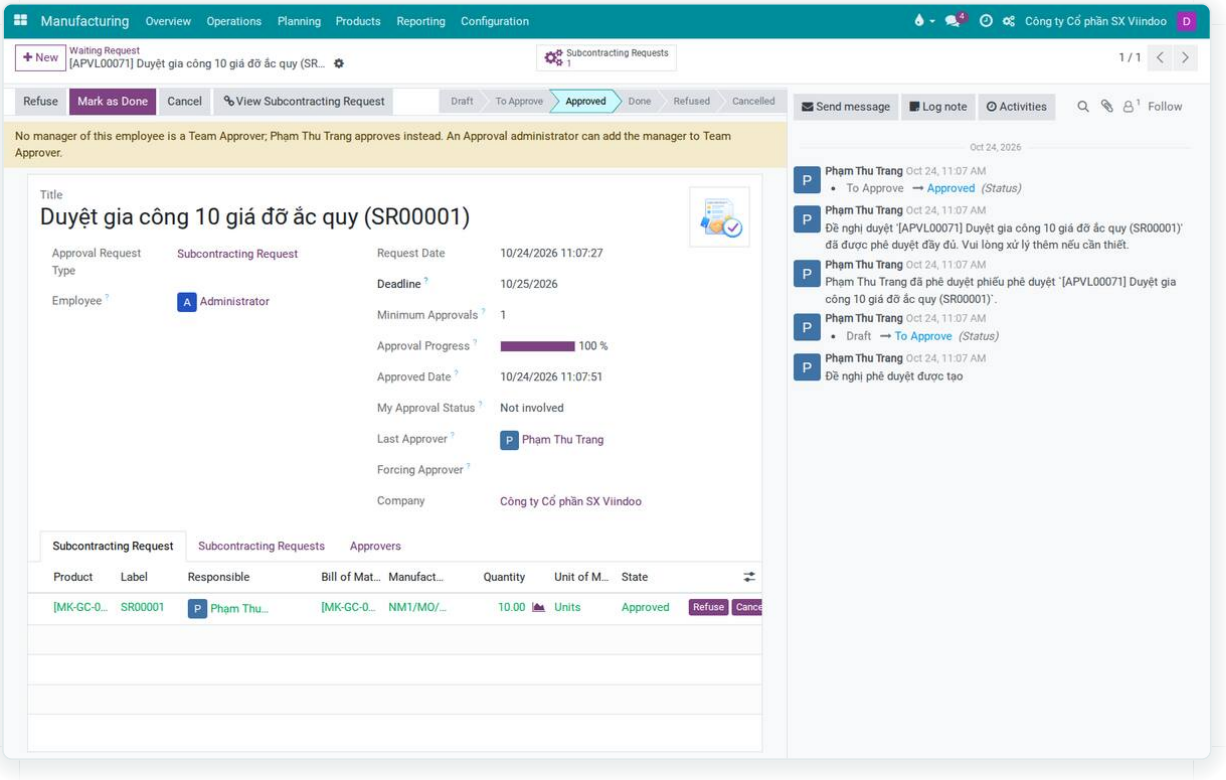
Step 4 - Submit and approve

The approval request is created and submitted automatically. Open it, then a user with approval rights approves it.

> *Path:* `Approval > Approval Request > Request`



What you should see: the status is **To Approve**, with the **Refuse**, **Cancel**, **Force Approval** and **View Subcontracting Request** buttons; **Next Approver(s)** names the approver.



What you should see: the status is **Approved**, **Approval Progress** 100%, with the **Mark as Done** and **View Subcontracting Request** buttons.

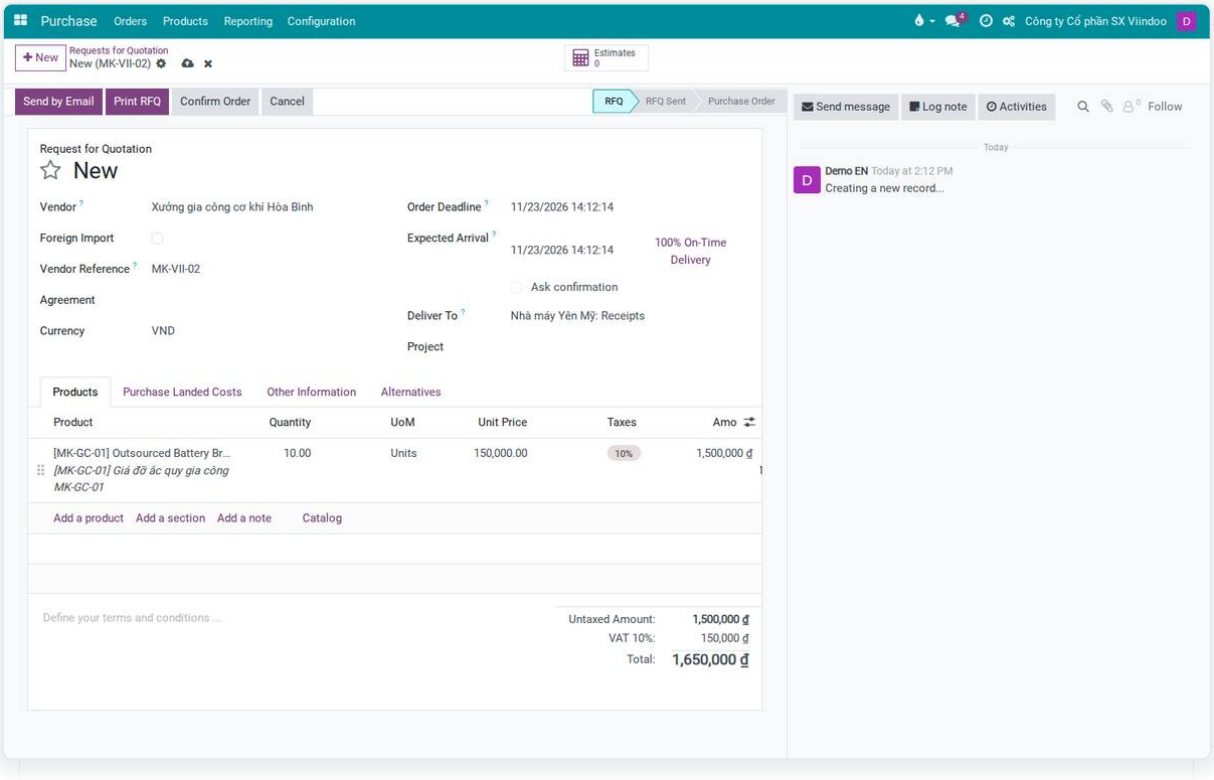
53 PLACE THE SUBCONTRACTING ORDER, SUPPLY MATERIALS AND RECEIVE FINISHED GOODS

About 30 minutes. By the end of this lesson your company sends a subcontracting order, the system generates the material supply transfer to the outside workshop by itself, and your company receives the finished goods into the warehouse.

Step 1 - Create the purchase order sent to the subcontractor

Create a **Request for Quotation** for `Xưởng gia công cơ khí Hòa Bình (demo)`, vendor reference `MK-VII-02`, line `MK-GC-01` quantity 10, unit price 150,000. Save.

> *Path:* `Purchase > Orders > Requests for Quotation`



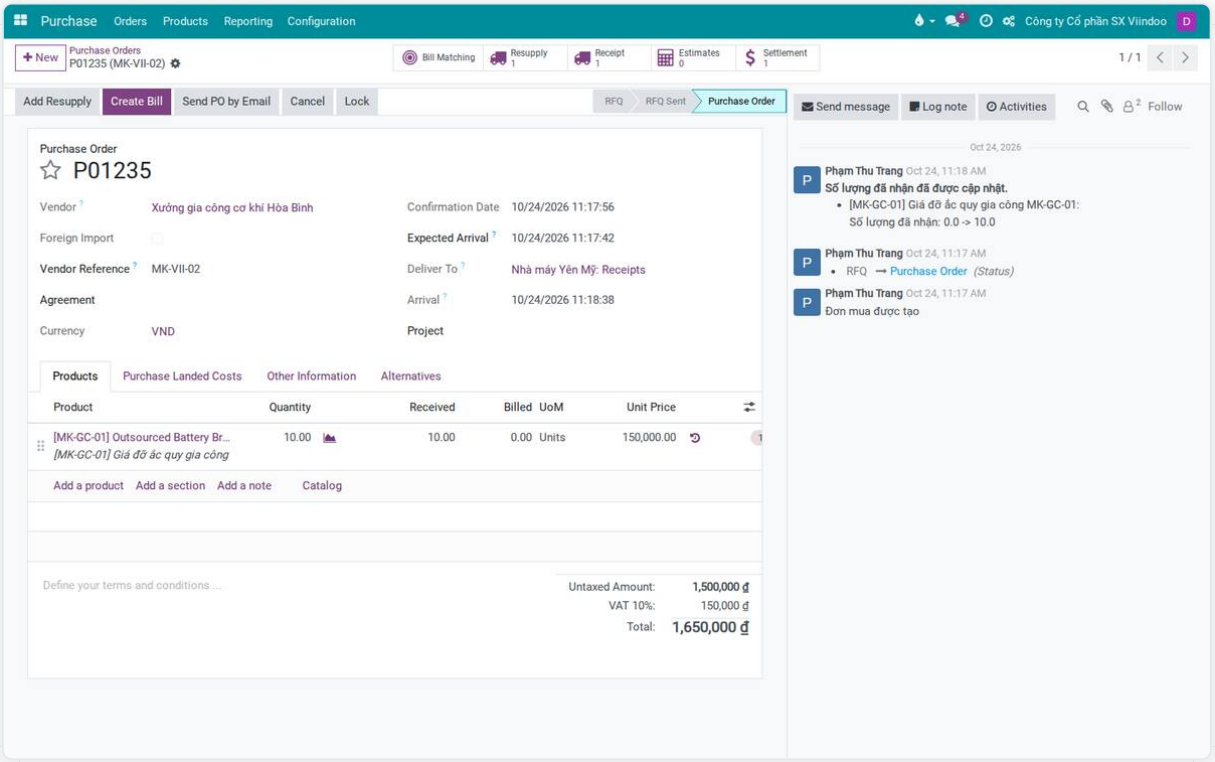
What you should see: an ordinary purchase order: 1,500,000 VND untaxed plus 150,000 VND of VAT, total 1,650,000 VND.

Step 2 - Confirm the order and look at the Resupply button

> *Path:* still on the screen of the previous step (`Purchase > Orders > Requests for Quotation`)

Click **Confirm Order**, **Validate** in the date dialog.

> *Path:* on the purchase order (`Purchase > Orders > Requests for Quotation`)

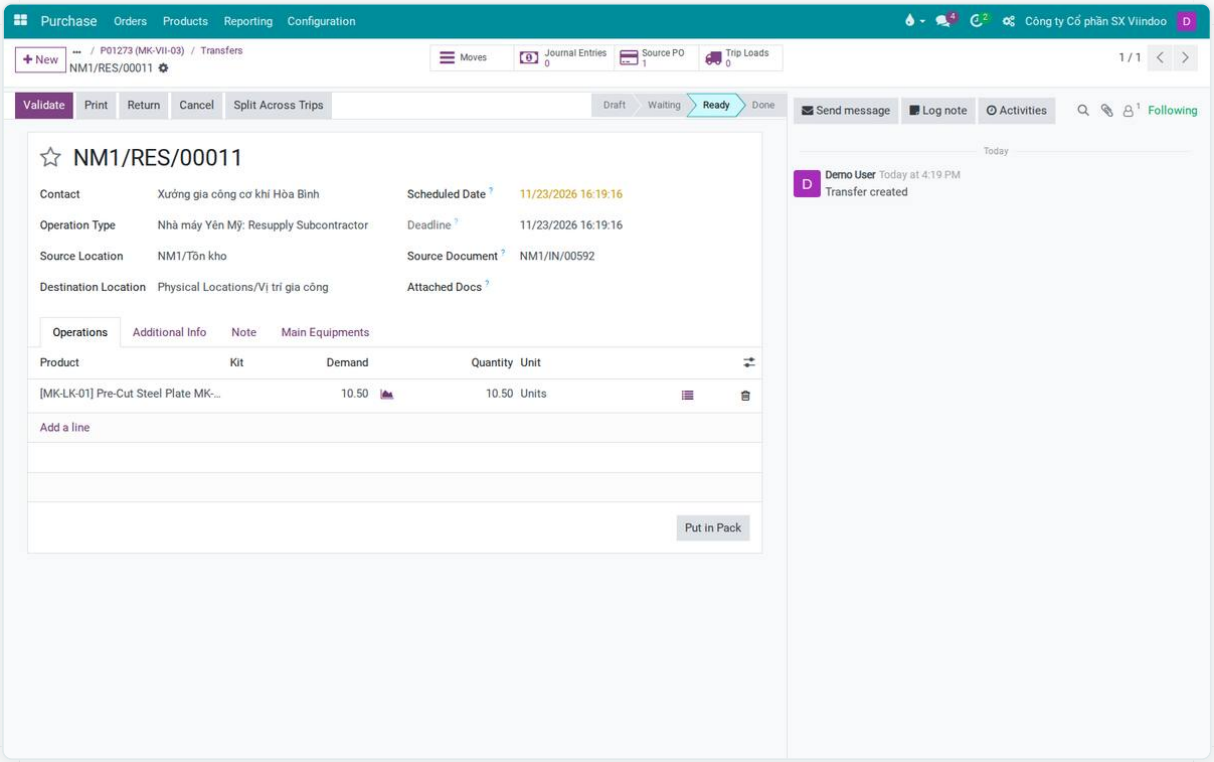


What you should see: the buttons at the top of the order: **Resupply** shows 1, **Receipt** shows 1, and **Settlement** counts the settlement documents (0 at first, 1 once the goods are received); the button bar has **Receive Products** and **Add Resupply** (and **Create Bill** after the goods are received). The material supply transfer has been generated automatically because the raw material has the resupply route.

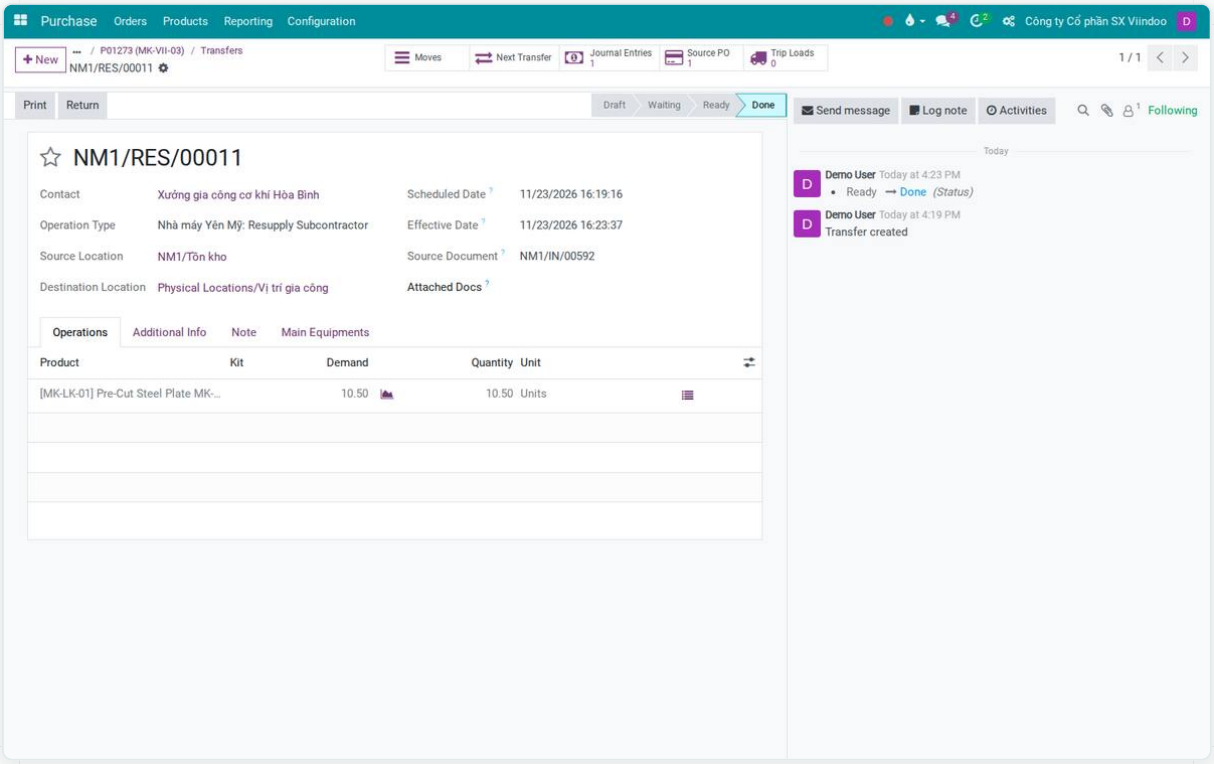
Step 3 - Validate the material supply transfer

Click **Resupply**, open the transfer `NM1/RES/xxxxx`, click **Validate**, then **Validate** in the date dialog.

> *Path:* on the purchase order, **Resupply** button (`Purchase > Orders > Requests for Quotation`)



What you should see: the transfer moves from **NM1/Tồn kho** (NM1/Stock) to **Physical Locations/Vị trí gia công** (Physical Locations/Subcontracting location), the quantity is the number of brackets times the quantity per bracket in the bill of materials (10.50 steel plates for an order of 5 brackets, 5 x 2.10); the **Contact** is the subcontractor and the **Source Document** is the receipt of the order.

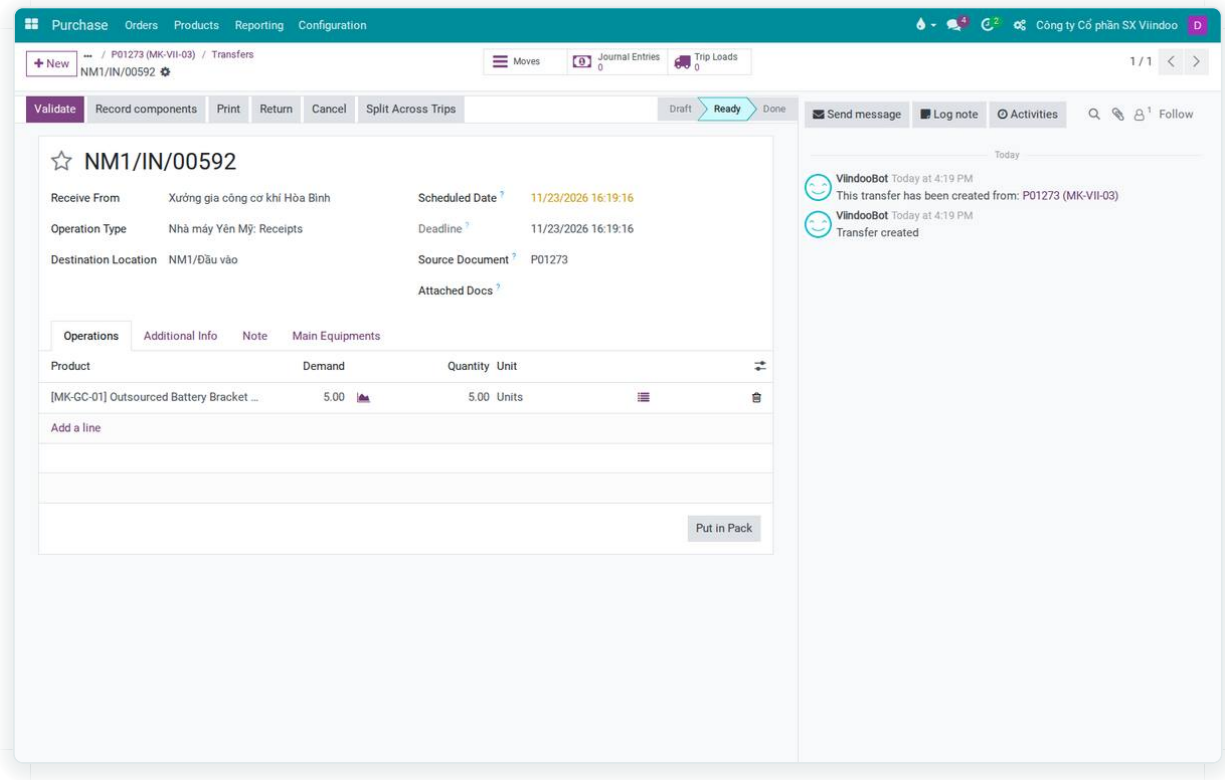


What you should see: the status is **Done**. The entry follows Vietnamese accounting standards: debit 154 / credit 152 for the value of the material supplied (quantity x 50,000 VND).

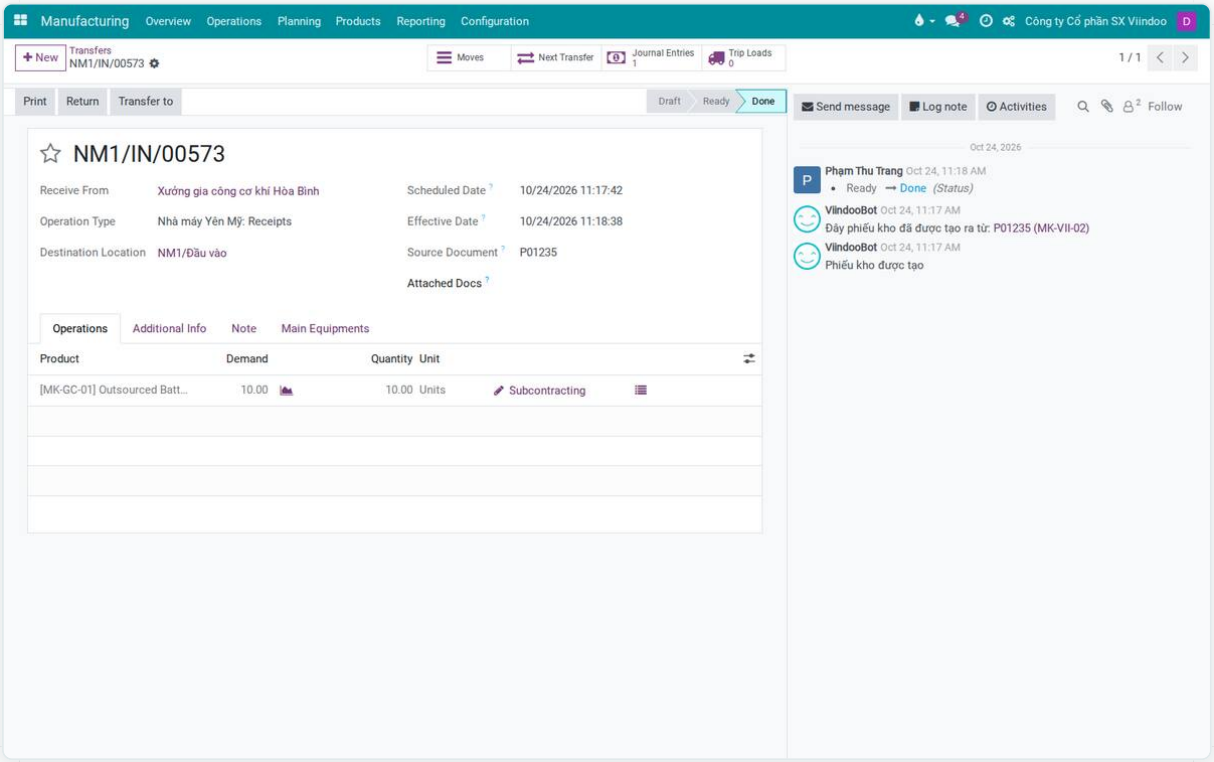
Step 4 - Receive the subcontracted finished goods

Click **Receipt**, open the transfer `NM1/IN/xxxxx` of the order, click **Validate**, then **Validate** in the date dialog.

> *Path:* on the purchase order, **Receipt** button (`Purchase > Orders > Requests for Quotation`)



What you should see: a receipt from the subcontractor; the button bar has **Record components**.



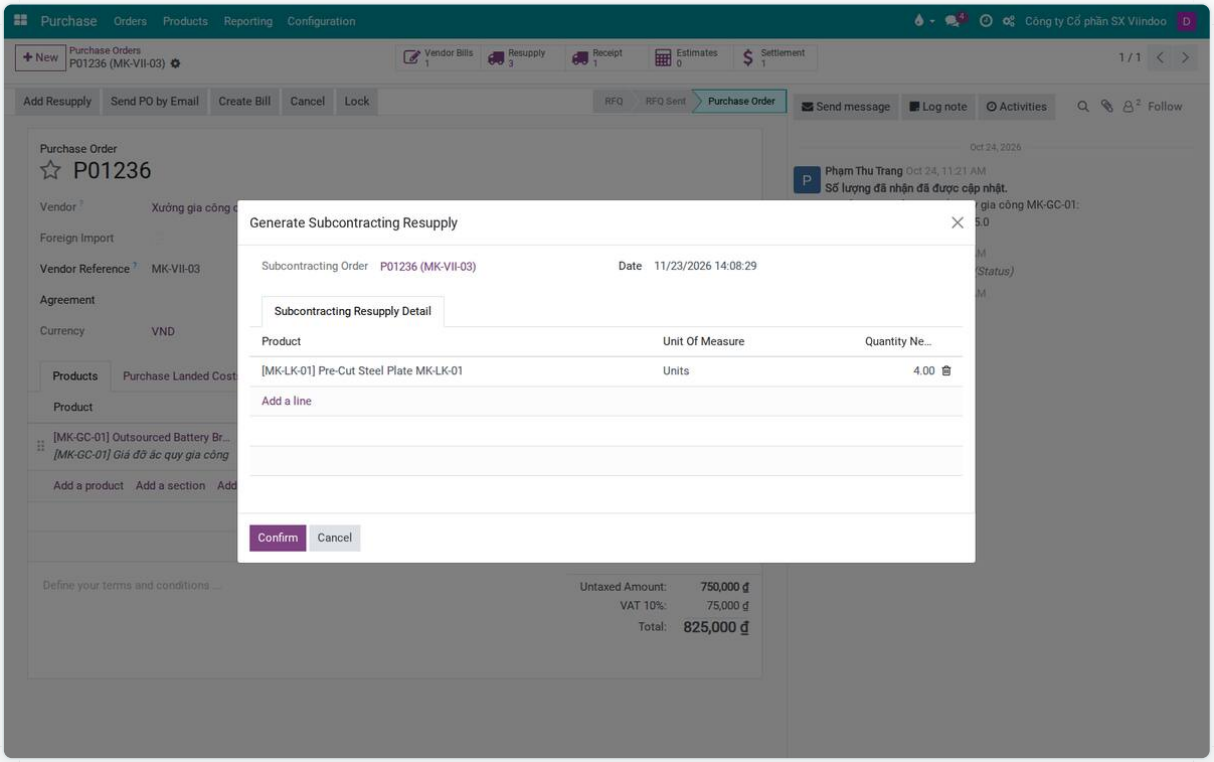
What you should see: the status is **Done**; the product line carries the **Subcontracting** label; the system has created the subcontracting production order by itself and deducted the materials already supplied. The receipt entry: debit 152 for the finished goods (materials consumed plus the fee); credit 154 for the materials consumed (quantity consumed x 50,000 VND); credit 151 for the subcontracting fee (quantity x 150,000 VND, waiting for the bill). After that, do the `STOR` transfer to move the finished goods from **Input** to **Stock**.

> *The system blocks:* if the materials supplied are not enough for the finished goods to be received, clicking **Validate** on the receipt shows "You need to provide enough raw materials to produce the finished products. Please check your Resupply pickings", together with the figures **Need to consume**, **Delivered**, **Consumed** and **Remaining**.

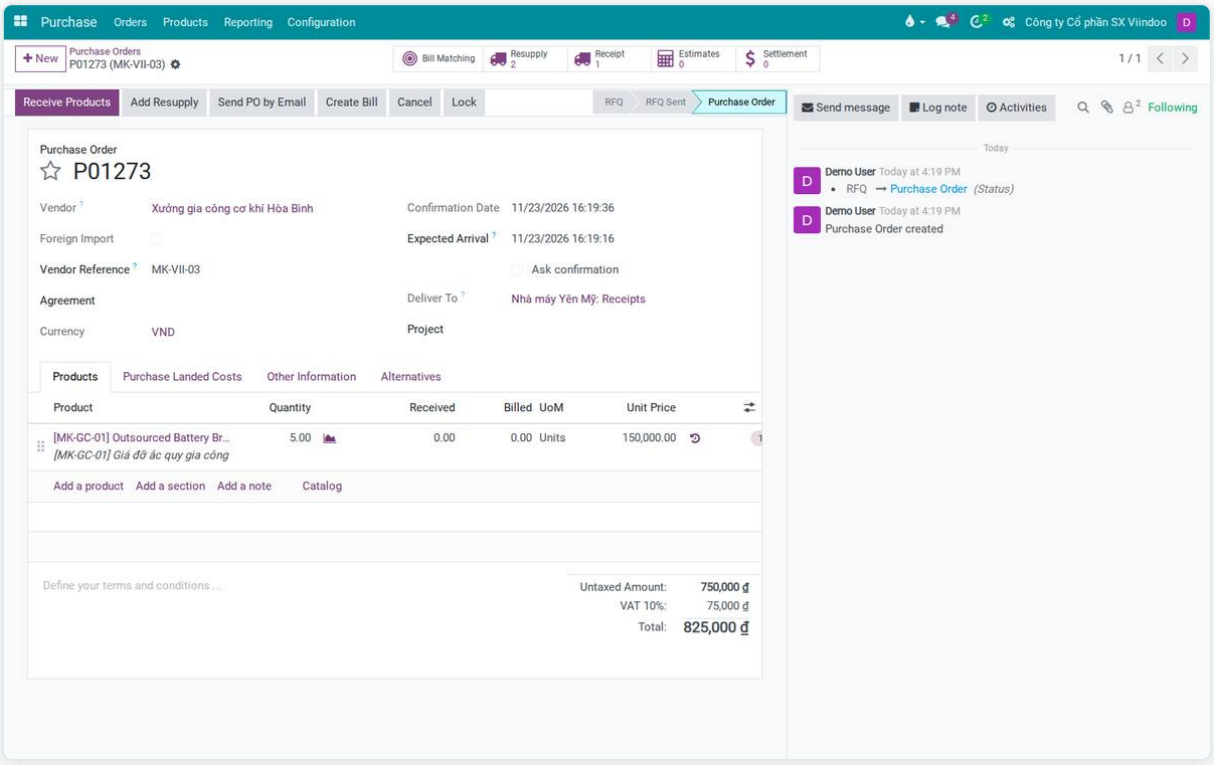
Step 5 - Supply extra materials before receiving the goods

For another order (5 brackets, vendor reference `MK-VII-03`), after confirming the order click **Add Resupply**, on the material line change **Quantity Needed Resupply** to 4, click **Confirm**.

> *Path:* on the subcontracting order, **Add Resupply** button (`Purchase > Orders > Requests for Quotation`)



What you should see: the **Generate Subcontracting Resupply** box shows the **Subcontracting Order** and the **Date**, and its **Subcontracting Resupply Detail** tab lists the raw material and the **Quantity Needed Resupply** you entered.



What you should see: the **Resupply** button shows 2 (one transfer of 10.50 per the bill of materials, one of 4 supplied extra). Validate both transfers, then receive the finished goods as in step 4.

> *Limit:* you can supply extra only while the order still has an open resupply batch, that is, before the finished goods have been fully received. If you try to supply extra after everything is received, the system says "These materials have no open resupply on this subcontracting order, so there is no manufacturing order for a new delivery to feed".

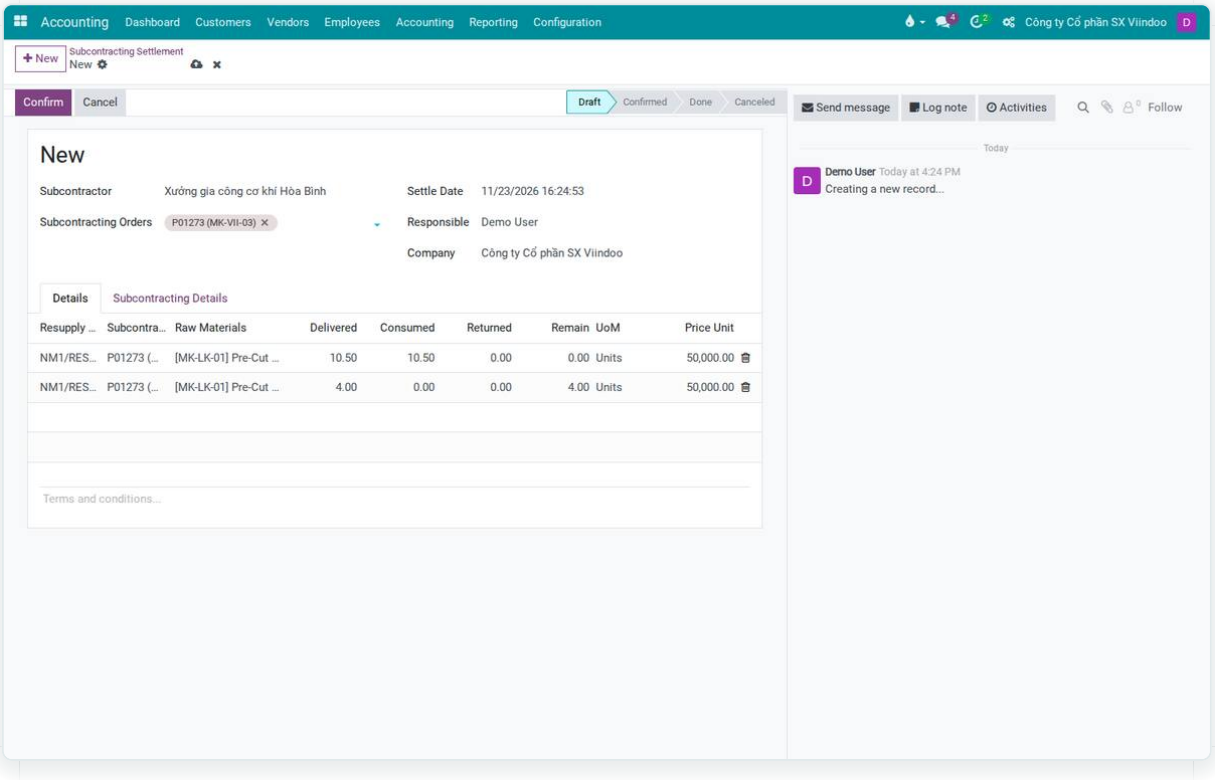
54 SETTLE MATERIALS WITH THE SUBCONTRACTOR

About 20 minutes. By the end of this lesson your company has a settlement document showing the materials delivered, consumed and left at the outside workshop, and returns the surplus to the warehouse.

Step 1 - Create the settlement document

Open **Subcontracting Settlement**, click **New**. Choose the **Subcontractor**, and in **Subcontracting Orders** choose the order `MK-VII-03`. The **Details** table fills in automatically.

> *Path:* `Accounting > Accounting > Subcontracting Settlement`



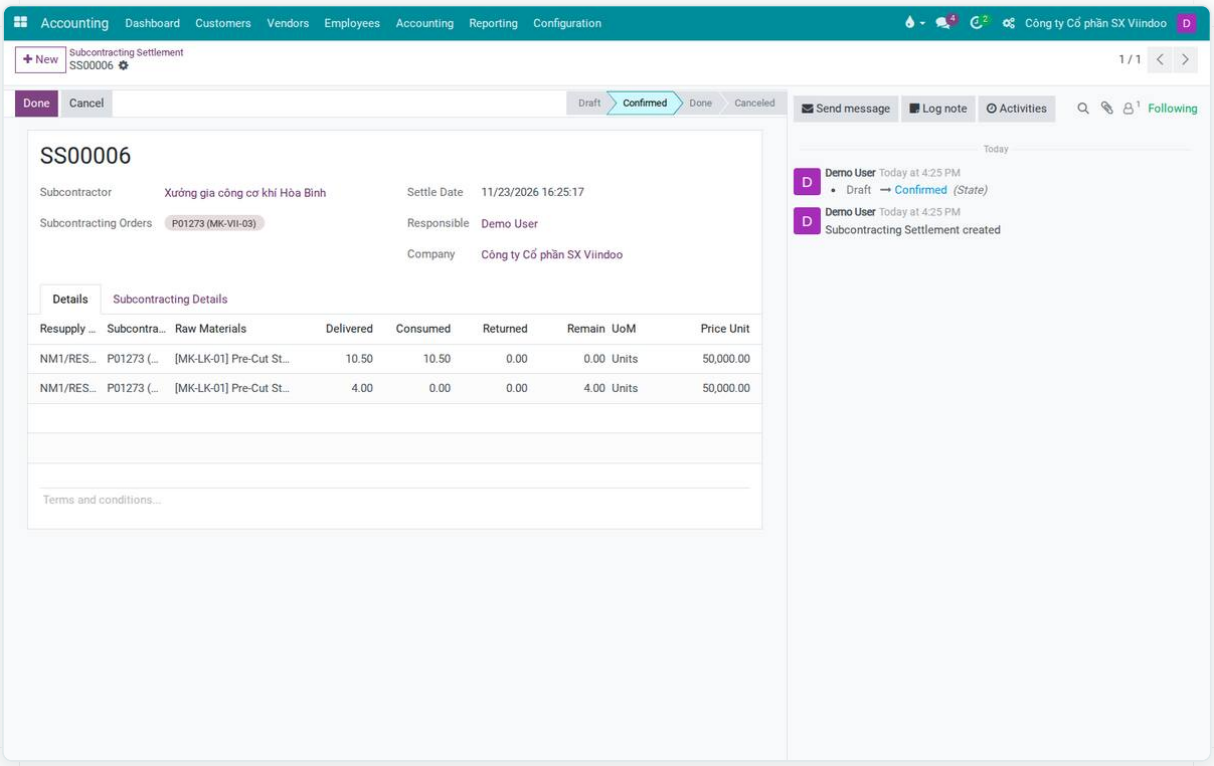
What you should see: each supply transfer has one line with the columns **Delivered**, **Consumed**, **Returned** and **Remain**. In the example, the first line has **Delivered** 10.50, **Consumed** 10.50 and **Remain** 0.00, and the line for the extra supply has **Delivered** 4.00, **Consumed** 0.00 and **Remain** 4.00: four steel plates are still at the outside workshop. For an order that was supplied exactly, like `MK-VII-02`, **Remain** is 0.

Step 2 - Confirm the document

> *Path:* still on the screen of the previous step
> (`Accounting > Accounting > Subcontracting Settlement`)

Click save, then **Confirm**.

> *Path:* on the settlement document itself (`Accounting > Accounting > Subcontracting Settlement`)



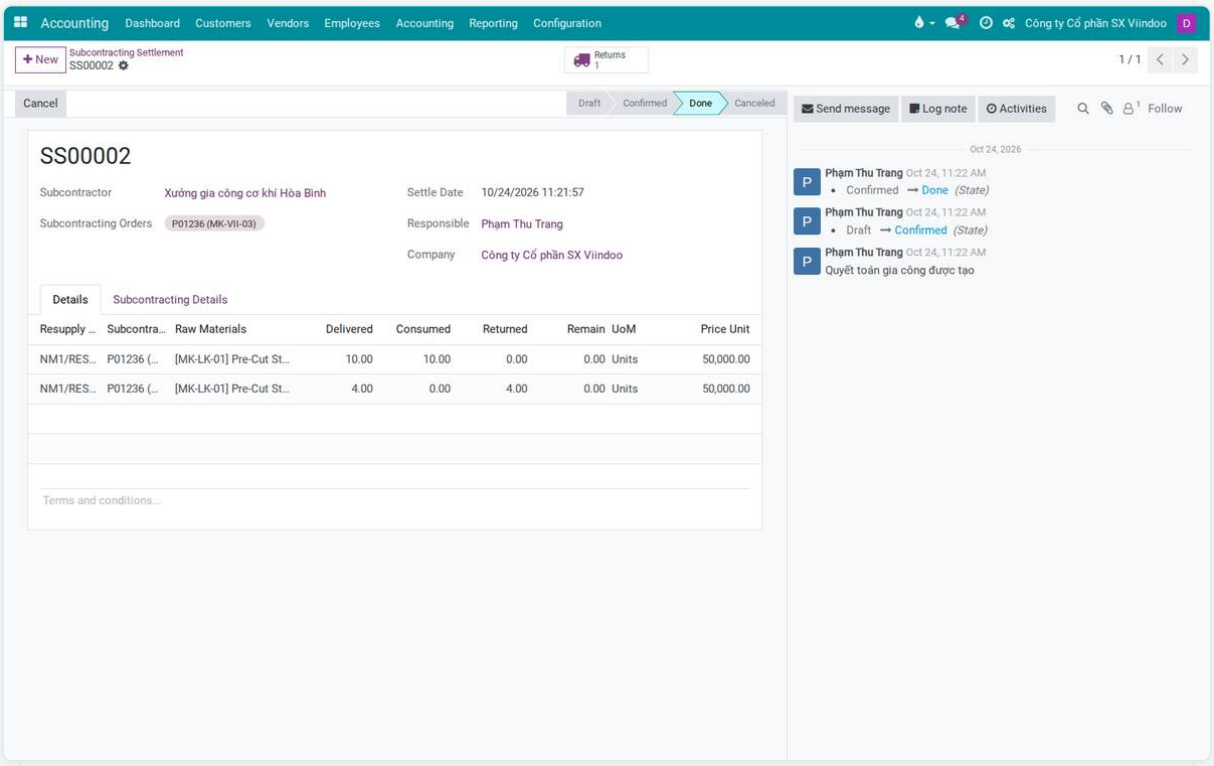
What you should see: the status is **Confirmed**, with the **Done** and **Cancel** buttons. The document can be confirmed only when the subcontracting order has a completed stock transfer.

Step 3 - Complete it and return the surplus

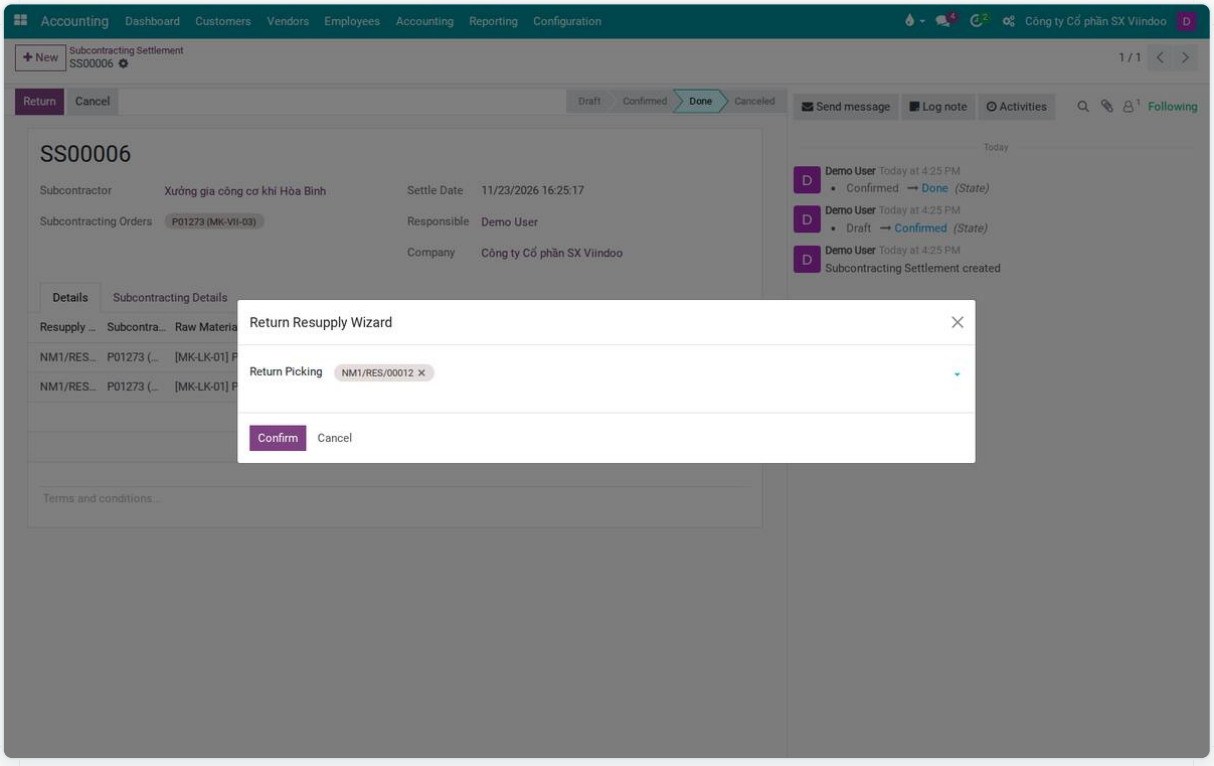
> *Path:* still on the screen of the previous step
> (`Accounting > Accounting > Subcontracting Settlement`)

Click **Done**, then click **Return**. In the **Return Resupply Wizard** box choose, in **Return Picking**, the supply transfer that has a remainder, and click **Confirm**.

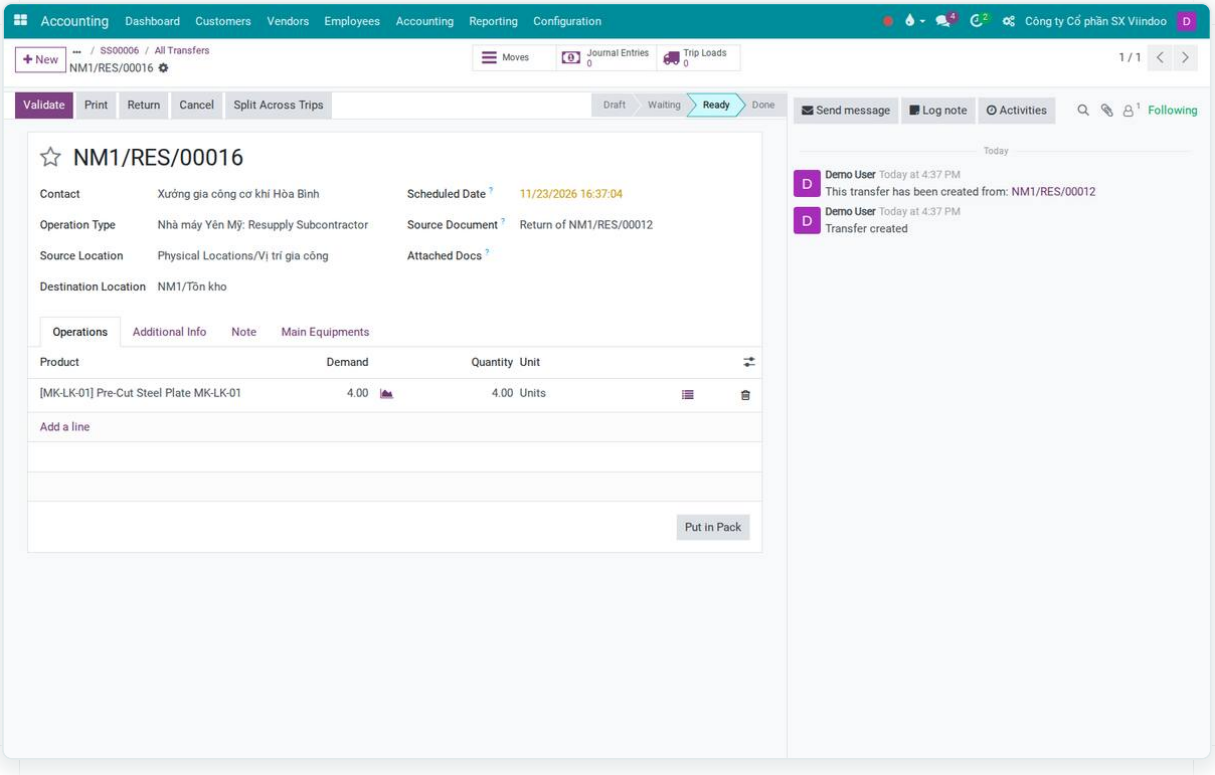
> *Path:* on the settlement document itself (`Accounting > Accounting > Subcontracting Settlement`)



What you should see: the status is **Done**; the **Return** button.



What you should see: the **Return Resupply Wizard** box lists, in **Return Picking**, only the supply transfers that still have an unconsumed part.



What you should see: a new transfer with the source document "Return of NM1/RES/...", moving 4 units from **Vị trí gia công** (Subcontracting location) back to **NM1/Tồn kho** (NM1/Stock). Click **Validate** so the goods come back into stock; the entry for the return: debit 152 / credit 154 200,000 VND (4 x 50,000).

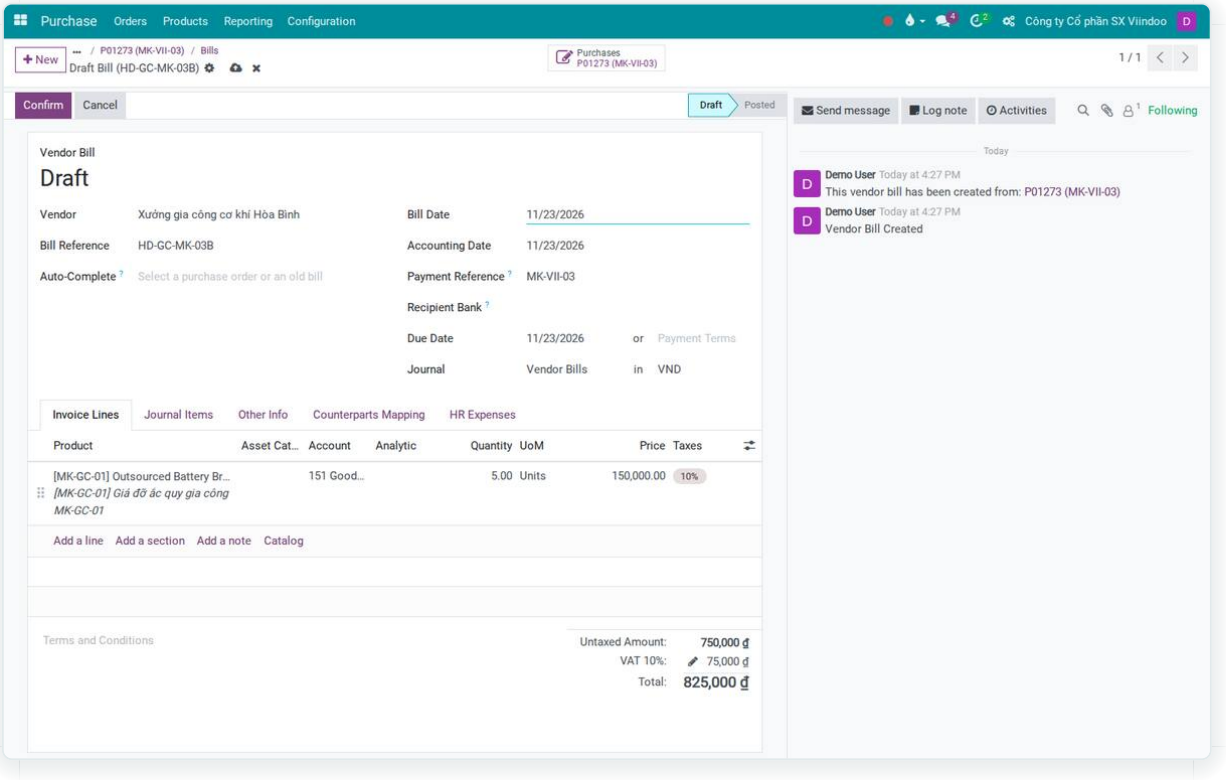
55 SUBCONTRACTING FEE BILLS

About 10 minutes. By the end of this lesson your company records the subcontracting fee of the subcontractor.

Step 1 - Create the bill

Open the subcontracting order `MK-VII-03`, click **Create Bill**, enter the **Bill Reference** and the **Bill Date**.

> *Path:* `Purchase > Orders > Purchase Orders` > (subcontracting order `MK-VII-03`) > **Create Bill** button

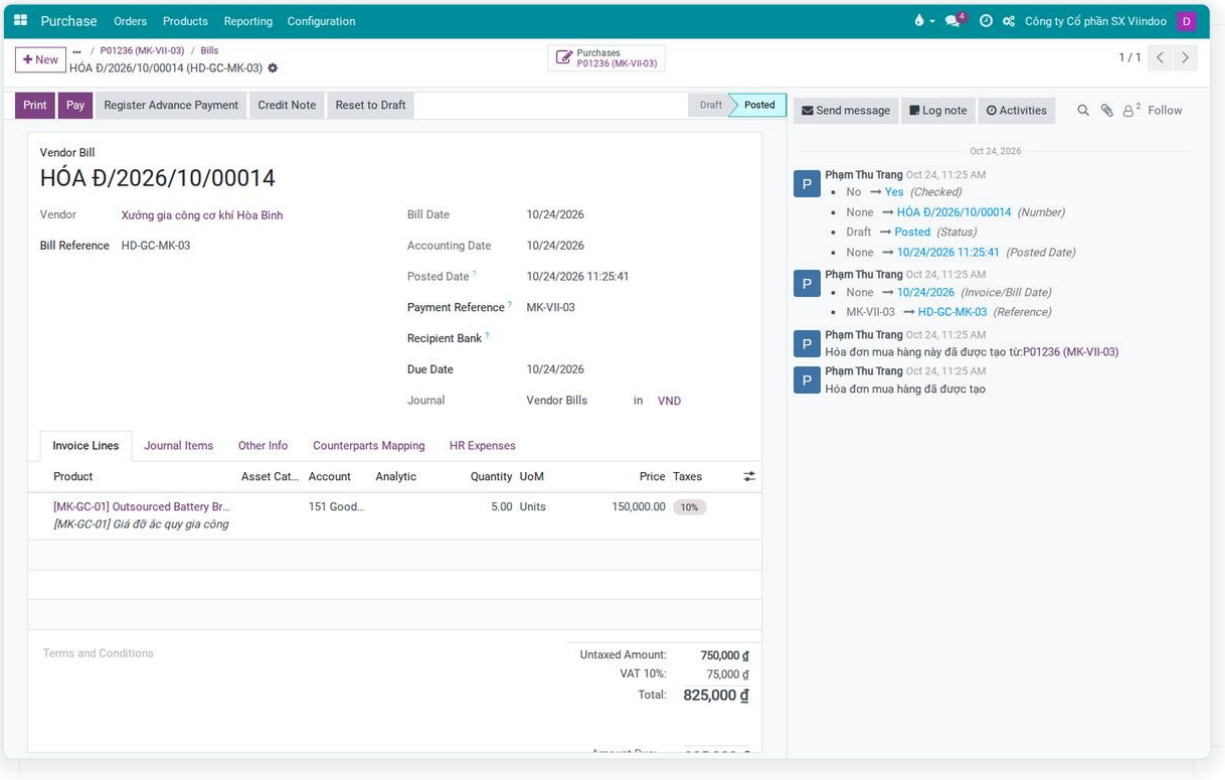


What you should see: one subcontracted product line, with the quantity already received.

Step 2 - Confirm the bill

Click **Confirm**.

> *Path:* on the bill you just created (`Purchase > Orders > Purchase Orders` > (order) > **Vendor Bills** button)



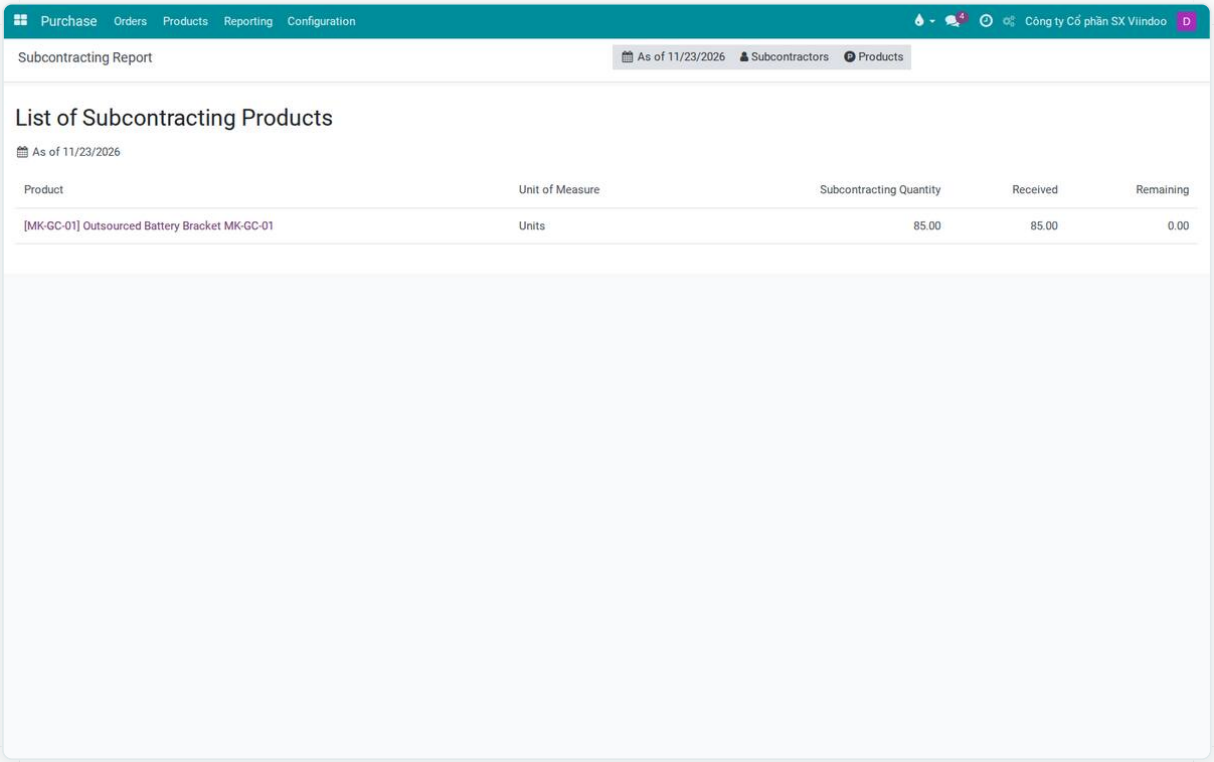
What you should see: the status is **Posted**, total 825,000 VND including VAT of 75,000 VND. The entry: debit 151 750,000 (matching the credit to 151 at receipt, so 151 returns to 0), debit 1331 75,000, credit 331 825,000.

56 SUBCONTRACTING REPORTS

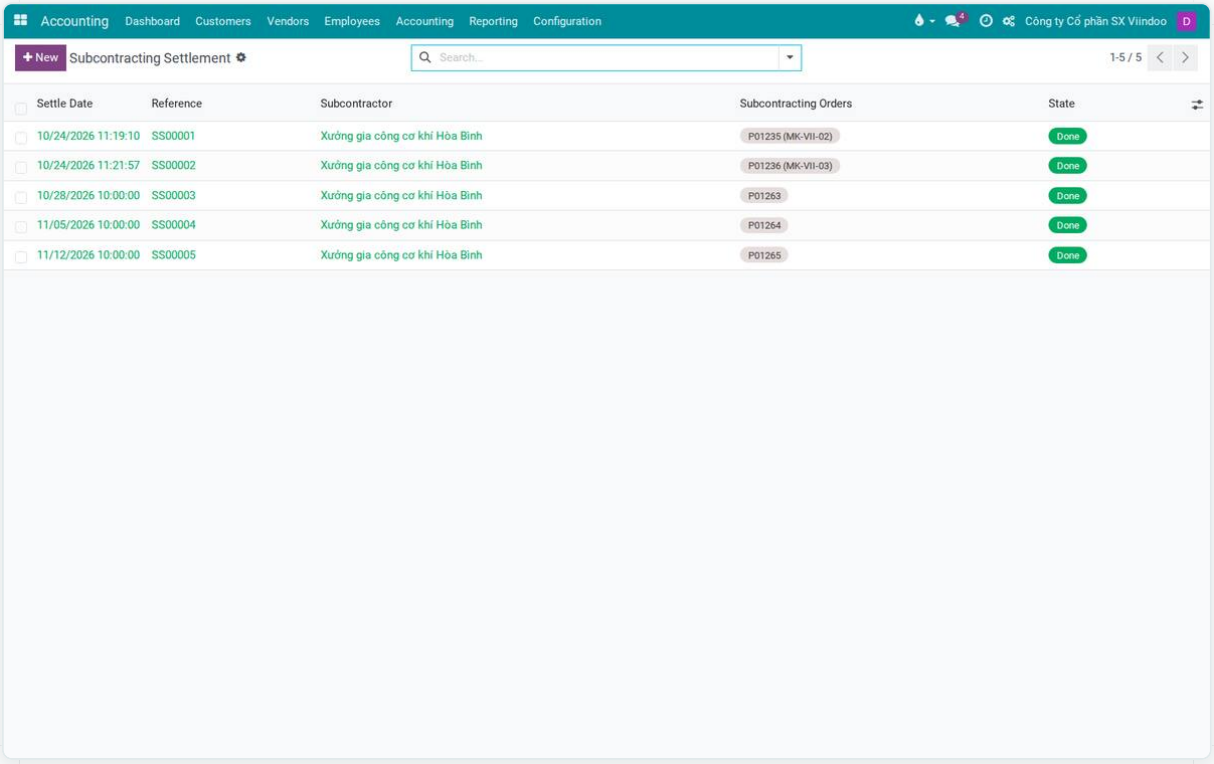
About 10 minutes.

Report	Path	Question it answers
Subcontracting Report	`Purchase > Reporting > Subcontracting Report` or `Accounting > Reporting > Manufacturing Reports > Subcontracting Report`	For each subcontracted product: how much was ordered, how much received, how much remains; filter by subcontractor and product
Subcontracting Settlement	`Accounting > Accounting > Subcontracting Settlement`	Settlement documents by subcontractor, and the status of each
Subcontracting Requests	`Manufacturing > Operations > Subcontracting Requests`	The subcontracting requests tied to manufacturing orders
Aged Payable	`Accounting > Reporting > Partner Reports > Aged Payable`	How much you still owe the subcontractor
Valuation	`Inventory > Reporting > Valuation`	Value of the subcontracted finished goods received

> *Path:* `Purchase > Reporting > Subcontracting Report`



What you should see: a report titled **List of Subcontracting Products** with filters for the date (**As of**), **Subcontractors** and **Products**, and one line per product with **Unit of Measure**, **Subcontracting Quantity**, **Received** and **Remaining**; here 85, 85 and 0.



What you should see: the `SS...` documents with **Settle Date**, **Reference**, **Subcontractor**, **Subcontracting Orders** and **State**.

57 EXERCISE: A COMPLETE SUBCONTRACTING ORDER

About 40 minutes. There are no step-by-step images.

1. Buy another 50 units of the raw material `MK-LK-01` into the warehouse.
2. Create a subcontracting order for 8 brackets for the Hòa Bình workshop and confirm it. Check that the automatically generated material supply transfer has quantity 16.
3. Click **Add Resupply** to supply 3 more steel plates. Validate both supply transfers.
4. Receive the finished goods (validate the `IN` transfer, then `STOR`).
5. Create the settlement document, check that **Remain** equals 3, complete it and return 3 steel plates to the warehouse.
6. Create the subcontracting fee bill, compare the total with unit price times quantity times tax, then open **Subcontracting Report** to see the received quantity.
7. Answer for yourself: if the resupply route is removed from the raw material, how would step 2 be different?

PART VIII. SALES AND DISTRIBUTION

This part answers the question: at what price does a vehicle travel from the factory to the dealer, the shop, the project customer and the foreign customer, how is the money collected, and which channel is profitable. Readers: the sales director, salespeople, the receivables accountant, the delivery storekeeper.

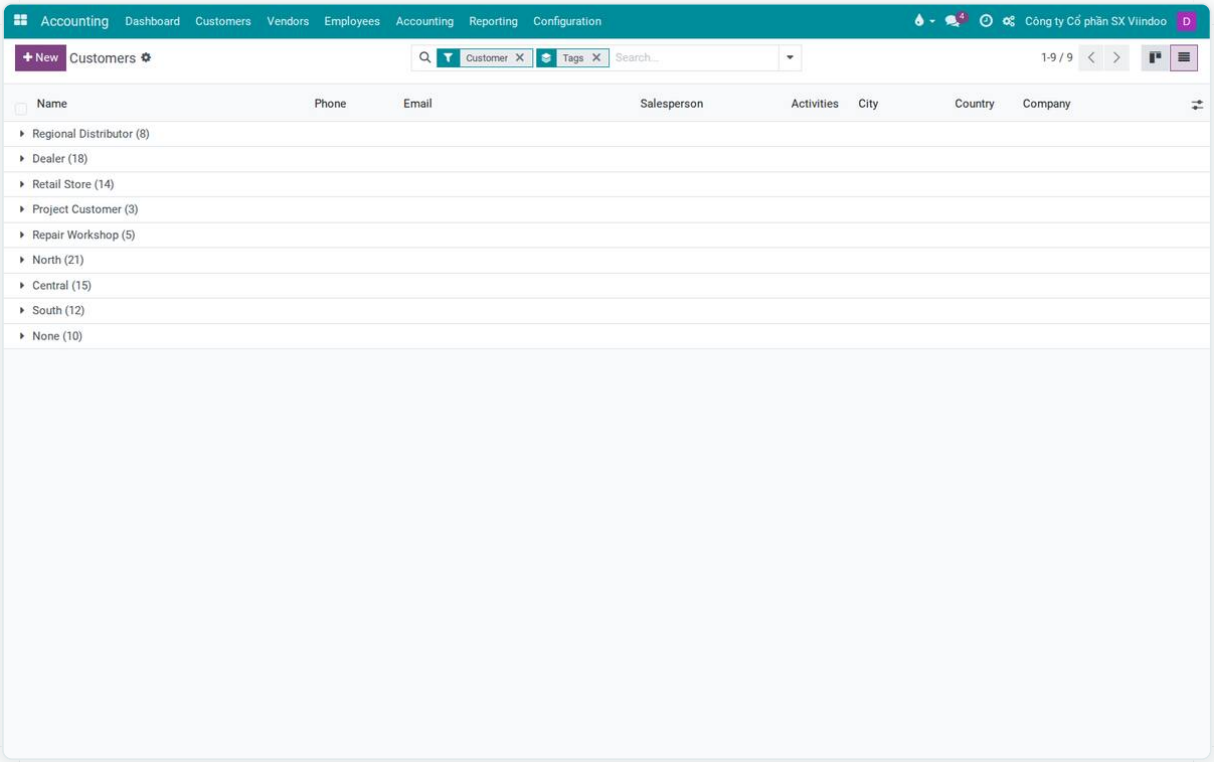
58 SALES CONFIGURATION: CUSTOMER CHANNELS, PRICELISTS, PAYMENT TERMS, CREDIT LIMITS

About 15 minutes. By the end of this lesson your company knows which channels the system splits customers into, which pricelist each channel uses, how the price is applied automatically when you choose a customer, and how the credit limit warns you.

Step 1 - See customers by channel

Open the customer list, click the list icon, open **Group By** and choose the custom group **Tags**.

> *Path:* `Sales > Orders > Customers`

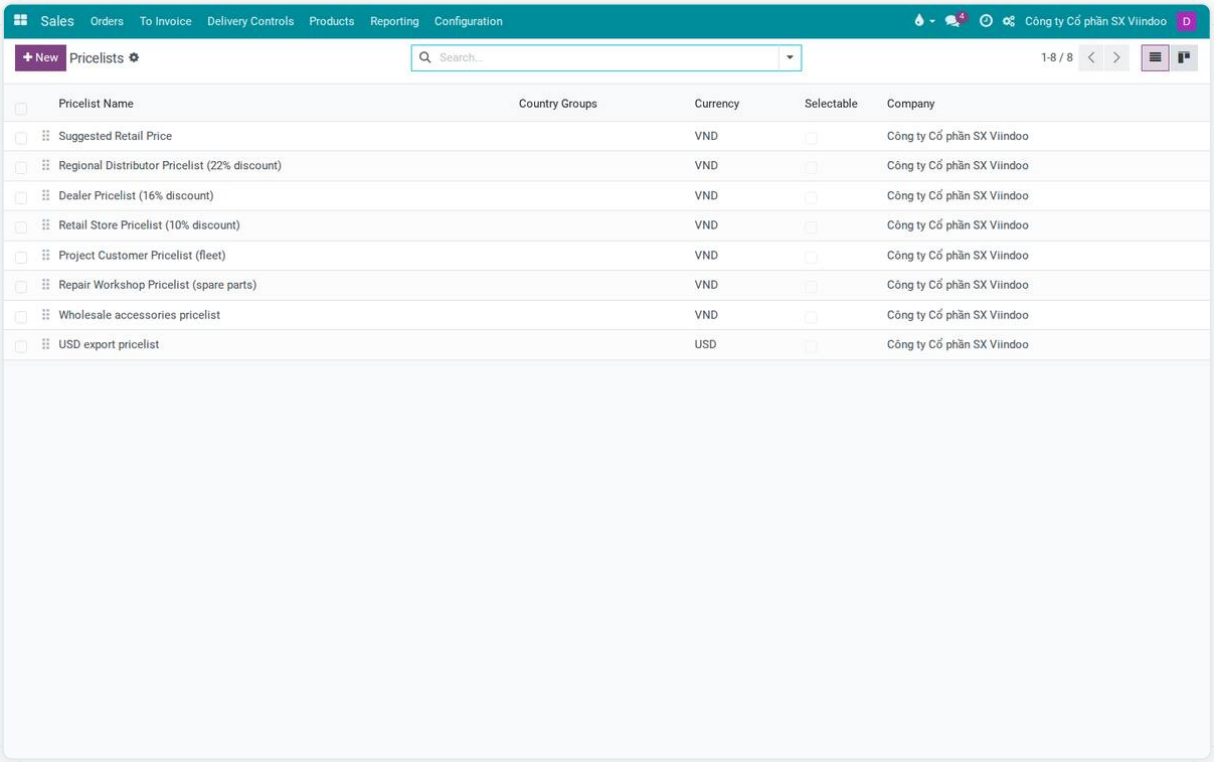


What you should see: the groups *Regional Distributor* (8), *Dealer* (18), *Retail Store* (14), *Project Customer* (3) and *Repair Workshop* (5), together with the three regional tags *North* (21), *Central* (15) and *South* (12), and a group *None* (10) for customers without a tag. The channel tag is how the system classifies customers; there is no foreign customer in the demo yet.

Step 2 - See the pricelist of each tier

Open the list of pricelists.

> *Path:* `Sales > Products > Pricelists`

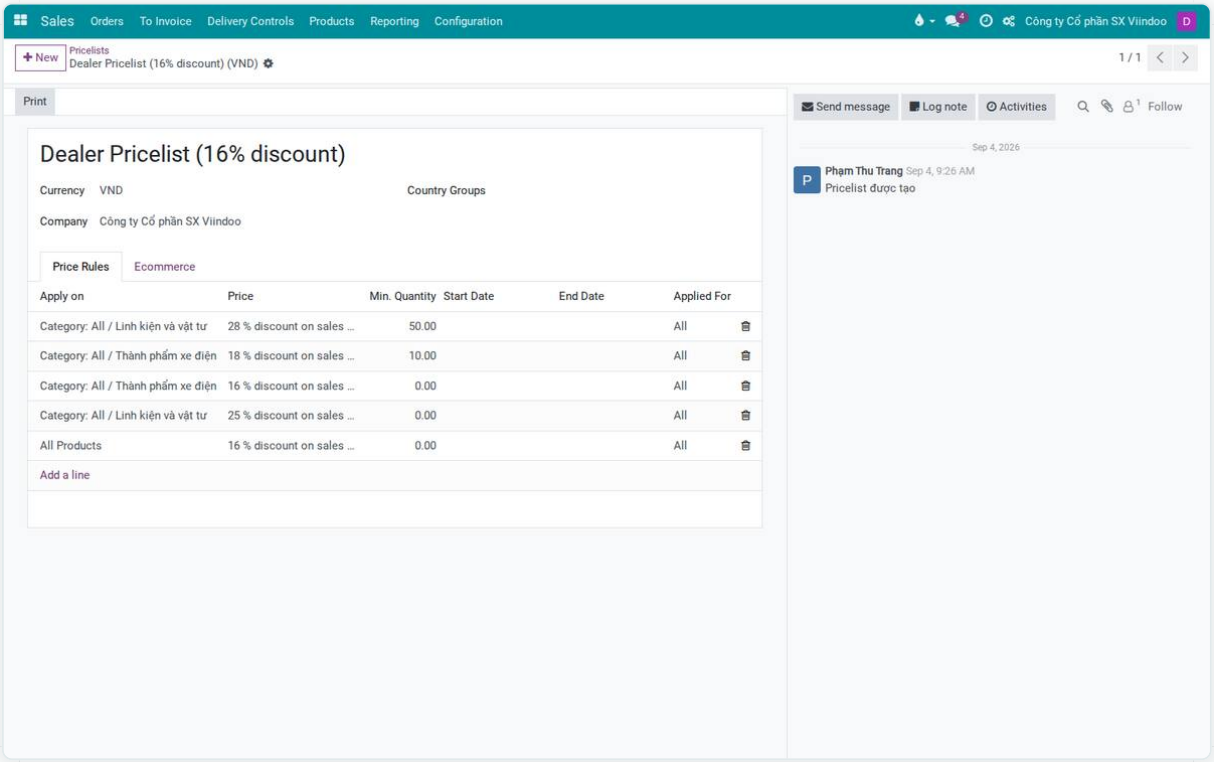


What you should see: eight pricelists: Suggested Retail Price, Regional Distributor Pricelist (22% discount), Dealer Pricelist (16% discount), Retail Store Pricelist (10% discount), Project Customer Pricelist (fleet), Repair Workshop Pricelist (spare parts), Wholesale accessories pricelist, and USD export pricelist. The percentage in the name is the basic discount on vehicles; check it again in each rule, do not trust the name alone. Every pricelist except the USD one is in VND.

Step 3 - Read the price rules of the Dealer pricelist

Click the line *Dealer Pricelist (16% discount)*.

> *Path:* `Sales > Products > Pricelists > Dealer Pricelist (16% discount)`

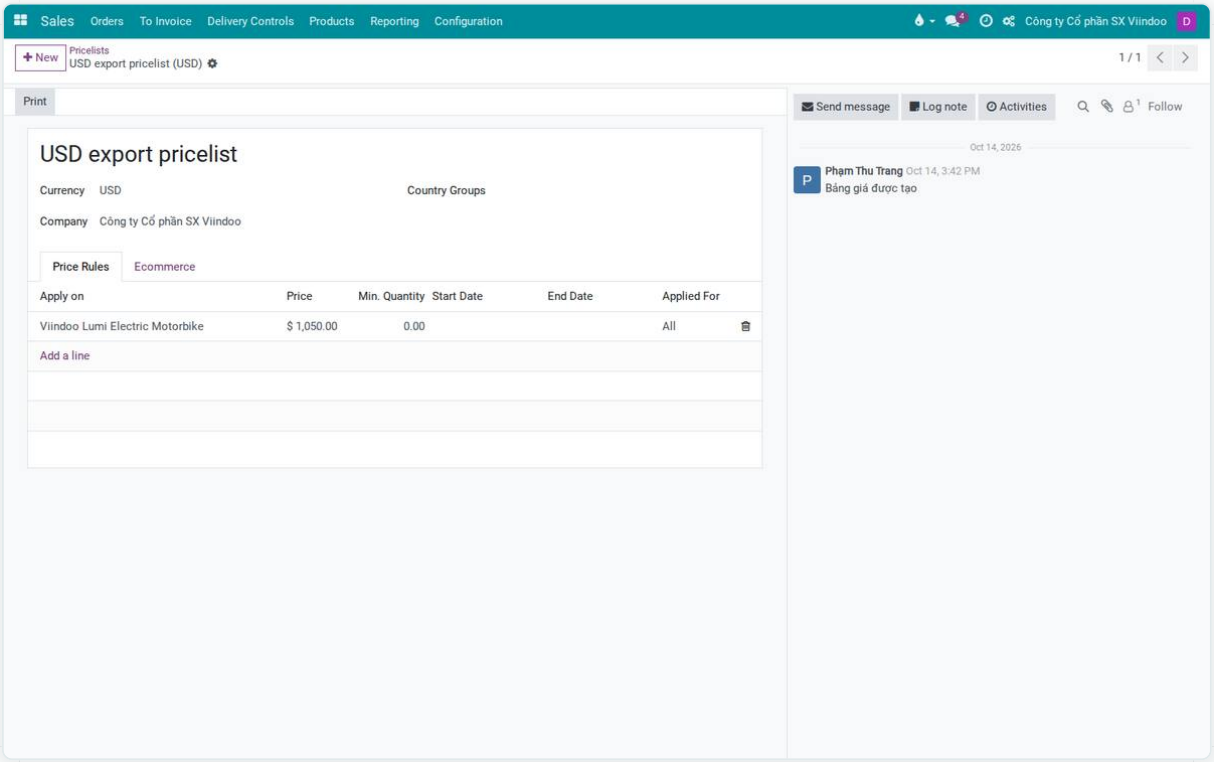


What you should see: the **Price Rules** tab has lines by product category and by minimum quantity (the **Min. Quantity** column). For the category *Thành phẩm xe điện* (Finished electric vehicles): 16% when buying from 1 vehicle, 18% when buying from 10 vehicles. For the category *Linh kiện và vật tư* (Components and supplies): 25% from 1 piece, 28% from 50 pieces. A last line applies 16% to *All Products*. The more the customer buys, the deeper the discount, and the system picks the matching line by itself.

Step 4 - Read the USD export pricelist

Open the pricelist *USD export pricelist*.

> *Path:* `Sales > Products > Pricelists > USD export pricelist`

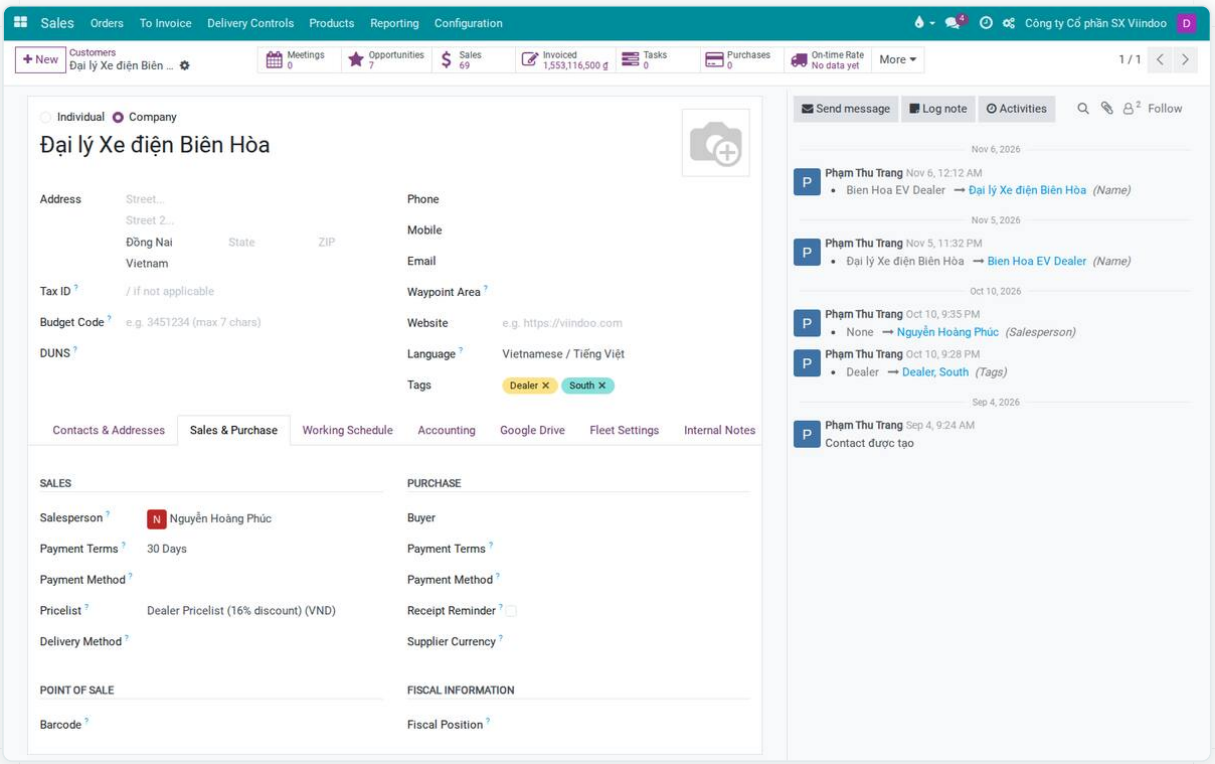


What you should see: the currency **USD**; one fixed-price rule for the Viindoo Lumi Electric Motorbike at $ 1,050.00. This pricelist is not assigned to any customer yet; the salesperson chooses it on the quotation (see the lesson "Export order in USD").

Step 5 - See which price and which terms a customer gets

Open a dealer customer and choose the tab **Sales & Purchase**.

> *Path:* `Sales > Orders > Customers > Đại lý Xe điện Biên Hòa (Bien Hoa Electric Vehicle Dealer)`

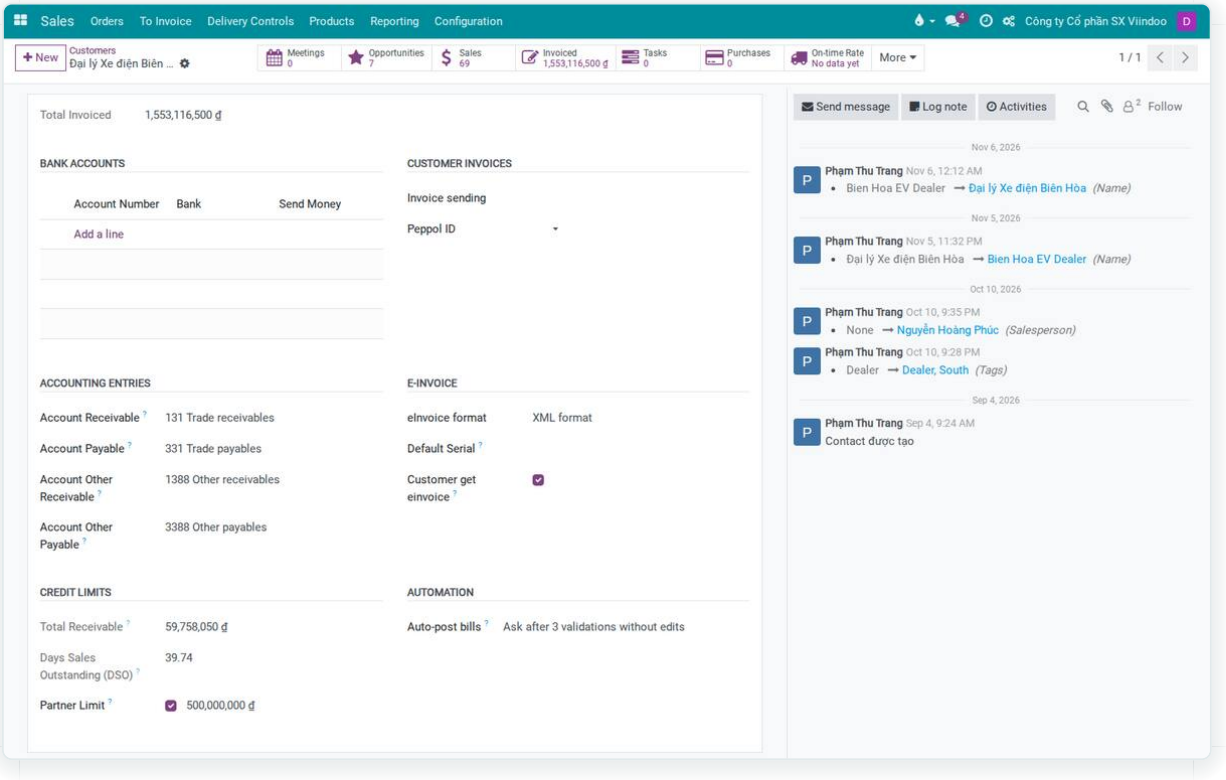


What you should see: the **Sales** section has the **Salesperson**, the **Payment Terms** (30 Days) and the **Pricelist** (*Dealer Pricelist (16% discount) (VND)*). These two fields are what the system applies automatically to the quotation when you choose the customer. The terms in use: 30 Days for most customers; a few distributors have their own terms such as "45 Days, 1.5% Discount if Paid within 10 Days" or "30% Now, Balance 60 Days".

Step 6 - See the credit limit of a customer

Choose the **Accounting** tab of the same customer and scroll down to the **Credit Limits** section.

> *Path:* `Sales > Orders > Customers > Đại lý Xe điện Biên Hòa > tab Accounting`

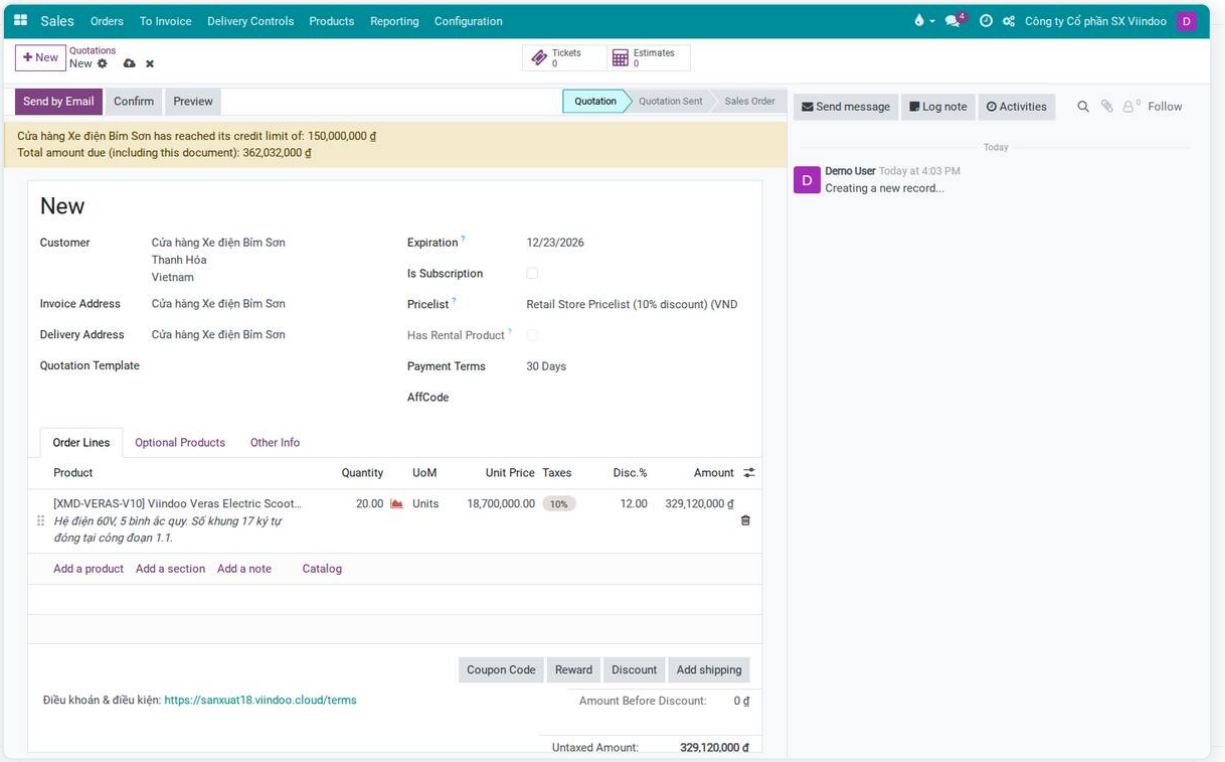


What you should see: Total Receivable (59,758,050 ₫ in the picture), **Days Sales Outstanding (DSO)** (39.74) and the **Partner Limit** box ticked with an amount (500,000,000 ₫ for this dealer; distributors, shops and project customers each have their own amount - read it on each customer).

Step 7 - See the warning when an order exceeds the limit

Create a new quotation for *Cửa hàng Xe điện Bỉm Sơn* (Bim Son Electric Vehicle Shop) and add 20 Veras 10-inch vehicles (no need to save).

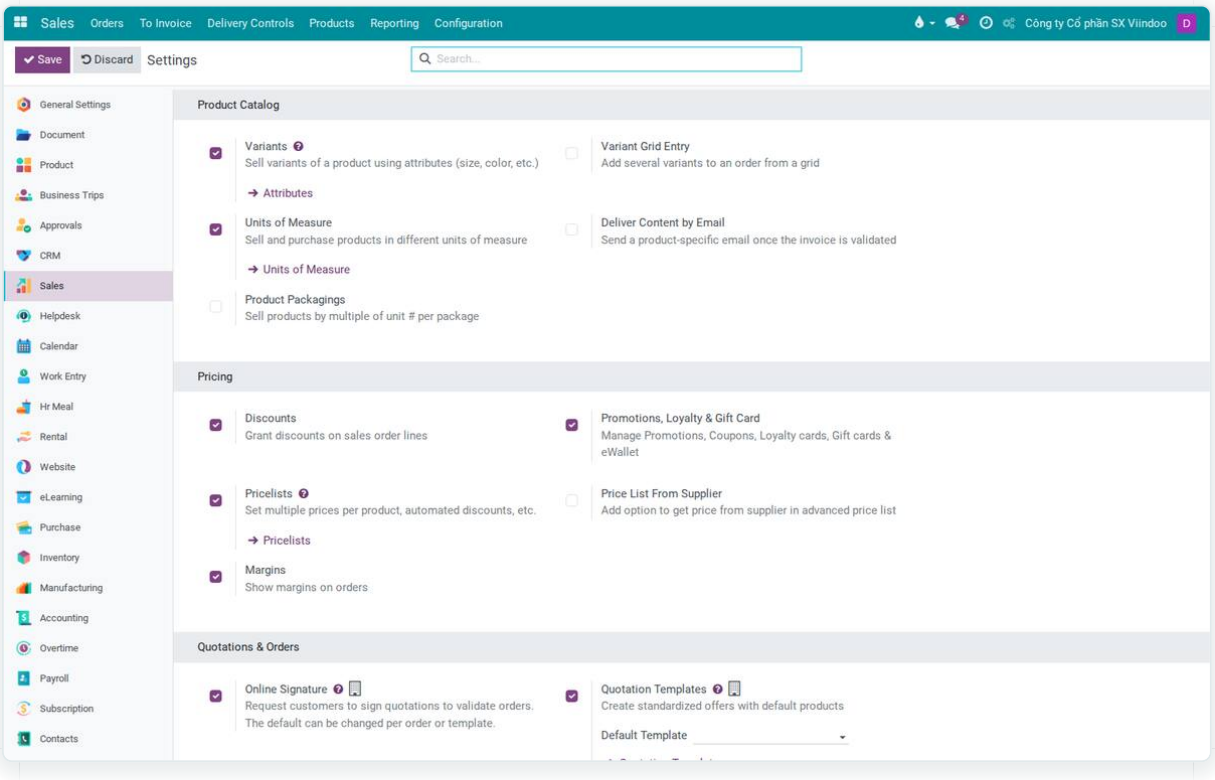
> *Path:* `Sales > Orders > Quotations > New`



What you should see: a yellow banner above the quotation reading "Cửa hàng Xe điện Bỉm Sơn has reached its credit limit of: 150,000,000 ₫" and "Total amount due (including this document): 362,032,000 ₫". The vehicle line shows quantity 20, unit price 18,700,000 and **Disc.%** 12.00 (amount 329,120,000 ₫) because the order is for 5 or more vehicles (the shop gets 10% for 1-4 vehicles). This is a warning for the salesperson; the system only warns, and whether to keep selling is your company's decision. Click the **x** to discard this quotation.

Table of the sales features that are turned on

Feature	What it is turned on for	What you lose if it is off
Pricelists	One pricelist per customer tier, applied automatically when you choose the customer	The salesperson has to type the discount by hand on each order, with mistakes between dealers
Discounts (the **Disc.%** column)	Shows the percentage off on each line and keeps the list price unchanged	Only the discounted unit price remains, which is hard to compare with the list price
Margins	Shows the margin on the order and in the reports	You cannot tell which order and which channel is profitable
Sales Credit Limit	Warns when the total receivable plus the new order exceeds the customer's limit	A large order pushes the receivable over the limit and nobody tells you
Lots & Serial Numbers	One chassis number per vehicle, picked automatically at delivery	You cannot trace which customer a vehicle was delivered to



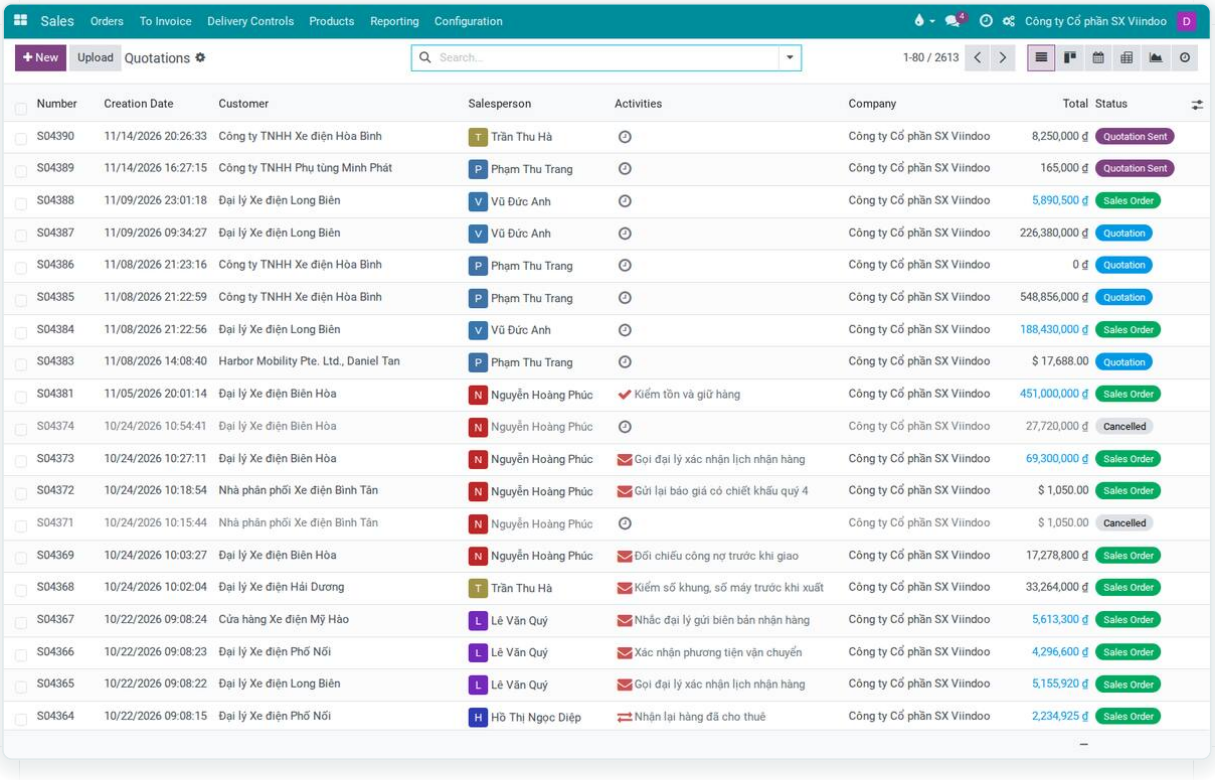
`Sales > Configuration > Settings` is where the items above are turned on (the **Pricing** section in the picture).

59 FROM QUOTATION TO PAYMENT FOR A DEALER

About 20 minutes. By the end of this lesson your company has a sales order for a dealer that is confirmed, delivered, invoiced and paid, and you have checked for yourself the cost-of-goods entry Debit 632 / Credit 155 created at delivery. The document numbers and chassis numbers in the pictures come from the sample run; yours will differ.

Step 1 - Open the list of quotations

> *Path:* `Sales > Orders > Quotations`

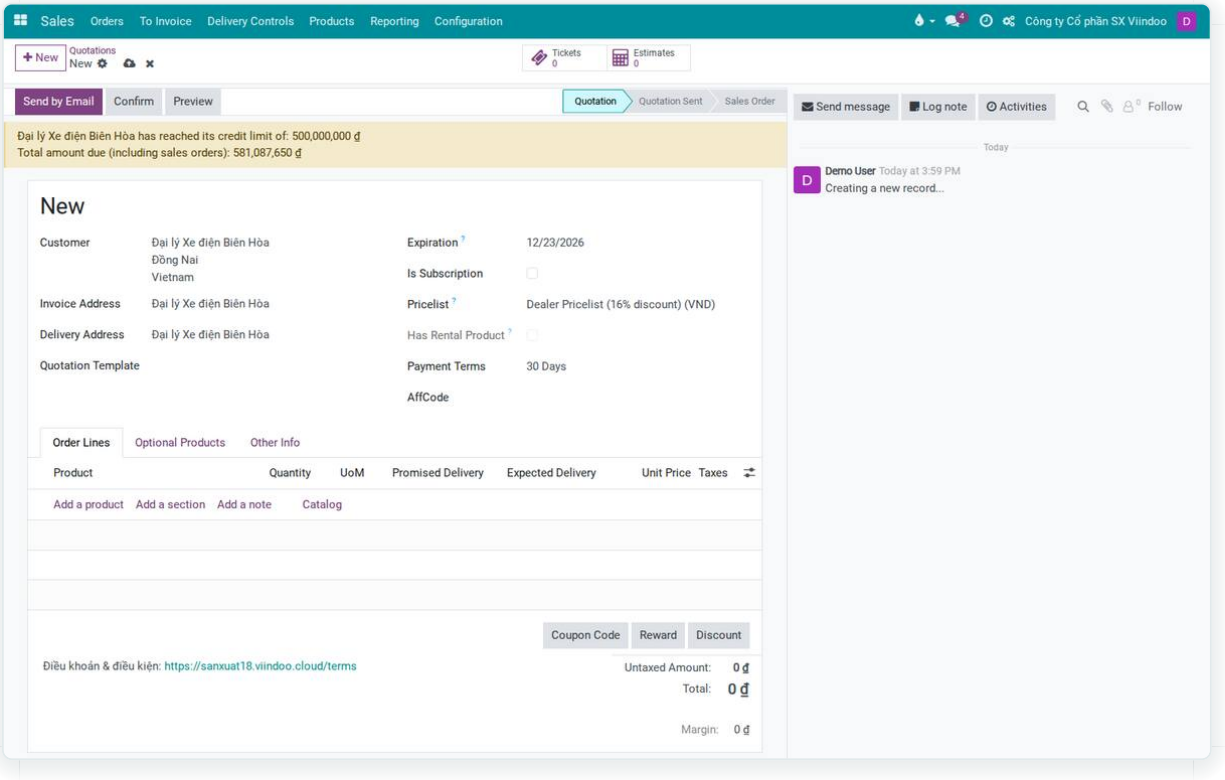


What you should see: the list of existing quotations and sales orders. Click **New**.

Step 2 - Choose the customer, the price applies itself

In the **Customer** box type "Biên Hòa" and choose *Đại lý Xe điện Biên Hòa* (Bien Hoa Electric Vehicle Dealer).

> *Path:* `Sales > Orders > Quotations > New`

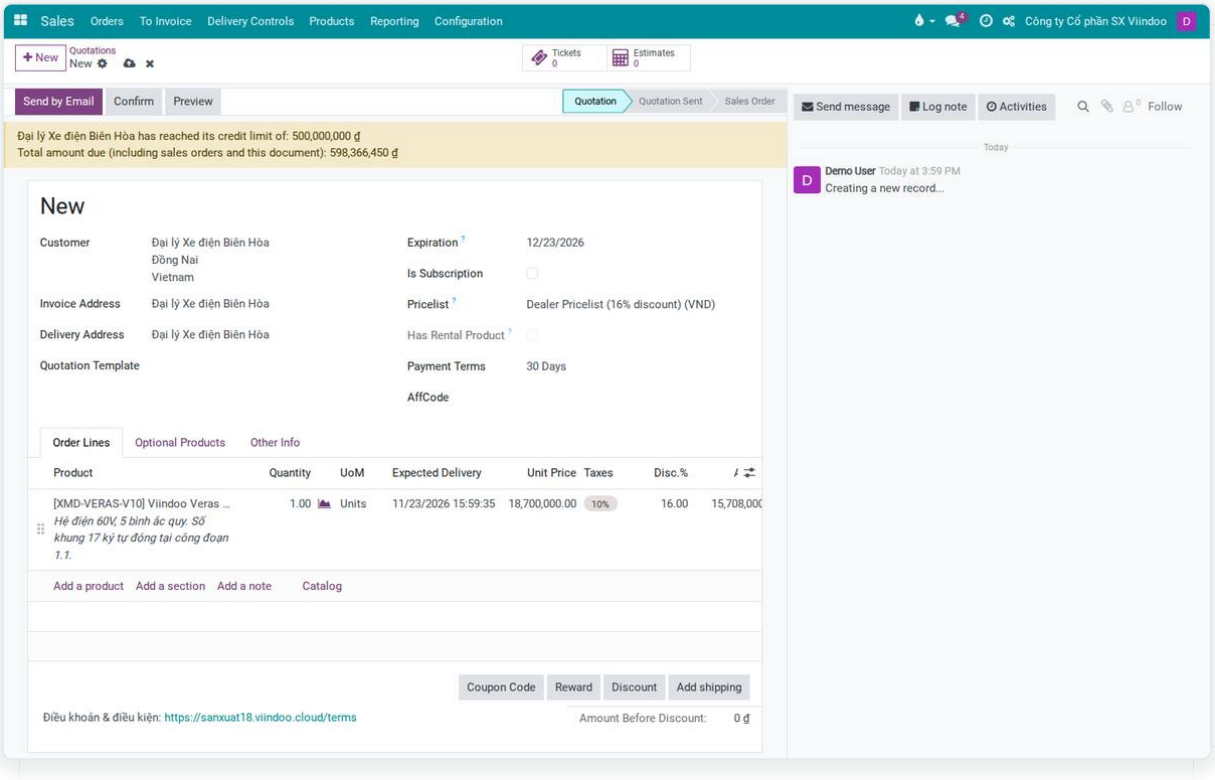


What you should see: Pricelist changes by itself to *Dealer Pricelist (16% discount) (VND)* and **Payment Terms** to *30 Days*, with no typing. A yellow banner may appear above the quotation: the dealer's receivable has grown, so it is close to or above the dealer's credit limit (see the previous lesson); it only warns.

Step 3 - Add the vehicle

Click **Add a product**, type "XMD-VERAS-V10", choose *Viindoo Veras Electric Scooter - 10-inch Rim* and leave the quantity at 1.

> *Path:* `Sales > Orders > Quotations > New > Order Lines`

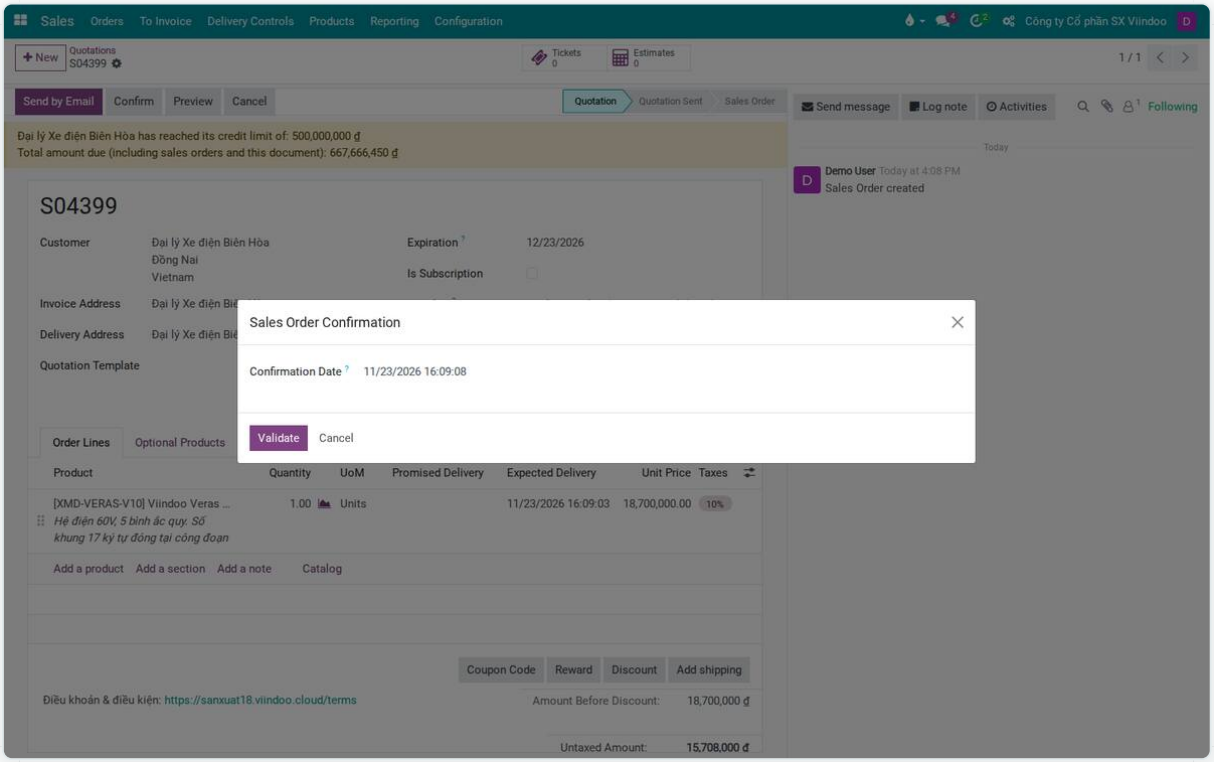


What you should see: unit price 18,700,000, **Disc.%** 16.00, amount 15,708,000 VND. If the **Disc.%** column is not visible, click the sliders icon at the end of the header row and untick the two delivery-date columns.

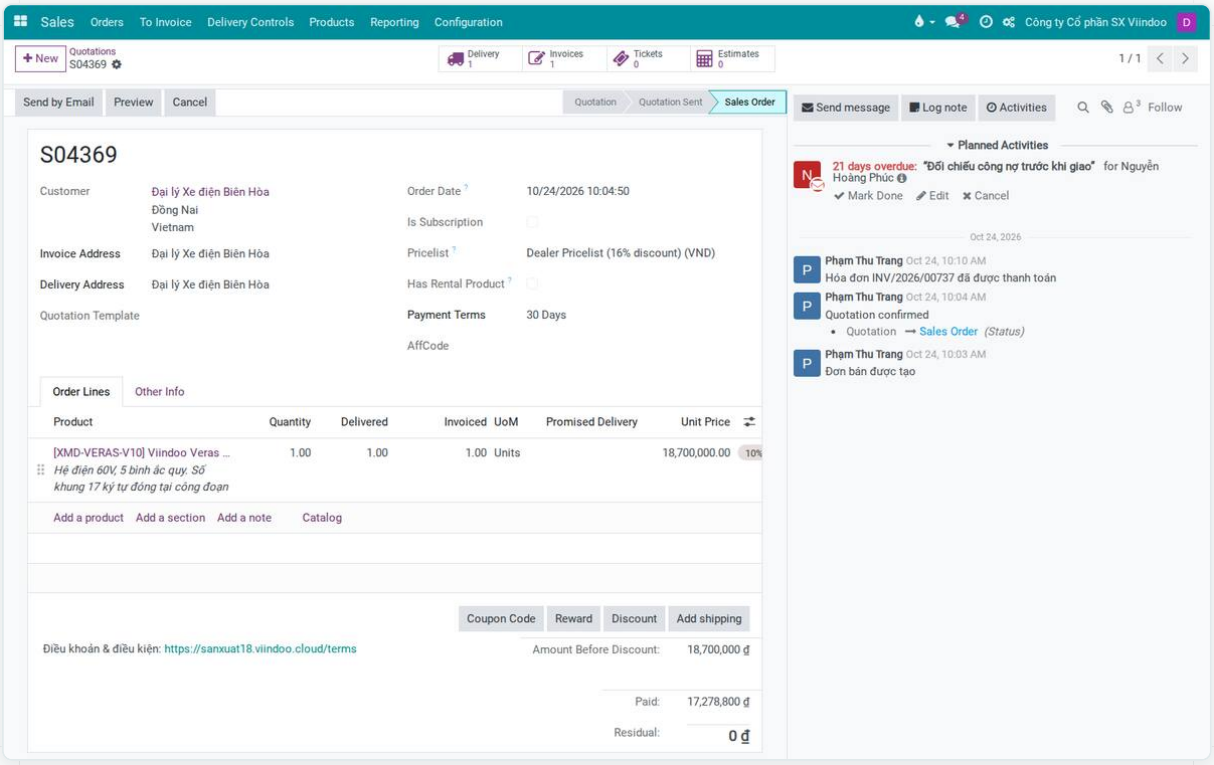
Step 4 - Confirm the order

Click **Confirm**. A dialog asking for the confirmation date appears; click **Validate**.

> *Path:* `Sales > Orders > Quotations > (the quotation you just created)`



What you should see: the *Sales Order Confirmation* dialog has a **Confirmation Date** box (the current date and time by default) and the buttons **Validate** and **Cancel**. After you click **Validate**, the status changes to *Sales Order*.

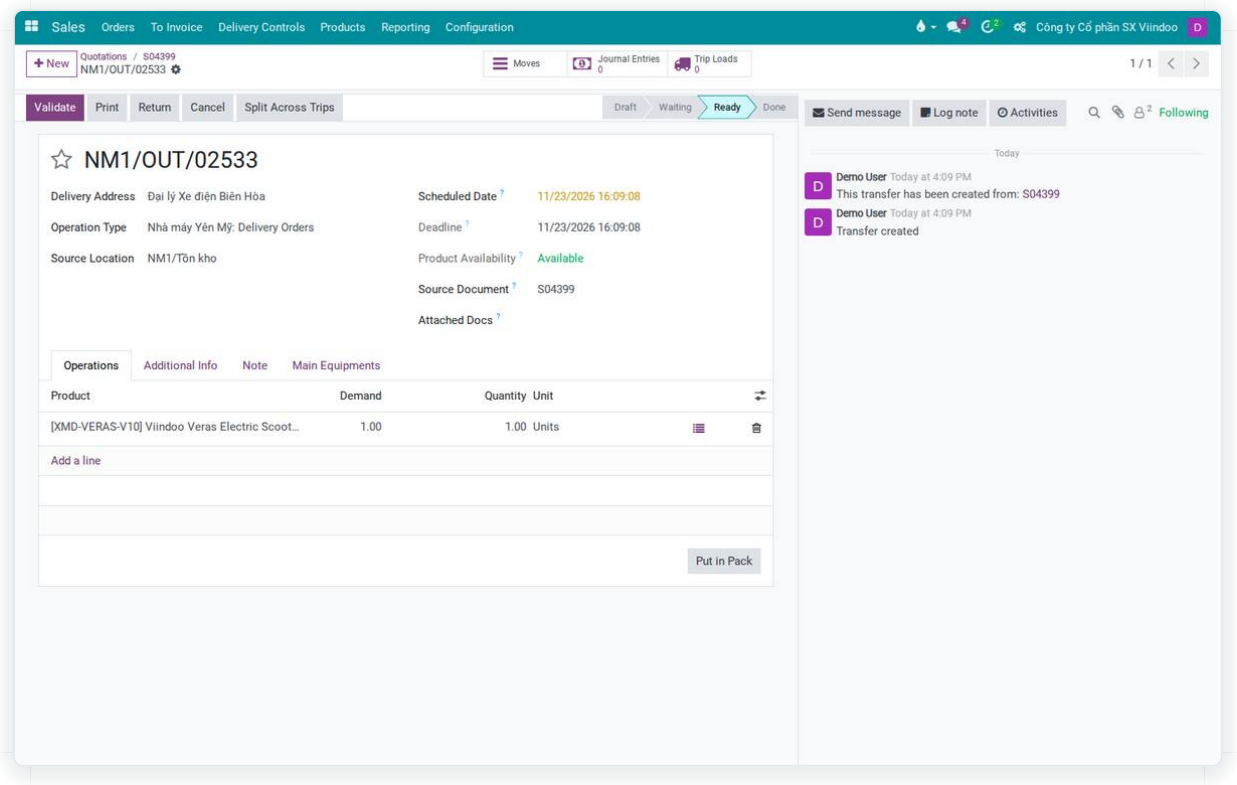


What you should see: the status bar is on *Sales Order* and the **Delivery 1** smart button appears at the top of the order. Until you invoice the order, the **Create Invoice** button is at the top left; the picture shows an order that has already been invoiced and paid (**Invoices 1**, Paid 17,278,800 ₫).

Step 5 - Open the delivery order

Click the **Delivery** button.

> *Path:* `Sales > Orders > Orders > (the order you just confirmed) > Delivery`

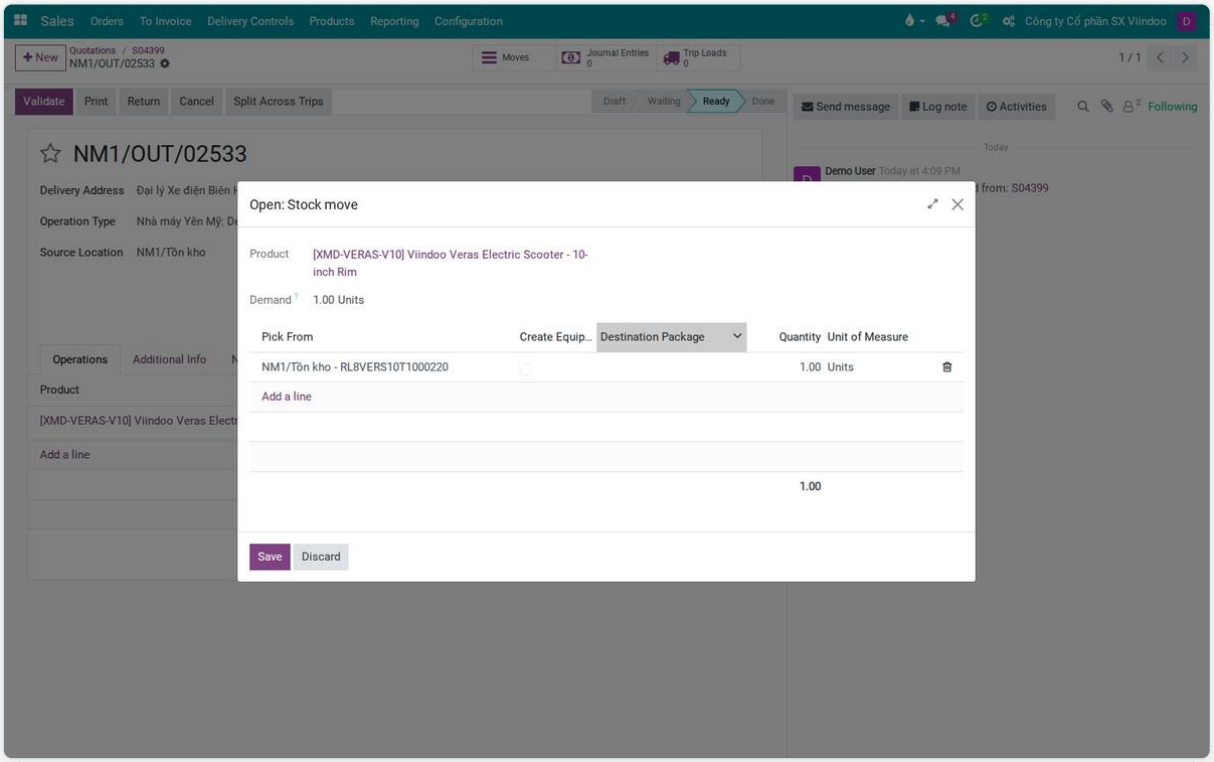


What you should see: a transfer `NM1/OUT/...` of the operation type *Nhà máy Yên Mỹ: Delivery Orders* (Yen My Factory: Delivery Orders), source location `NM1/Tồn kho`, in the *Ready* status, with **Product Availability** showing *Available* and the **Source Document** pointing to the sales order.

Step 6 - See the chassis number the system reserved for the vehicle

Click the list icon at the end of the vehicle line.

> *Path:* `Sales > Orders > Orders > (the order) > Delivery > product line`

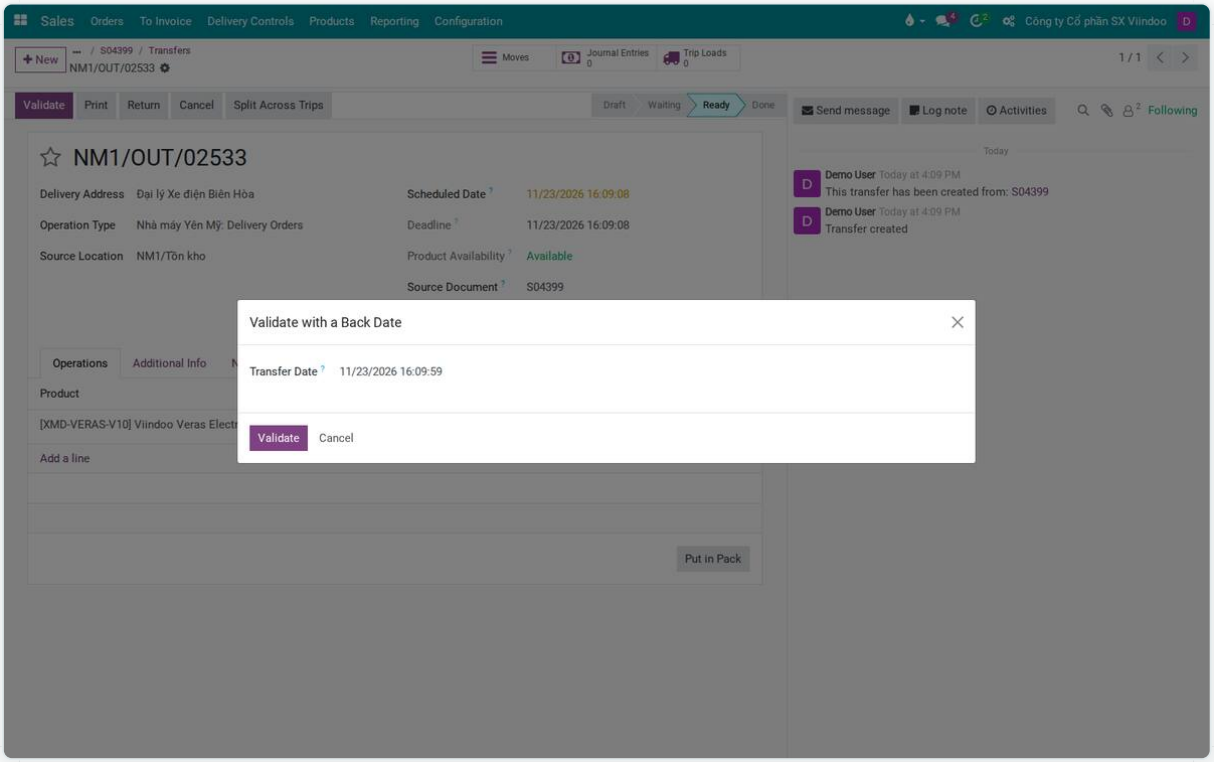


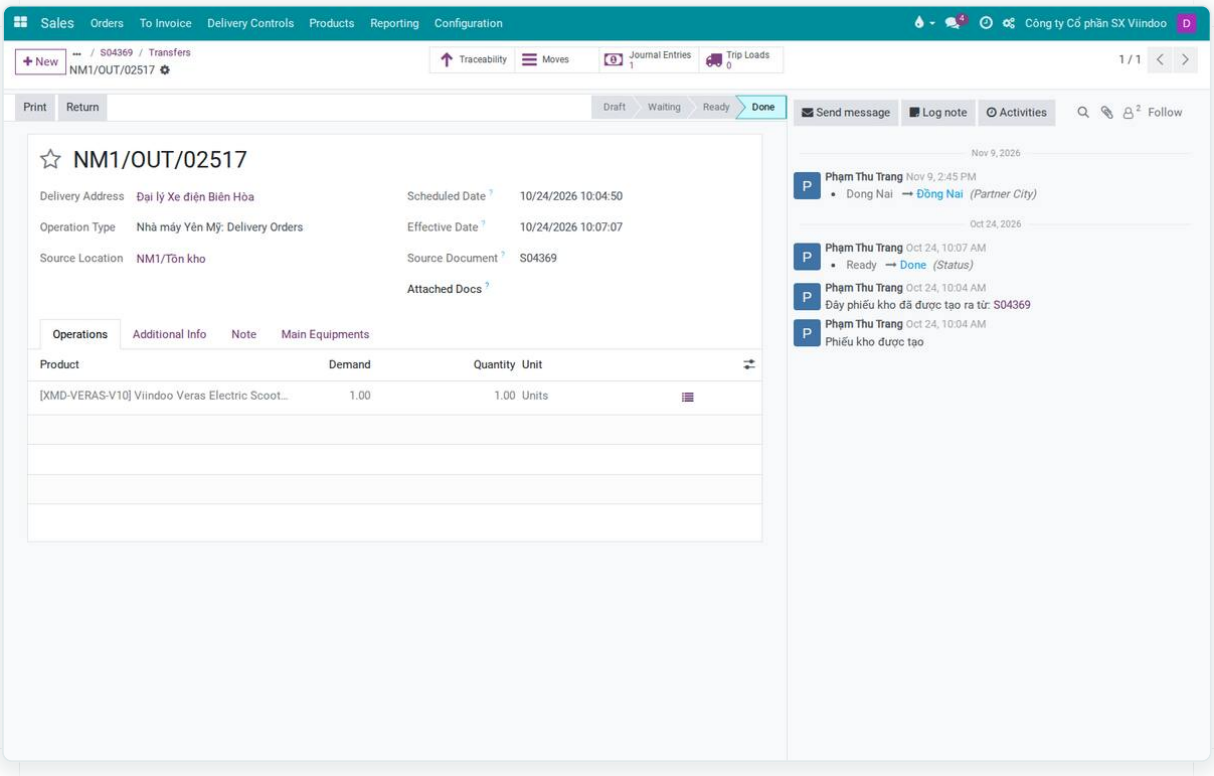
What you should see: the **Pick From** column shows the location and the chassis number that were reserved (in the example `NM1/Tồn kho - RL8VERS10T1000220`, where NM1/Tồn kho is the stock location NM1/Stock of the Yên Mỹ factory). The dialog is titled *Open: Stock move*. Click **Discard** to close.

Step 7 - Validate the delivery

Click **Validate** on the transfer. The dialog *Validate with a Back Date* asks for the **Transfer Date** (the current date and time by default); click **Validate**.

> *Path:* `Sales > Orders > Orders > (the order) > Delivery`



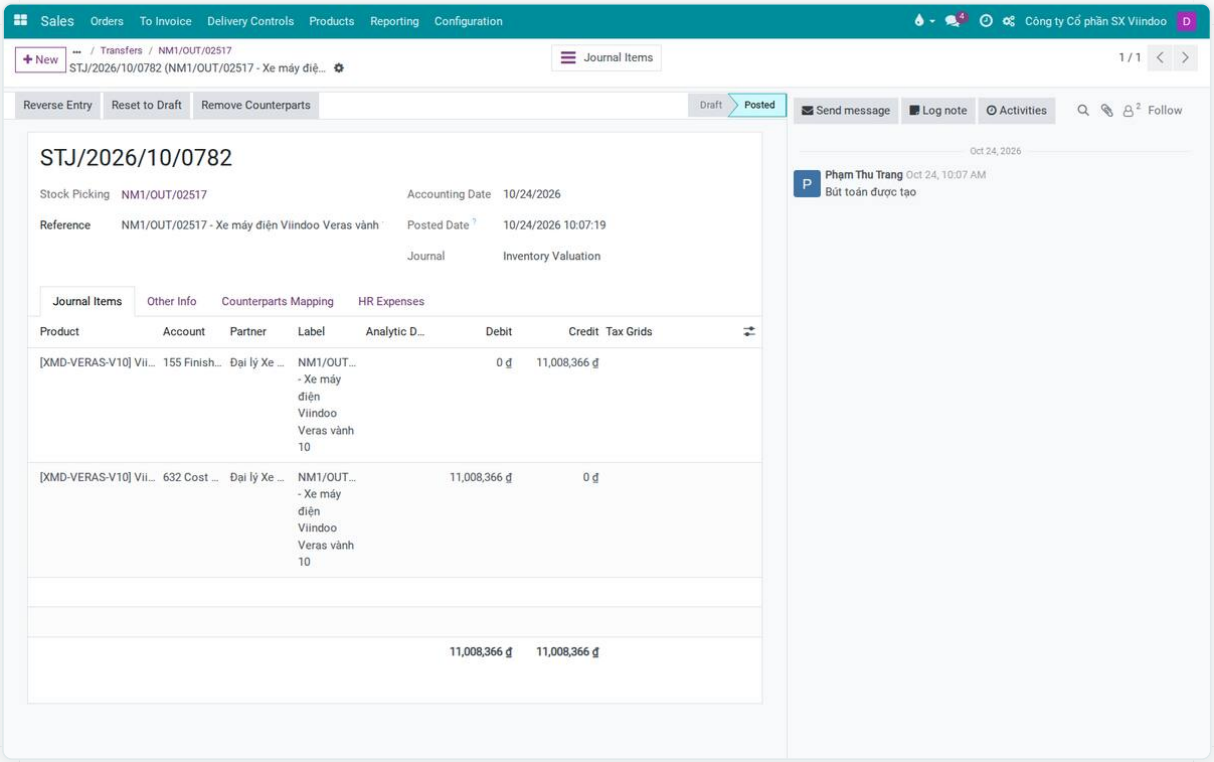


What you should see: the status *Done*, and the buttons **Traceability** and **Journal Entries 1** appear.

Step 8 - Check the cost of goods: Debit 632 / Credit 155

Click **Journal Entries**.

> *Path:* `Sales > Orders > Orders > (the order) > Delivery > Journal Entries`

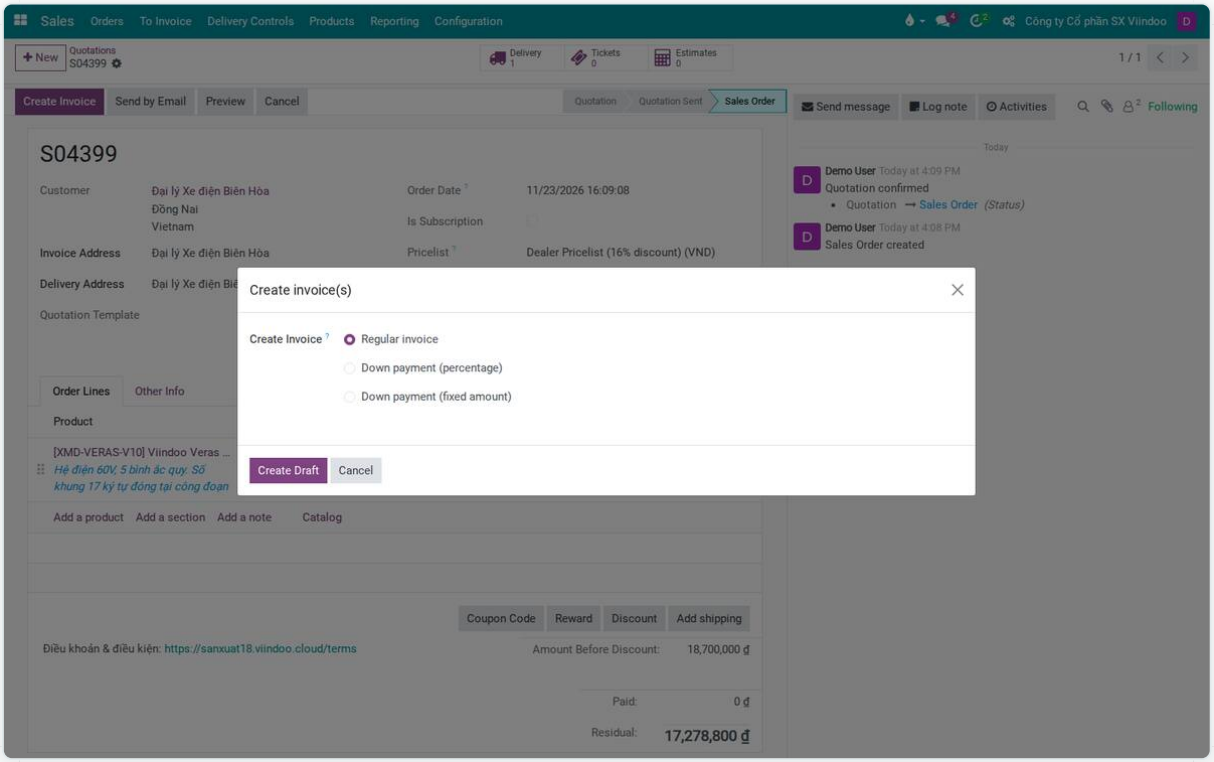


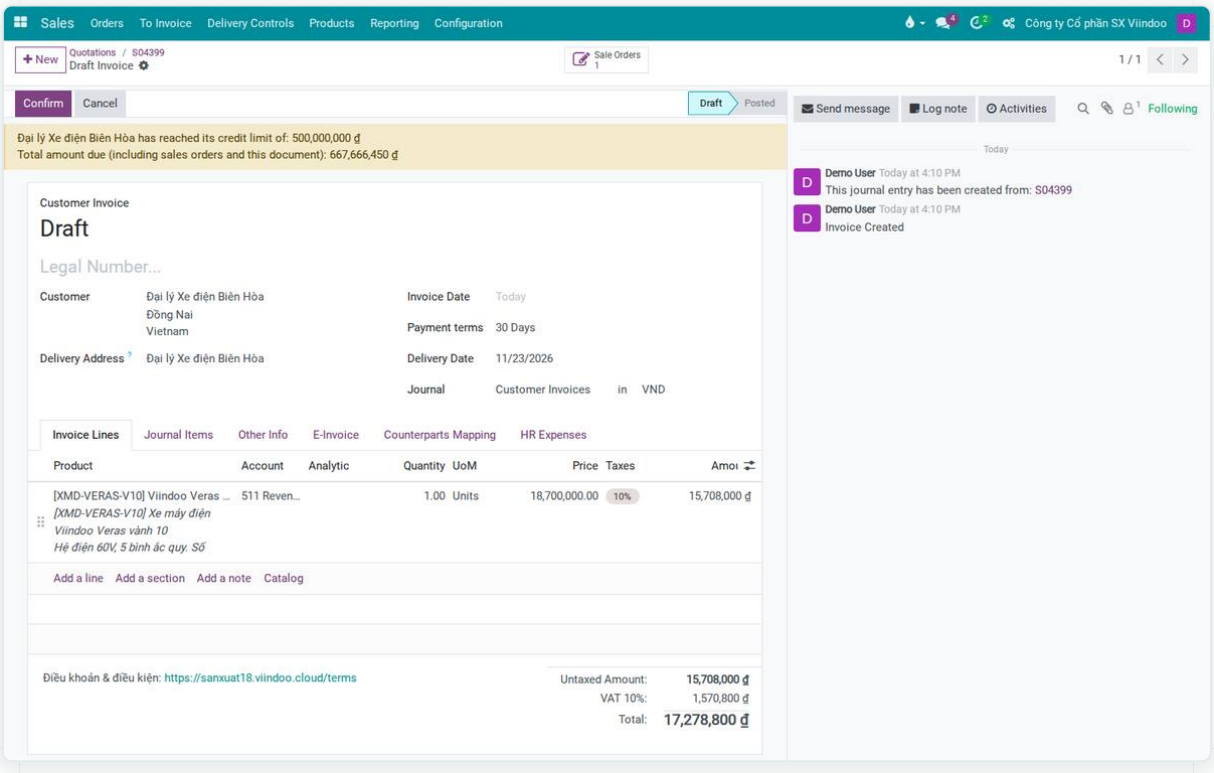
What you should see: an entry of the journal *Inventory Valuation* (a number like `STJ/2026/10/0782`) in the *Posted* status with two lines: **Debit 632 Cost of goods sold** and **Credit 155 Finished goods**, for the same amount (11,008,366 ₫ for the sample vehicle). The cost of the vehicle went to 632 at the moment of delivery.

Step 9 - Create the invoice

Go back to the sales order, click **Create Invoice**, keep **Regular invoice**, click **Create Draft**.

> *Path:* `Sales > Orders > Orders > (the order) > Create Invoice`



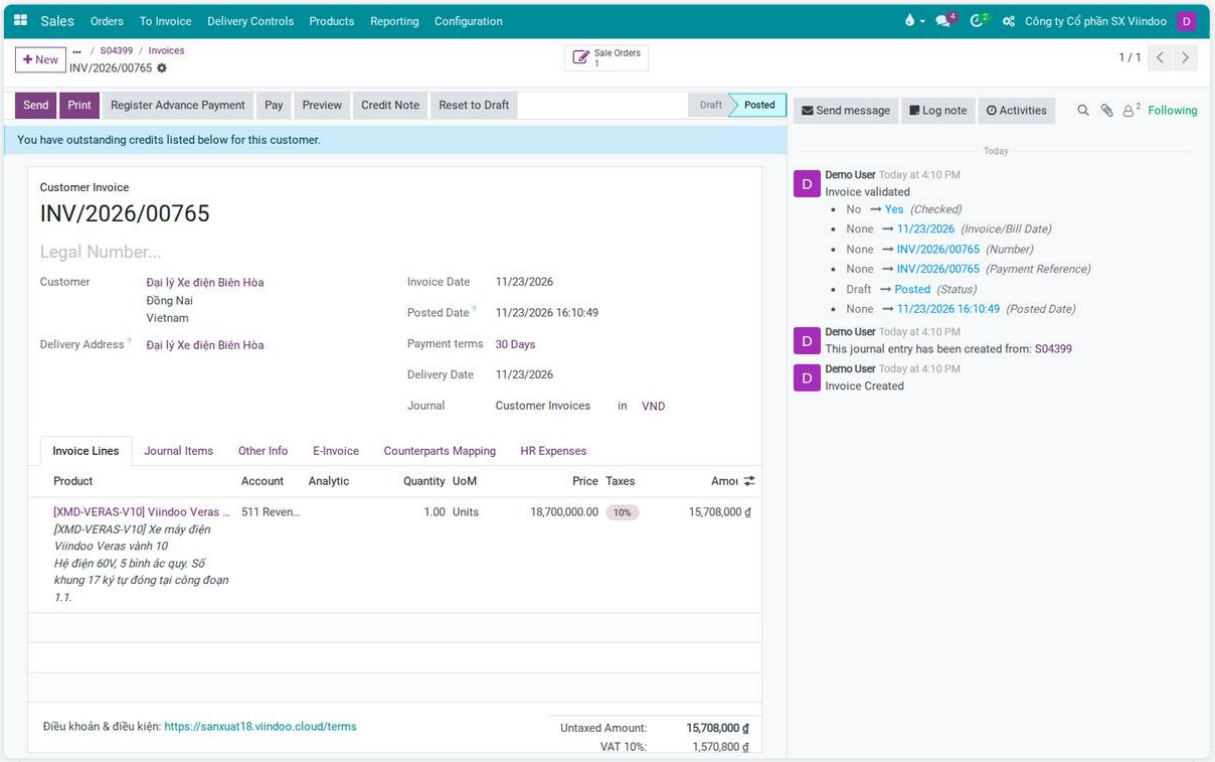


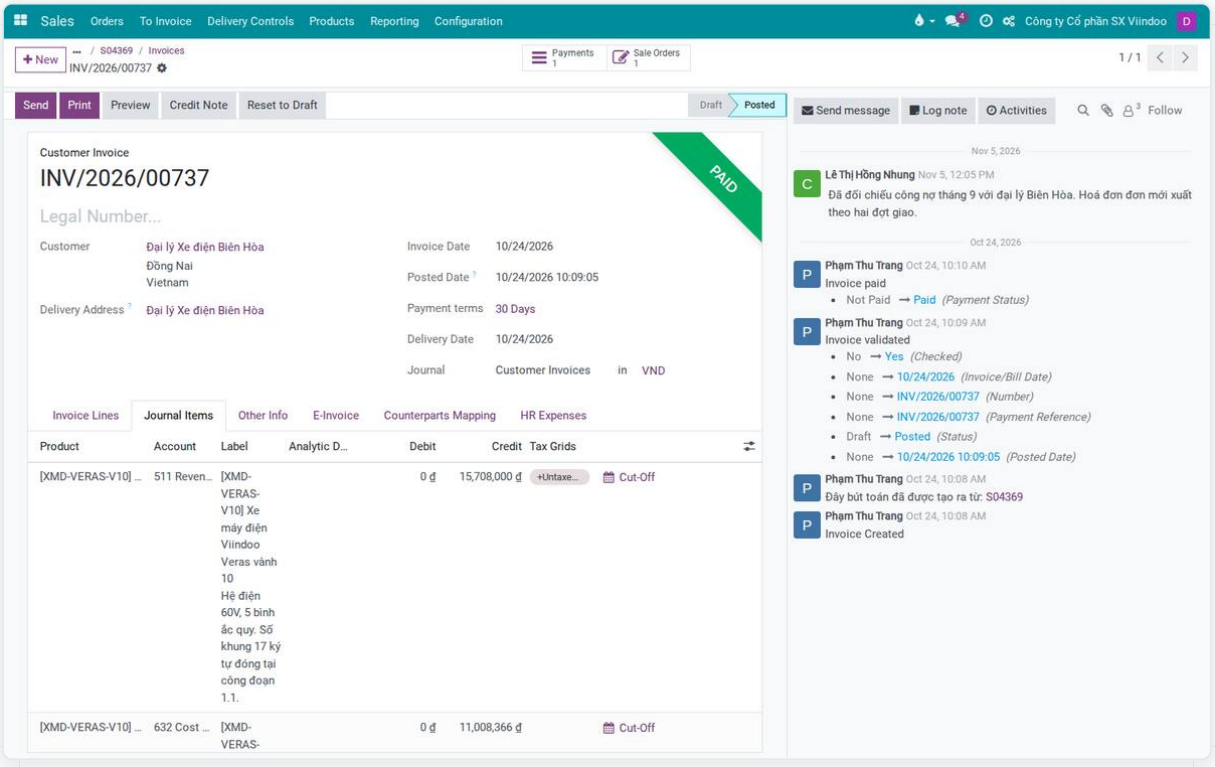
What you should see: the *Create invoice(s)* dialog has the options *Regular invoice*, *Down payment (percentage)* and *Down payment (fixed amount)*; after **Create Draft** you get a customer invoice in the *Draft* status (journal *Customer Invoices*), untaxed amount 15,708,000 ₫, VAT 10% of 1,570,800 ₫, total 17,278,800 ₫.

Step 10 - Confirm the invoice and read the entry

Click **Confirm**, then choose the **Journal Items** tab.

> *Path:* `Accounting > Customers > Invoices > (the invoice you just created)`





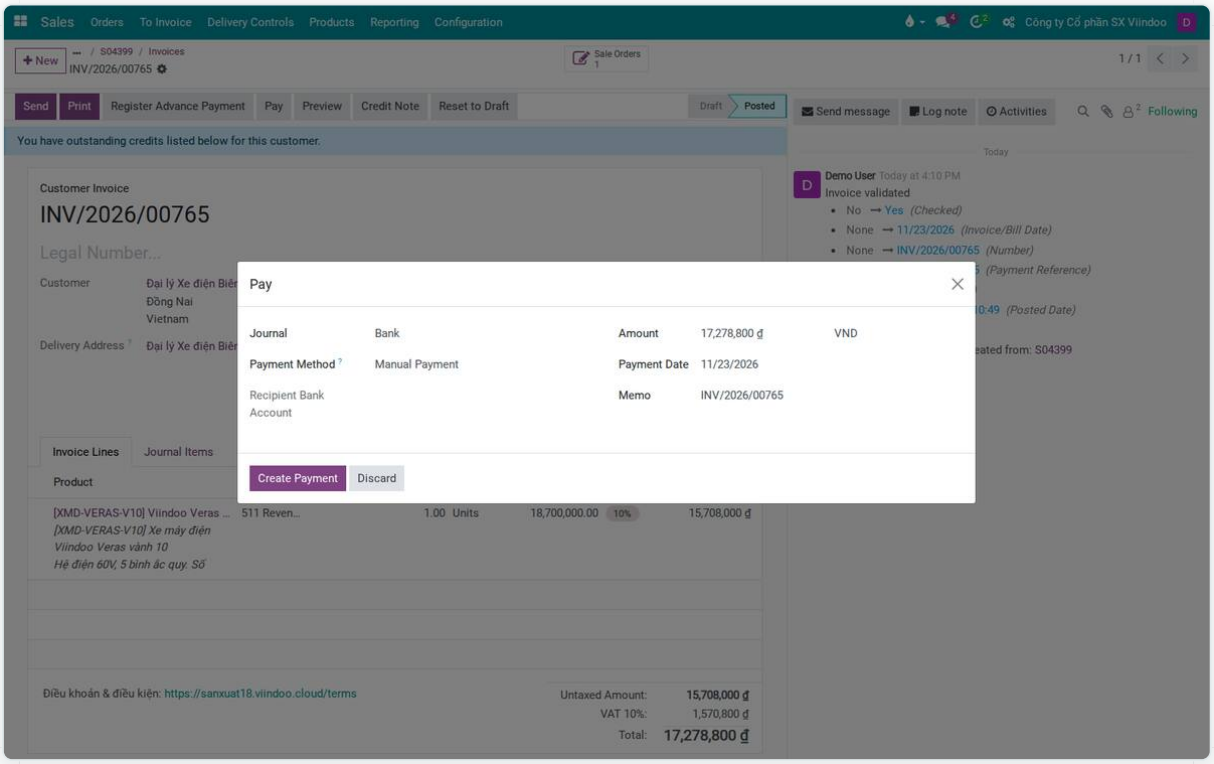
What you should see: Debit 131 17,278,800; **Credit 511** 15,708,000; **Credit 33311** 1,570,800. The two 632 lines on the invoice (one debit, one credit, the same amount) cancel each other; the real cost of goods is counted only once, on the delivery order in step 8. If the customer has an

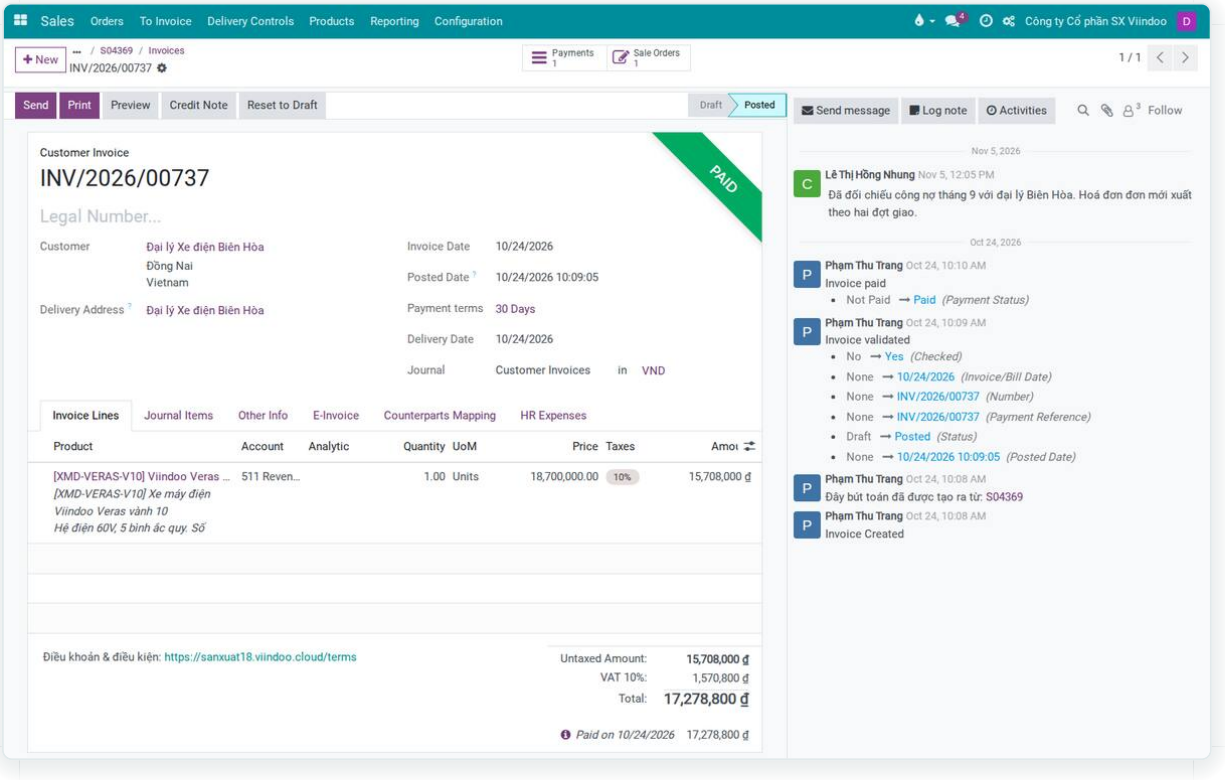
unallocated credit balance, a blue banner at the top of the invoice ("You have outstanding credits listed below for this customer.") reminds you of it.

Step 11 - Collect the payment

Click **Pay**. In the dialog *Pay* check the **Journal** (*Bank*), the **Payment Method** (*Manual Payment*), the **Amount** (17,278,800 ₫) and the **Payment Date**, then click **Create Payment**.

> *Path:* `Accounting > Customers > Invoices > (the invoice) > Pay`





What you should see: a green **PAID** label on the invoice and a **Payments 1** button at the top. The receipt goes through the *Bank* journal; for it to leave the suspense account (the account that holds money in transit) you must reconcile it with the bank statement (see Part XII. Accounting and costing).

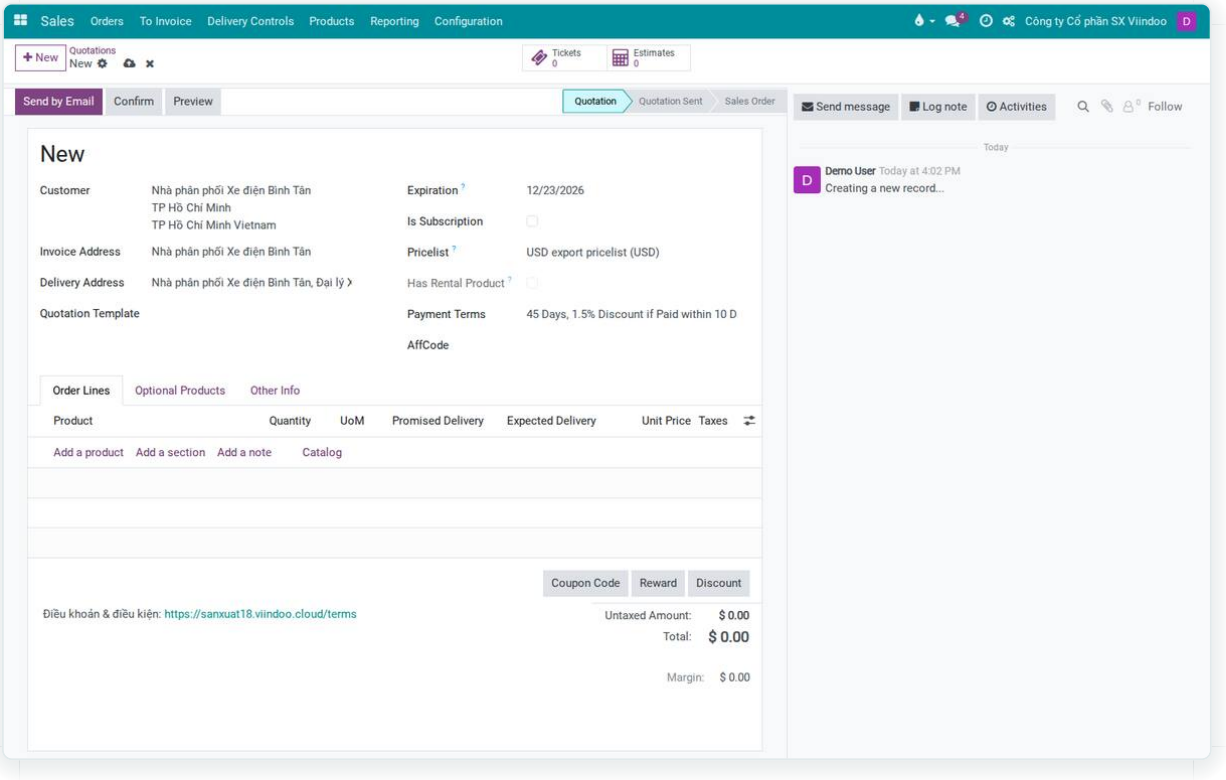
60 EXPORT ORDER IN USD

About 20 minutes. By the end of this lesson your company has a sale in USD with 0% VAT, delivered and invoiced, and knows at which exchange rate the system converts it into Vietnamese dong. The demo has no foreign customer yet, so this lesson borrows an existing distributor to run the USD price; for a real customer, your company creates the customer, chooses the country and assigns the USD pricelist.

Step 1 - Choose the customer and the export pricelist

Create a new quotation, choose the customer *Nhà phân phối Xe điện Bình Tân* (Binh Tan Electric Vehicle Distributor), then in the **Pricelist** box choose *USD export pricelist*. The **Payment Terms** box shows the distributor's own terms, *45 Days, 1.5% Discount if Paid within 10 Days*.

> *Path:* `Sales > Orders > Quotations > New`

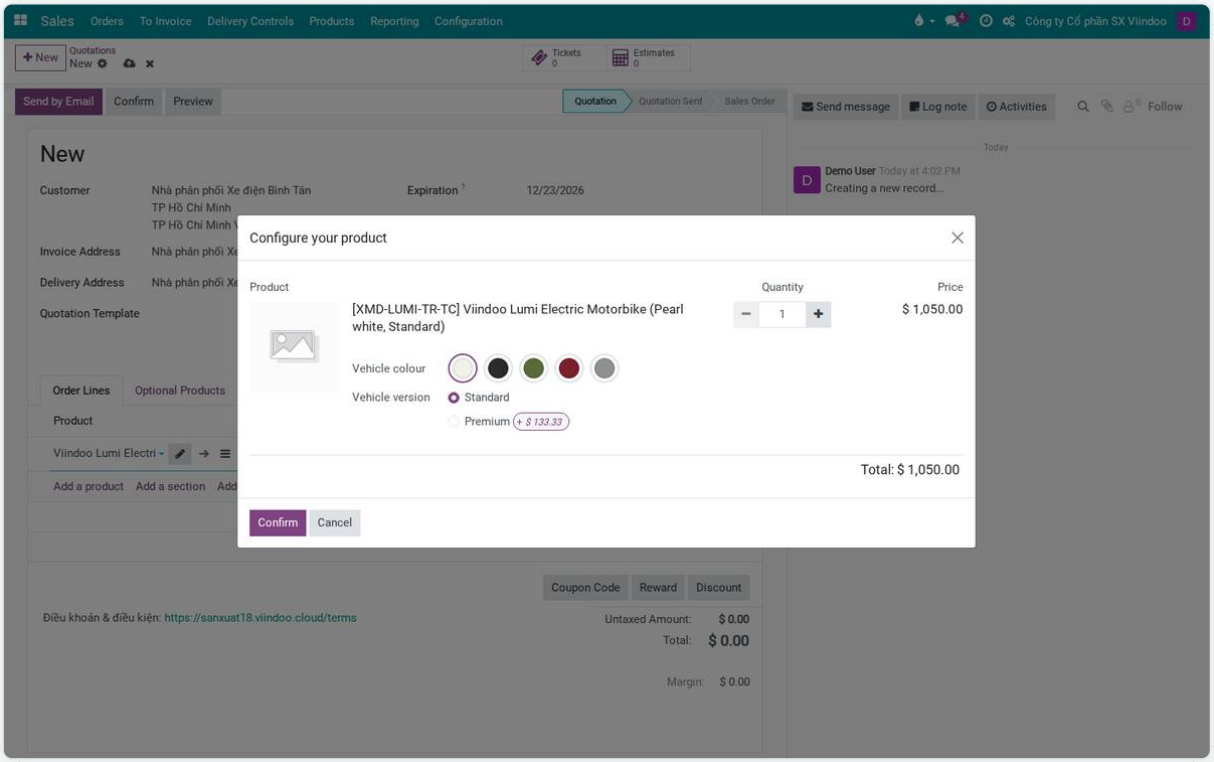


What you should see: the pricelist shows *USD export pricelist (USD)* and the amounts switch to the `$` symbol.

Step 2 - Add the Lumi vehicle

Click **Add a product** and type "XMD-LUMI-TR-TC". The **Configure your product** dialog opens to choose the **Vehicle colour** (round swatches) and the **Vehicle version**; keep *Pearl white* and *Standard*, then click **Confirm**.

> *Path:* `Sales > Orders > Quotations > New > Order Lines`

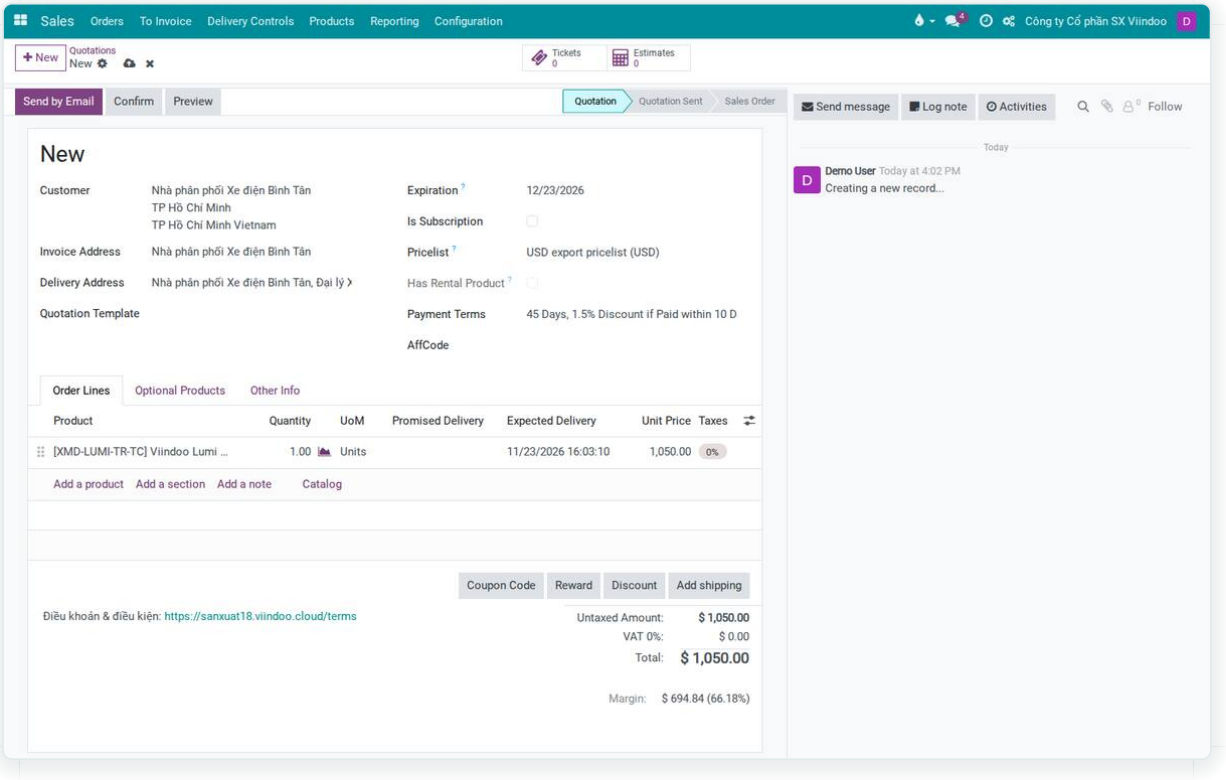


What you should see: the price $ 1,050.00 and the total $ 1,050.00; the version *Premium* adds $ 133.33.

Step 3 - Change the tax to 0%

Click the **Taxes** box of the line, remove the 10% tag, type 0 and choose **0%** (the item named *0%*, not *10%*).

> *Path:* `Sales > Orders > Quotations > New > Order Lines > Taxes`

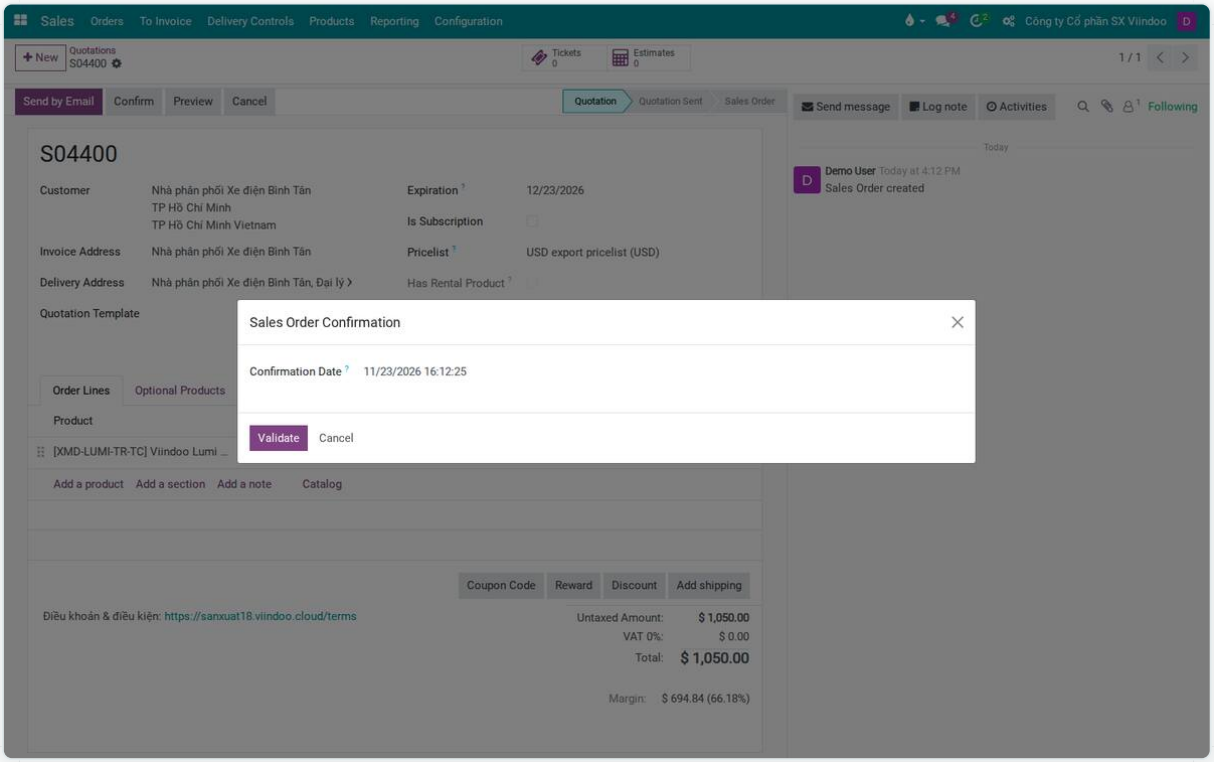


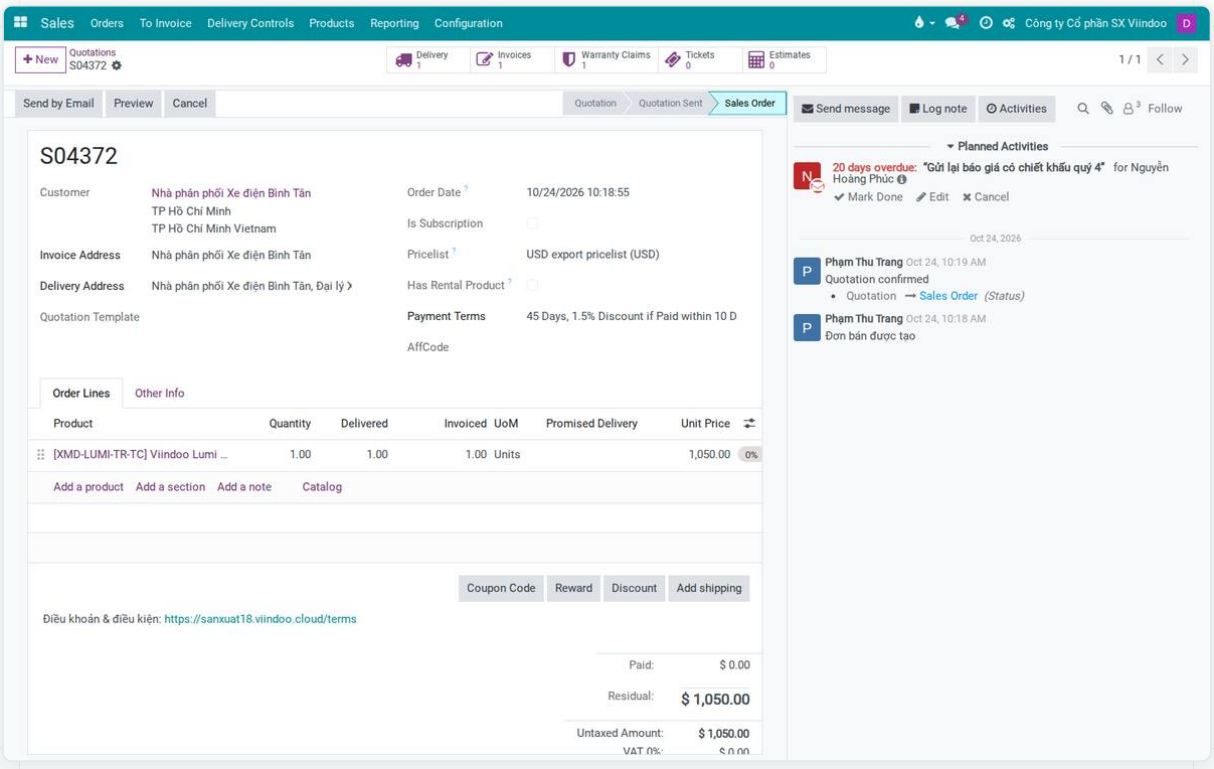
What you should see: VAT 0% of $ 0.00, total $ 1,050.00, and the **Margin** of $ 694.84 (66.18%) at the bottom corner of the order, calculated in USD.

Step 4 - Confirm the order

Click **Confirm**, then **Validate** in the *Sales Order Confirmation* dialog.

> *Path:* `Sales > Orders > Quotations > (the quotation)`



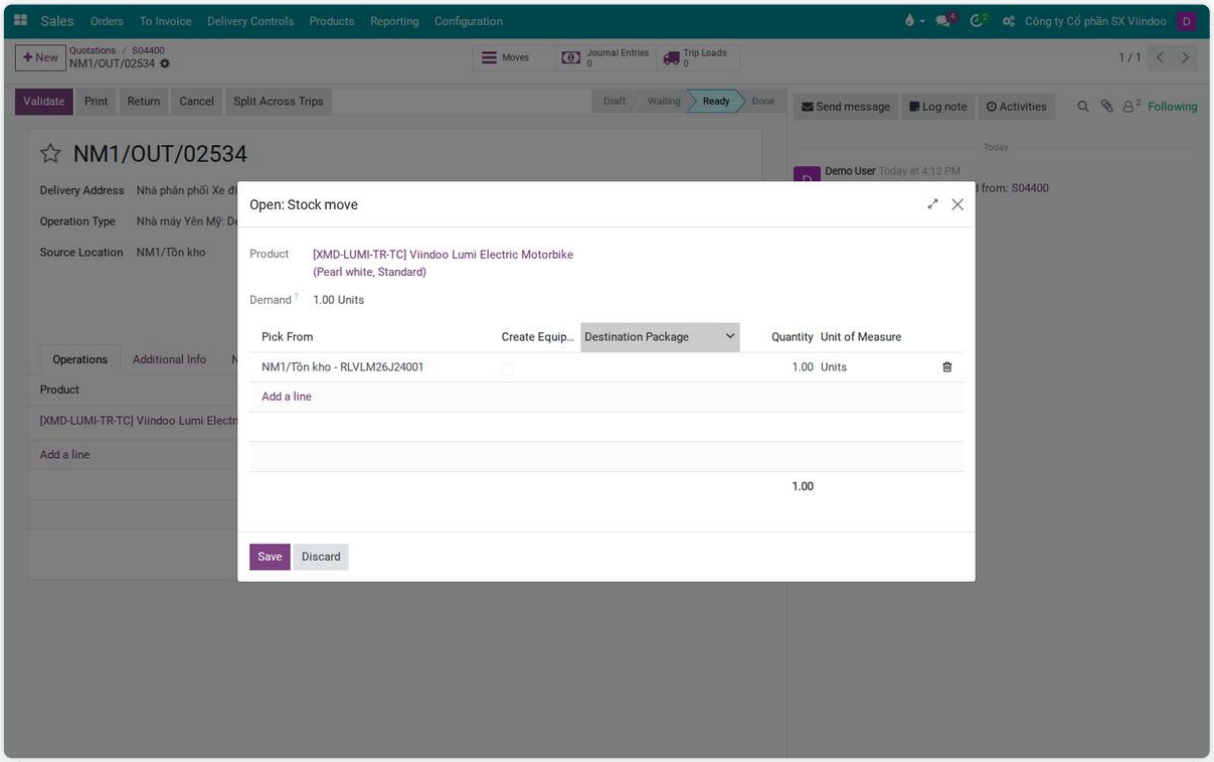


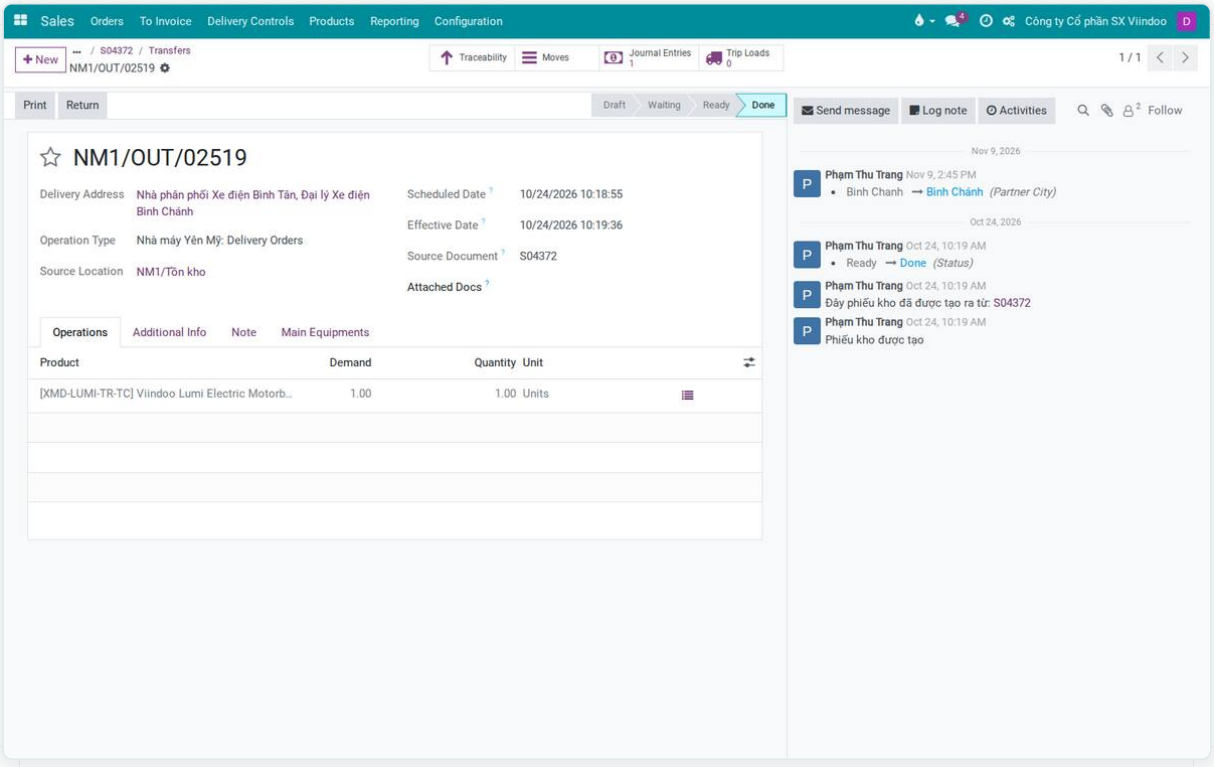
What you should see: the status *Sales Order* and the smart buttons **Delivery 1** and **Invoices 1** (the picture also shows **Warranty Claims 1**, which appears after a claim is opened on the vehicle).

Step 5 - Deliver

Click **Delivery**, look at the reserved chassis number, click **Validate** and confirm the transfer date (the same steps as in the previous lesson).

> *Path:* `Sales > Orders > Orders > (the order) > Delivery`



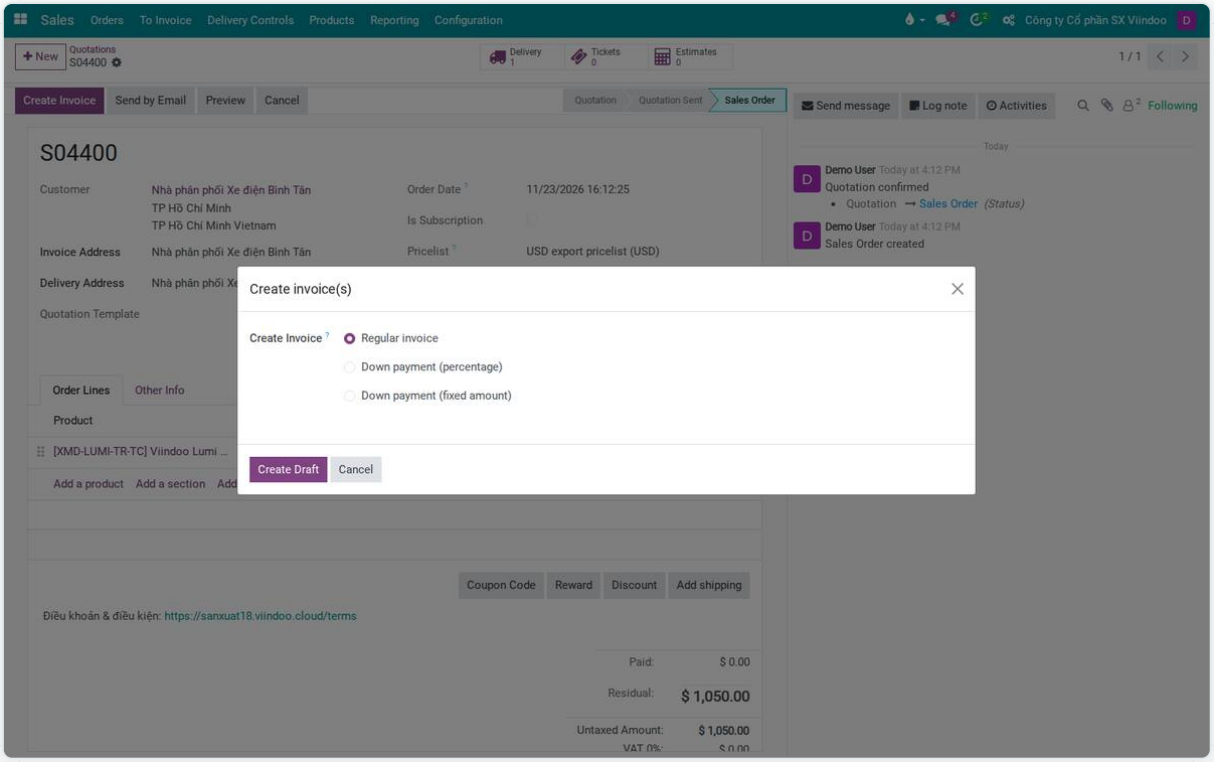


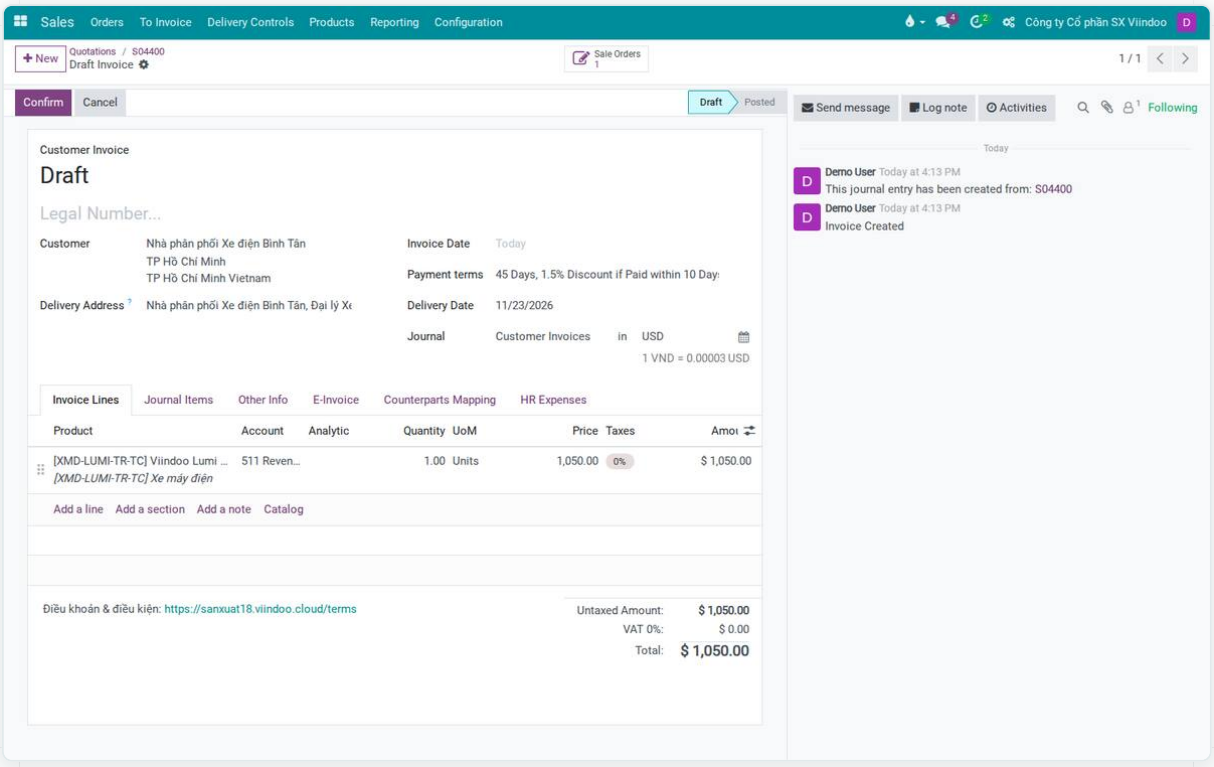
What you should see: the transfer is *Done*; write down the chassis number of the vehicle (in the example `RLVLM26J24001`, shown in the **Pick From** column) to use in Part IX, Warranty and Repair.

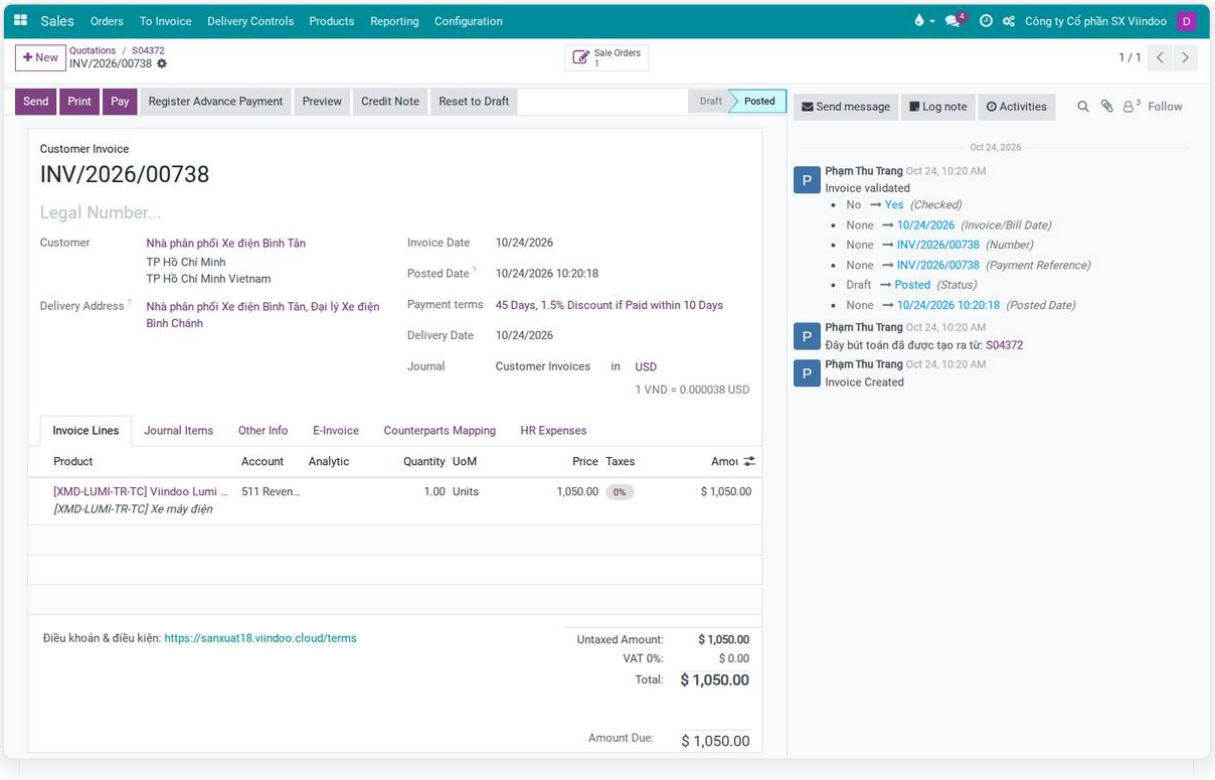
Step 6 - Create the invoice in USD

From the order, click **Create Invoice**, **Create Draft**, then **Confirm** the invoice.

> *Path:* `Sales > Orders > Orders > (the order) > Create Invoice`





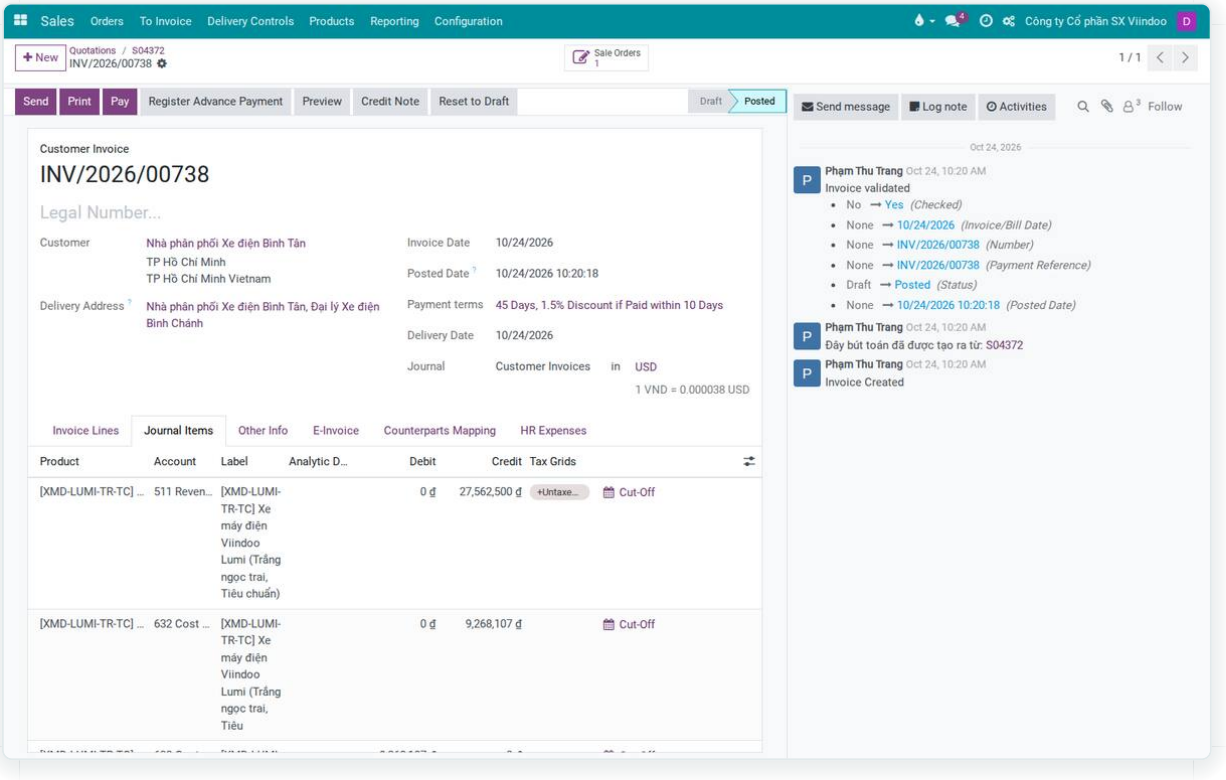


What you should see: an invoice in USD (the journal line shows *Customer Invoices in USD* and the exchange rate), untaxed amount $ 1,050.00, VAT 0% of $ 0.00, total $ 1,050.00.

Step 7 - Read the entry converted into VND

Choose the **Journal Items** tab.

> *Path:* `Accounting > Customers > Invoices > (the invoice) > Journal Items`



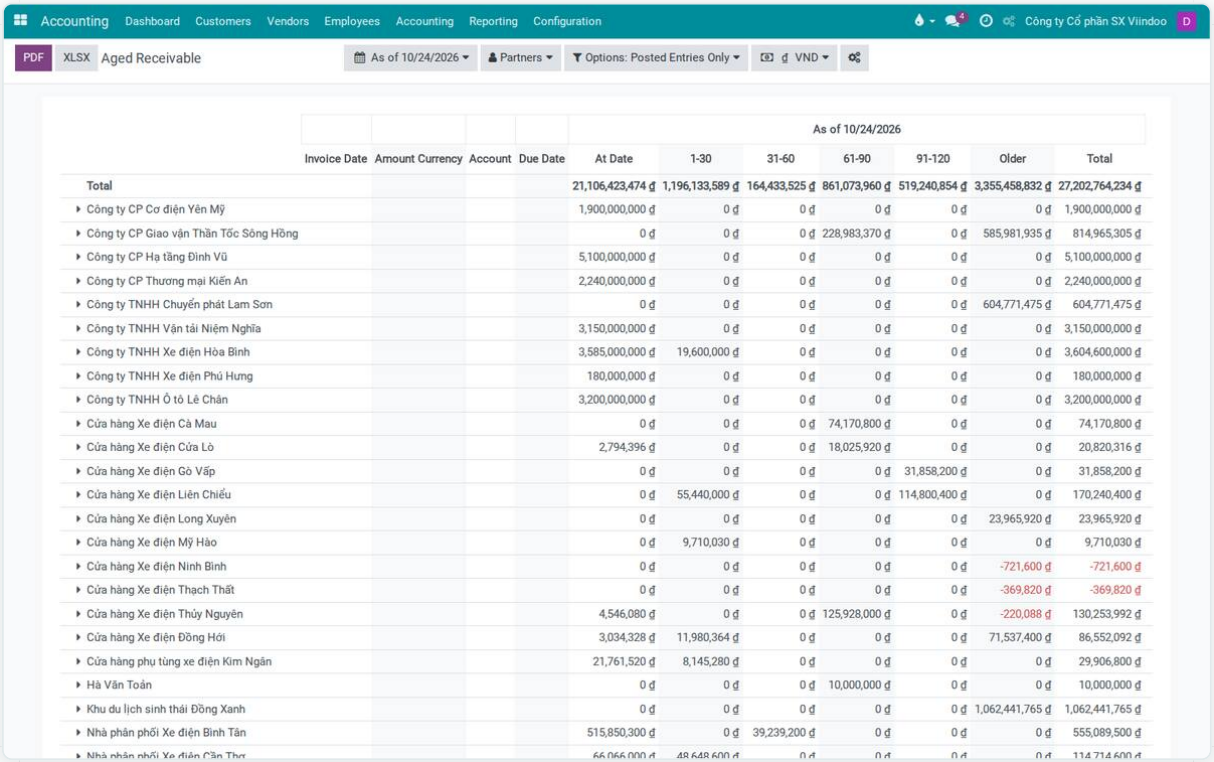
What you should see: the booked amount is in Vietnamese dong: **Debit 131** 27,562,500 VND = 1,050 USD x 26,250 (the rate set for the month), **Credit 511** 27,562,500 VND. The invoice is *Posted* and shows the buttons **Pay** and **Register Advance Payment**. The cost of the vehicle still goes through the delivery order (Debit 632 / Credit 155); the two 632 lines on the invoice cancel each other, as in the previous lesson.

61 RECEIVABLES

About 10 minutes. By the end of this lesson your company knows who owes how much, since when, and how to trace a figure back to each invoice.

Step 1 - Open the aged receivable report

> *Path:* `Accounting > Reporting > Partner Reports > Aged Receivable`



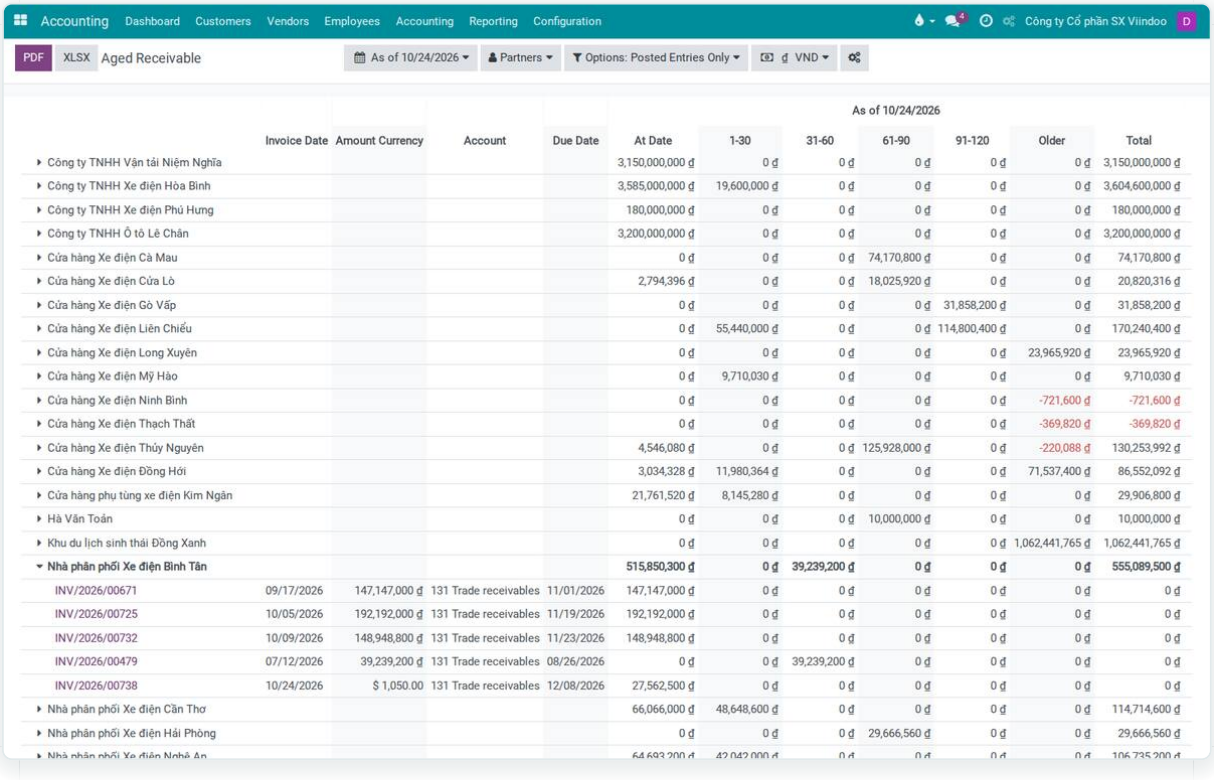
	Invoice Date	Amount Currency	Account	Due Date	As of 10/24/2026 At Date	1-30	31-60	61-90	91-120	Older	Total
Total					21,106,423,474 ₫	1,196,133,589 ₫	164,433,525 ₫	861,073,960 ₫	519,240,854 ₫	3,355,458,832 ₫	27,202,764,234 ₫
Công ty CP Cơ điện Yên Mỹ					1,900,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	1,900,000,000 ₫
Công ty CP Giao vận Thần Tốc Sông Hồng					0 ₫	0 ₫	0 ₫	228,983,370 ₫	0 ₫	585,981,935 ₫	814,965,305 ₫
Công ty CP Hạ tầng Đình Vũ					5,100,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	5,100,000,000 ₫
Công ty CP Thương mại Kiến An					2,240,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	2,240,000,000 ₫
Công ty TNHH Chuyển phát Lam Sơn					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	604,771,475 ₫	604,771,475 ₫
Công ty TNHH Vận tải Niệm Nghĩa					3,150,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	3,150,000,000 ₫
Công ty TNHH Xe điện Hòa Bình					3,585,000,000 ₫	19,600,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	3,604,600,000 ₫
Công ty TNHH Xe điện Phú Hưng					180,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	180,000,000 ₫
Công ty TNHH Ô tô Lê Chân					3,200,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	3,200,000,000 ₫
Cửa hàng Xe điện Cà Mau					0 ₫	0 ₫	0 ₫	74,170,800 ₫	0 ₫	0 ₫	74,170,800 ₫
Cửa hàng Xe điện Cửa Lò					2,794,396 ₫	0 ₫	0 ₫	18,025,920 ₫	0 ₫	0 ₫	20,820,316 ₫
Cửa hàng Xe điện Gò Vấp					0 ₫	0 ₫	0 ₫	0 ₫	31,858,200 ₫	0 ₫	31,858,200 ₫
Cửa hàng Xe điện Liên Chiểu					0 ₫	55,440,000 ₫	0 ₫	0 ₫	114,800,400 ₫	0 ₫	170,240,400 ₫
Cửa hàng Xe điện Long Xuyên					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	23,965,920 ₫	23,965,920 ₫
Cửa hàng Xe điện Mỹ Hào					0 ₫	9,710,030 ₫	0 ₫	0 ₫	0 ₫	0 ₫	9,710,030 ₫
Cửa hàng Xe điện Ninh Bình					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	-721,600 ₫	-721,600 ₫
Cửa hàng Xe điện Thạch Thất					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	-369,820 ₫	-369,820 ₫
Cửa hàng Xe điện Thủy Nguyên					4,546,080 ₫	0 ₫	0 ₫	125,928,000 ₫	0 ₫	-220,088 ₫	130,253,992 ₫
Cửa hàng Xe điện Đồng Hới					3,034,328 ₫	11,980,364 ₫	0 ₫	0 ₫	0 ₫	71,537,400 ₫	86,552,092 ₫
Cửa hàng phụ tùng xe điện Kim Ngân					21,761,520 ₫	8,145,280 ₫	0 ₫	0 ₫	0 ₫	0 ₫	29,906,800 ₫
Hà Văn Toản					0 ₫	0 ₫	0 ₫	10,000,000 ₫	0 ₫	0 ₫	10,000,000 ₫
Khu du lịch sinh thái Đồng Xanh					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	1,062,441,765 ₫	1,062,441,765 ₫
Nhà phân phối Xe điện Bình Tân					515,850,300 ₫	0 ₫	39,239,200 ₫	0 ₫	0 ₫	0 ₫	555,089,500 ₫
Nhà phân phối Xe điện Cần Thơ					66,066,000 ₫	48,648,600 ₫	0 ₫	0 ₫	0 ₫	0 ₫	114,714,600 ₫

What you should see: one line per customer, with the columns *At Date* (not yet due), *1-30*, *31-60*, *61-90*, *91-120*, *Older* days overdue, and *Total*; the total of all customers is in the first line (27,202,764,234 ₫ in the picture). A negative number (in red) is an overpayment by the customer or a credit note that has not been offset yet. The report is calculated up to the date in the **As of** filter at the top (10/24/2026 in the picture); change the date there. The filter *Options: Posted Entries Only* means draft invoices are not counted.

Step 2 - Open one customer to see each invoice

Click the arrow at the start of the line *Nhà phân phối Xe điện Bình Tân*.

> *Path:* `Accounting > Reporting > Partner Reports > Aged Receivable > (customer line)`



As of 10/24/2026

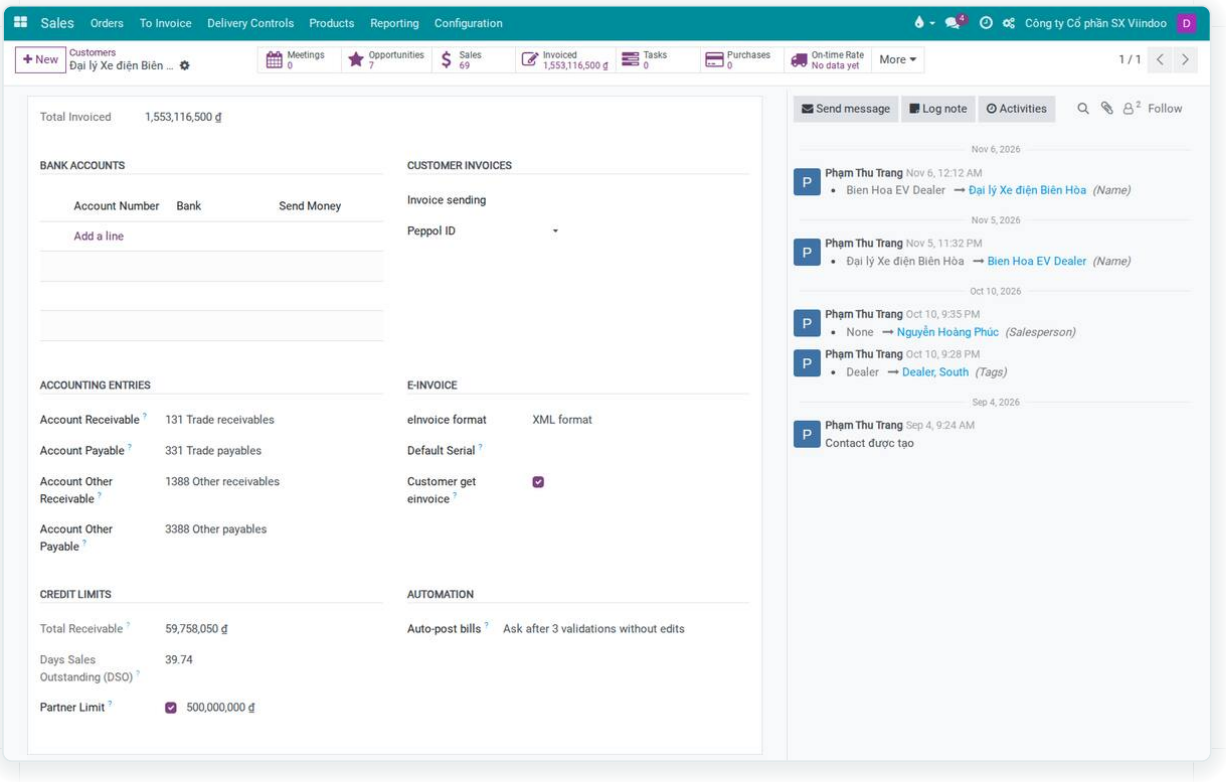
	Invoice Date	Amount Currency	Account	Due Date	At Date	1-30	31-60	61-90	91-120	Older	Total
Công ty TNHH Vận tải Niệm Nghĩa					3,150,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	3,150,000,000 ₫
Công ty TNHH Xe điện Hòa Bình					3,585,000,000 ₫	19,600,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	3,604,600,000 ₫
Công ty TNHH Xe điện Phú Hưng					180,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	180,000,000 ₫
Công ty TNHH Ô tô Lê Chân					3,200,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	3,200,000,000 ₫
Cửa hàng Xe điện Cà Mau					0 ₫	0 ₫	0 ₫	74,170,800 ₫	0 ₫	0 ₫	74,170,800 ₫
Cửa hàng Xe điện Cửa Lò					2,794,396 ₫	0 ₫	0 ₫	18,025,920 ₫	0 ₫	0 ₫	20,820,316 ₫
Cửa hàng Xe điện Gò Vấp					0 ₫	0 ₫	0 ₫	0 ₫	31,858,200 ₫	0 ₫	31,858,200 ₫
Cửa hàng Xe điện Liên Chiểu					0 ₫	55,440,000 ₫	0 ₫	0 ₫	114,800,400 ₫	0 ₫	170,240,400 ₫
Cửa hàng Xe điện Long Xuyên					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	23,965,920 ₫	23,965,920 ₫
Cửa hàng Xe điện Mỹ Hào					0 ₫	9,710,030 ₫	0 ₫	0 ₫	0 ₫	0 ₫	9,710,030 ₫
Cửa hàng Xe điện Ninh Bình					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	-721,600 ₫	-721,600 ₫
Cửa hàng Xe điện Thạch Thất					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	-369,820 ₫	-369,820 ₫
Cửa hàng Xe điện Thủy Nguyên					4,546,080 ₫	0 ₫	0 ₫	125,928,000 ₫	0 ₫	-220,088 ₫	130,253,992 ₫
Cửa hàng Xe điện Đồng Hới					3,034,328 ₫	11,980,364 ₫	0 ₫	0 ₫	0 ₫	71,537,400 ₫	86,552,092 ₫
Cửa hàng phụ tùng xe điện Kim Ngân					21,761,520 ₫	8,145,280 ₫	0 ₫	0 ₫	0 ₫	0 ₫	29,906,800 ₫
Hà Văn Toản					0 ₫	0 ₫	0 ₫	10,000,000 ₫	0 ₫	0 ₫	10,000,000 ₫
Khu du lịch sinh thái Đồng Xanh					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	1,062,441,765 ₫	1,062,441,765 ₫
Nhà phân phối Xe điện Bình Tân					**515,850,300 ₫**	**0 ₫**	**39,239,200 ₫**	**0 ₫**	**0 ₫**	**0 ₫**	**555,089,500 ₫**
INV/2026/00671	09/17/2026	147,147,000 ₫	131 Trade receivables	11/01/2026	147,147,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫
INV/2026/00725	10/05/2026	192,192,000 ₫	131 Trade receivables	11/19/2026	192,192,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫
INV/2026/00732	10/09/2026	148,948,800 ₫	131 Trade receivables	11/23/2026	148,948,800 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫
INV/2026/00479	07/12/2026	39,239,200 ₫	131 Trade receivables	08/26/2026	0 ₫	0 ₫	39,239,200 ₫	0 ₫	0 ₫	0 ₫	0 ₫
INV/2026/00738	10/24/2026	$ 1,050.00	131 Trade receivables	12/08/2026	27,562,500 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫
Nhà phân phối Xe điện Cần Thơ					66,066,000 ₫	48,648,600 ₫	0 ₫	0 ₫	0 ₫	0 ₫	114,714,600 ₫
Nhà phân phối Xe điện Hải Phòng					0 ₫	0 ₫	0 ₫	29,666,560 ₫	0 ₫	0 ₫	29,666,560 ₫
Nhà phân phối Xe điện Nghệ An					64,693,200 ₫	42,042,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	106,735,200 ₫

What you should see: each invoice of the customer with its **Invoice Date**, **Due Date**, **Amount Currency**, **Account** (131 Trade receivables) and the aging column it sits in; the customer's *Total* is 555,089,500 ₫. The USD invoice appears with the original currency `$ 1,050.00` and the converted amount 27,562,500 ₫ in the column *At Date* (due on 12/08/2026 according to the customer's 45-day terms).

Step 3 - Compare with the customer's credit limit

Open that customer, the **Accounting** tab, the **Credit Limits** section (as in the lesson "Sales configuration: customer channels, pricelists, payment terms, credit limits", step 6).

> *Path:* `Sales > Orders > Customers` > (customer) > tab **Accounting**



What you should see: Total Receivable matches the *Total* of the customer's line in the report (the picture shows the dealer of the first lesson; for *Nhà phân phối Xe điện Bình Tân* the figure is 555,089,500 ₫, the same as its *Total* above).

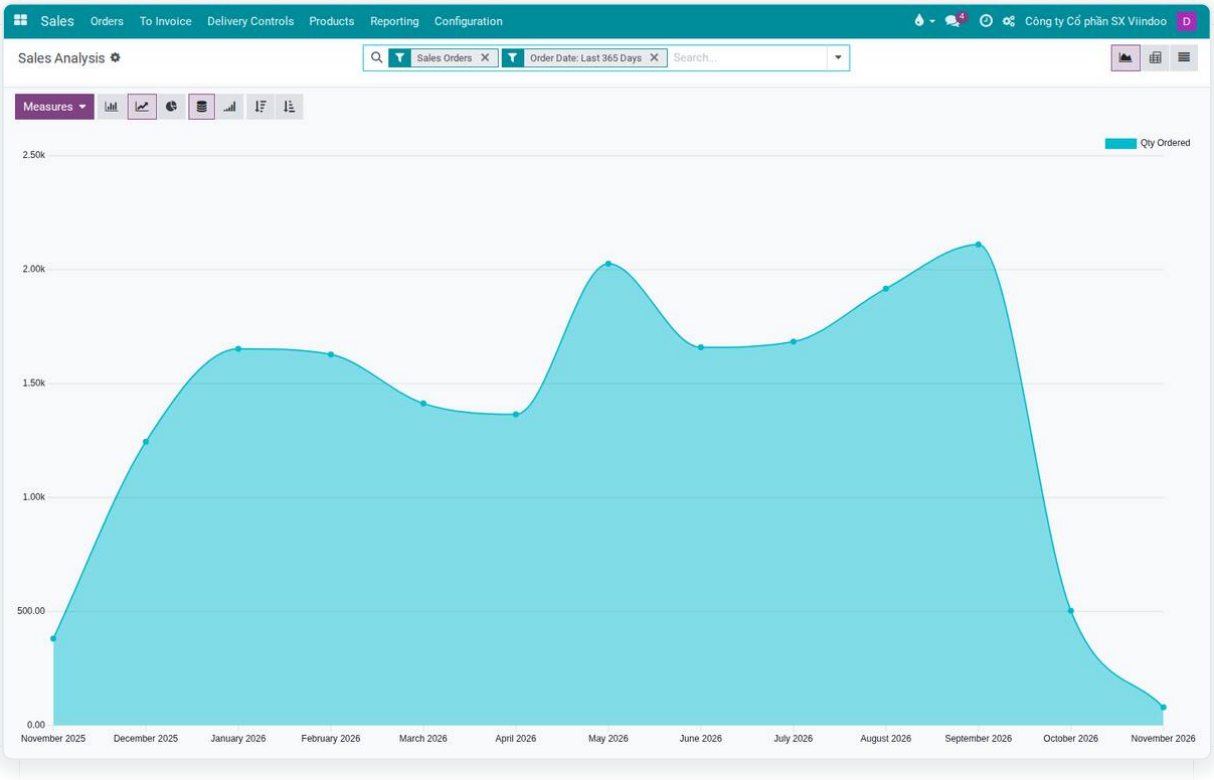
62 SALES REPORTS AND MARGIN BY CHANNEL

About 15 minutes. By the end of this lesson your company can read revenue and margin for each sales channel.

The system has no separate report called "margin by channel". The sales channel is tied to the pricelist (one pricelist per customer tier), so the closest reading, and a sufficient one, is the *Sales* report grouped by **Pricelist** with the **Margin** measure.

Step 1 - Open the sales report

> *Path:* `Sales > Reporting > Sales`

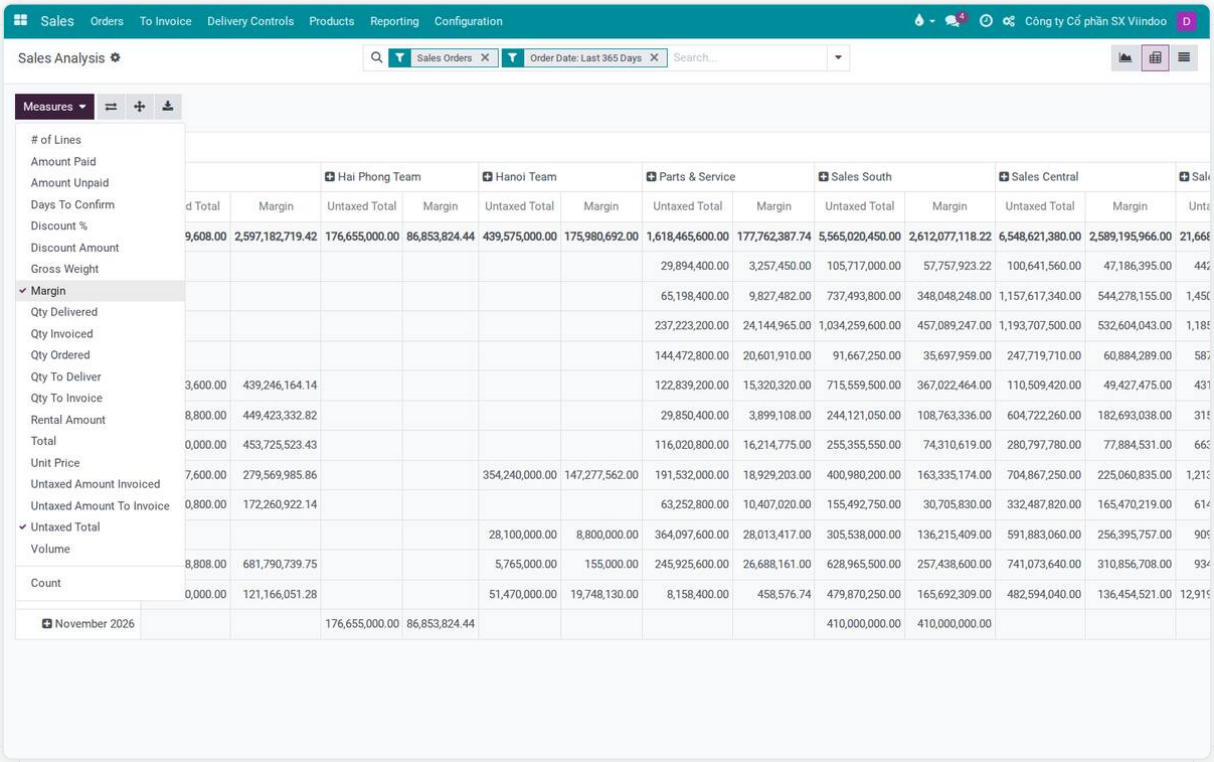


What you should see: the *Sales Analysis* chart of **Qty Ordered** by month for the filters *Sales Orders* and *Order Date: Last 365 Days*. Click the **Pivot** icon at the top right.

Step 2 - Choose the measures

Click **Measures**, untick *Qty Ordered*, tick *Untaxed Total* and *Margin*.

> *Path:* `Sales > Reporting > Sales > Pivot > Measures`

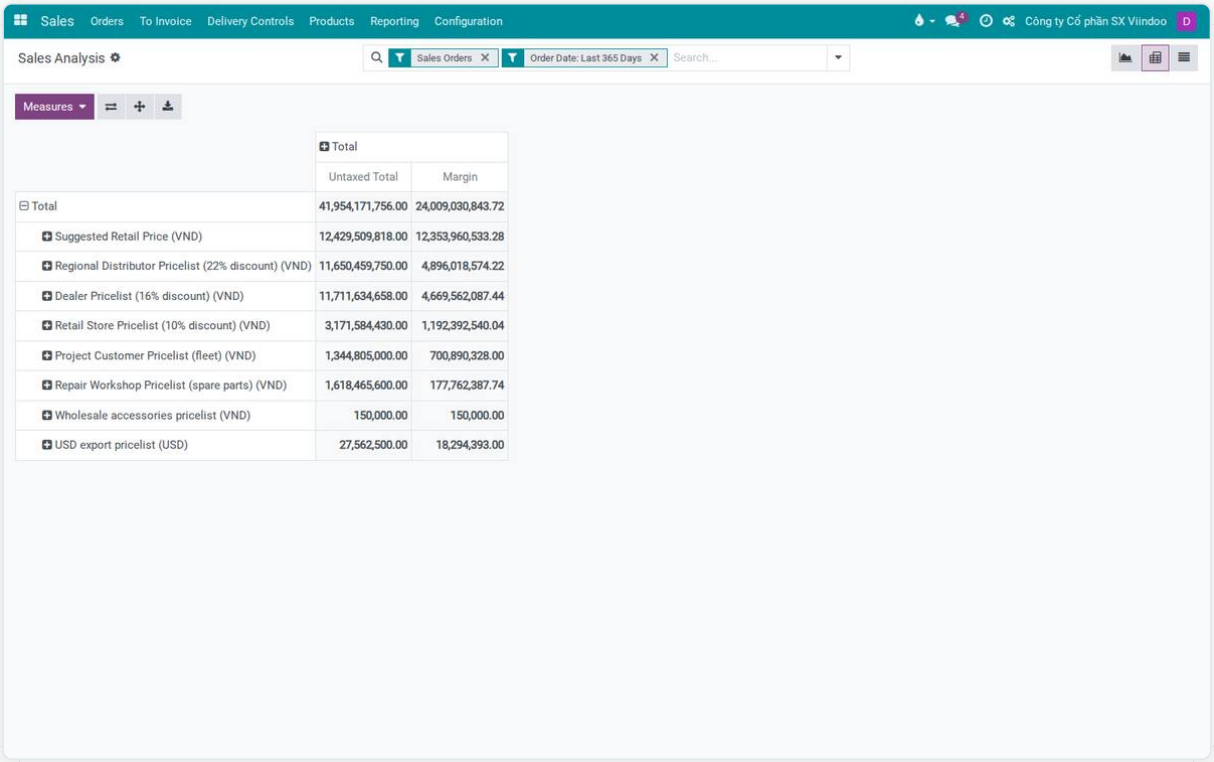


What you should see: a tick next to *Untaxed Total* and *Margin* in the list, and two columns *Untaxed Total* and *Margin* in the pivot.

Step 3 - Group by channel

Click the column header **Total** to collapse the columns; click the row header **Total** to collapse the rows, click it again and choose the custom group **Pricelist**.

> *Path:* `Sales > Reporting > Sales > Pivot`



What you should see: one row per pricelist (Suggested Retail Price, Regional Distributor, Dealer, Retail Store, Project Customer, Repair Workshop, Wholesale accessories, USD export) with the untaxed total and the margin; for example the USD export pricelist has 27,562,500 and 18,294,393. Dividing the margin by the revenue gives the margin rate of each channel. Amounts are converted into Vietnamese dong, including the USD channel. The margin is based on the cost at the time of sale, before selling expenses.

Reports of the sales process

Report	The question it answers	Path
Dashboard	Sales by every dimension, including customer-group analysis over time (Pivot, Graph, Cohort)	`Sales > Reporting > Dashboard`
Sales	Sales and margin by month, pricelist, team	`Sales > Reporting > Sales`
Customers	Which customers buy the most	`Sales > Reporting > Customers`
Salespersons	Who sold how much	`Sales > Reporting > Salespersons`
Products	Which vehicle models and components sell best	`Sales > Reporting > Products`
Loyalty Points Report	Loyalty points issued and used	`Sales > Reporting > Loyalty Points Report`

Report	The question it answers	Path
Aged Receivable	Who owes, and how long it is overdue	`Accounting > Reporting > Partner Reports > Aged Receivable`
Partner Ledger	How each customer's balance moves over time	`Accounting > Reporting > Partner Reports > Partner Ledger`
Invoice & Bill Analysis	Revenue and expenses by invoice	`Accounting > Reporting > Management > Invoice & Bill Analysis`
Sales Invoice List (form 01-1/GTGT)	The output-tax invoice list used for the tax return	`Accounting > Reporting > Invoice Lists > Sales Invoice List`

Print templates: Quotation/Order (PDF), Invoice PDF, Pro-forma invoice, Delivery slip, Receipt/Payment vouchers (forms 01-TT/02-TT). Table reports are exported to Excel with the download button; accounting reports have PDF and XLSX buttons.

63 EXERCISE: SELL TO A SHOP AND COMPARE MARGINS

About 25 minutes, on your own, no step-by-step pictures.

1. Create a quotation for any *Retail Store* customer, buying 5 vehicles of the same model. Note the **Disc.%** on the vehicle line and compare it with the discount for 1 vehicle (the tiered price level).
2. Confirm, deliver, invoice and collect the payment. Open the journal entry of the delivery order and check that it has Debit 632 / Credit 155.
3. Create another quotation for the same customer, 20 vehicles; read the credit limit warning banner, then discard the quotation.
4. Open the *Aged Receivable* report and find your company's customer.
5. Open the *Sales* report, group by *Pricelist*; which channel has the highest margin rate (Margin divided by Untaxed Total)?

PART IX. WARRANTY AND REPAIR

This part answers the question: is a vehicle that has been sold still under warranty, which dealer does it belong to, which batch of components was it built from, what was repaired, and how many spare parts did it cost. Readers: the warranty department, the spare-parts storekeeper, the accountant, the service director.

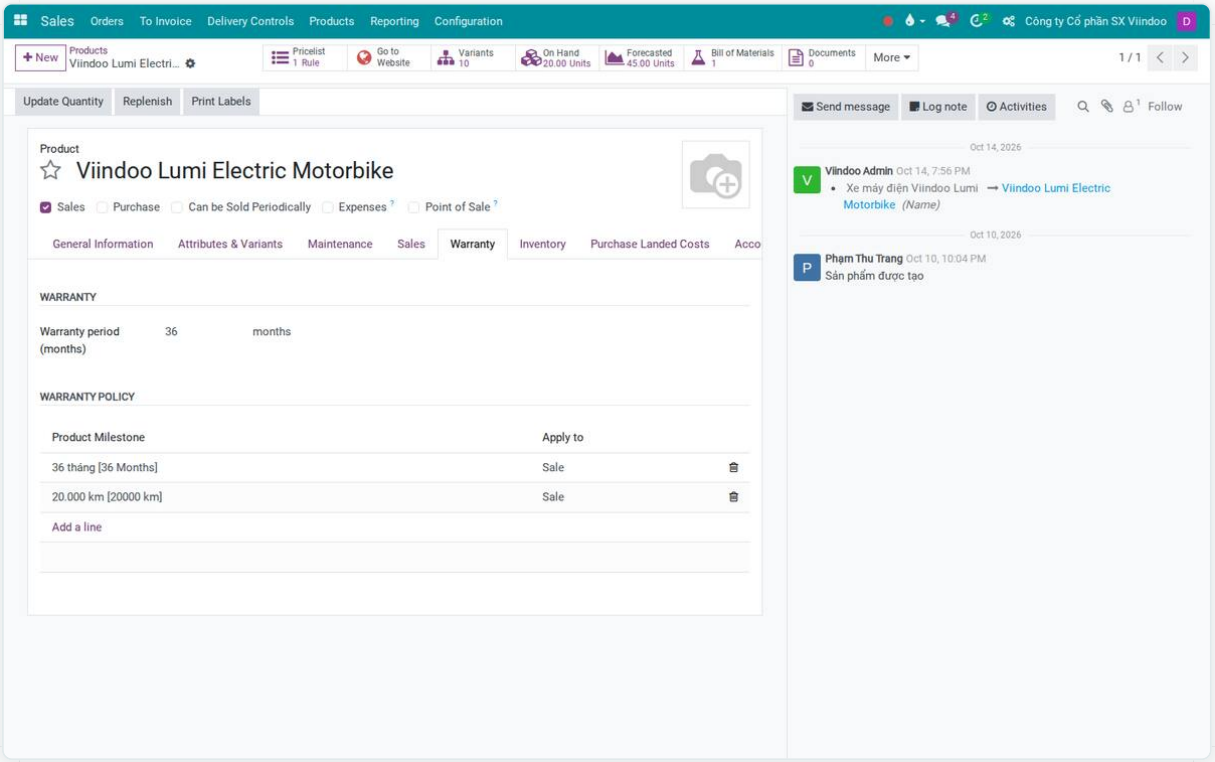
64 WARRANTY CONFIGURATION

About 10 minutes. By the end of this lesson your company knows where the warranty period of each vehicle model is kept, and why a missing figure means a warranty claim cannot be confirmed.

Step 1 - Read the warranty policy on a product

Open the product *Viindoo Lumi Electric Motorbike* and choose the **Warranty** tab.

> *Path:* `Sales > Products > Products > Viindoo Lumi Electric Motorbike > tab Warranty`

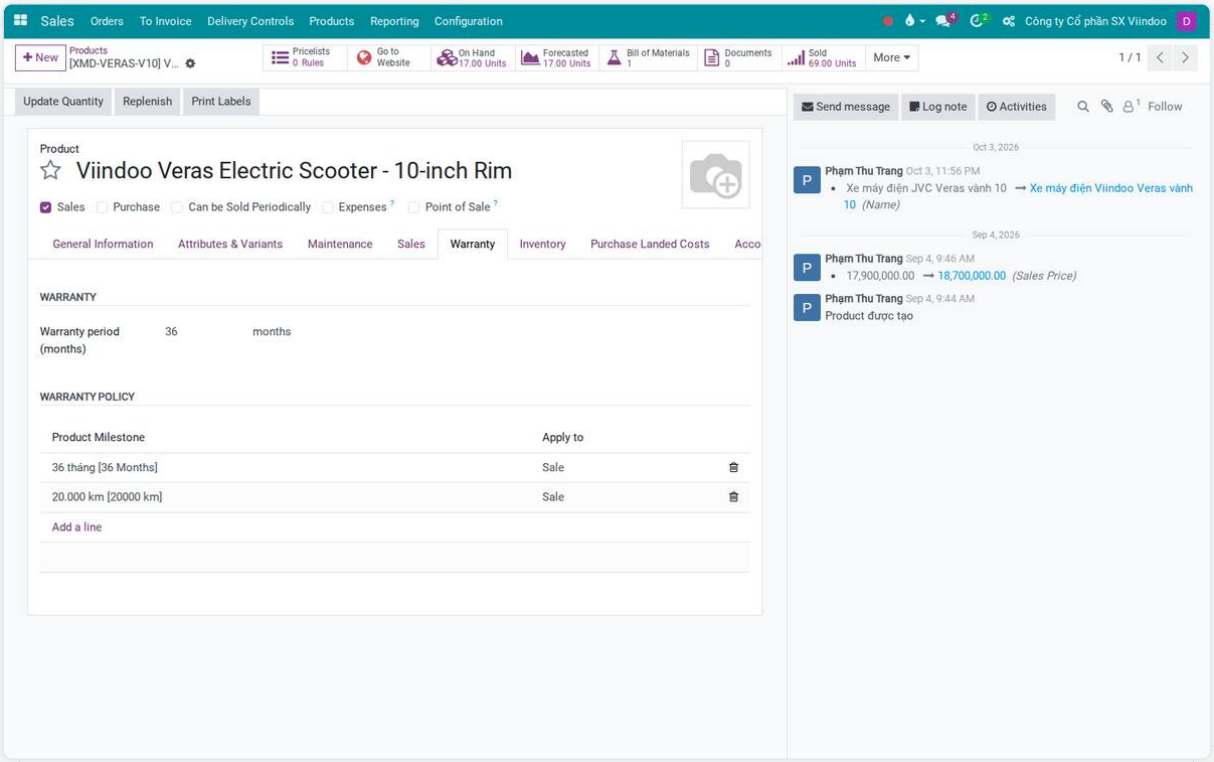


What you should see: Warranty period (months) is 36, and the **Warranty Policy** table (columns **Product Milestone** and **Apply to**) has two milestones that apply to *Sale*: *36 tháng [36 Months]* and *20.000 km [20000 km]*. The vehicle is out of warranty when either milestone is reached.

Step 2 - Compare with another model

Open the product *Viindoo Veras Electric Scooter - 10-inch Rim*, tab **Warranty**.

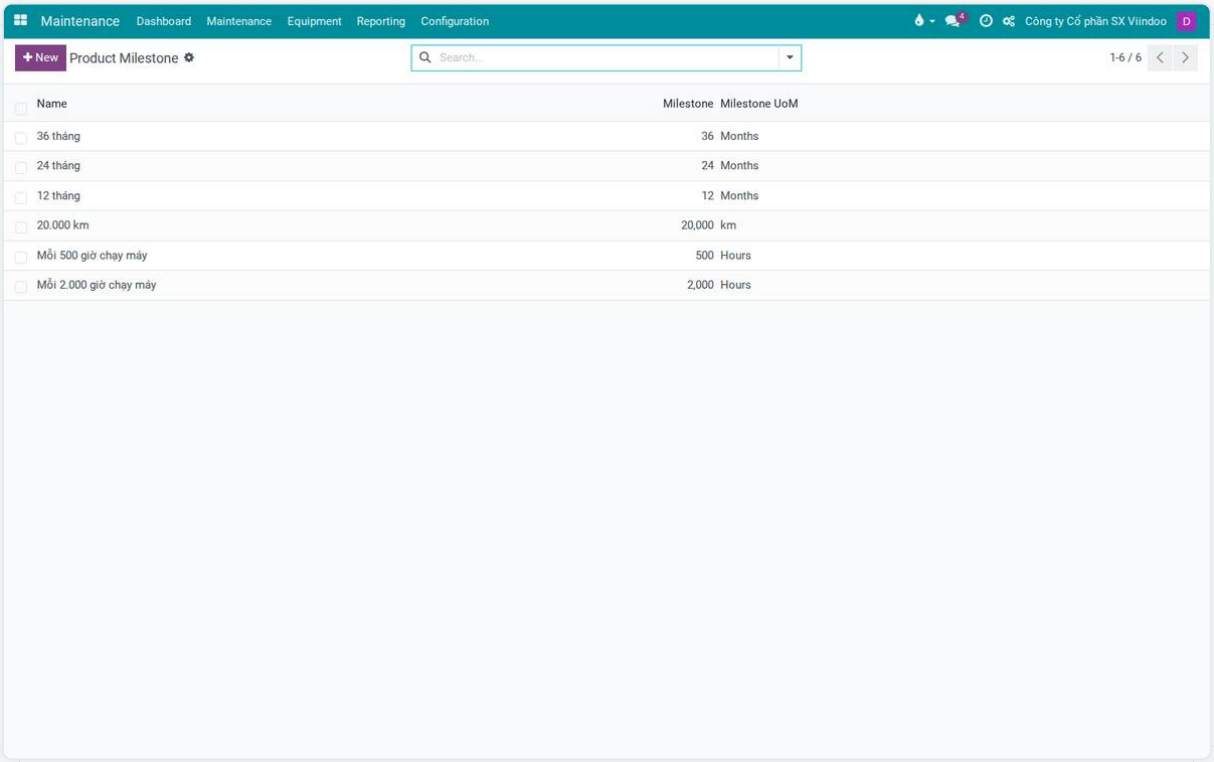
> *Path:* `Sales > Products > Products > Viindoo Veras Electric Scooter - 10-inch Rim > tab Warranty`



What you should see: the same two milestones and **Warranty period (months)** of 36. When a vehicle is delivered, the system copies this figure onto the chassis number to calculate the expiry date. If a model has 0 here (in the demo, the *Viindoo V2 Pro Electric Scooter* and the *Viindoo Lumi Pro Electric Scooter*), the chassis number gets no expiry date and the warranty claim cannot be confirmed: the system refuses because the claim has no warranty expiration date. Your company sets the number of months before delivering vehicles.

Step 3 - See the milestones that already exist

> *Path:* `Maintenance > Configuration > Product Milestones`



What you should see: the list *Product Milestone* with the columns **Name**, **Milestone** and **Milestone UoM**: *36 tháng* (36 months), *24 tháng* (24 months), *12 tháng* (12 months), *20.000 km* (20,000 km), *Mỗi 500 giờ chạy máy* (every 500 machine hours) and *Mỗi 2.000 giờ chạy máy* (every 2,000 machine hours). Add a new milestone here, then assign it to a product.

The system has no separate "warranty contract": the warranty follows the product's policy and is attached to each chassis number at the moment of delivery.

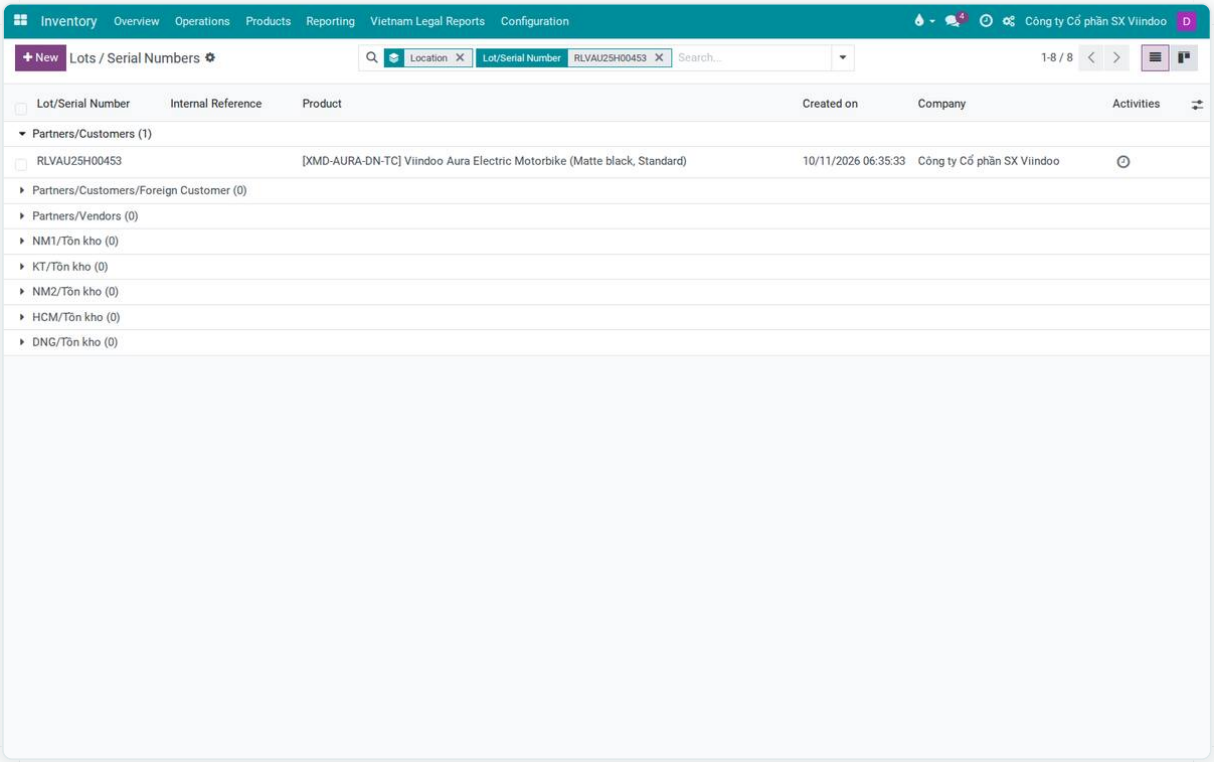
65 LOOK UP A CHASSIS NUMBER TO GET A VEHICLE'S HISTORY

About 10 minutes. This lesson is view-only and creates no document. By the end of this lesson your company can enter a chassis number and know which dealer the vehicle belongs to, which day it was sold, which production order assembled it, which batch of components it used, and which warranty repairs it has had. The lesson uses the existing vehicle `RLVAU25H00453`; a vehicle of your company is looked up the same way in other lessons.

Step 1 - Find the chassis number

Open the list of lot/serial numbers, type the chassis number into the search box and press Enter.

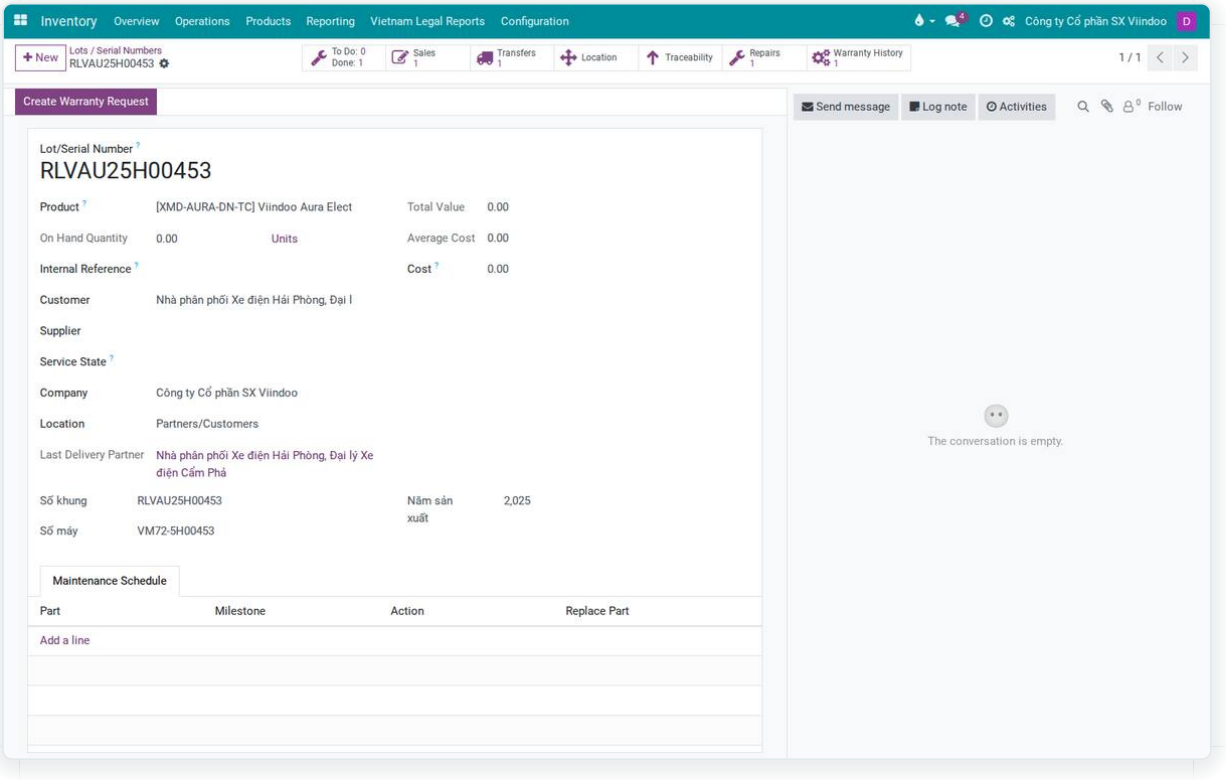
> *Path:* `Warranty > Lot/Serial Numbers`



What you should see: one vehicle line, in the location group *Partners/Customers (1)* (the vehicle is at the customer), with the product *Viindoo Aura Electric Motorbike (Matte black, Standard)*. Click the line.

Step 2 - Read the vehicle card

> *Path:* `Warranty > Lot/Serial Numbers > (chassis number)`

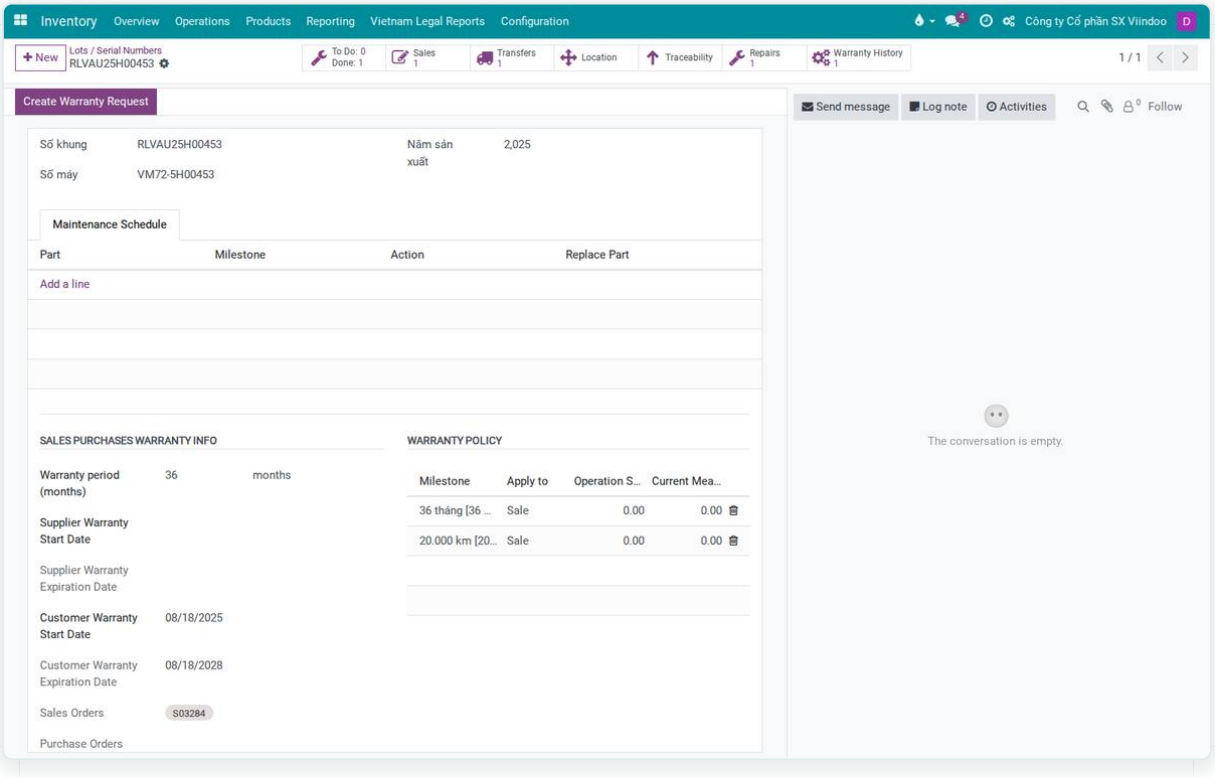


What you should see: the buttons **Create Warranty Request**, **Sales**, **Transfers**, **Location**, **Traceability**, **Repairs**, **Warranty History**; below them **Số khung** (chassis number), **Số máy** (engine number) and **Năm sản xuất** (year of manufacture); these three labels are data of the vehicle and stay in Vietnamese. The card also shows the **Last Delivery Partner** (the chain distributor - dealer).

Step 3 - Read the warranty period

> *Path:* still on the screen of the previous step
> (`Warranty > Lot/Serial Numbers > (chassis number)`)

Scroll down to the section *Sales Purchases Warranty Info*.

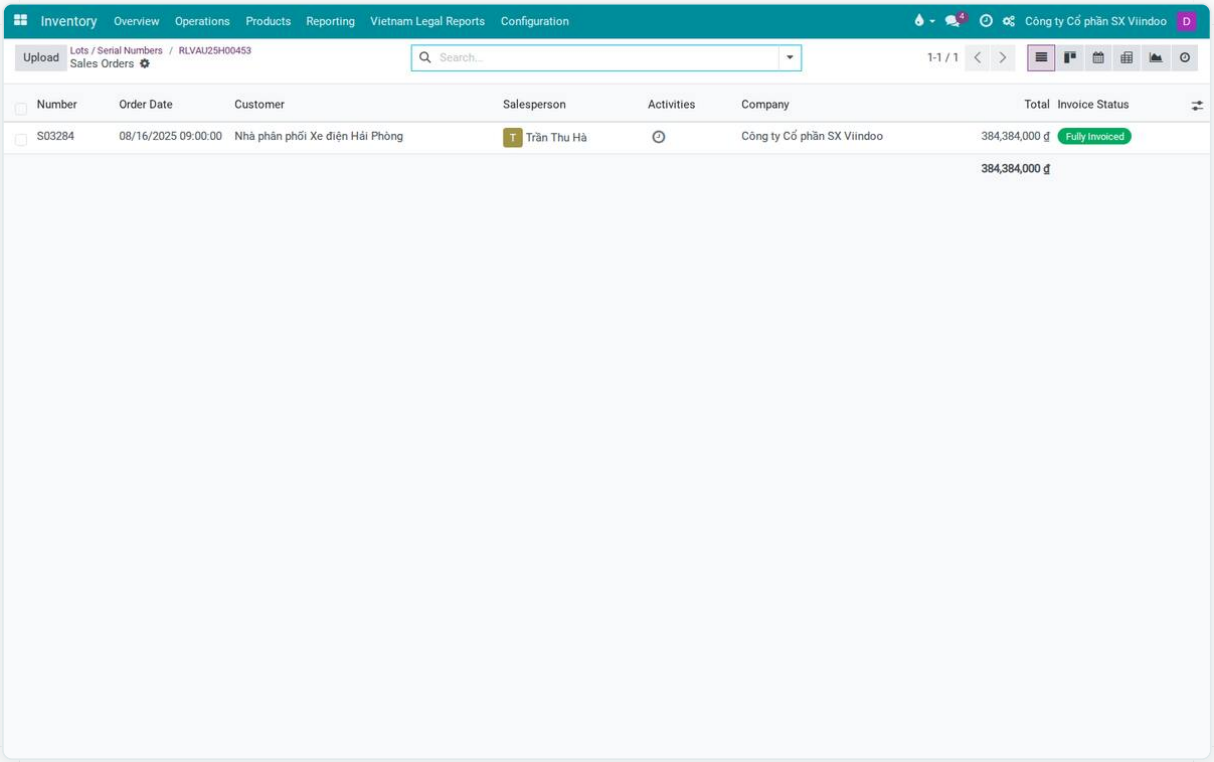


What you should see: the warranty period of 36 months, the **Customer Warranty Start Date** and **Customer Warranty Expiration Date** (08/18/2025 and 08/18/2028), the sales order (`S03284`) and the **Warranty Policy** with its two milestones.

Step 4 - See the sales order and the date of sale

Click the **Sales** button.

> *Path:* `Warranty > Lot/Serial Numbers > (chassis number) > Sales`

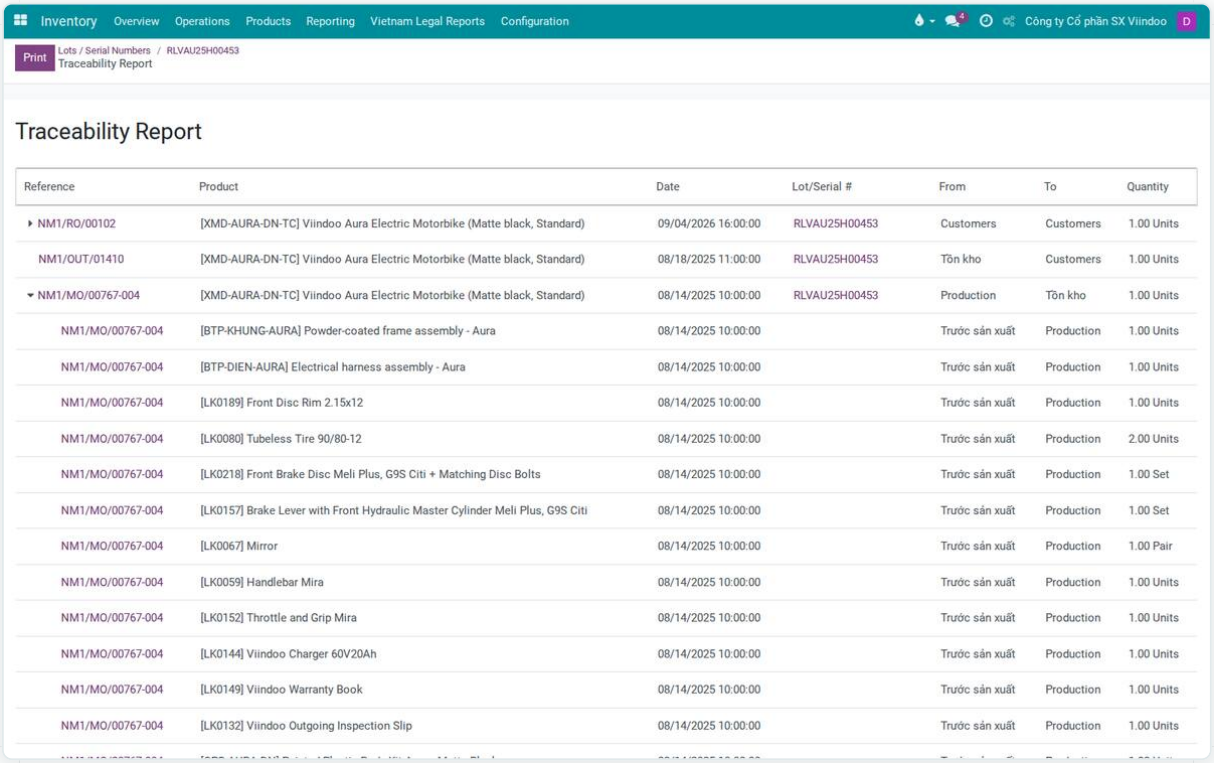


What you should see: the sales order `S03284`, the order date, the customer (*Nhà phân phối Xe điện Hải Phòng*, the distributor), the salesperson, the total 384,384,000 ₫ and the invoice status *Fully Invoiced*.

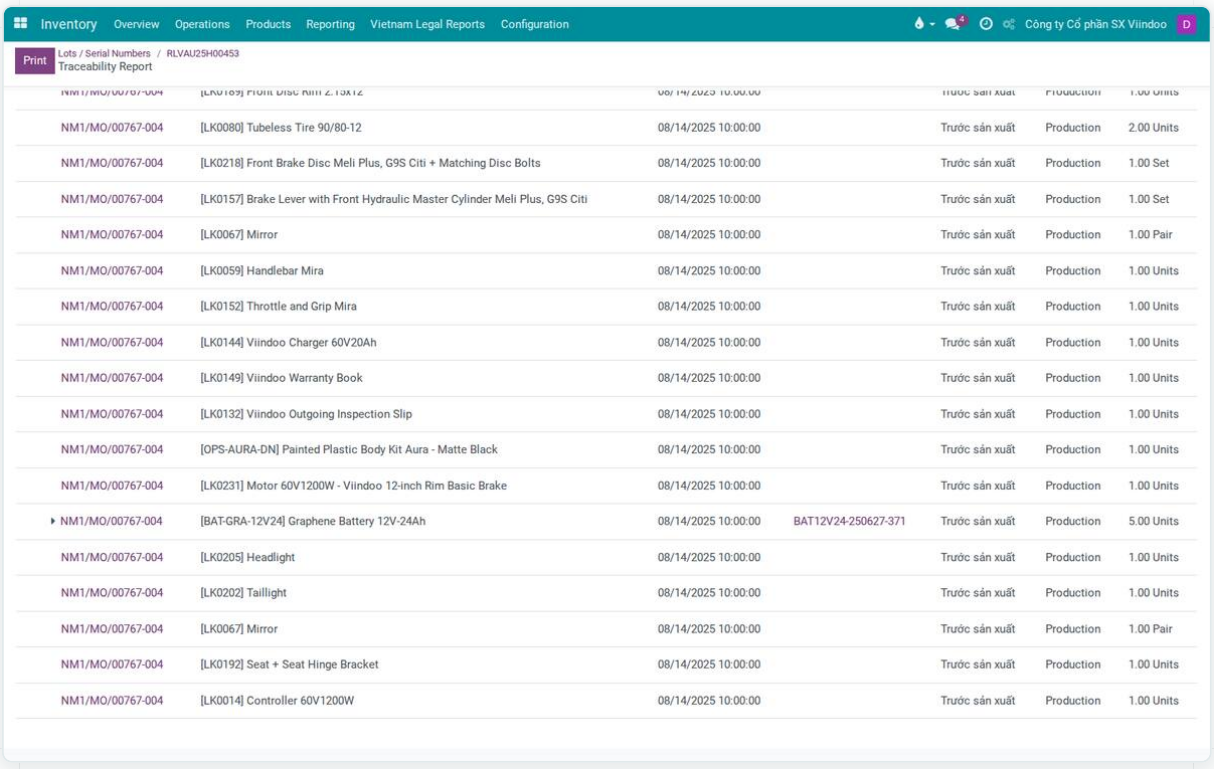
Step 5 - Trace back to the assembly order and the component batches

Go back to the vehicle card, click **Traceability**, click the arrow at the start of the line `NM1/MO/...`.

> *Path:* `Warranty > Lot/Serial Numbers > (chassis number) > Traceability`



What you should see: the *Traceability Report* with the columns **Reference**, **Product**, **Date**, **Lot/Serial #**, **From**, **To**, **Quantity**: the repair order, the delivery to the customer (`NM1/OUT/...`) and the manufacturing order that built the vehicle; open the manufacturing order and you see every component that was consumed.

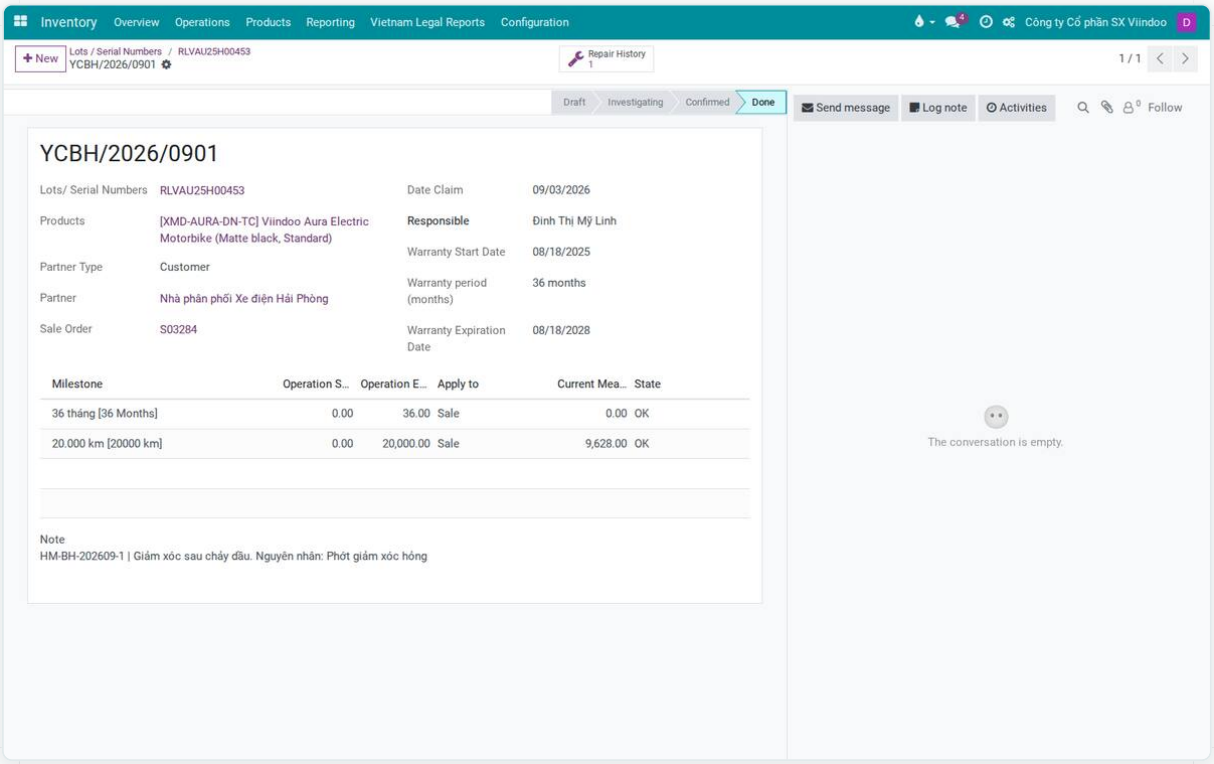


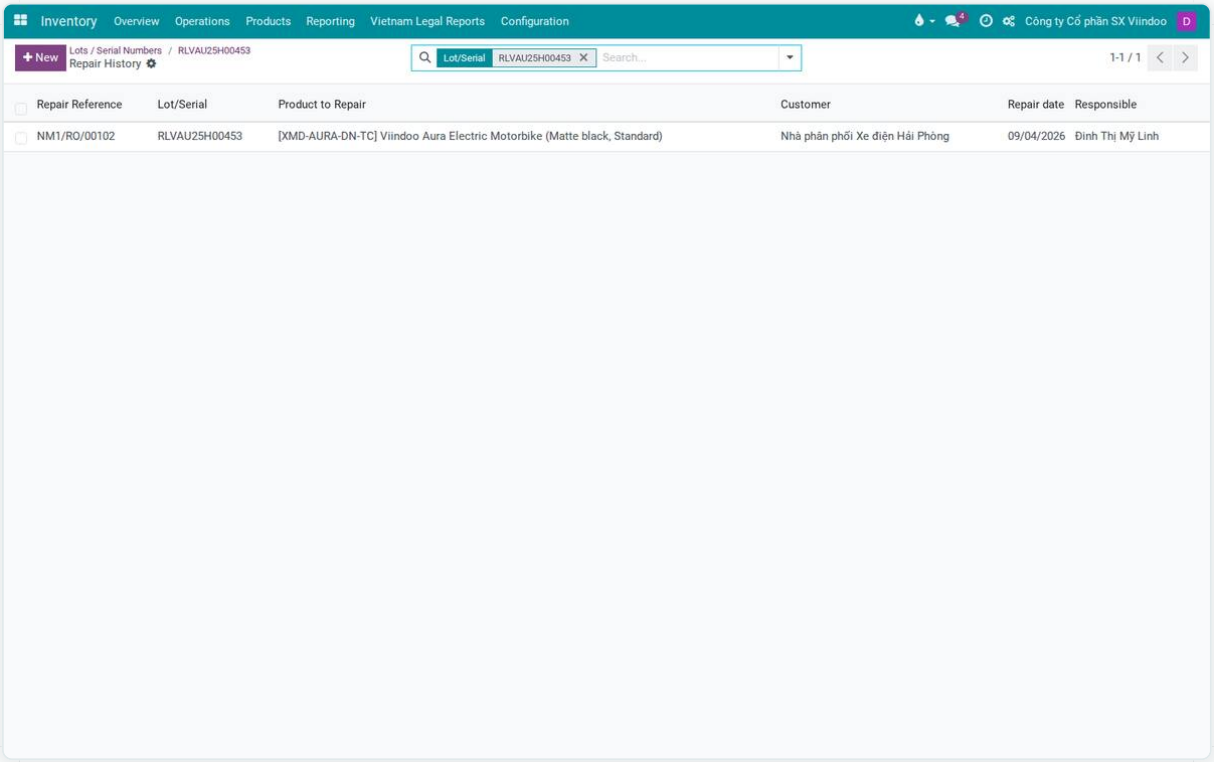
What you should see: a component tracked by batch shows its own lot number (in the example, the Graphene Battery 12V-24Ah with lot `BAT12V24-250627-371`); a component that is not tracked by batch leaves the *Lot/Serial #* column empty.

Step 6 - See the warranty and repair history

Go back to the vehicle card, click **Warranty History**, then **Repairs**.

> *Path:* `Warranty > Lot/Serial Numbers > (chassis number) > Warranty History`





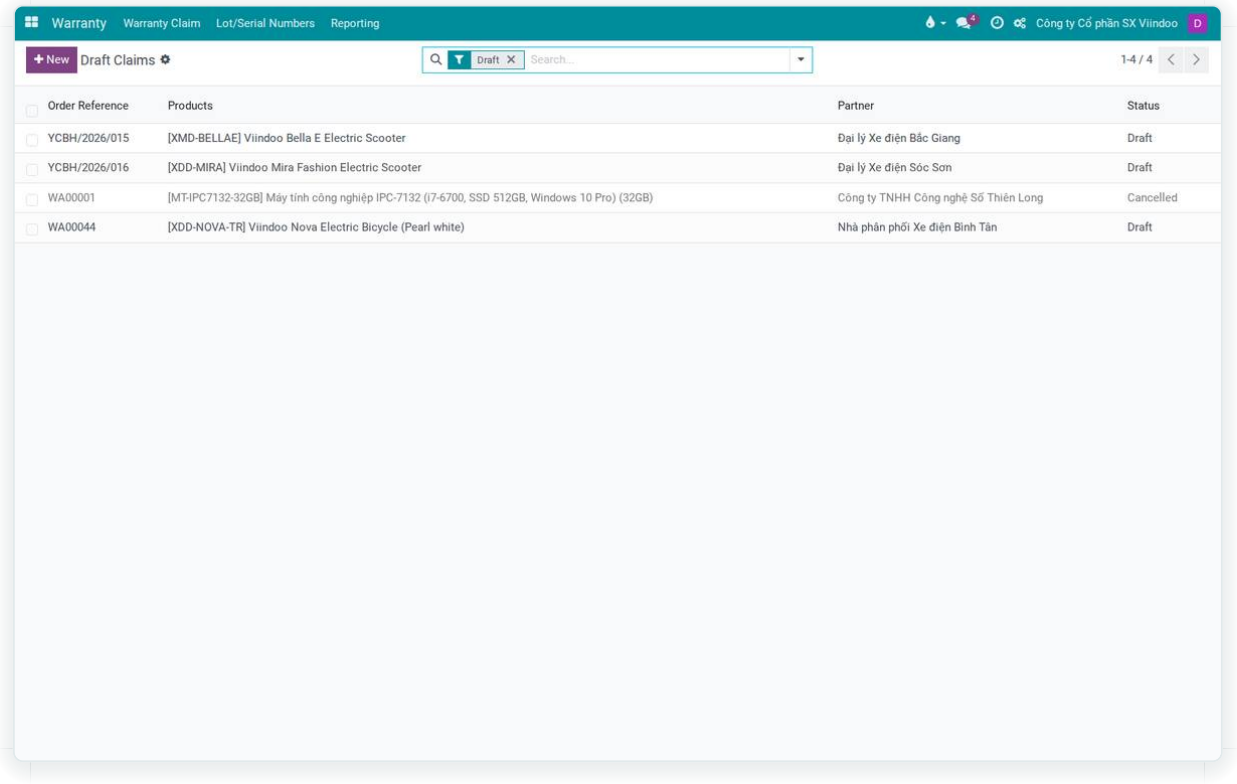
What you should see: a completed warranty claim (status *Done*, with the **Repair History 1** button) with its **Date Claim**, **Warranty Expiration Date**, the current kilometre reading (**Current Measurement** 9,628 against the 20,000 km milestone) and a note of the cause; and the *Repair History* list with the matching repair order (**Repair Reference**, **Lot/Serial**, **Product to Repair**, **Customer**, **Repair date**).

66 FROM WARRANTY CLAIM TO FINISHED REPAIR AND VEHICLE RETURN

About 30 minutes. By the end of this lesson your company has a warranty claim that has been handled, a repair order with a spare part issued from stock, and the vehicle received, repaired and returned to the customer under the right chassis number. The lesson uses the Lumi vehicle `RLVLM26J24001` just delivered in the lesson "Export order in USD"; your company replaces it with the chassis number of its own vehicle (it must belong to a model whose warranty period is not 0).

Step 1 - Open the list of warranty claims

> *Path:* `Warranty > Warranty Claim > Draft`

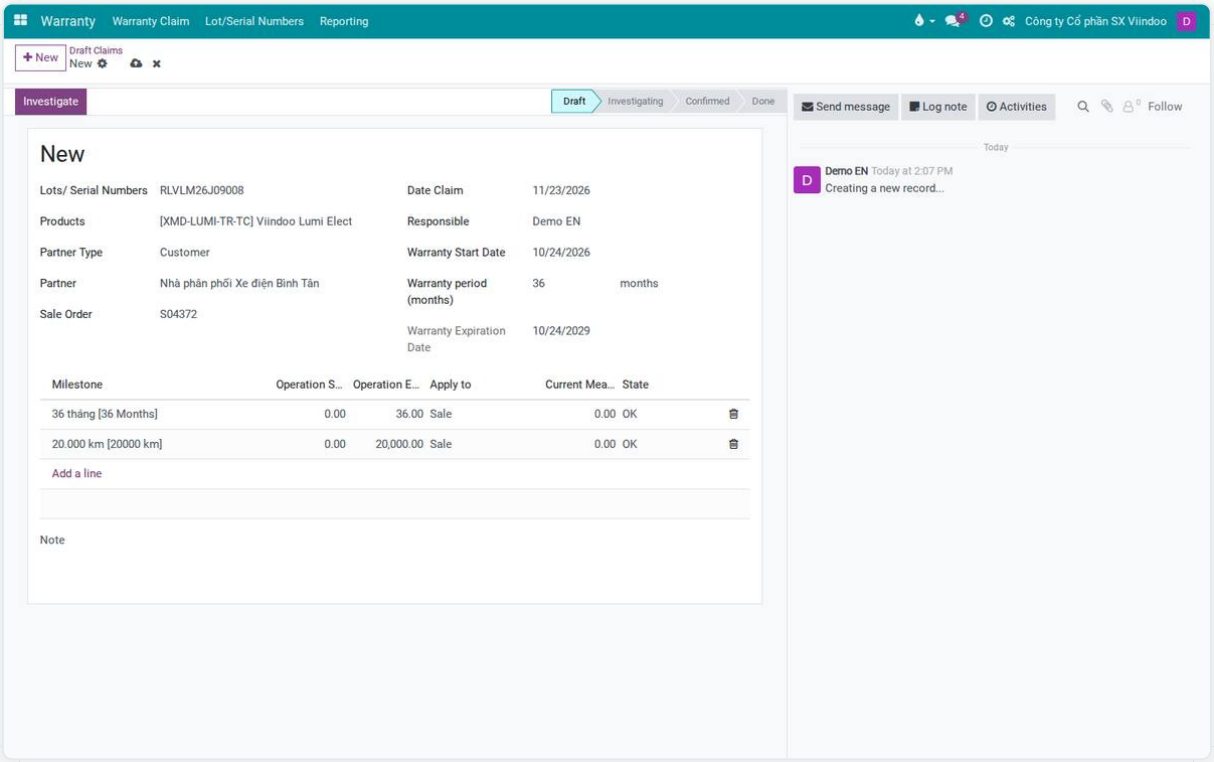


What you should see: the list of draft claims (the page is titled *Draft Claims*; the top bar is *Warranty*). Click **New**.

Step 2 - Choose the chassis number

In the **Lots/ Serial Numbers** box type the chassis number and choose it.

> *Path:* `Warranty > Warranty Claim > Draft > New`

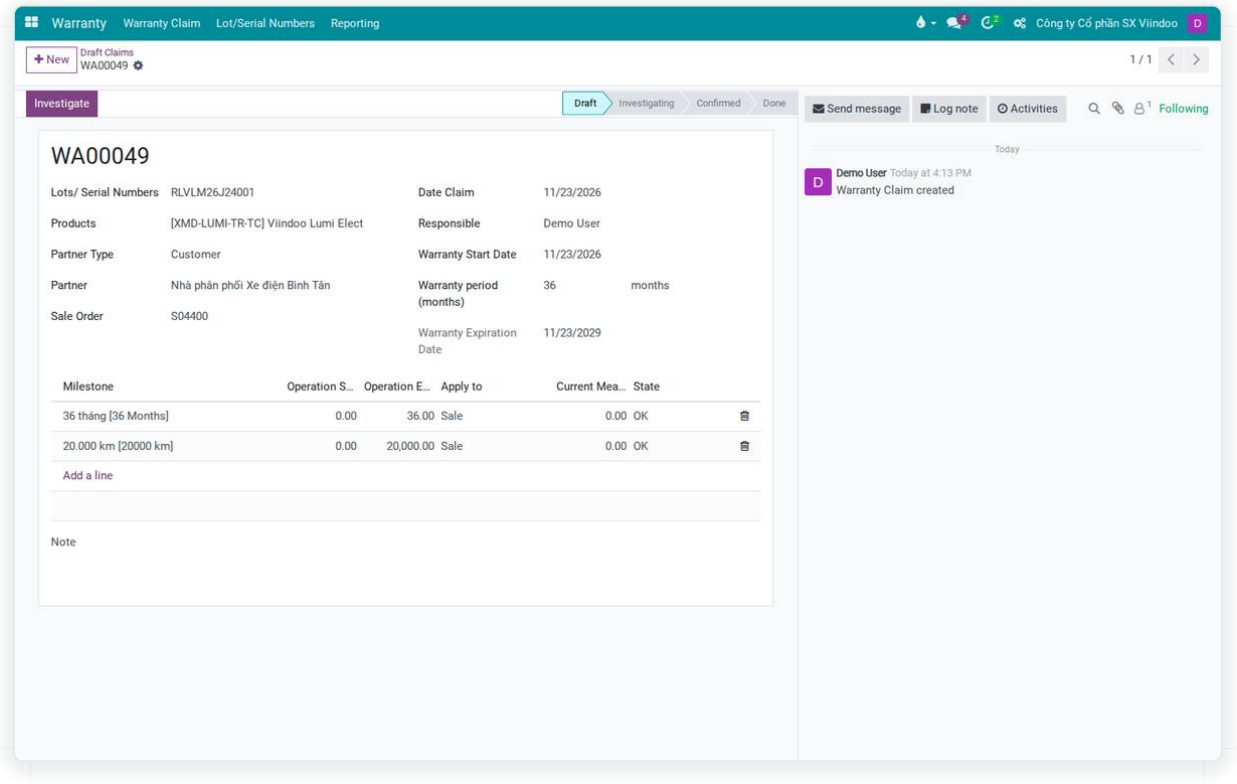


What you should see: the system fills in **Products**, **Partner Type** (*Customer*), **Partner** (the customer who received the vehicle), **Sale Order**, **Date Claim**, **Warranty Start Date**, **Warranty period (months)** (36), **Warranty Expiration Date** (three years after the start date) and two milestone lines, *36 tháng [36 Months]* and *20.000 km [20000 km]*, with the state *OK*. **Responsible** is the current user.

Step 3 - Save the claim

> *Path:* still on the screen of the previous step
> (`Warranty > Warranty Claim > Draft > New`)

Click the save icon (the cloud) next to the name.

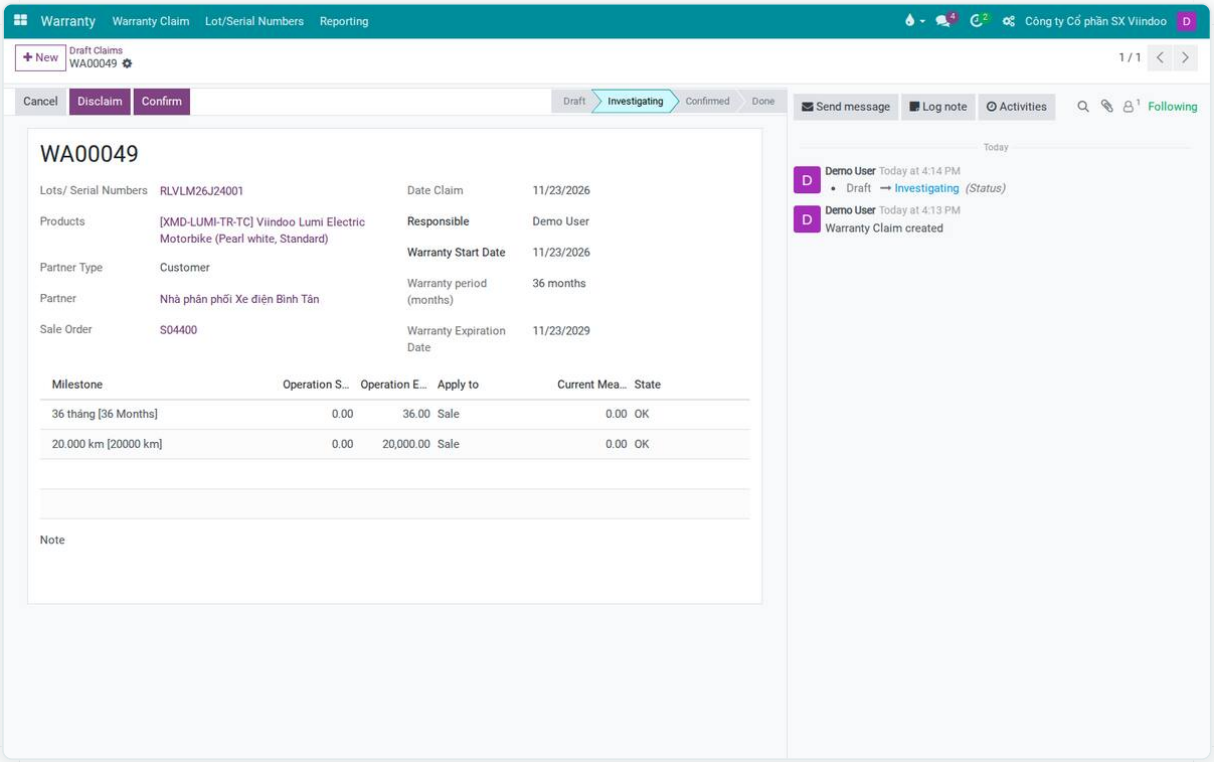


What you should see: the claim name changes from *New* to a real number (for example `WA00049`), the status is *Draft*, and the **Investigate** button appears.

Step 4 - Move to investigation

Click **Investigate**.

> *Path:* `Warranty > Warranty Claim > (the claim)`

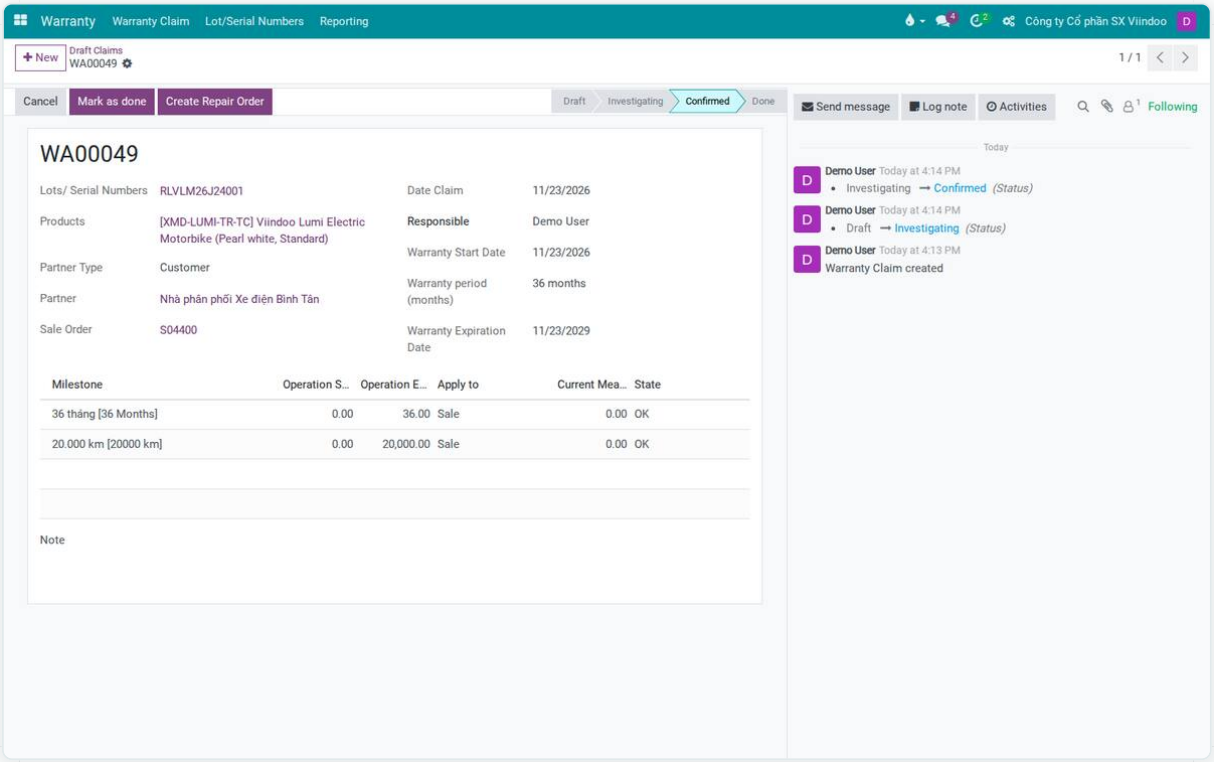


What you should see: the status *Investigating* (the status bar runs *Draft*, *Investigating*, *Confirmed*, *Done*) and three buttons **Cancel**, **Disclaim**, **Confirm**.

Step 5 - Confirm the warranty

> *Path:* still on the screen of the previous step
> (`Warranty > Warranty Claim > (the claim)`)

Click **Confirm**.

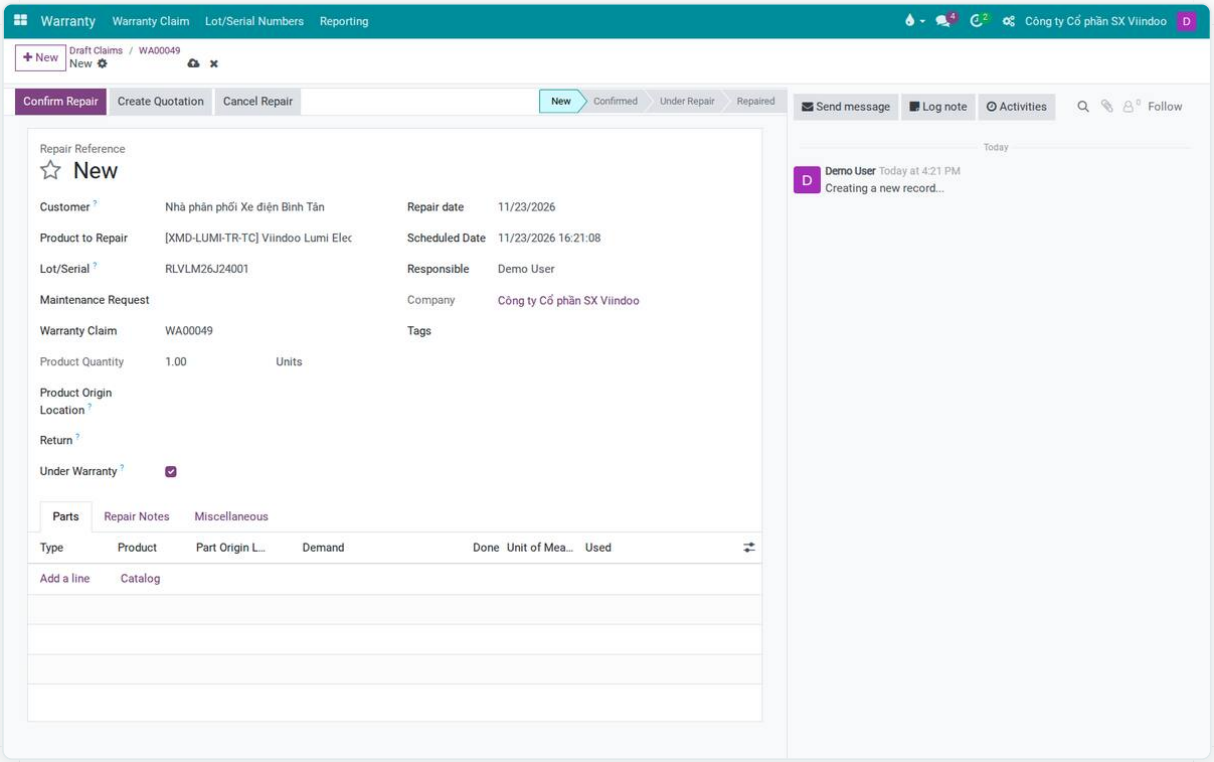


What you should see: the status *Confirmed* and the buttons **Cancel**, **Mark as done**, **Create Repair Order**.

Step 6 - Create the repair order

Click **Create Repair Order**. You must click this button from the warranty claim (do not open a new repair order from the menu); only then are the customer, the vehicle, the chassis number and the warranty claim pre-filled and **Under Warranty** is ticked for you.

> *Path:* `Warranty > Warranty Claim > (the claim) > Create Repair Order`

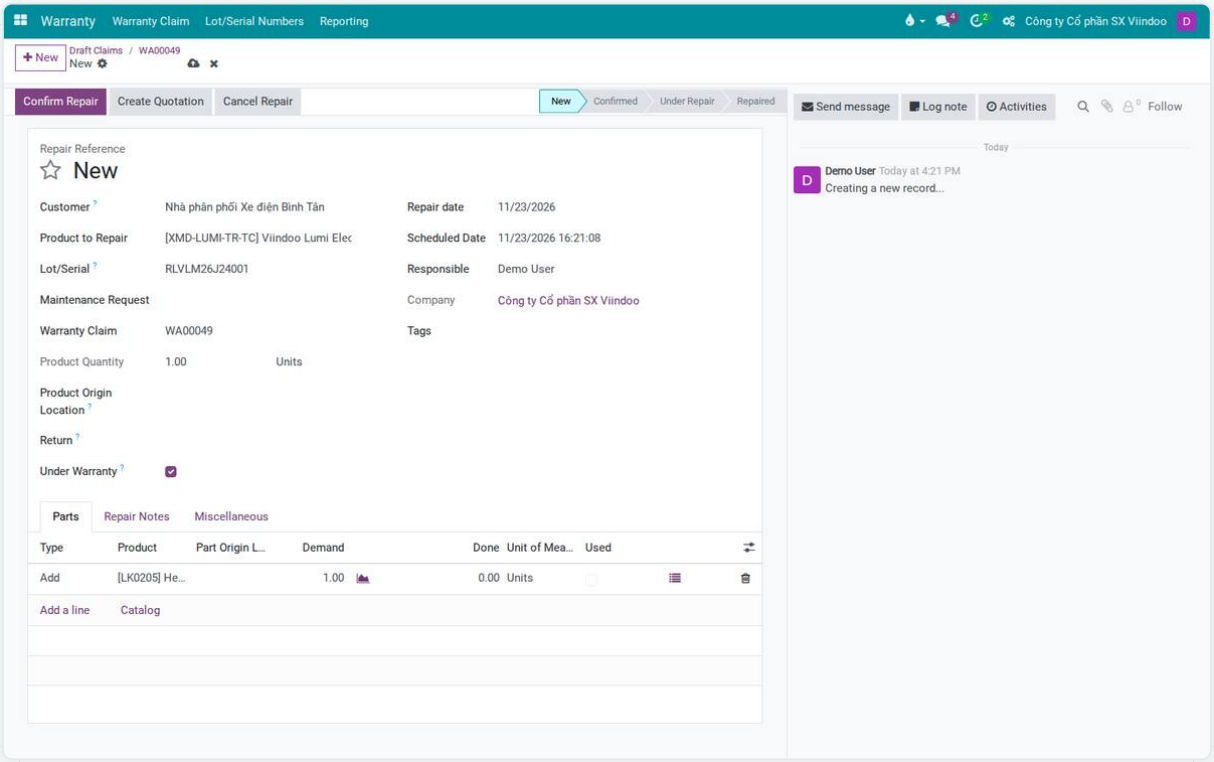


What you should see: a new repair order in the *New* status (the status bar runs *New*, *Confirmed*, *Under Repair*, *Repaired*) with **Customer**, **Product to Repair**, **Lot/Serial** and **Warranty Claim** filled in, **Product Quantity** 1.00 Units and **Under Warranty** ticked.

Step 7 - Check the warranty box and add the spare part

> *Path:* still on the screen of the previous step (`Warranty > Warranty Claim > (the claim) > Create Repair Order`)

Check that **Under Warranty** is ticked (tick it if it is not). In the **Parts** tab click **Add a line**, choose *[LK0205] Headlight*, quantity 1. When you create a quotation from this order, the part line of a vehicle under warranty is priced at 0.

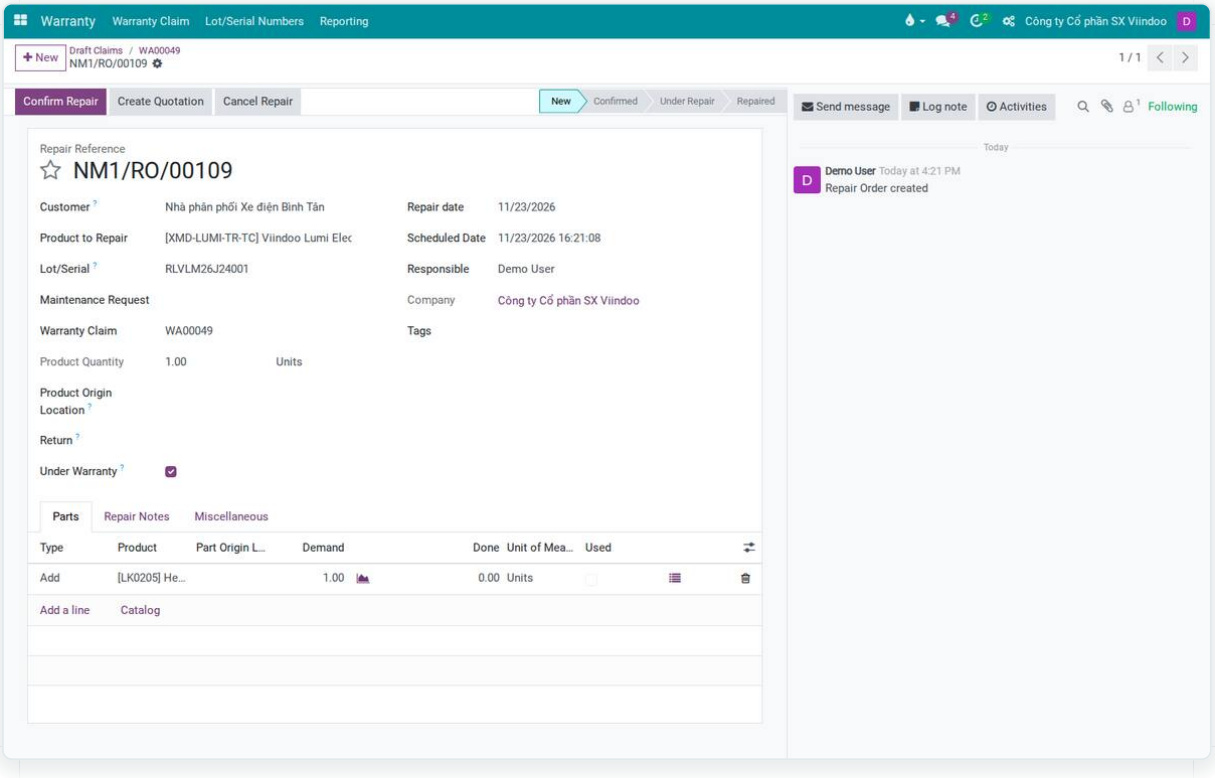


What you should see: a part line of type *Add*, product *[LK0205] Headlight*, **Demand** 1.00 Units, **Done** 0.00.

Step 8 - Save the order

> *Path:* still on the screen of the previous step (`Warranty > Warranty Claim > (the claim) > Create Repair Order`)

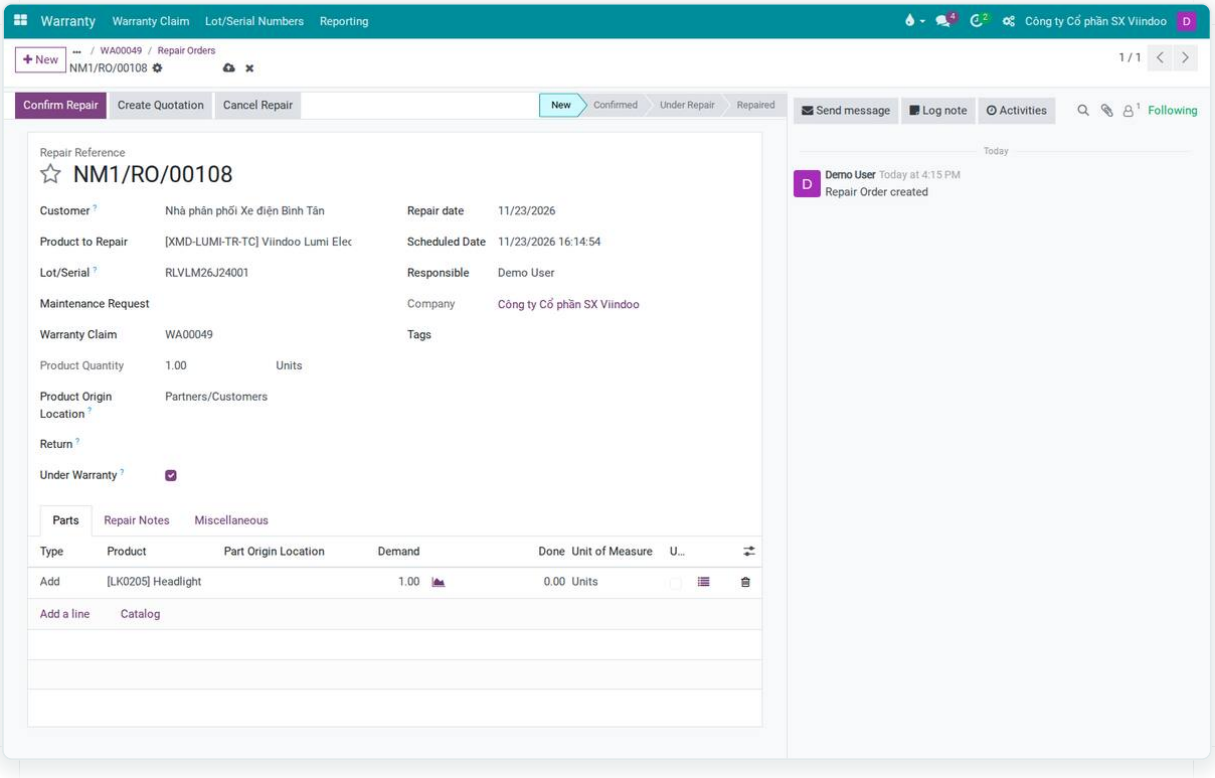
Click the save icon.



What you should see: an order number of the form `NM1/RO/...` in **Repair Reference**, status *New*, and the buttons **Confirm Repair**, **Create Quotation**, **Cancel Repair**.

Step 9 - Tell the system where the vehicle is

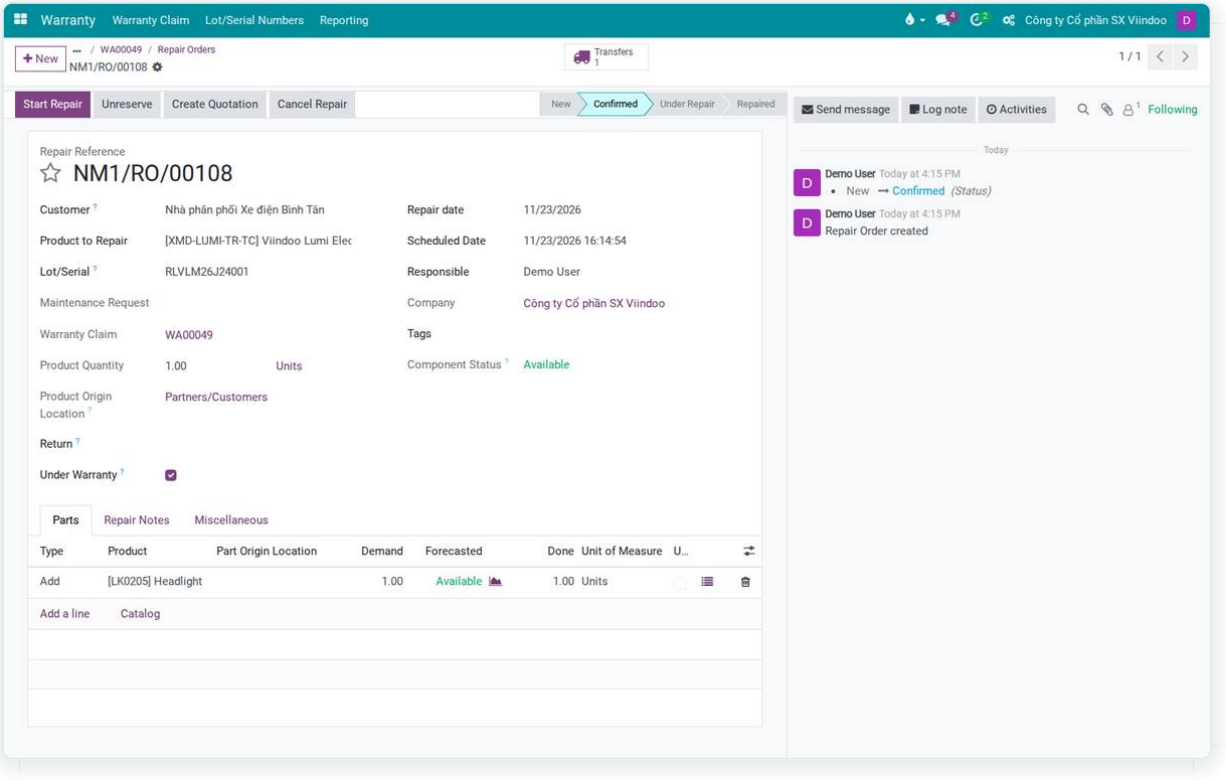
In the **Product Origin Location** box choose *Partners/Customers* (the vehicle is at the customer). If you leave it empty, when you confirm the system asks "Insufficient Quantity To Repair" because it looks for the vehicle in the factory stock; click **Discard** and choose this location.



What you should see: the location box shows *Partners/Customers*.

Step 10 - Confirm the repair

Save, then click **Confirm Repair**.

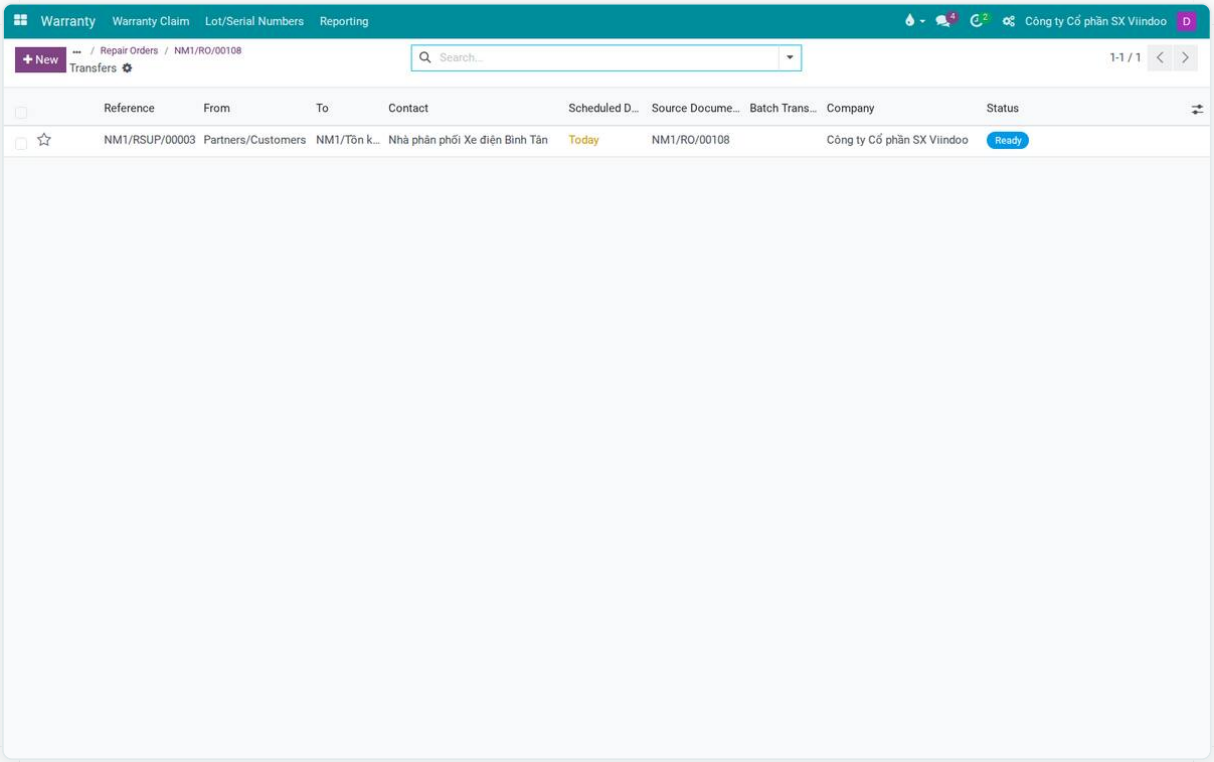


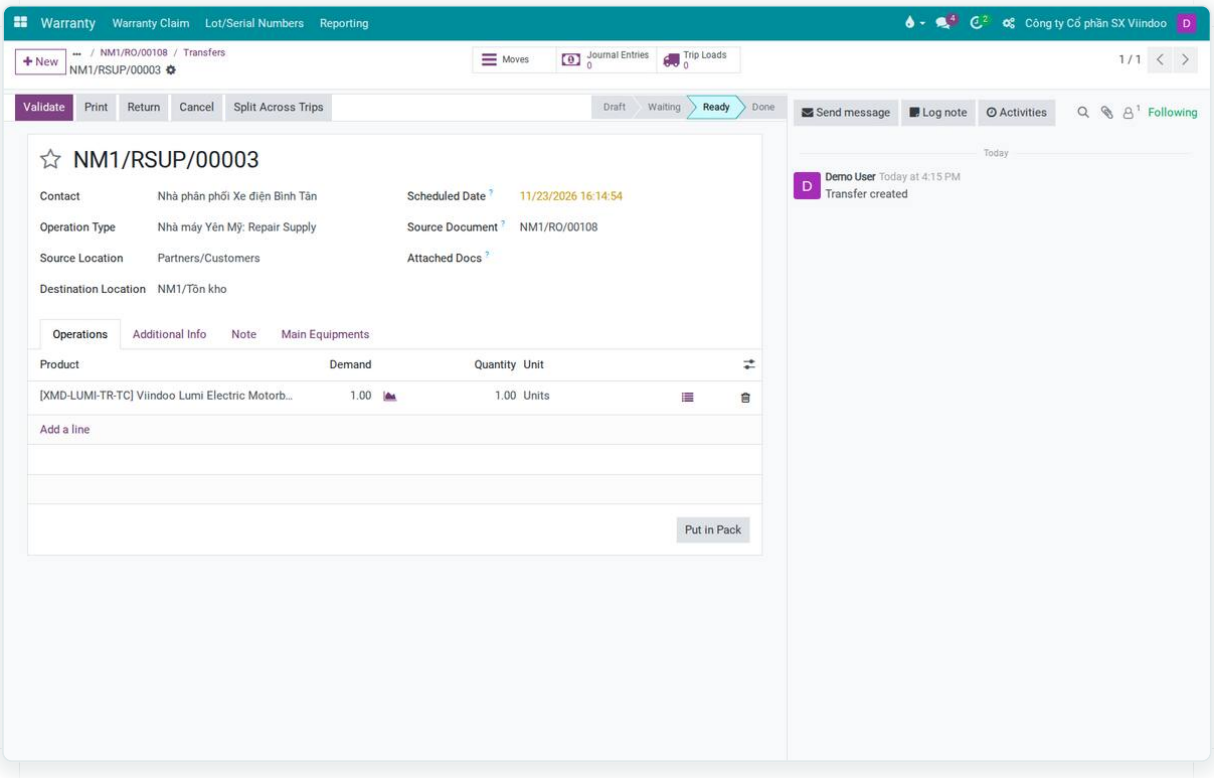
What you should see: the status *Confirmed*, the **Transfers 1** button (the receipt of the vehicle into the workshop), the buttons **Start Repair**, **Unreserve**, **Create Quotation**, **Cancel Repair**; **Component Status** is *Available* and the spare part line shows *Available* under **Forecasted**, with **Done** 1.00.

Step 11 - Receive the vehicle into the workshop

Click **Transfers**, open the transfer `NM1/RSUP/...` (from the customer to the warehouse).

> *Path:* `Repairs > Orders > (the order) > Transfers`



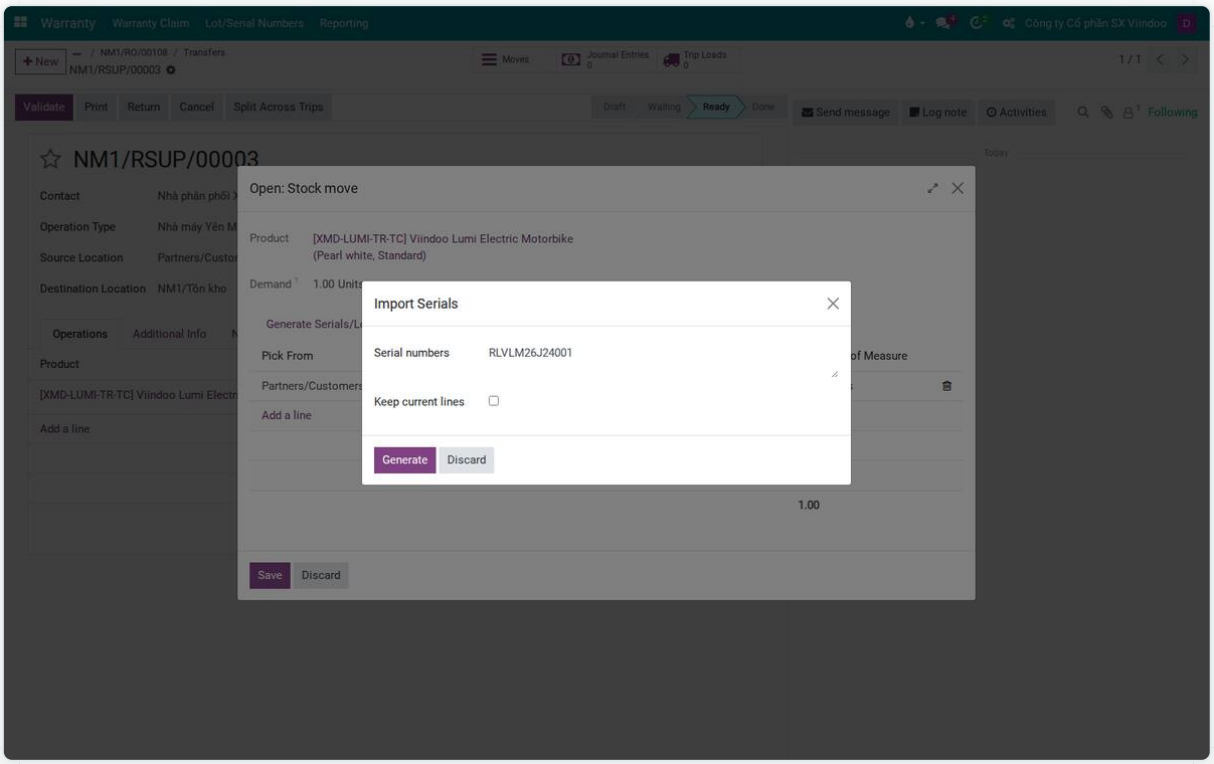


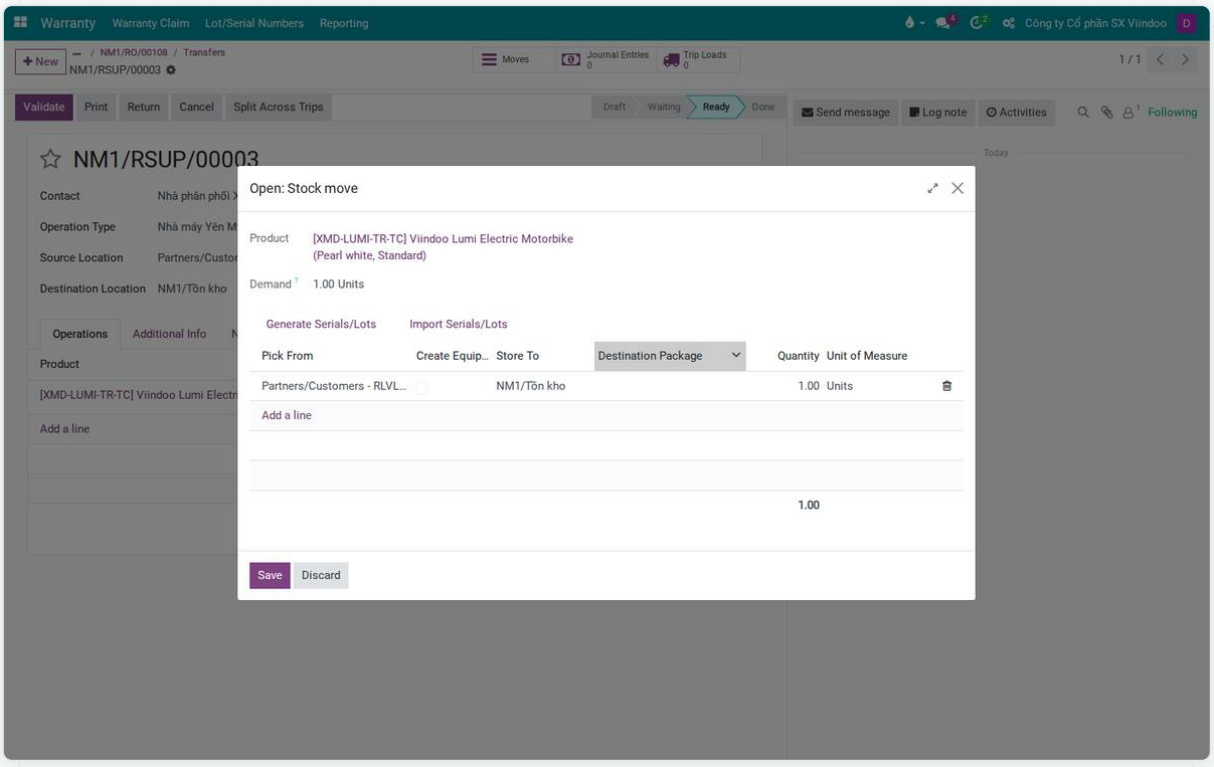
What you should see: the list shows one transfer in the *Ready* status, from *Partners/Customers* to *NM1/Tồn kho* (NM1/Stock), with the repair order as **Source Document**; the transfer itself is of the operation type *Nhà máy Yên Mỹ: Repair Supply* (Yen My Factory: Repair Supply).

Step 12 - Enter the chassis number on the receipt

Click the list icon at the end of the vehicle line (the dialog *Open: Stock move* opens), click **Import Serials/Lots**, type the chassis number in the **Serial numbers** box of the dialog *Import Serials*, click

Generate, then **Save**. This receipt does not fill in the chassis number by itself; if you click **Validate** before entering it, the system says "You need to supply a Lot/Serial number for products".



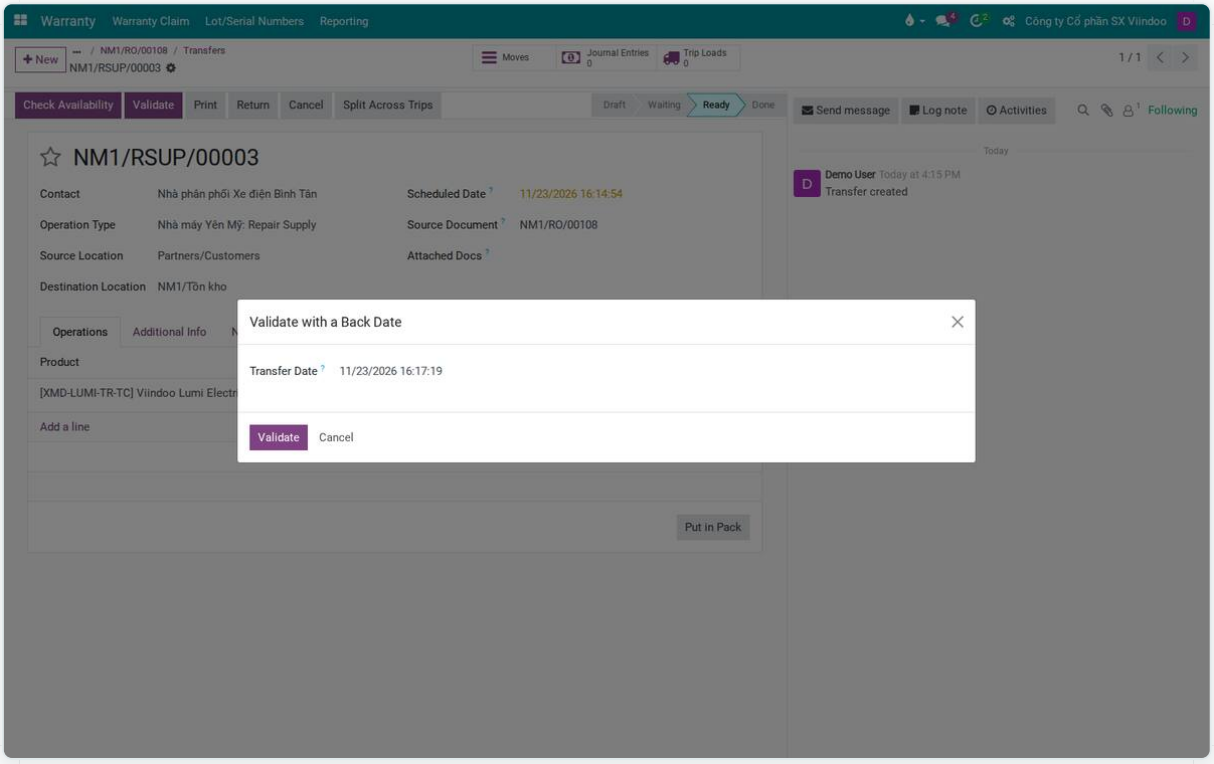


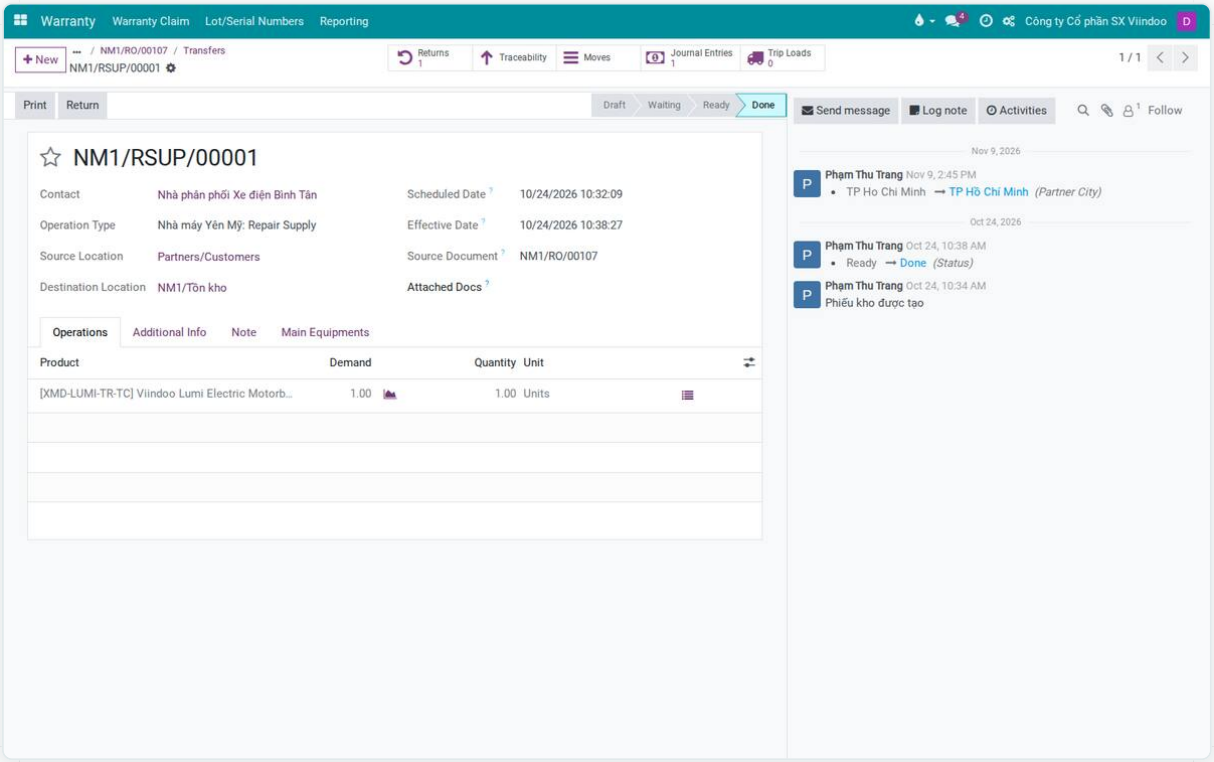
What you should see: the **Pick From** line reads `Partners/Customers - <chassis number>` and **Store To** is `NM1/Tồn kho`.

Step 13 - Confirm the receipt of the vehicle

> *Path:* still on the screen of the previous step (`Repairs > Orders > (the order) > Transfers`)

Click **Validate** on the transfer, then **Validate** in the dialog *Validate with a Back Date* (box **Transfer Date**).



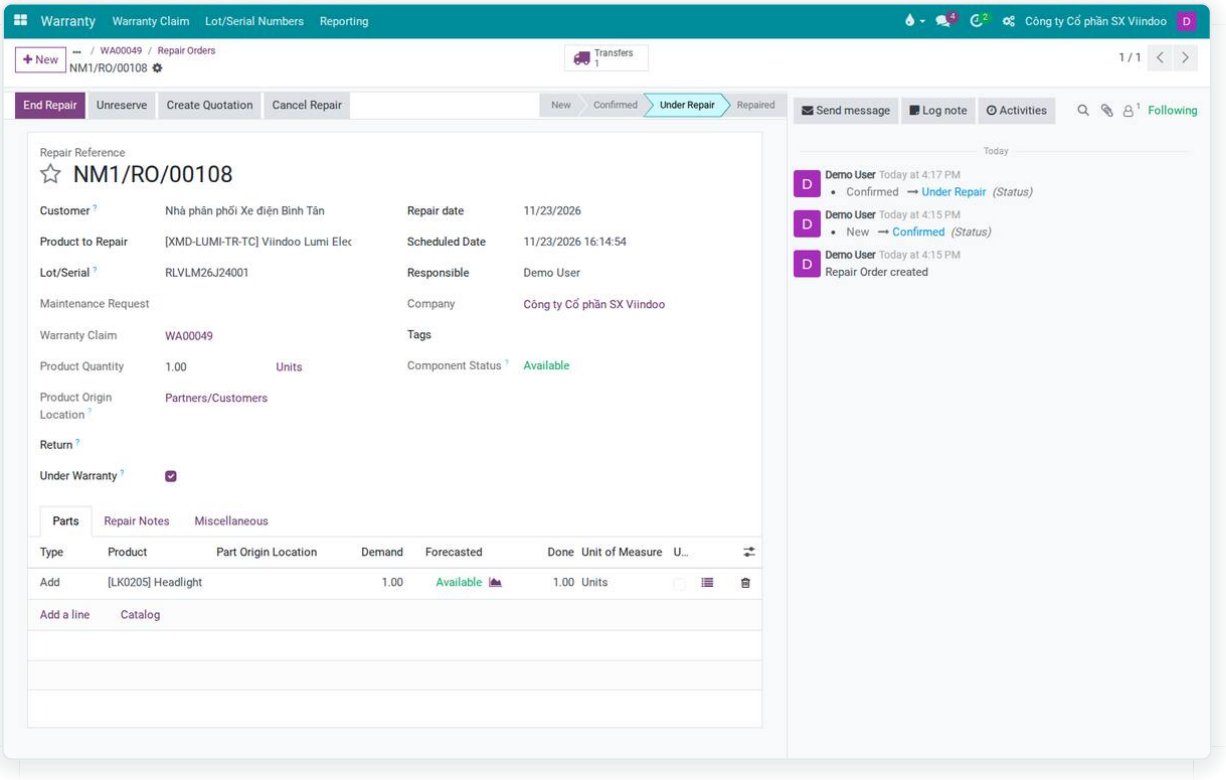


What you should see: the transfer is *Done* (the buttons **Returns 1**, **Traceability** and **Journal Entries** appear); the vehicle is in *NM1/Tồn kho* (NM1/Stock).

Step 14 - Start the repair

Go back to the repair order and click **Start Repair**.

> *Path:* `Repairs > Orders > (the order)`

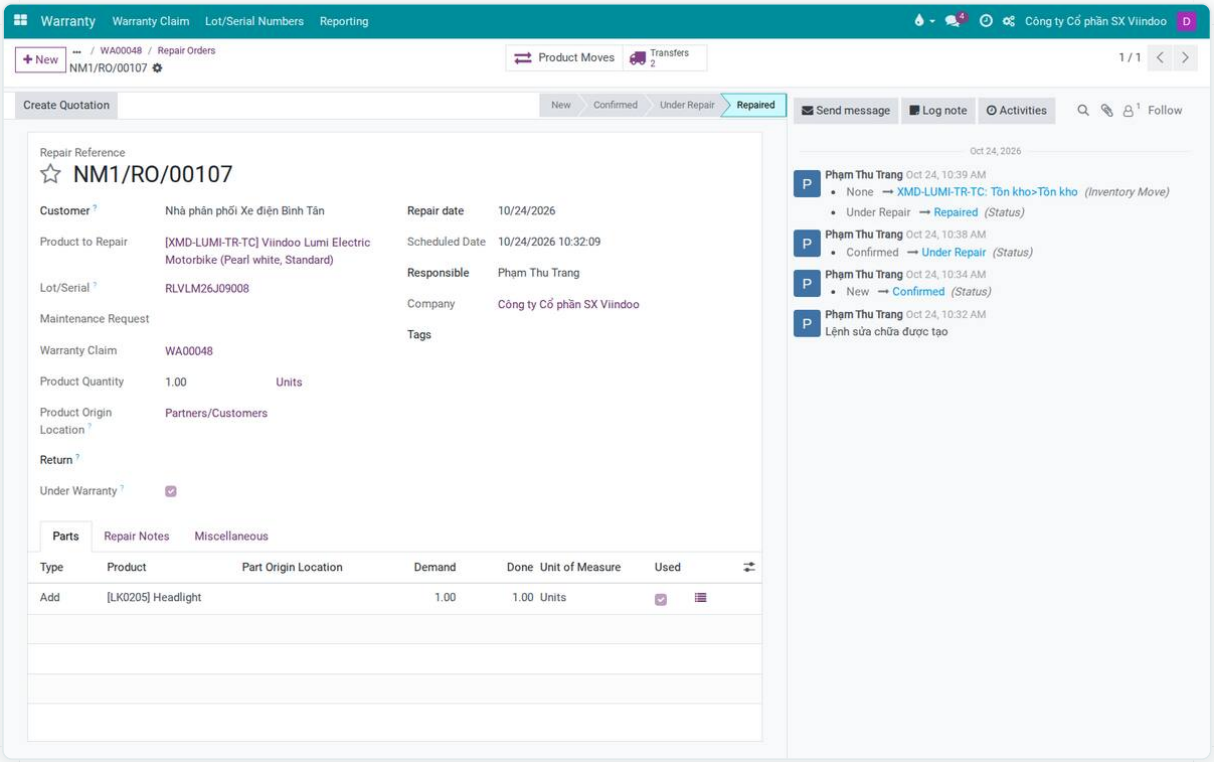


What you should see: the status *Under Repair*, the **End Repair** button (next to **Unreserve**, **Create Quotation**, **Cancel Repair**); the **Done** column of the part is 1.00.

Step 15 - End the repair (issue the spare part)

> *Path:* still on the screen of the previous step (`Repairs > Orders > (the order)`)

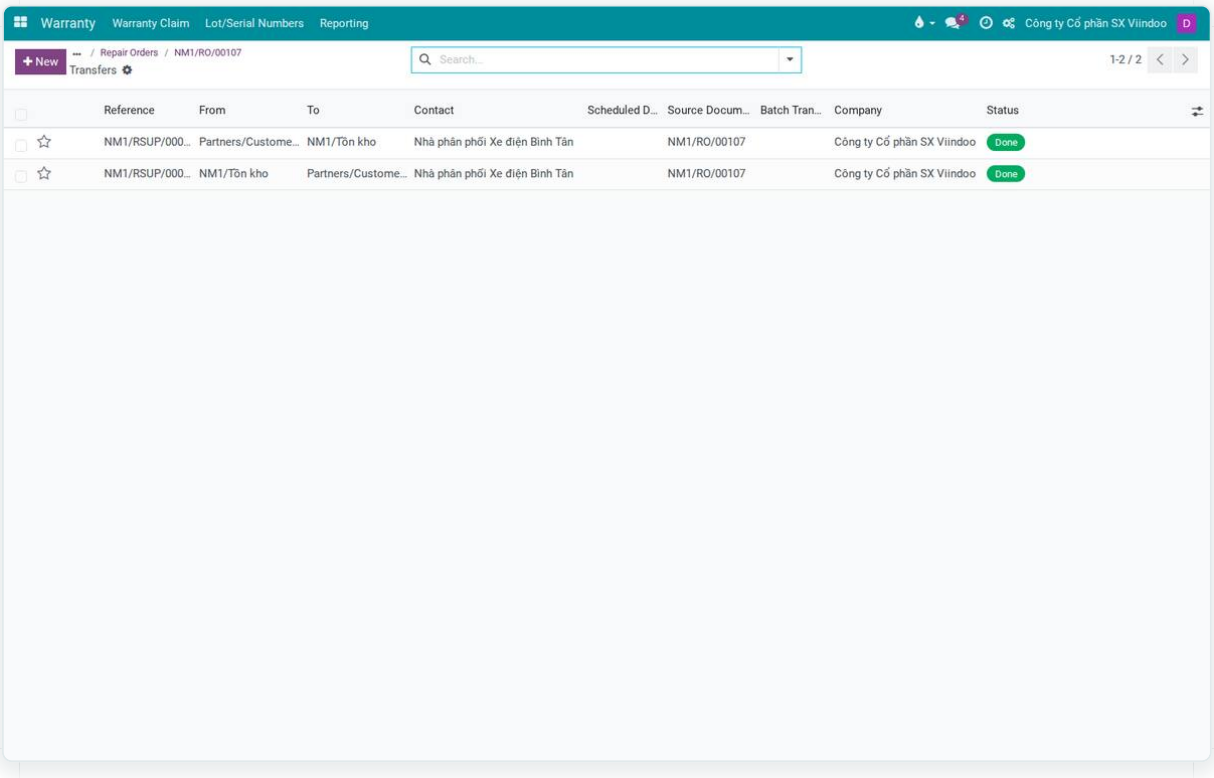
Click **End Repair**.



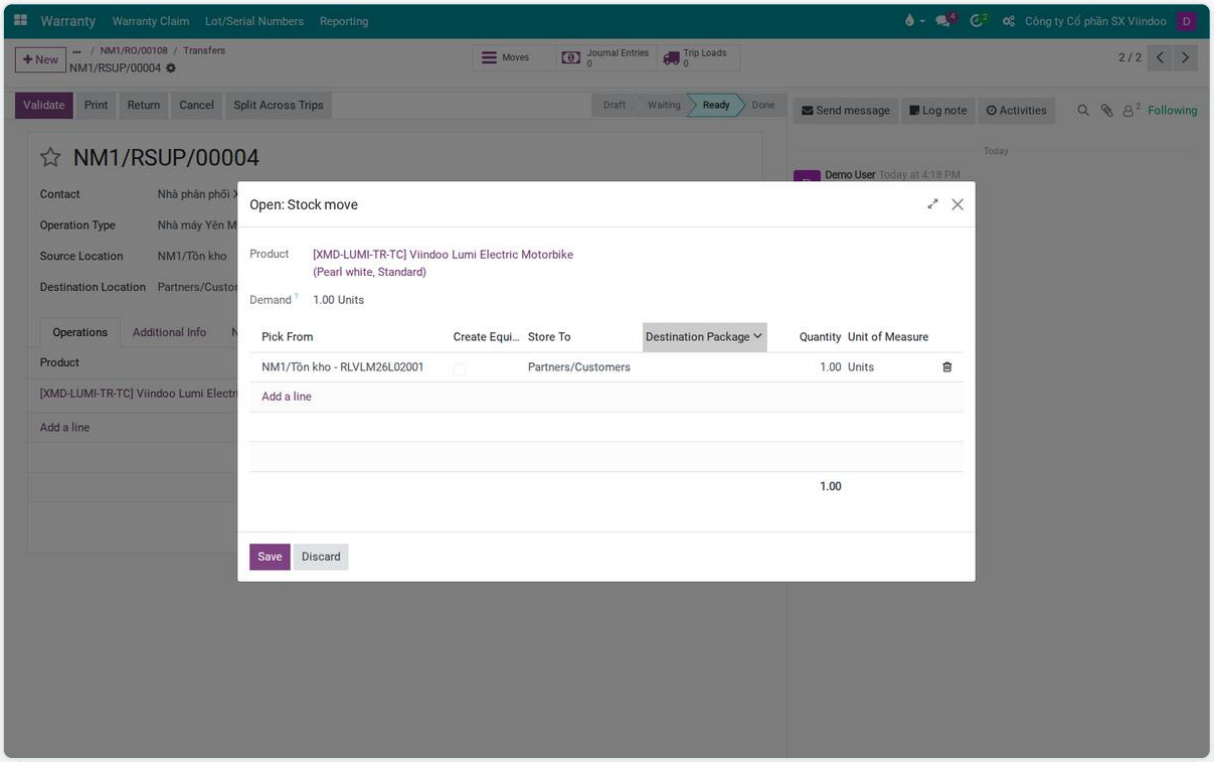
What you should see: the status *Repaired*, the **Product Moves** and **Transfers 2** buttons (one finished receipt, one new return transfer) and the part line marked *Used*. The spare part has left the stock (see the cost in the lesson "Warranty, repair and cost reports").

Step 16 - Return the vehicle under the right chassis number

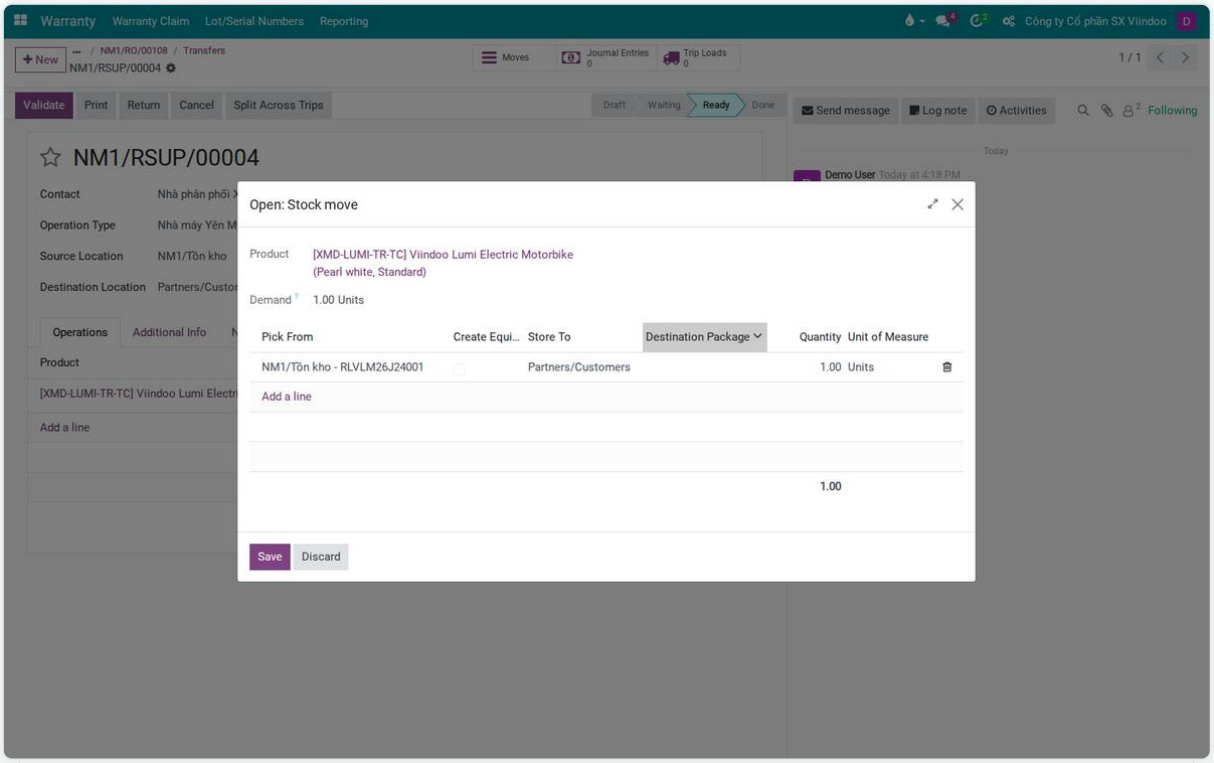
Click **Transfers**; the list shows the two transfers of this repair. Open the return transfer `NM1/RSUP/...` (from *NM1/Tồn kho* to *Partners/Customers*).



Click the list icon on the vehicle line and read the reserved chassis number.



What you should see: the dialog *Open: Stock move* shows that the system reserved some other vehicle that is still in stock (for example `NM1/Tồn kho - RLVLM26L02001`), not the vehicle the customer sent for repair. This is where you must check yourself: click the **Pick From** box, type the chassis number of the customer's vehicle, choose exactly that one, and click **Save**.

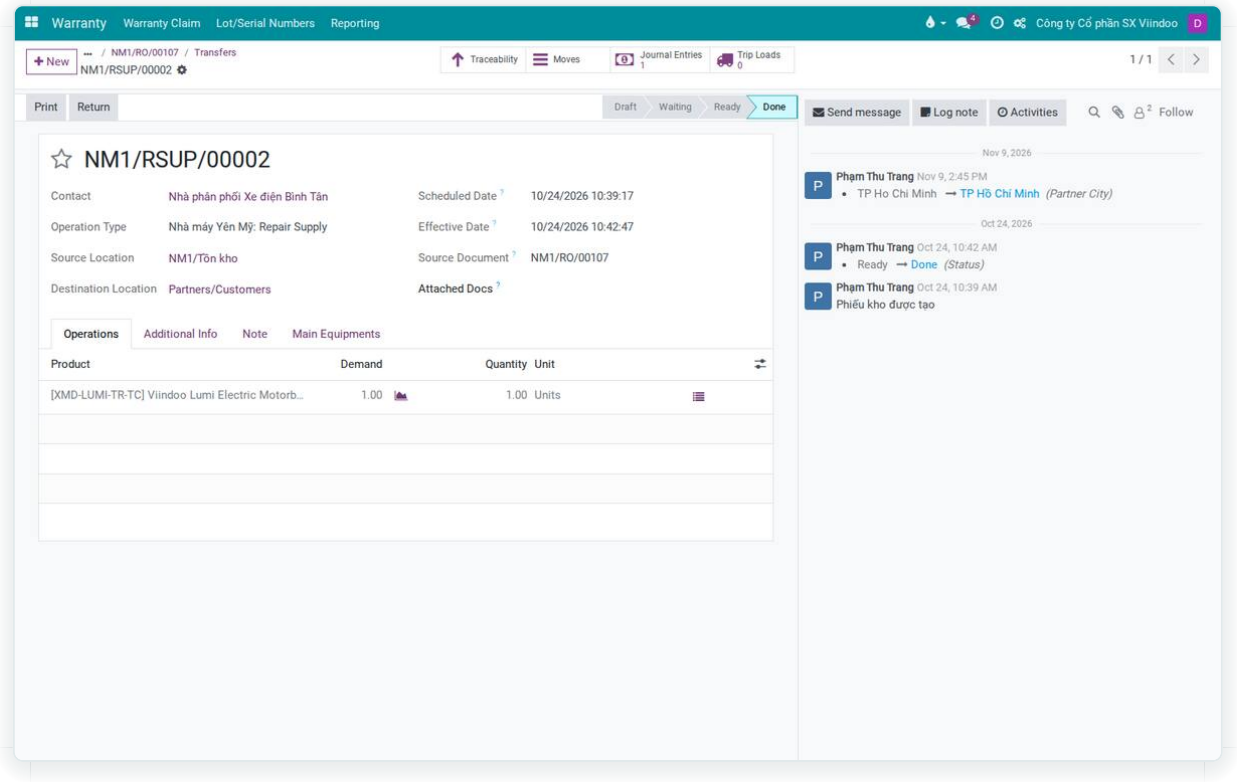


What you should see: the **Pick From** box shows `NM1/Tồn kho - RLVLM26J24001`, the chassis number of the customer's vehicle.

Step 17 - Confirm the return of the vehicle

> *Path:* still on the screen of the previous step (`Repairs > Orders > (the order)`)

Click **Validate** on the transfer and confirm the date in the dialog *Validate with a Back Date*.

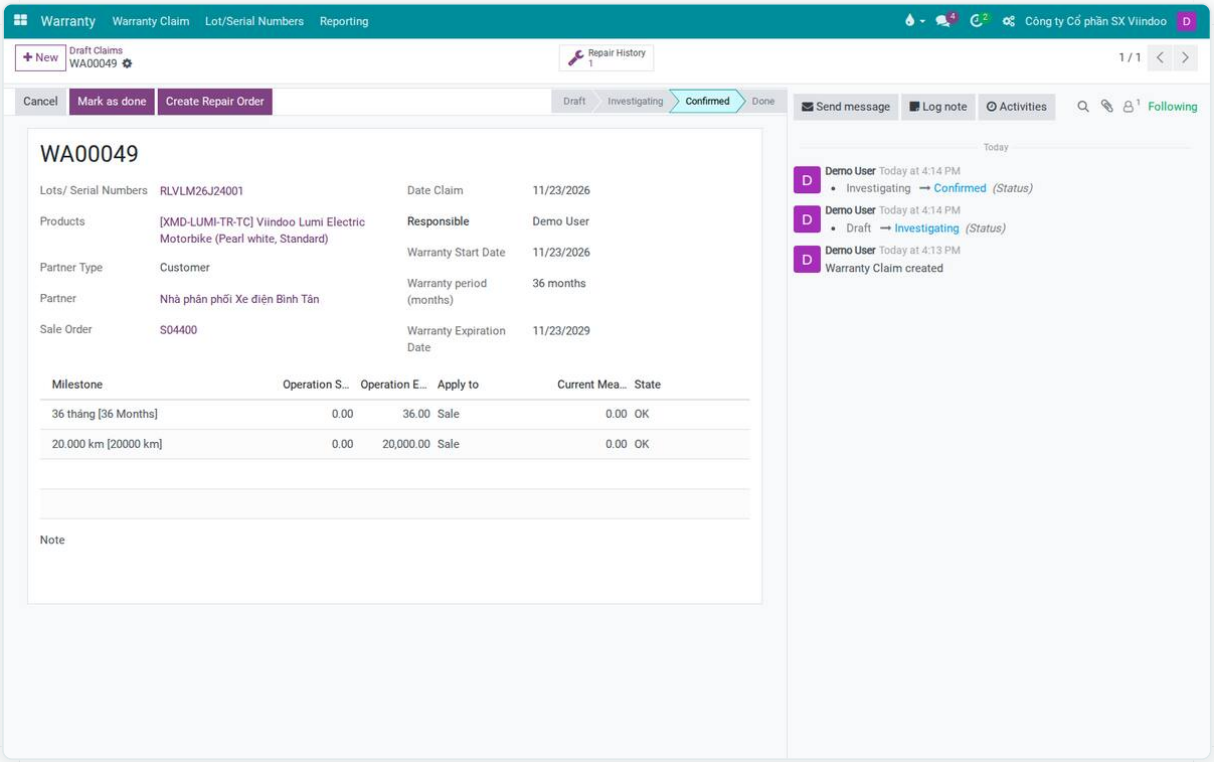


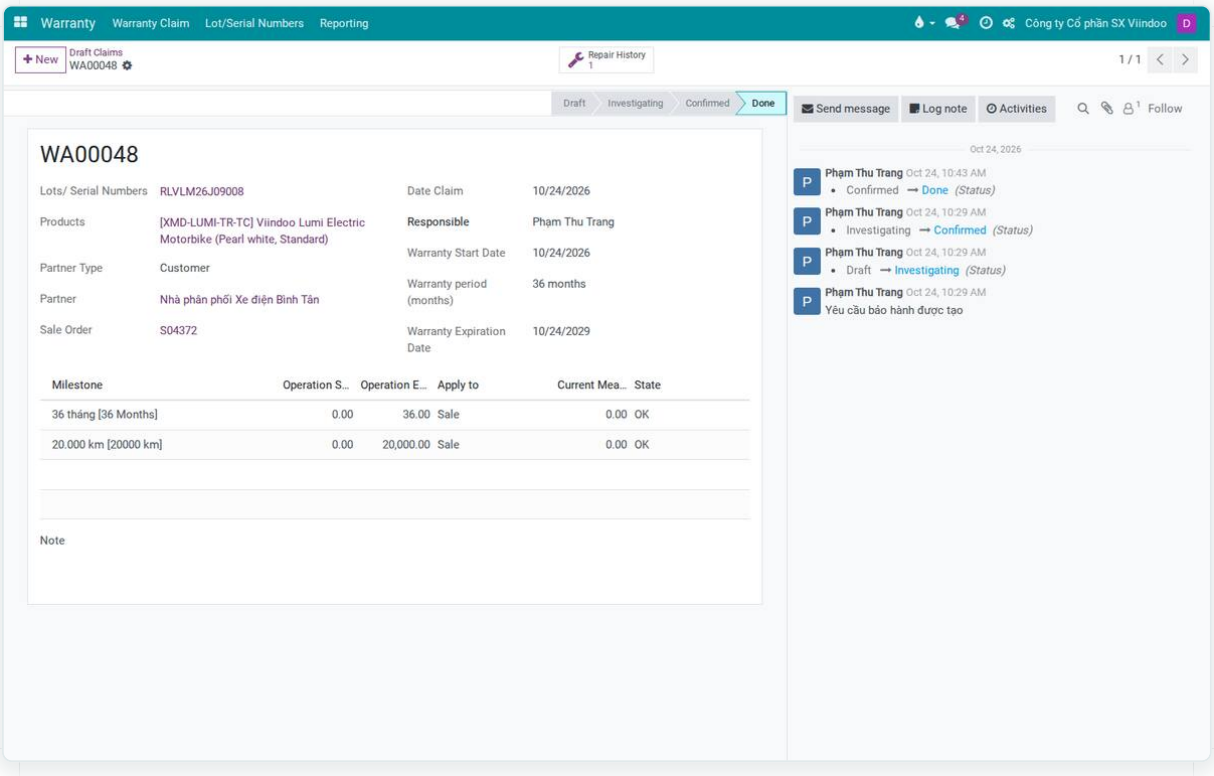
What you should see: the transfer is *Done*, going from *NM1/Tồn kho* to *Partners/Customers*; the vehicle is back at the customer.

Step 18 - Complete the warranty claim

Open the warranty claim again, check the **Repair History 1** button, then click **Mark as done**.

> *Path:* `Warranty > Warranty Claim > Confirmed Claims > (the claim)`

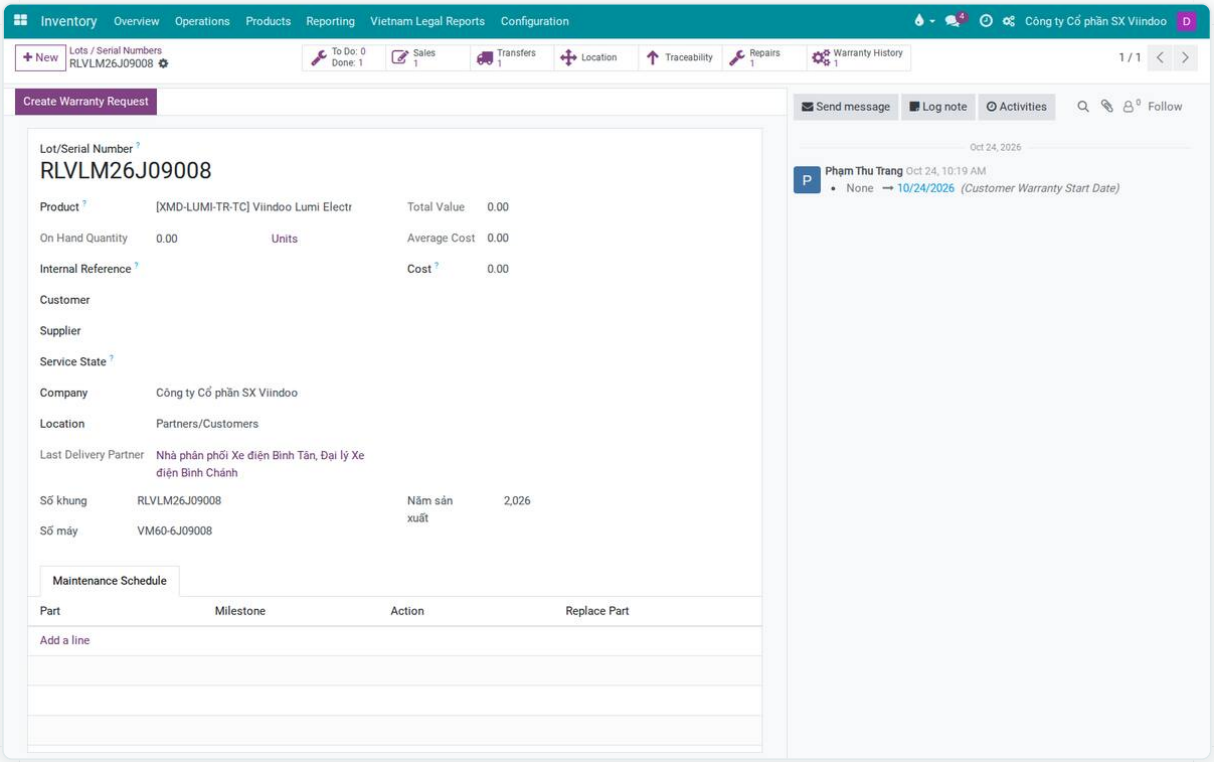


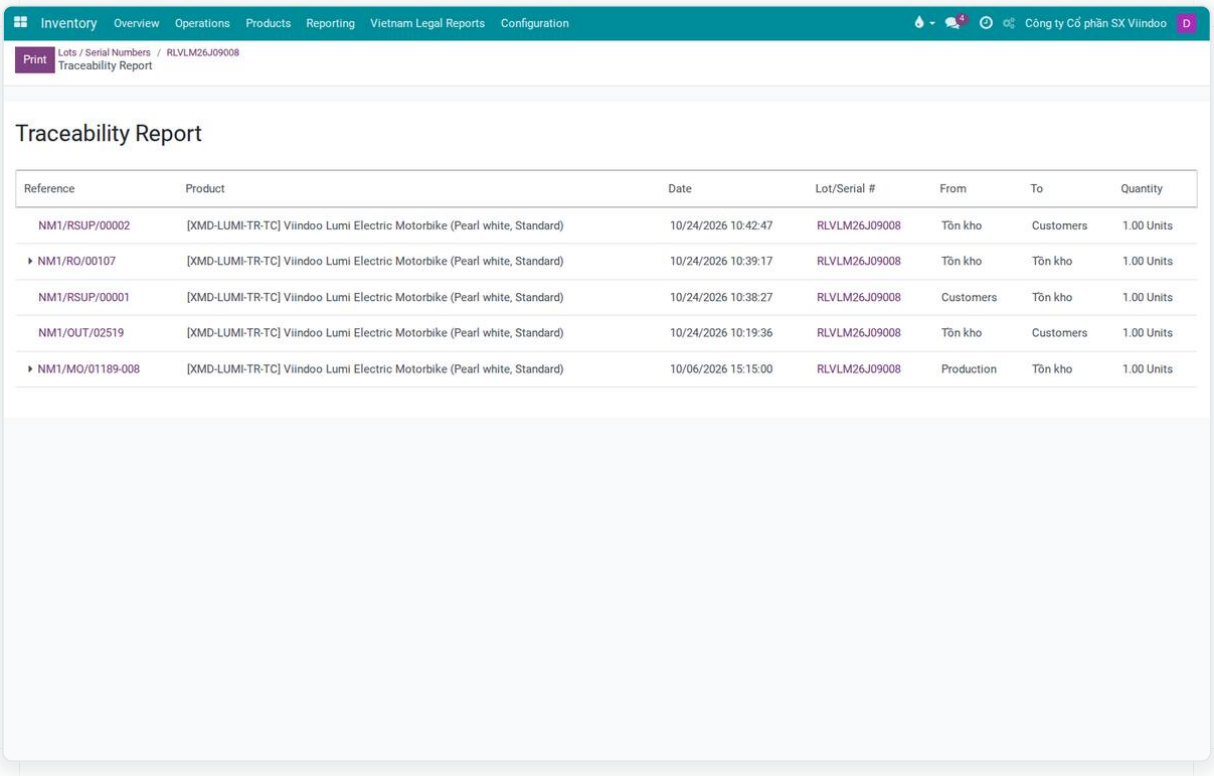


What you should see: the status *Done* (the status bar ends at *Done*), with no action buttons left; only the **Repair History 1** button remains.

Step 19 - Look at the vehicle history after the repair

Open the vehicle card again (`Warranty > Lot/Serial Numbers`).





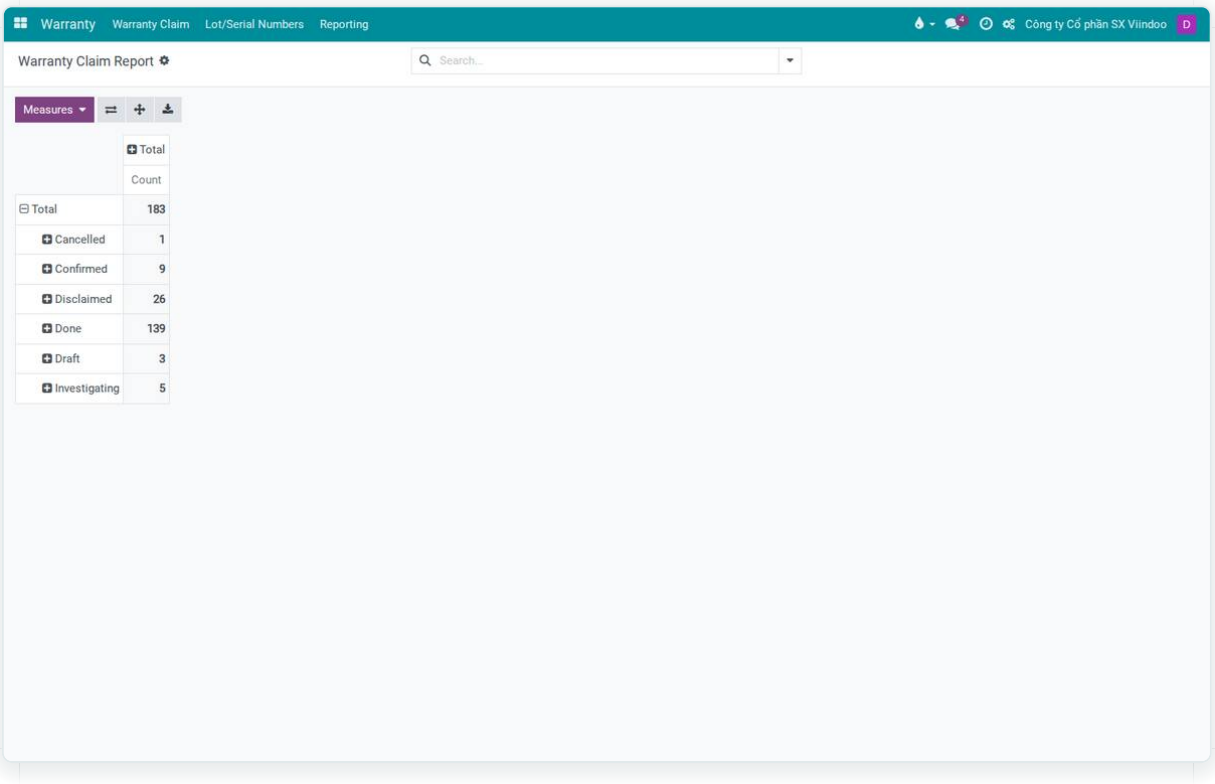
What you should see: the buttons **Repairs 1** and **Warranty History 1**, the **Location** `Partners/Customers`; in the *Traceability Report* there are all five lines: the manufacturing order (`NM1/MO/...`), the delivery to the customer (`NM1/OUT/...`), the receipt for repair (`NM1/RSUP/...`), the repair order (`NM1/RO/...`), and the return (`NM1/RSUP/...`).

67 WARRANTY, REPAIR AND COST REPORTS

About 15 minutes. By the end of this lesson your company knows how many claims are at which stage, which spare parts are used the most, and where the cost of warranty spare parts is booked.

Step 1 - The warranty report by status

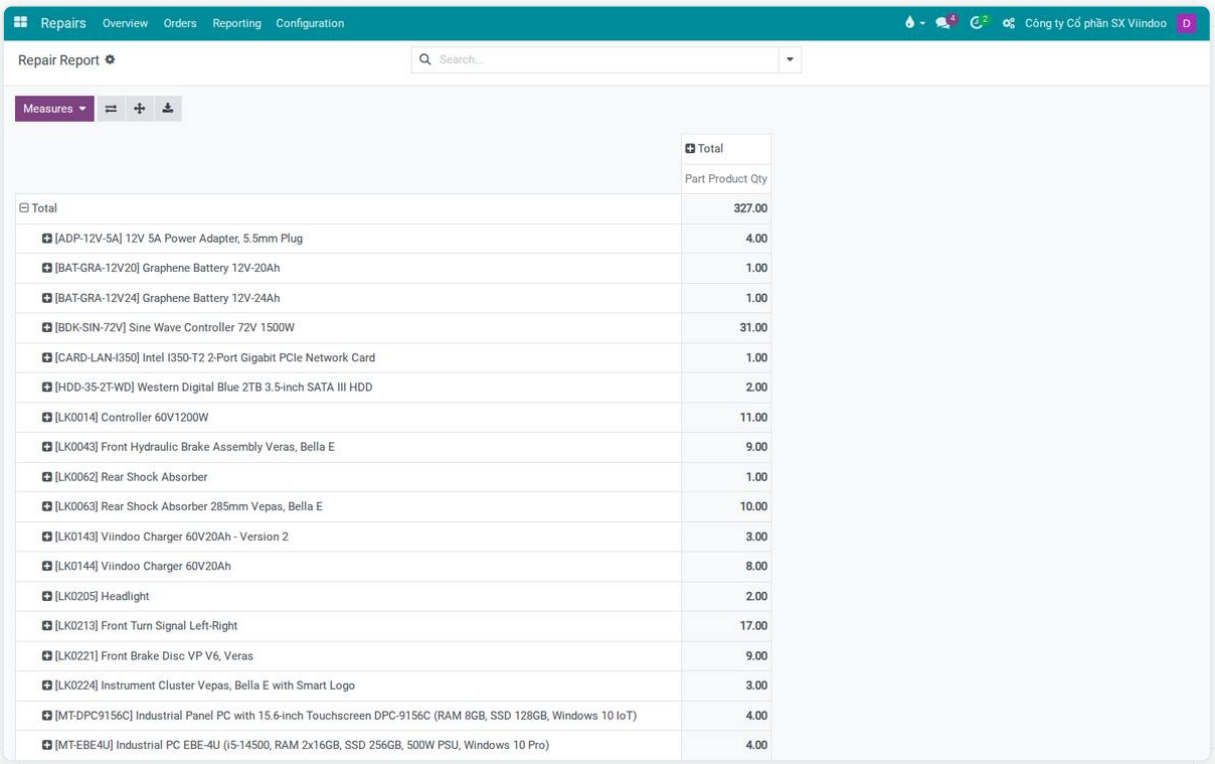
> *Path:* `Warranty > Reporting`



What you should see: the *Warranty Claim Report* pivot with the **Count** of claims by status (*Cancelled*, *Confirmed*, *Disclaimed*, *Done*, *Draft*, *Investigating*; 183 in total in the picture). Click the row header **Total** and choose **Products** to see which vehicle model fails the most.

Step 2 - Spare parts consumed by repairs

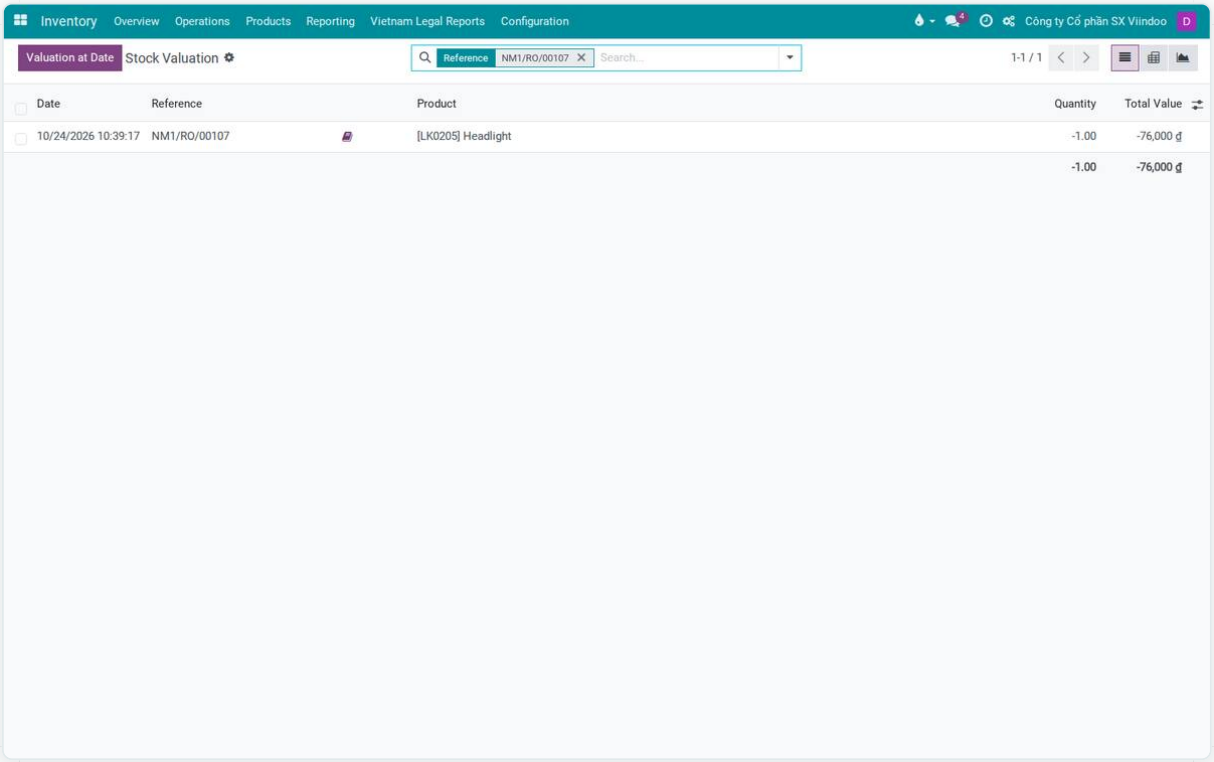
> *Path:* `Repairs > Reporting > Repair Analysis`



What you should see: the *Repair Report* with one line per spare part and the **Part Product Qty** column (for example [LK0205] Headlight, 2.00). The measure for the untaxed value is the selling price; for a vehicle under warranty the price is 0, so do not use this report to measure cost. This report also lists the orders of other product lines in the database (for example industrial computers); ignore the lines that are not vehicles.

Step 3 - Read the cost of warranty spare parts

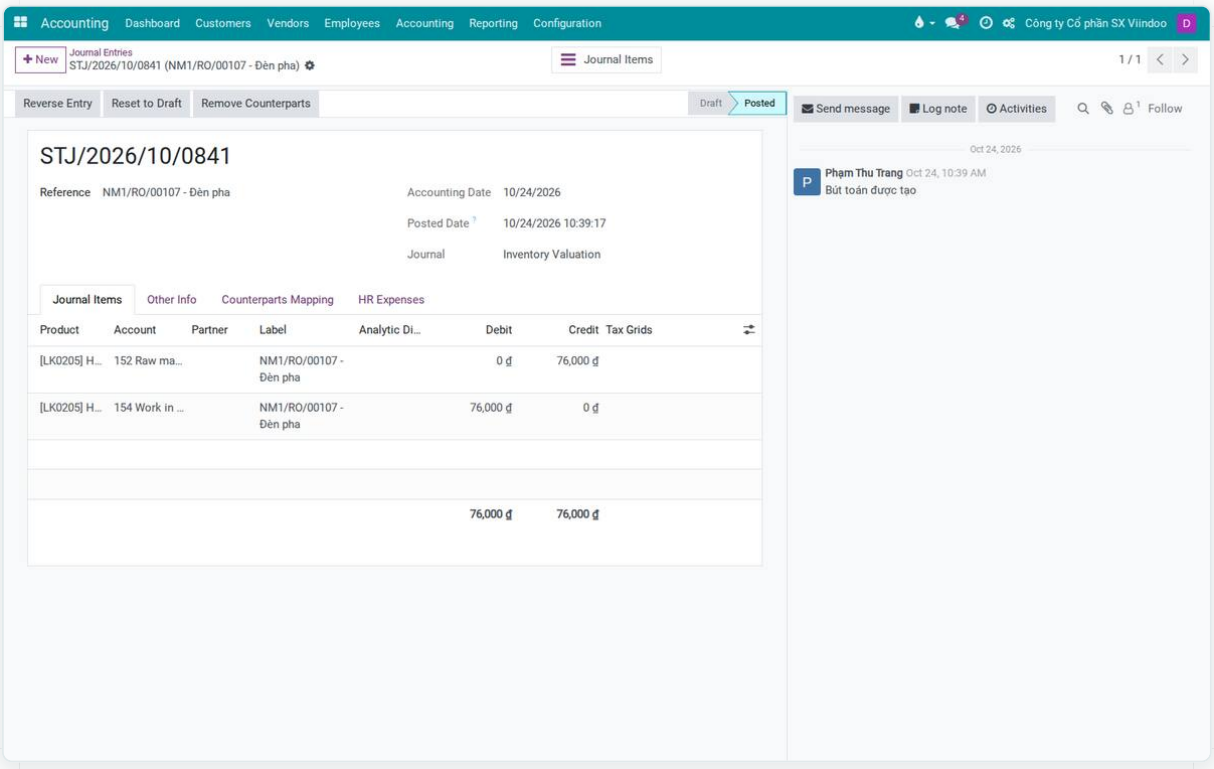
> *Path:* `Inventory > Reporting > Valuation` (type the order number in the search box, searching by *Reference*)



What you should see: the *Stock Valuation* list with the line `NM1/RO/00107`, the spare part *[LK0205] Headlight*, **Quantity** -1.00, **Total Value** -76,000 ₫: that is the spare-part cost of this warranty case.

Step 4 - Read the cost entry

From the valuation list click the line; or open the entry of the *Inventory Valuation* journal whose reference is the repair order number.



What you should see: an entry `STJ/2026/10/...` of the journal *Inventory Valuation* with the label `NM1/RO/00107 - Đèn pha` (Headlight): **Credit 152** Raw materials and **Debit 154** Work in progress, for the same 76,000 ₫. Warranty spare parts are currently booked to 154 and not yet to selling expenses; the accountant needs to carry them over when closing the period.

Table of the warranty and repair reports

Report	The question it answers	Path
Warranty Claim Report	How many claims, in which status, for which model	`Warranty > Reporting`
Repair Orders	List, kanban, graph and pivot of repair orders by product and date	`Repairs > Reporting > Orders`
Repair Analysis	Which spare parts are used the most, for which vehicle	`Repairs > Reporting > Repair Analysis`
Traceability report	Which documents and components a chassis number went through	button on the chassis number card
Valuation (inventory)	The value of spare parts issued for each repair order	`Inventory > Reporting > Valuation`

Print templates: Repair Order, Repair Report (PDF), Lot/Serial Number (PDF).

68 EXERCISE: ONE FULL WARRANTY CYCLE

About 35 minutes, on your own, no step-by-step pictures.

1. Deliver one Aura or Nova vehicle to a dealer (lesson "From quotation to payment for a dealer", changing the product).
2. Look up the chassis number of that vehicle: which dealer, the date of sale, the warranty end date.
3. Create a warranty claim, investigate it, confirm it, and create a repair order; add two different spare parts.
4. Choose the product origin location, receive the vehicle (enter the chassis number), repair it, return the vehicle (check the reserved chassis number).
5. Complete the claim; open *Valuation* and add up the cost of the two spare parts. Check that the chassis number you just returned has all five lines in the traceability.
6. Open the *Warranty Claim Report*, group by *Products*: has the number of claims of this model gone up by 1?

PART X. MACHINE MAINTENANCE

This part answers these questions: how are the machines in the workshop maintained, by calendar or by running hours; when a machine breaks down in the middle of a shift, how does the worker report it; who repairs it; how long does the station stand still and how does that affect performance. The main readers are the head of maintenance, the technicians and the workshop manager.

The lessons in this part use a piece of equipment that this handbook created during its test run: **Hydraulic bearing-cup press #1** (the Vietnamese name is "Máy ép thủy lực ép bát phớt #1"), attached to the work center **Tổ khung** (Frame team, the team that does the seal-housing pressing and chassis number stamping operation).

> The maintenance options tied to manufacturing are in the Manufacturing settings (the box **Maintenance - MRP**, lesson "Shop floor manufacturing configuration", Step 1).

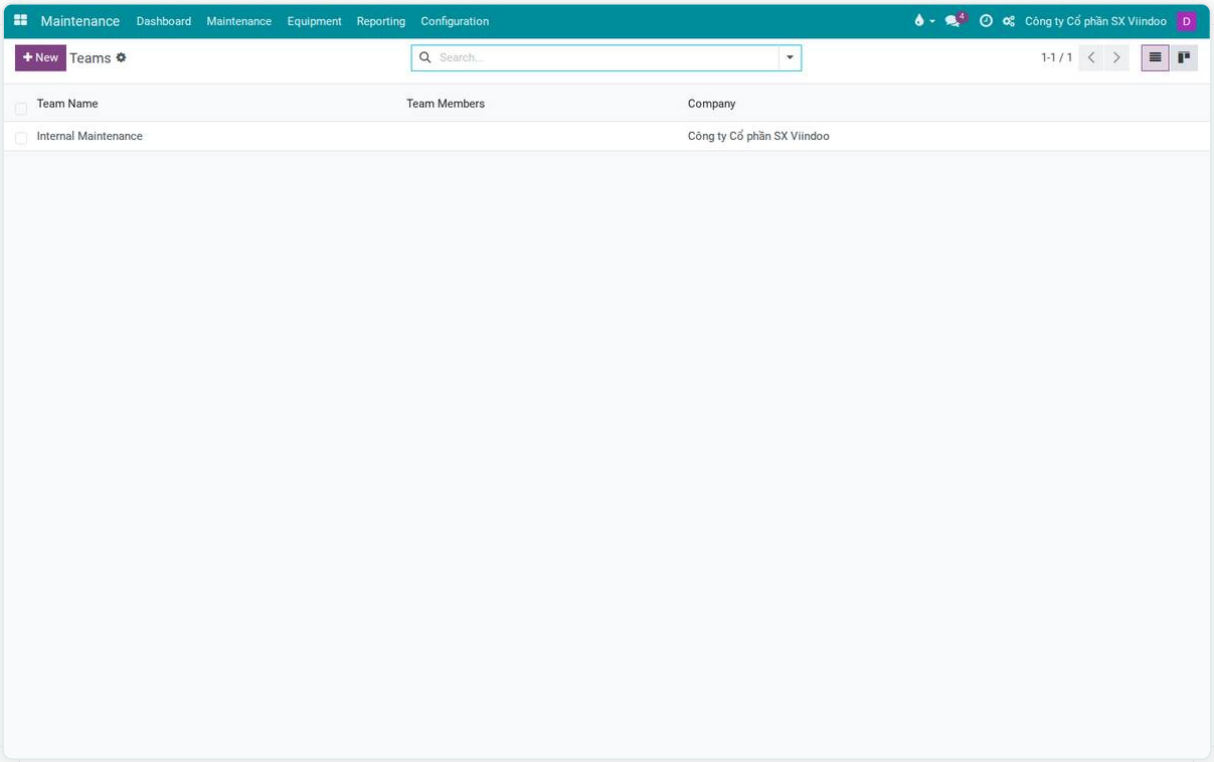
69 MAINTENANCE CONFIGURATION

About 10 minutes. By the end of this lesson your company knows the catalogs that underlie maintenance: maintenance teams, failure reasons, operating milestones and maintenance schedules. The lesson is for viewing only.

Step 1 - See the maintenance teams

Open the list of maintenance teams.

> *Path:* `Maintenance > Configuration > Maintenance Teams`

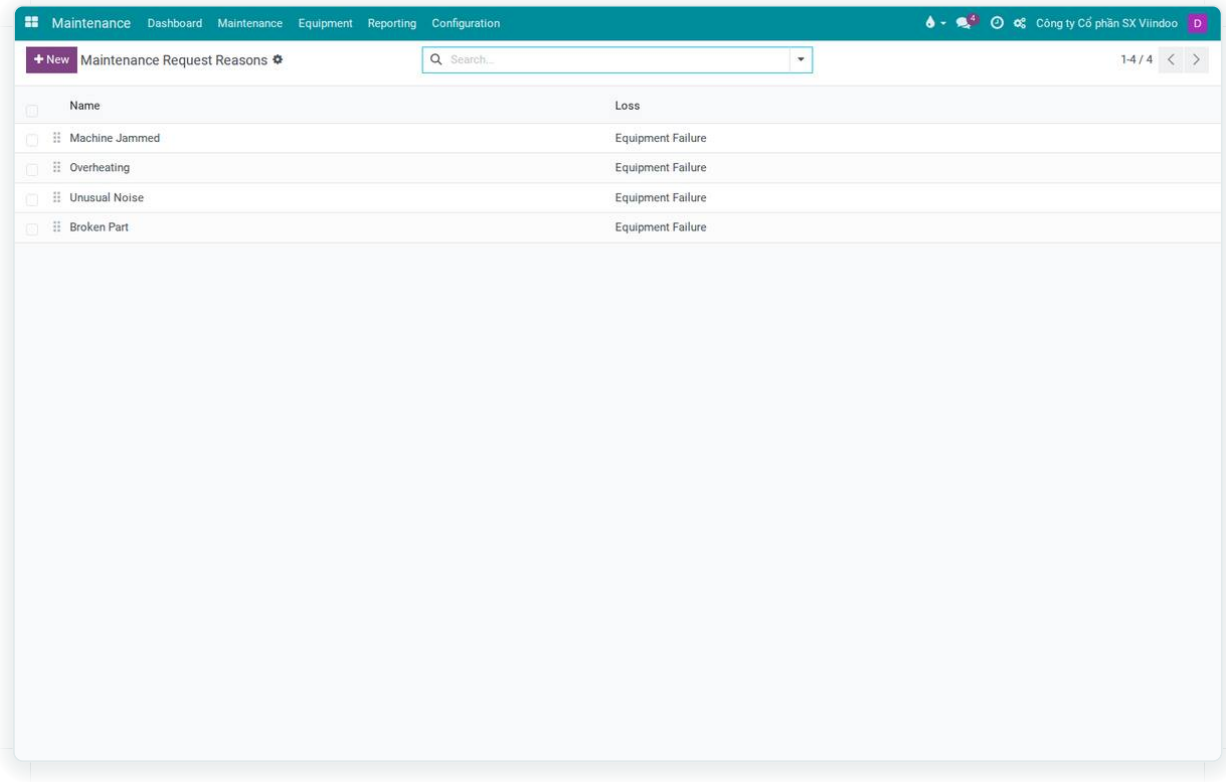


What you should see: one team "Internal Maintenance" of the company. Every piece of equipment must have a maintenance team; otherwise you cannot save equipment that has operating hours declared (the box "Please select a maintenance team for the equipment"). The **Team Members** column is empty: add technicians to the team so that they receive work.

Step 2 - See the maintenance request reasons

Open the list of reasons.

> *Path:* `Maintenance > Configuration > Request Reasons`

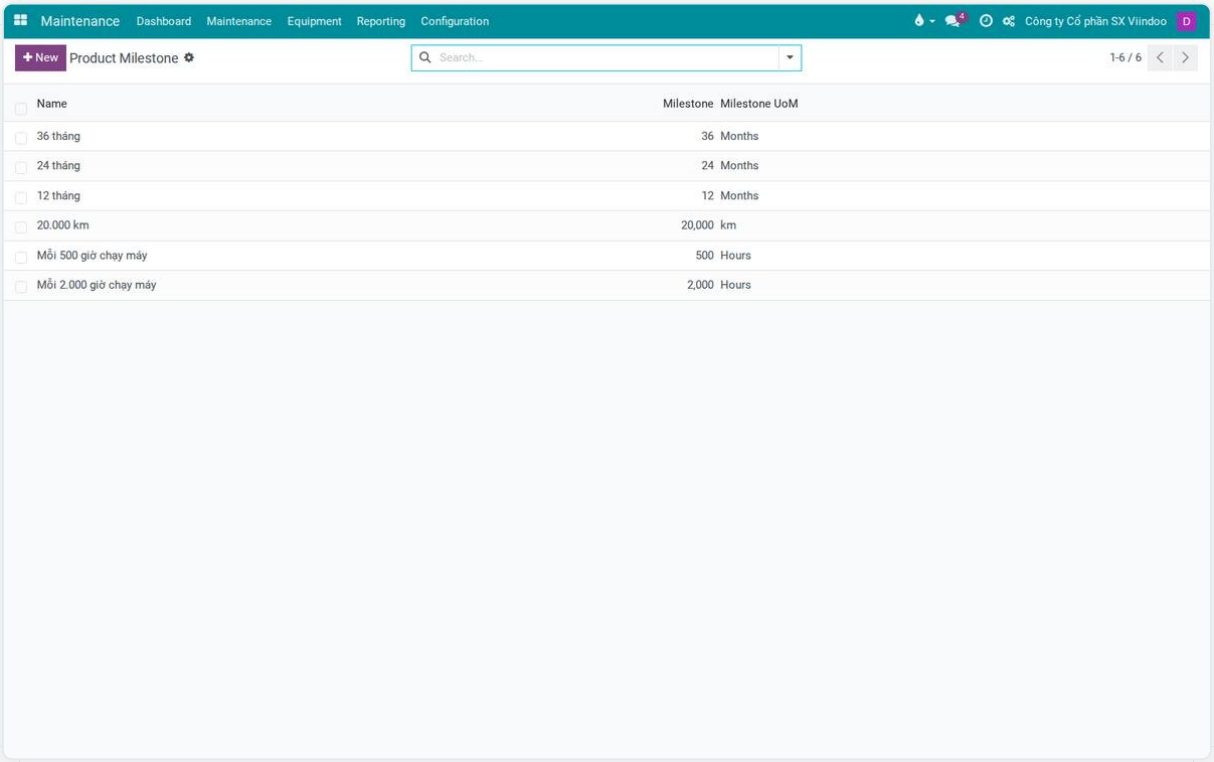


What you should see: four reasons **Machine Jammed**, **Overheating**, **Unusual Noise**, **Broken Part**, with the **Loss** column "Equipment Failure". These are exactly the tiles the worker taps when reporting a broken machine at the shop floor; the stop time is counted under this loss type in the effectiveness report.

Step 3 - See the product milestones

Open the list of milestones.

> *Path:* `Maintenance > Configuration > Product Milestones`

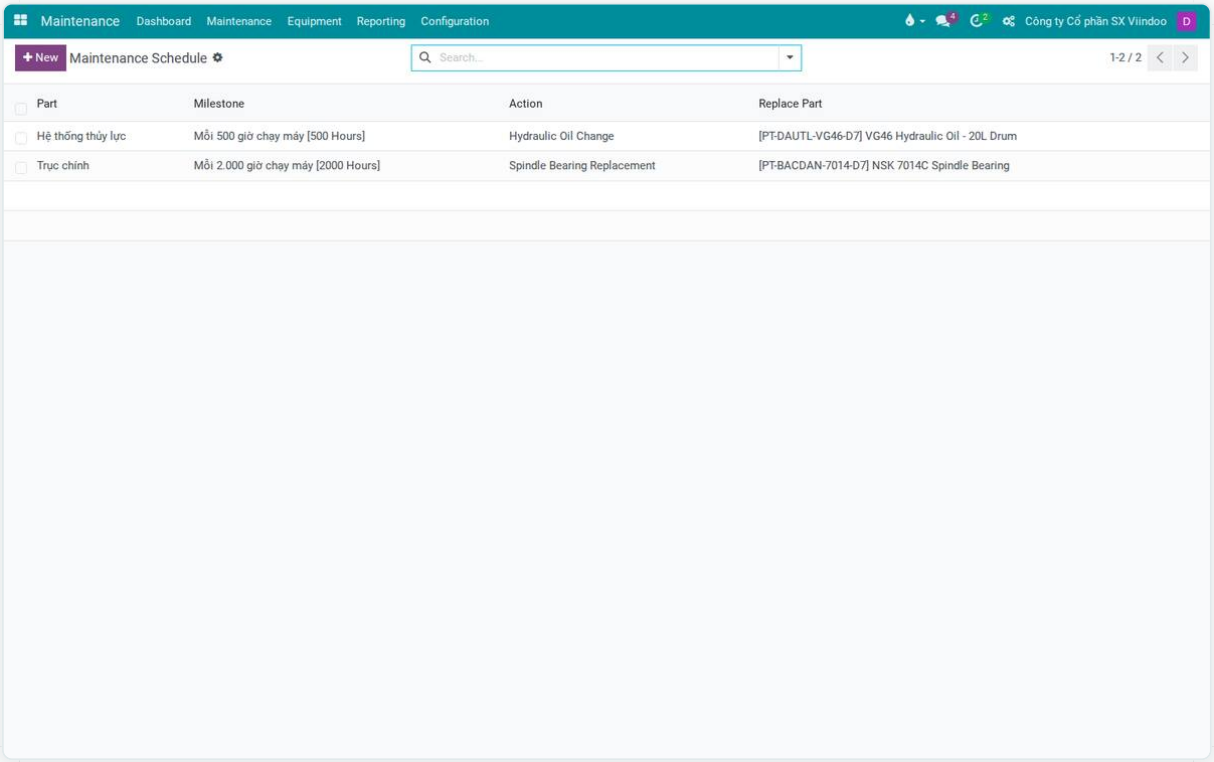


What you should see: six milestones: 12, 24, 36 months; 20,000 km; "Mỗi 500 giờ chạy máy" (every 500 machine running hours); "Mỗi 2.000 giờ chạy máy" (every 2,000 machine running hours), each with a **Milestone** and a **Milestone UoM**. A milestone is the threshold that generates maintenance work.

Step 4 - See the maintenance schedule

Open the list of maintenance schedules.

> *Path:* `Maintenance > Configuration > Maintenance Schedule`



What you should see: each line combines **Part** + **Milestone** + **Action** + **Replace Part**, for example "Hệ thống thủy lực (Hydraulic system) - Mỗi 500 giờ chạy máy [500 Hours] - Hydraulic Oil Change - VG46 Hydraulic Oil - 20L Drum". Actions are declared in `Maintenance > Configuration > Maintenance Actions`, and each action is tied to a service product to compute cost.

70 ATTACH EQUIPMENT TO A WORK CENTER AND SCHEDULE MAINTENANCE BY RUNNING HOURS

About 10 minutes. By the end of this lesson a machine is attached to a production station and the system computes the next maintenance date from the number of hours the machine runs.

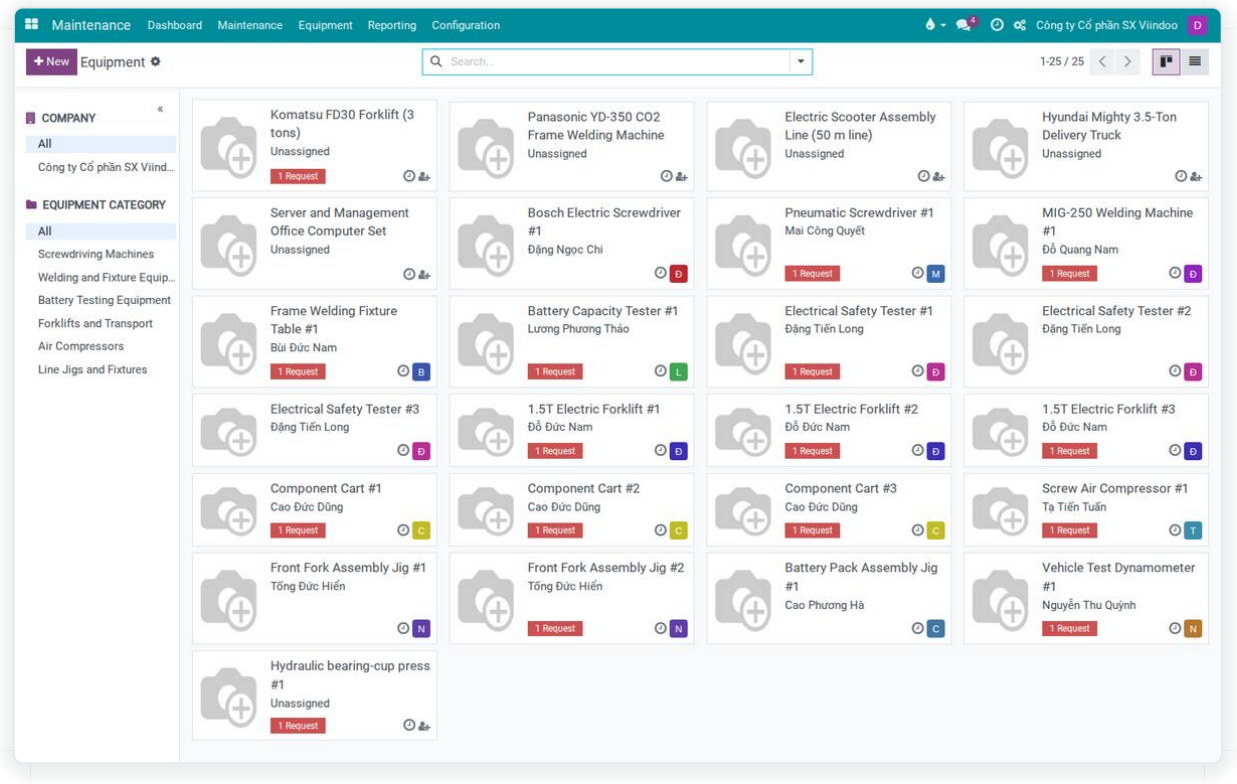
A piece of equipment has three **Preventive Maintenance Mode** values:

Mode	How the system computes the next maintenance date
By Default	It does not compute; create the preventive request by hand (lesson "Preventive maintenance requests")
By Hour	Days between two maintenances = mean time between two failures divided by the average working hours per day; a new machine with no failure history cannot be computed yet
By Schedule	From the **Maintenance Schedule** lines (running-hour, km, month milestones) and the machine's **Working Frequency**; the system generates a request automatically when it is due, notifying ahead by **Days to Notify**

Step 1 - Open the list of equipment

Open the list of machines and tools.

> *Path:* `Maintenance > Equipment > Machines & Tools`

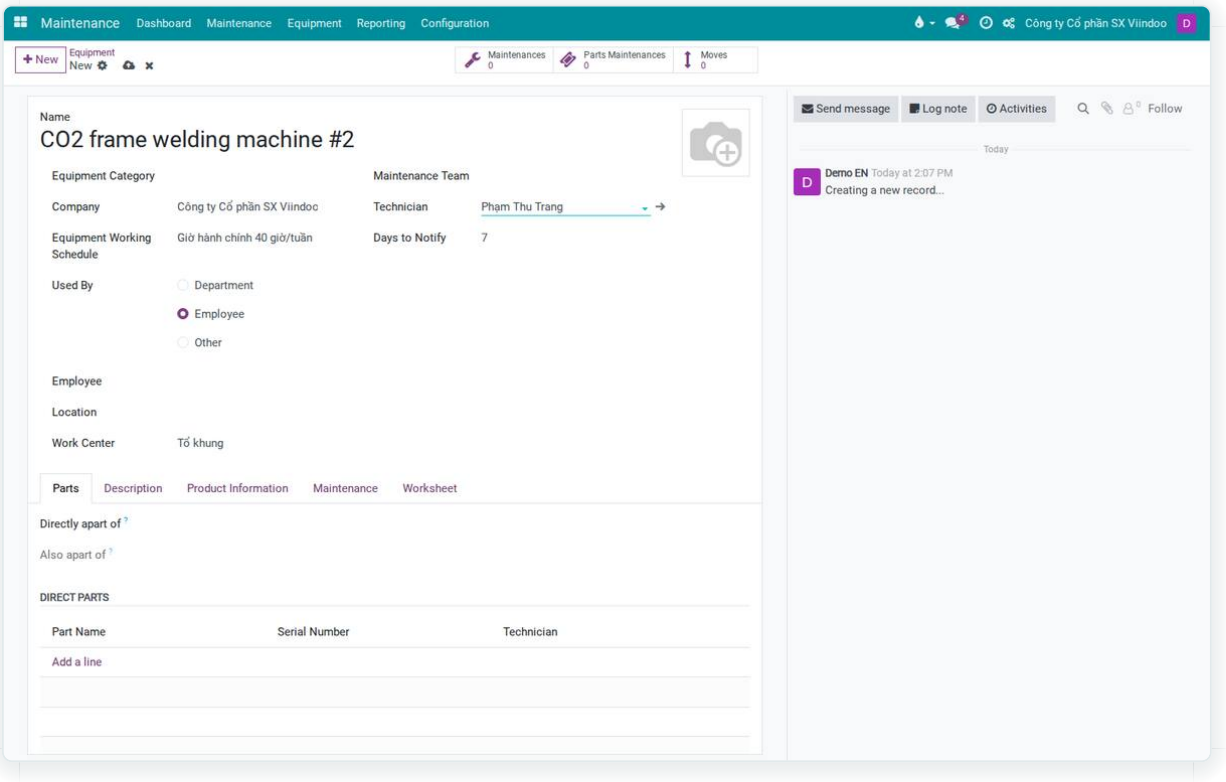


What you should see: each piece of equipment is a card with the person in charge and a red label with the number of open maintenance requests; the left column filters by **COMPANY** and **EQUIPMENT CATEGORY** (Screwdriving Machines, Welding and Fixture Equipment, Battery Testing Equipment, Forklifts and Transport, Air Compressors, Line Jigs and Fixtures). The number of cards changes from day to day.

Step 2 - Create the equipment and attach it to the station

Click **New**. Fill in **Name** (for example "CO2 frame welding machine #2"), **Work Center** "Tổ khung" (Frame team), **Maintenance Team** "Internal Maintenance", **Technician**. The next screenshots show the equipment "Hydraulic bearing-cup press #1" of the test run, set up in the same way.

> *Path:* `Maintenance > Equipment > Machines & Tools` > **New**

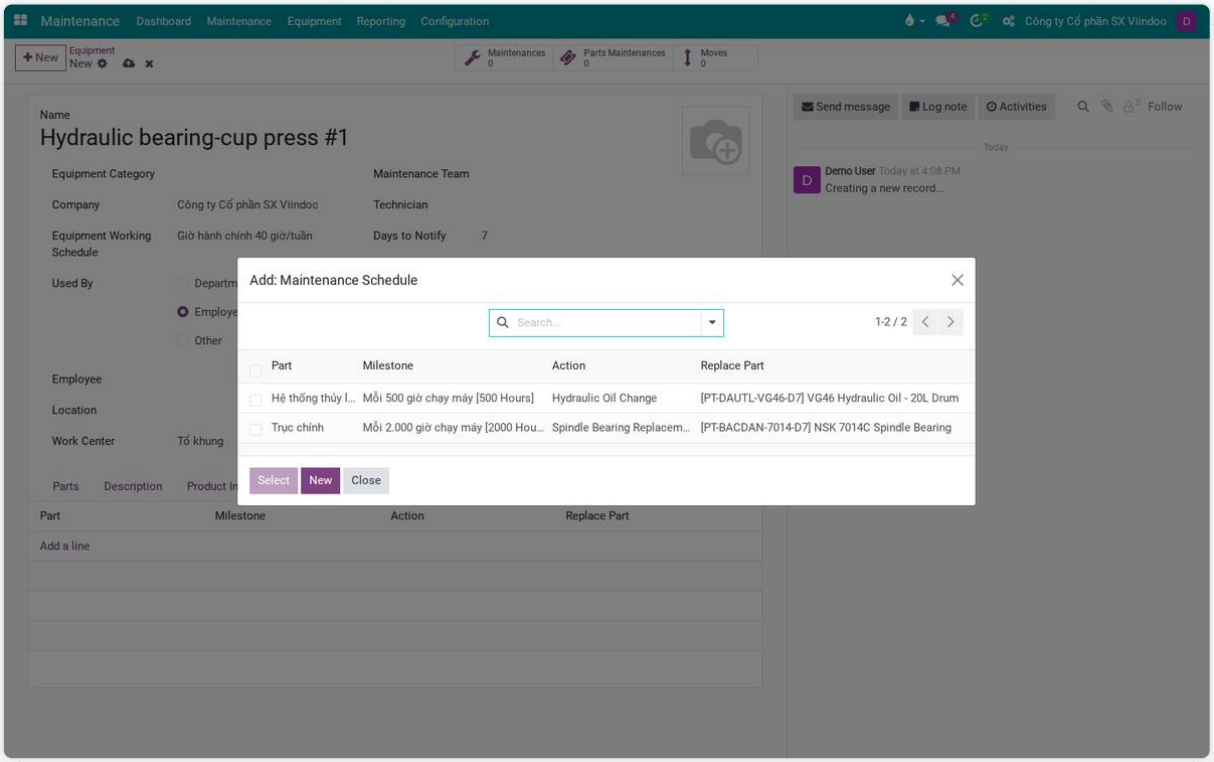


What you should see: Company fills in automatically, **Equipment Working Schedule** "Giờ hành chính 40 giờ/tuần" (Office hours, 40 hours/week), the **Work Center** field "Tổ khung", **Days to Notify** 7, and the fields **Equipment Category**, **Used By**, **Employee** and **Location**. The tabs are **Parts** (declare the family tree of machine and parts), **Description**, **Product Information** (supplier, serial number, warranty expiry date), **Maintenance**, **Worksheet** and, once the equipment is saved, **Maintenance Schedule**.

Step 3 - Declare the working frequency and choose the maintenance schedule

Open the **Maintenance** tab and set **Preventive Maintenance Mode** to **By Schedule**. Under **Working Frequency** click **Add a line**: **Starting Amount** 0, **Working Amount** 8, **Working Amount UoM** Hours, **Period Time (Hours)** 24 (the machine runs 8 hours every 24 hours). Open the **Maintenance Schedule** tab, click **Add a line**, tick the line "Hệ thống thủy lực - Mỗi 500 giờ chạy máy" (Hydraulic system - every 500 machine running hours), and click **Select**.

> *Path:* the equipment > **Maintenance** tab; **Maintenance Schedule** tab > **Add a line**
> (`Maintenance > Equipment > Machines & Tools`)

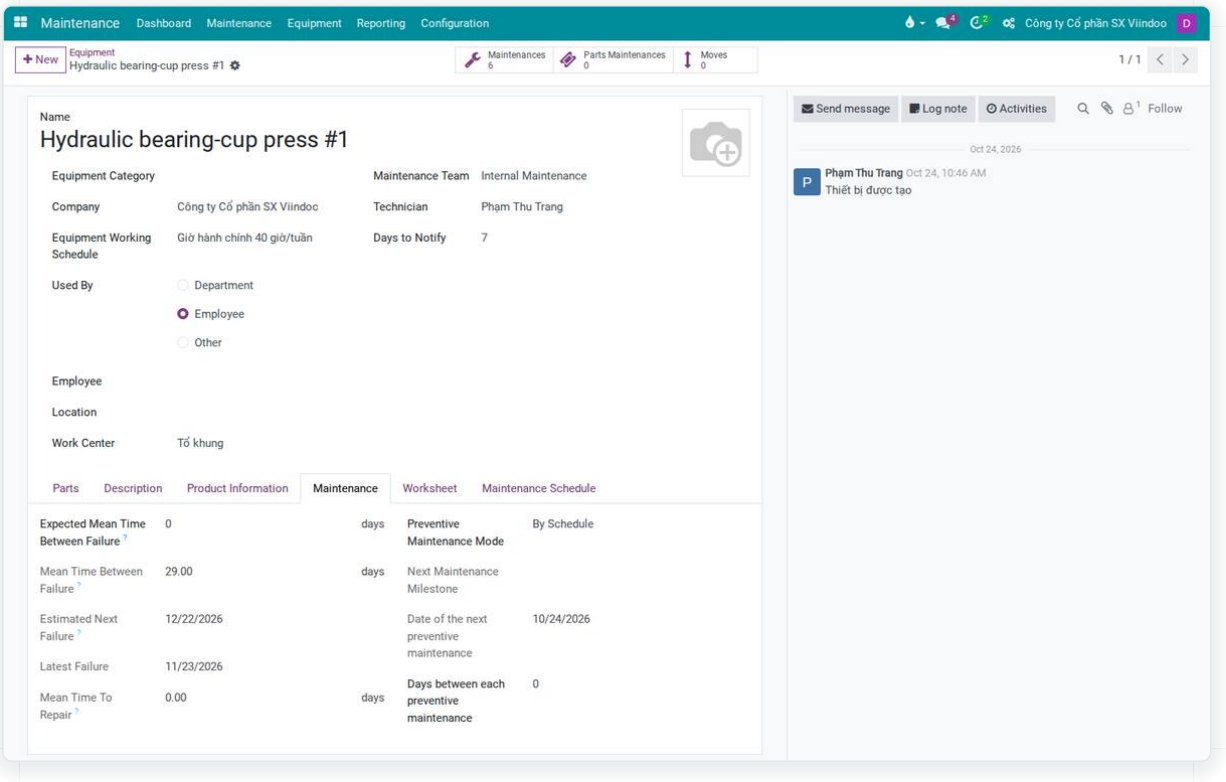


What you should see: the box **Add: Maintenance Schedule** lists the lines available to choose, with the columns **Part**, **Milestone**, **Action** and **Replace Part**, and the buttons **Select**, **New** and **Close**; you do not have to retype the part, milestone and action.

Step 4 - Save and read the next maintenance date

Click the save icon and open the **Maintenance** tab again.

> *Path:* `Maintenance > Equipment > Machines & Tools` > the equipment > **Maintenance** tab

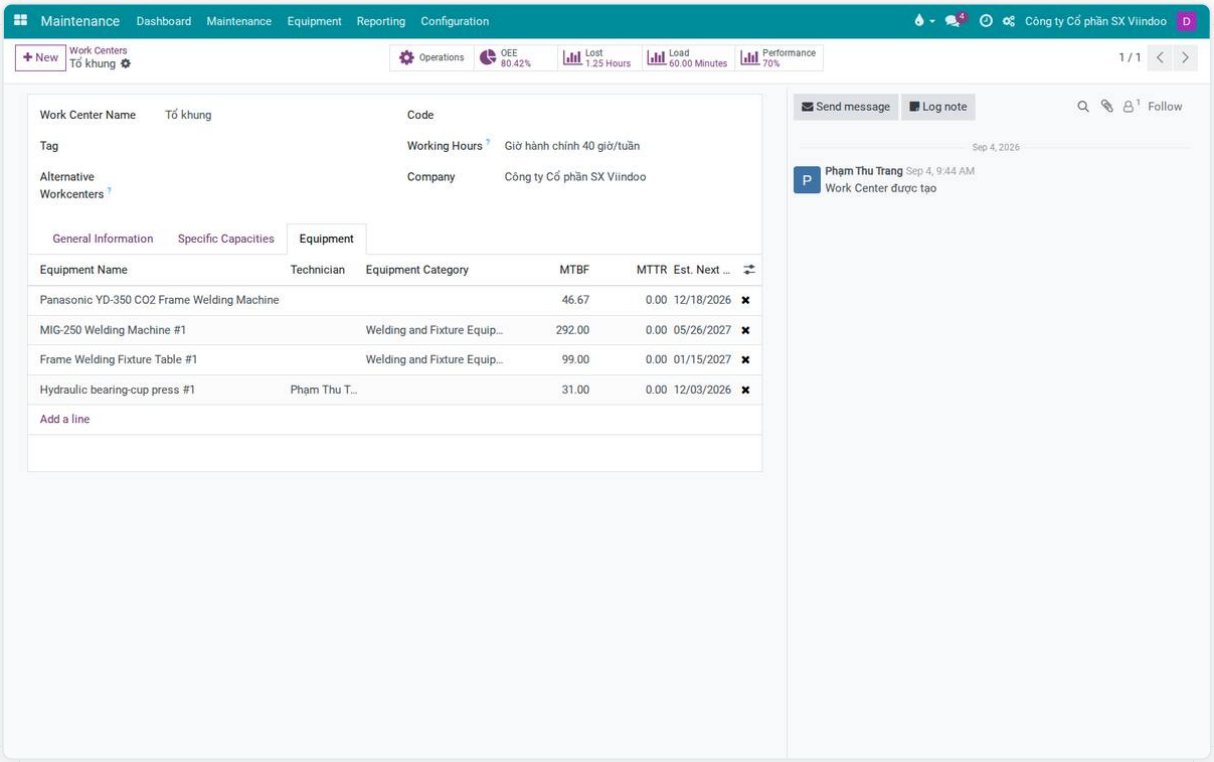


What you should see: on the **Maintenance** tab, **Preventive Maintenance Mode** is **By Schedule**; the fields **Expected Mean Time Between Failure**, **Mean Time Between Failure**, **Estimated Next Failure**, **Latest Failure** and **Mean Time To Repair** are filled by the system from the corrective requests (in the screenshot the latest failure is 11/23/2026); **Next Maintenance Milestone** and **Date of the next preventive maintenance** (10/24/2026 in the screenshot) are computed from the maintenance schedule line, the working frequency and the failure history, and **Days between each preventive maintenance** shows the interval.

Step 5 - See the equipment on the work center

Open the work center Tổ khung, tab **Equipment**.

> *Path:* `Maintenance > Equipment > Work Centers` > Tổ khung > **Equipment** tab



What you should see: the list of the machines of the station (four in the screenshot, including "Hydraulic bearing-cup press #1") with the columns **Equipment Name**, **Technician**, **Equipment Category**, **MTBF** (mean time between failures), **MTTR** (mean time to repair) and **Est. Next Failure**. The smart button bar of the station has **Operations**, **OEE**, **Lost**, **Load** and **Performance**.

71 REPORT A BREAKDOWN ON THE SHOP FLOOR AND HANDLE IT

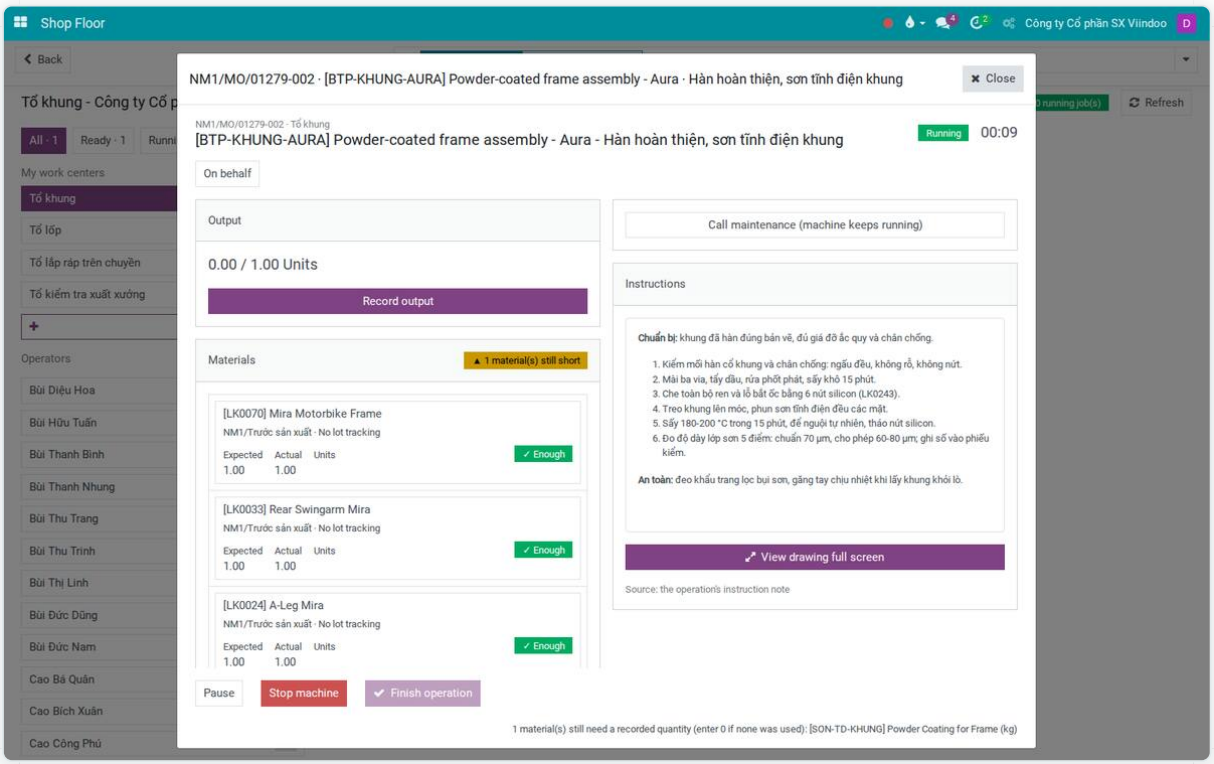
About 10 minutes. By the end of this lesson your company has reported a broken machine right on the shop floor screen, seen the station stop by itself and the maintenance request generate by itself, then closed the request so the station can run again.

> Reporting a breakdown stops one station and stops every operation running at that station, including those of other orders. The demonstration system is shared by many users: before reporting, open the station's board in **Shop Floor**, and the **Running** filter button must be 0; if not, choose another station.

Step 1 - Open an operation at the station that has equipment

In **Shop Floor**, add **Tổ khung** (Frame team) to my work centers (lesson "Running the shop floor: start, record labor, stop the machine", Step 2), select **Tổ khung**, and open an operation of an order your company created (for example the frame assembly order in the lesson "When reality departs from the plan") with **Open & start**.

> *Path:* `Shop Floor` > Tổ khung > operation card

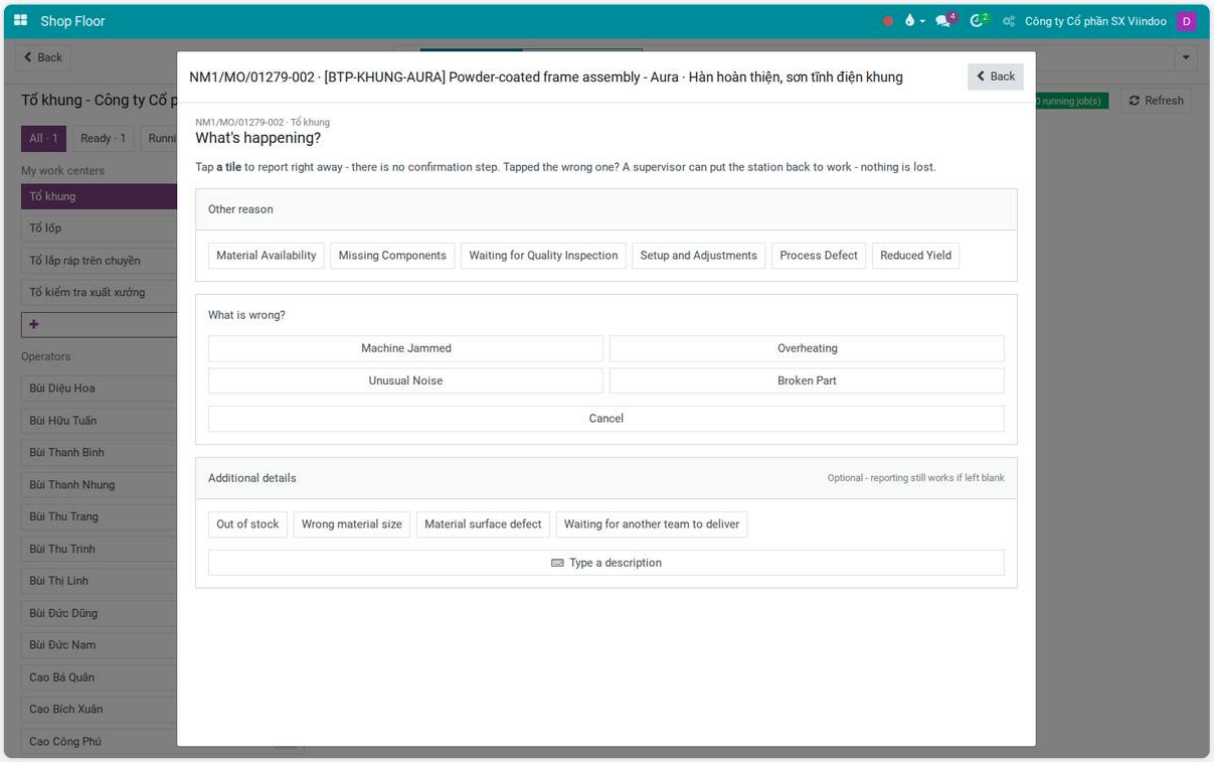


What you should see: the operation "Hàn hoàn thiện, sơn tĩnh điện khung" (Finishing welding and powder coating of the frame) is **Running**, with the button **Call maintenance (machine keeps running)** in the right panel (used when the machine shows abnormal signs but does not have to stop yet) and the button **Stop machine** at the bottom; a yellow label **▲ 1 material(s) still short** may show on the **Materials** block until the consumption is recorded.

Step 2 - Report the breakdown

Click **Stop machine**, then click the red button **Equipment failure - call maintenance**. Because Tổ khung has several machines, the system first asks you to choose the machine; choose **Hydraulic bearing-cup press #1**.

> *Path:* `Shop Floor` > operation card > **Stop machine** > **Equipment failure - call maintenance**

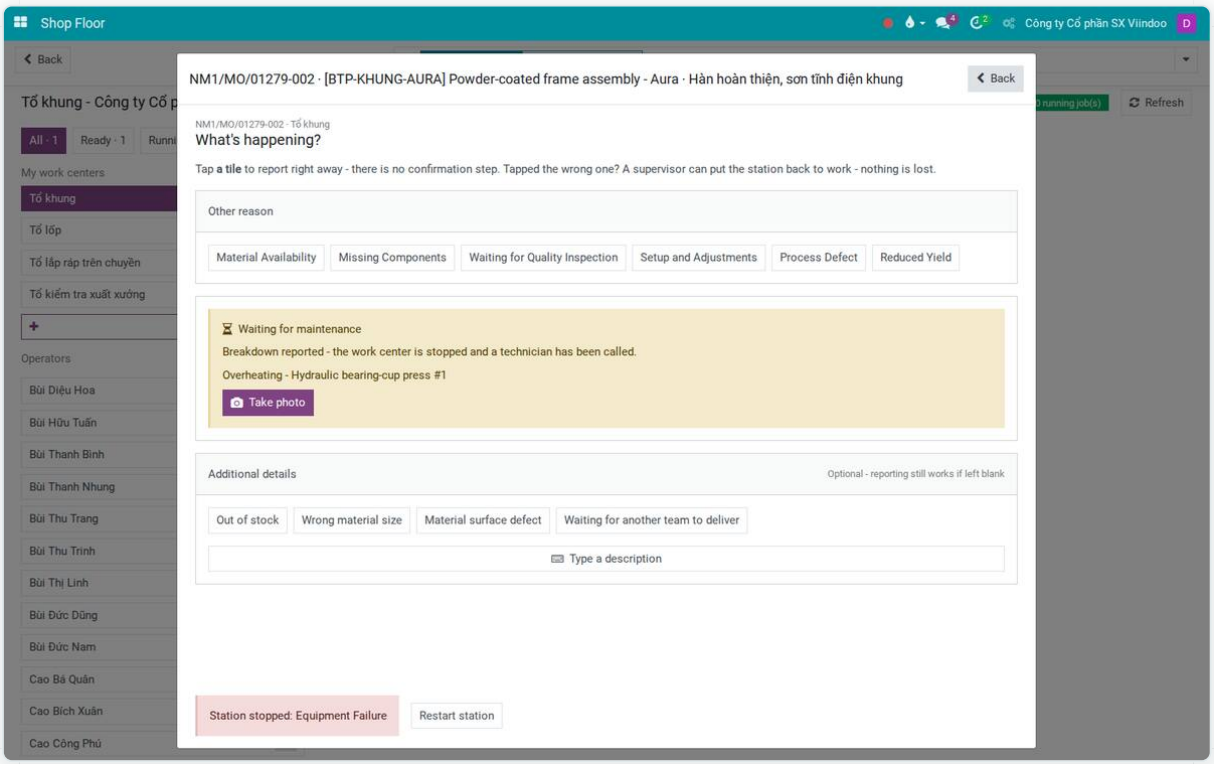


What you should see: the box **What's happening?** again, with the block **What is wrong?** holding four reason tiles **Machine Jammed**, **Overheating**, **Unusual Noise**, **Broken Part** and the button **Cancel** (if the station has a single machine, the system attaches it to the request without asking you to choose).

Step 3 - Choose the failure

Tap **Overheating**.

> *Path:* `Shop Floor` > operation card > **Stop machine**

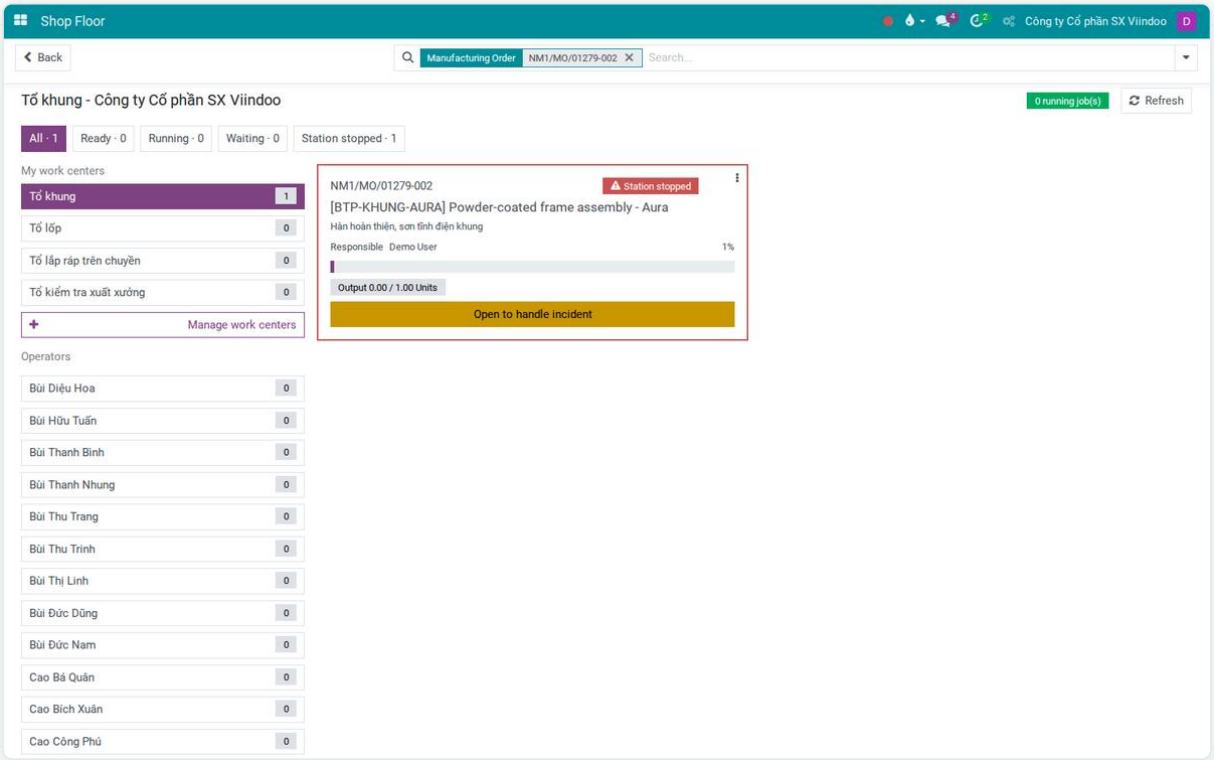


What you should see: a yellow frame **Waiting for maintenance**: "Breakdown reported - the work center is stopped and a technician has been called.", the line "Overheating - Hydraulic bearing-cup press #1", a **Take photo** button to send a photo of the incident; a red strip "Station stopped: Equipment Failure".

Step 4 - See the station's work board

Click **Back** to leave to the board of Tổ khung.

> *Path:* `Shop Floor` > Tổ khung

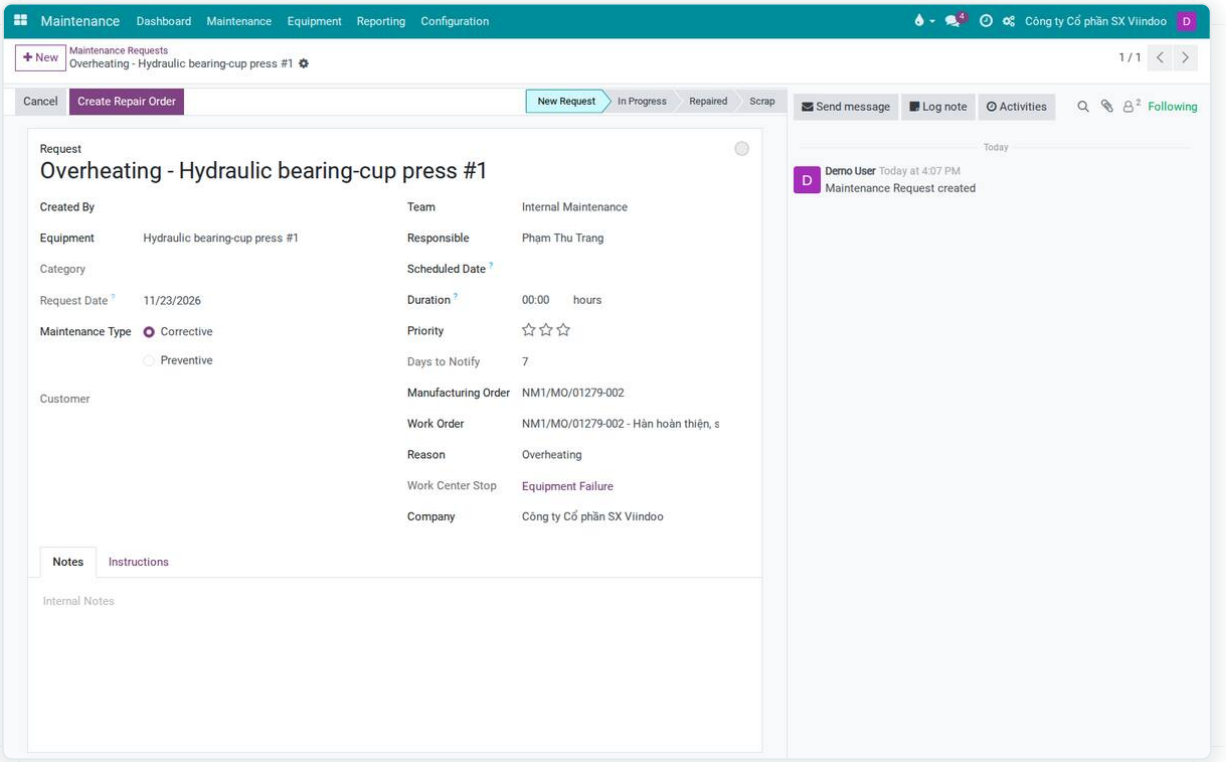


What you should see: Station stopped · 1, a card with the red label **Station stopped** and the button **Open to handle incident**. The station keeps this state until the maintenance request is closed at the stage **Repaired** (Step 7).

Step 5 - Open the maintenance request that was just generated

Open the list of maintenance requests, search by machine name, and open the request "Overheating - Hydraulic bearing-cup press #1".

> *Path:* `Maintenance > Maintenance > Maintenance Requests`

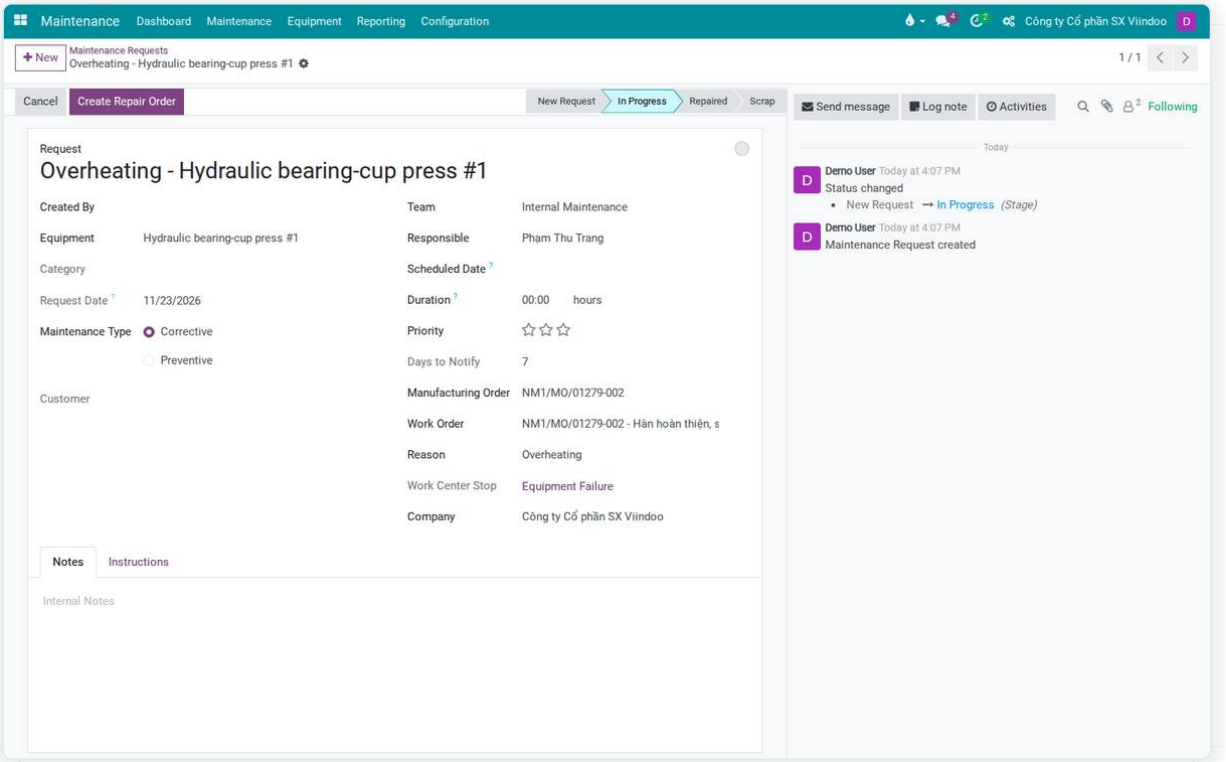


What you should see: the stage bar **New Request**, **In Progress**, **Repaired**, **Scrap** with **New Request** lit; **Equipment** is the right machine; **Maintenance Type Corrective**; **Team** "Internal Maintenance"; **Responsible**; the **Manufacturing Order** and **Work Order** being worked on when it broke; **Reason** "Overheating"; **Work Center Stop** "Equipment Failure". The buttons **Cancel** and **Create Repair Order**; the latter is used when you have to replace a part that is issued from stock.

Step 6 - The technician takes the job

Click the stage **In Progress** on the stage bar.

> *Path:* `Maintenance > Maintenance > Maintenance Requests` > the request

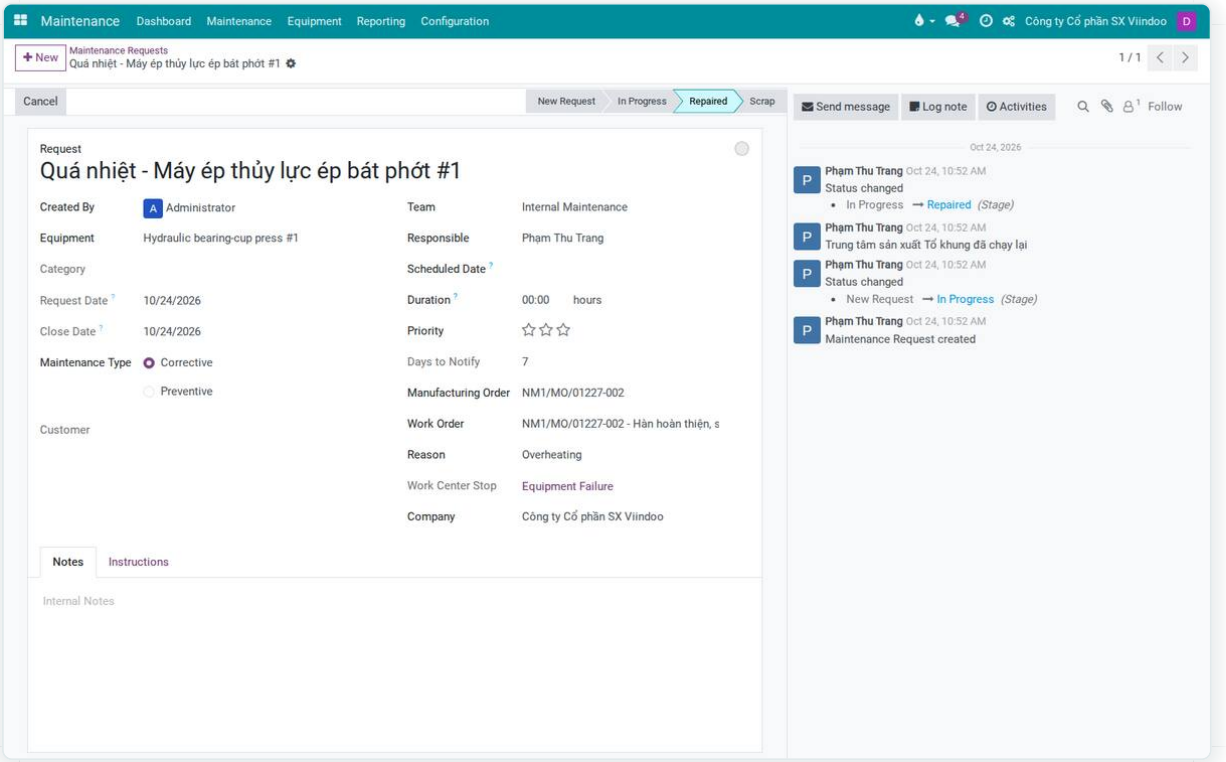


What you should see: the stage bar lights up at **In Progress**, and the history reads "New Request -> In Progress". The station is still stopped.

Step 7 - Close the request when the repair is done

Click the stage **Repaired**.

> *Path:* `Maintenance > Maintenance > Maintenance Requests` > the request



What you should see: the stage bar is on **Repaired**, the **Close Date** field has a value; the history reads "Status changed: In Progress -> Repaired" and notes that the work center Tổ khung is running again. On the shop floor screen the card no longer has the red label and the worker clicks **Continue** to carry on. The stop time is recorded in the loss "Equipment Failure" of the station (counted within working hours), and in the mean time to repair of the machine.

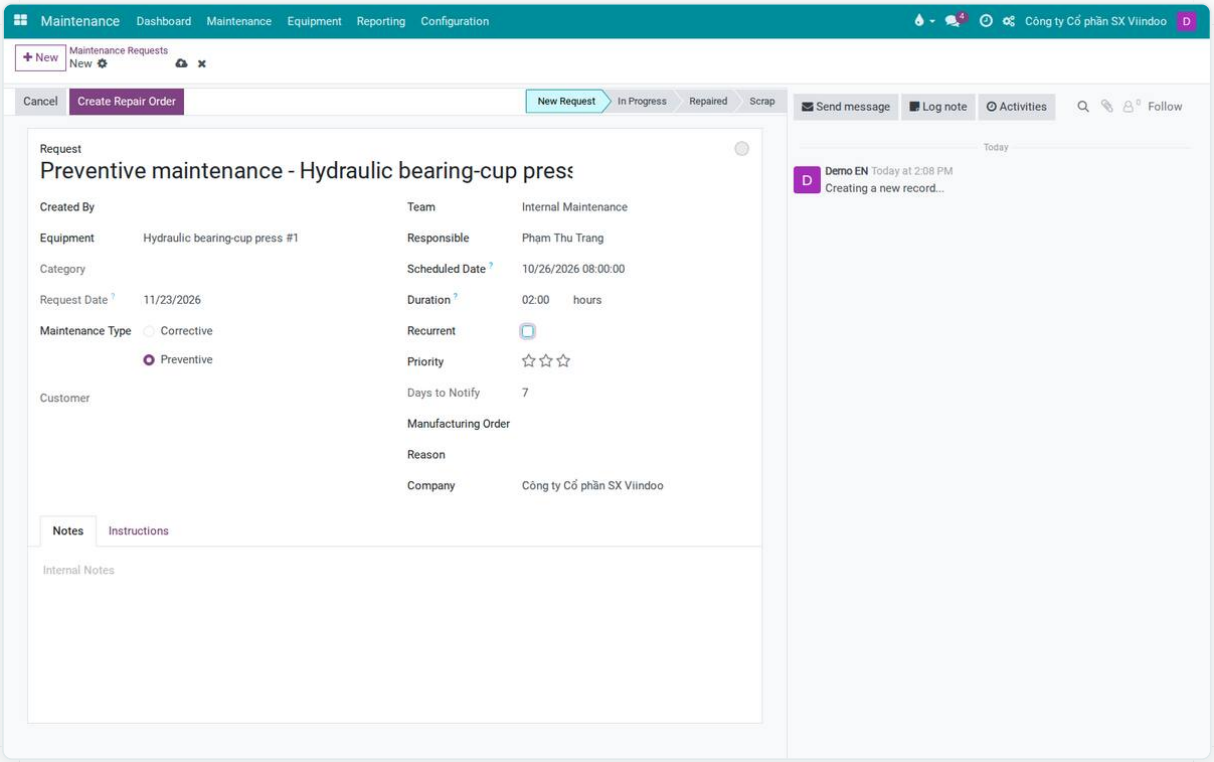
72 PREVENTIVE MAINTENANCE REQUESTS

About 5 minutes. By the end of this lesson your company has scheduled one periodic servicing and seen it on the maintenance calendar.

Step 1 - Create a preventive request

Open a new maintenance request. Fill in **Request** "Preventive maintenance - Hydraulic bearing-cup press #1", **Equipment**, choose **Maintenance Type Preventive**, **Scheduled Date** an upcoming working day at 08:00, **Duration** 02:00.

> *Path:* `Maintenance > Maintenance > Maintenance Requests` > **New**

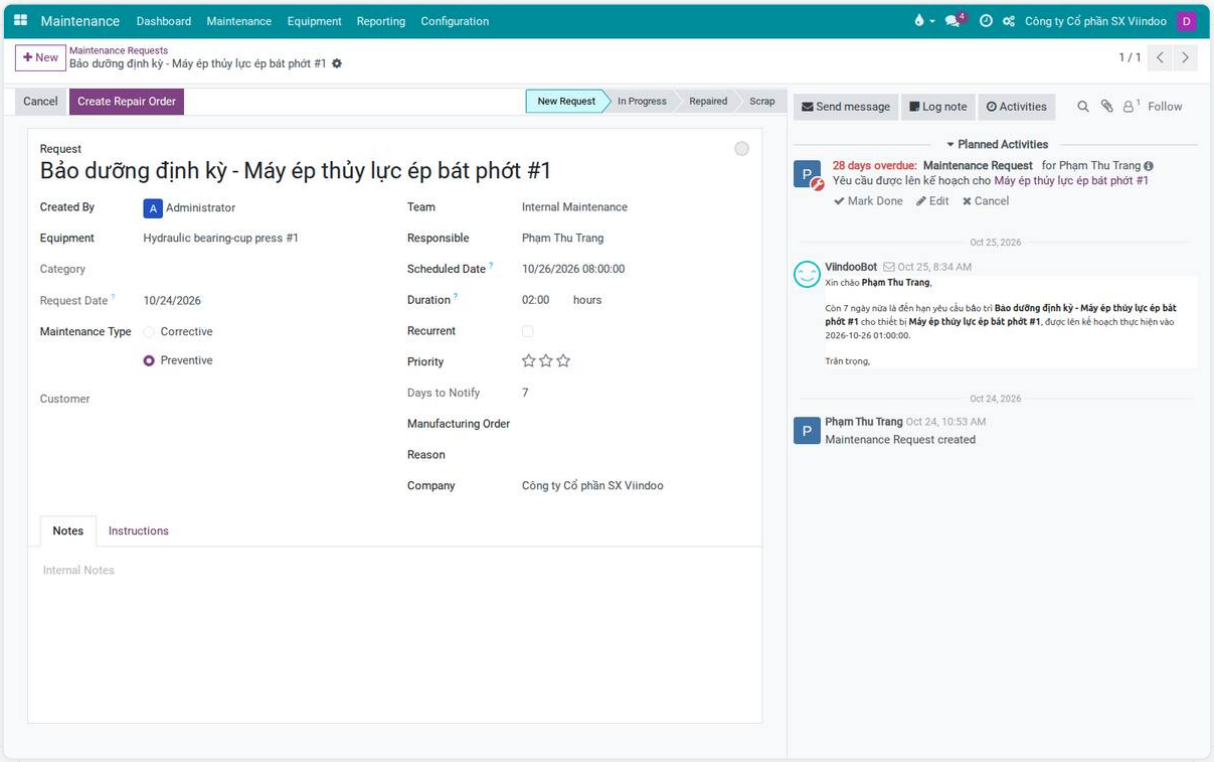


What you should see: when you choose the equipment, **Team** and **Responsible** fill in automatically; a **Recurrent** field appears: tick it to make the request repeat on a cycle (day, week, month, year).

Step 2 - Save the request

Click the save icon.

> *Path:* `Maintenance > Maintenance > Maintenance Requests` > the request just created

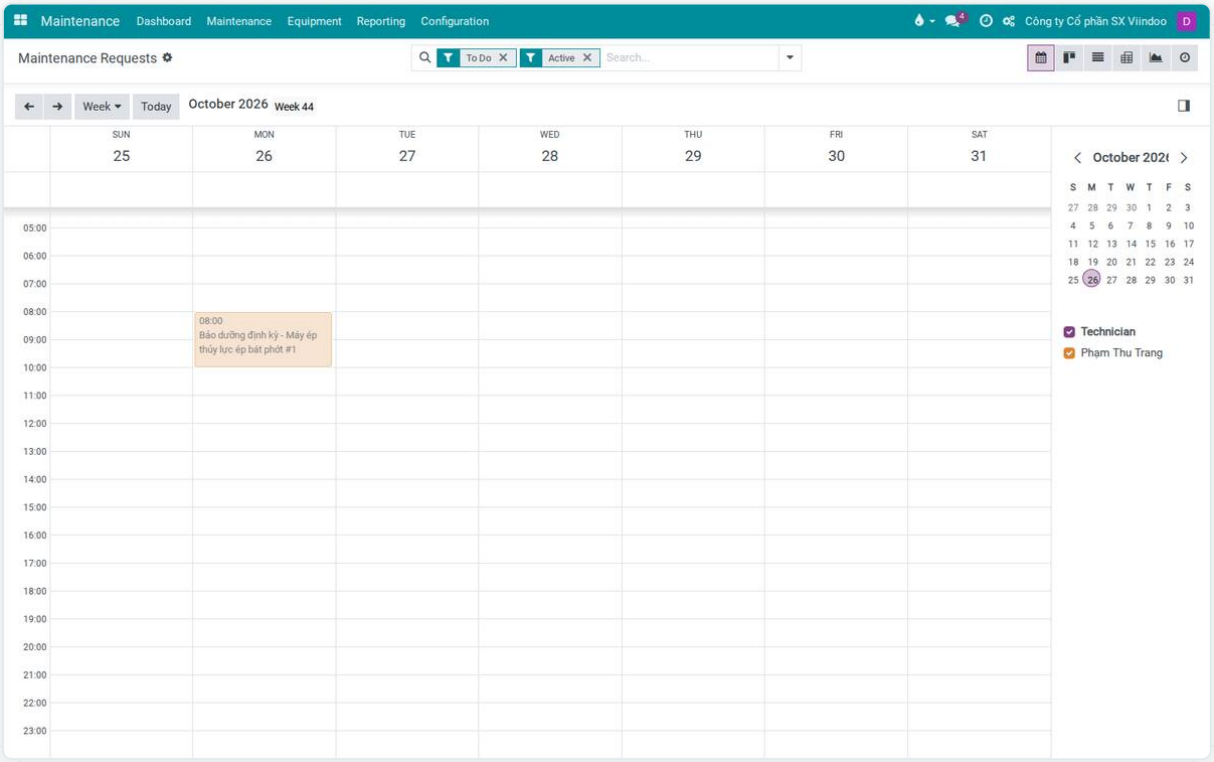


What you should see: the stage **New Request**; on the right, under **Planned Activities**, there is an activity "Maintenance Request" assigned to the person in charge, showing how many days remain or are overdue, with the buttons **Mark Done**, **Edit** and **Cancel**.

Step 3 - See the maintenance calendar

Open the maintenance calendar and click the arrow to move to the week with the scheduled date.

> *Path:* `Maintenance > Maintenance > Maintenance Calendar`



What you should see: the calendar **Maintenance Requests** filtered by **To Do** and **Active**, with a cell "08:00" carrying the name of your request on exactly the date and time you set, colored by technician (see the **Technician** legend on the right). Drag and drop a cell to move the schedule.

73 MAINTENANCE REPORTS AND STATION PERFORMANCE

About 5 minutes. The maintenance part has 5 report screens:

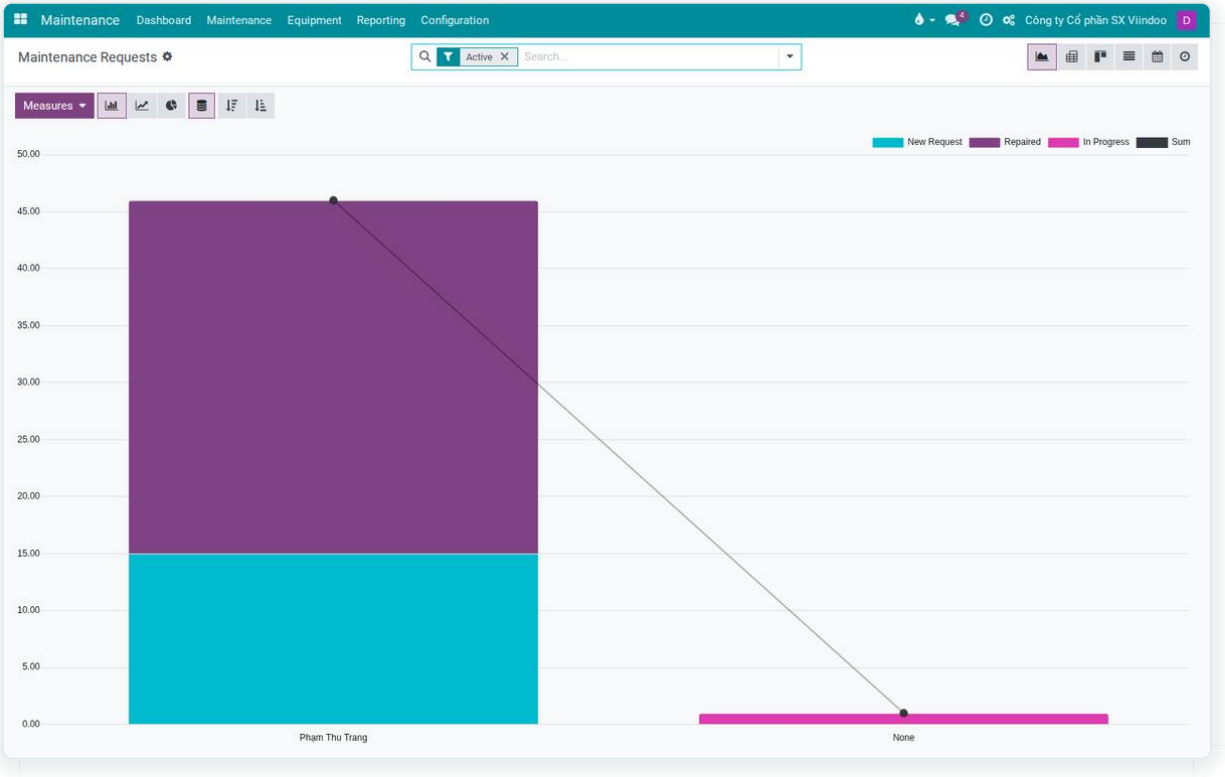
Report	Path	Which question it answers
Maintenance Requests (analysis)	`Maintenance > Reporting > Maintenance Requests`	How many requests are open, by technician, stage, equipment, corrective or preventive type
Dashboard	`Maintenance > Dashboard`	How much work each team has to do, scheduled, priority and unscheduled work
Maintenance Calendar	`Maintenance > Maintenance > Maintenance Calendar`	Which machines must be maintained this week
Equipment on the work center	`Maintenance > Equipment > Work Centers` > **Equipment** tab	Which machine breaks down often (low MTBF), which takes long to repair (high MTTR)

Report	Path	Which question it answers
Overall Equipment Effectiveness	`Manufacturing > Reporting > Overall Equipment Effectiveness`	How many hours each station loses to equipment failure compared with other reasons (lesson "Shop floor manufacturing reports", Step 4)

Step 1 - See the maintenance request analysis

Open the maintenance requests report.

> *Path:* `Maintenance > Reporting > Maintenance Requests`

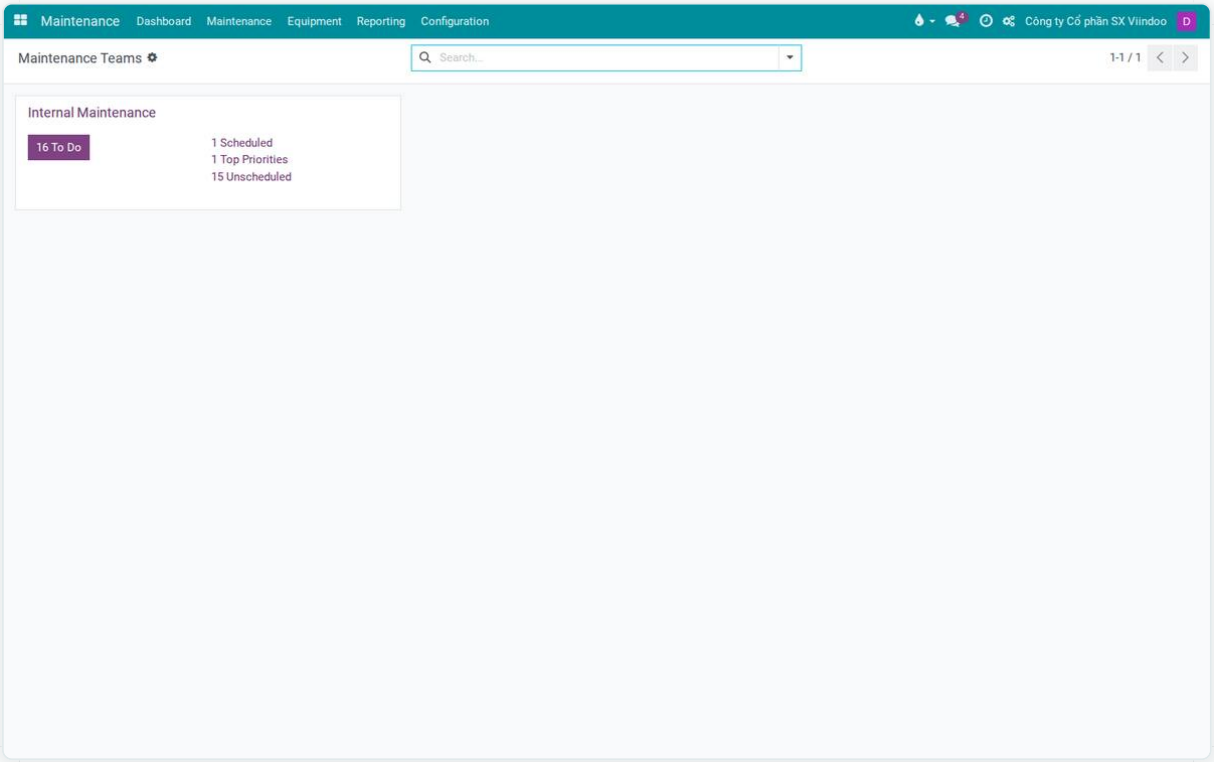


What you should see: a bar chart counting active requests by technician, colored by stage (**New Request**, **In Progress**, **Repaired**); requests with no technician are grouped under "None". The number of bars changes from day to day. Switch to the table view to group by equipment or by **Maintenance Type**.

Step 2 - See the team dashboard

Click the menu **Dashboard**.

> *Path:* `Maintenance > Dashboard`



What you should see: the tile "Internal Maintenance" with a **To Do** button and a count (for example "16 To Do") and the lines **Scheduled**, **Top Priorities** and **Unscheduled** with their counts. Click it to go to the team's list of work.

74 EXERCISE: MAINTAIN A MACHINE ON THE LINE

About 20 minutes.

1. Create a new piece of equipment for a station, for example "Electronic torque wrench #1" for the station of the order your company created, with a maintenance team and a technician.
2. Set **Preventive Maintenance Mode** to **By Schedule**, declare a working frequency of 16 hours every 24 hours, choose a maintenance schedule line; read the next maintenance date and compare it with when you declare 8 hours.
3. Create a preventive request with **Recurrent** ticked monthly; find it on the maintenance calendar.
4. When the station's board shows **Running · 0** (no one else's operation is running): open an operation of the order your company created at that station, report **Equipment failure - call maintenance** with the failure **Unusual Noise**; check that the generated request has the equipment, the order and the reason.
5. Move the request to **In Progress** and then **Repaired**; check that the station runs again on the shop floor screen.
6. Open **Shop Floor Entries** and find the line of kind "Breakdown", and open the **Equipment** tab of the station to see the failure figures of the machine.

Self-assessment: if you did it correctly, the corrective request is at **Repaired**, the station is no longer at **Station stopped**, and the machine has at least one recorded failure.

PART XI. APPROVALS

This part answers these questions: which jobs in the workshop need a person with the authority to sign, who approves, from what level an approval is required, and whether the workshop is stopped if nothing is approved yet. The readers are the business owner, the production manager, the purchasing manager and the people who must submit requests.

Approval in Viindoo is a separate app. Each business process (bill of materials, engineering change order, procurement request, purchase order, subcontracting, maintenance, payment and so on) has its own **approval type** that declares who approves and in which sequence. A person who needs approval submits an **approval request**; the request goes through the statuses *Draft, To Approve, Approved, Done* (or *Refused*, *Cancelled*).

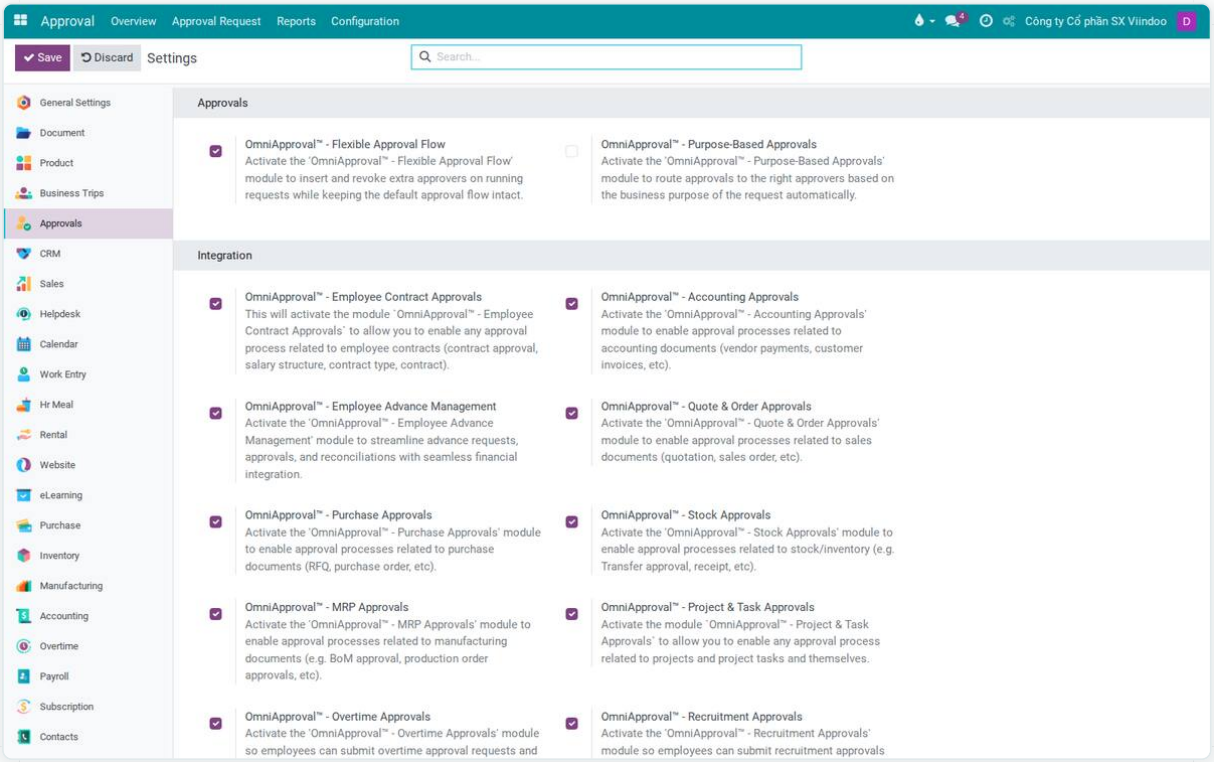
75 APPROVAL CONFIGURATION: WHICH TYPES ARE ON, WHO APPROVES, WHAT THRESHOLDS

About 20 minutes. By the end of this lesson your company knows which approval types are on for the company, who approves each type and under what conditions it applies, and can read a particular approval type. This lesson is read-only; nothing is created.

Step 1 - See the approval groups that are switched on

Go to **Approval > Configuration > Settings**.

> *Path:* `Approval > Configuration > Settings`



What you should see: the group *Part XI. Approvals* and the group **Integration** with the boxes labelled **OmniApproval™**: *Flexible Approval Flow* is ticked, *Purpose-Based Approvals* is not ticked; most boxes in the integration group are ticked (see the table below).

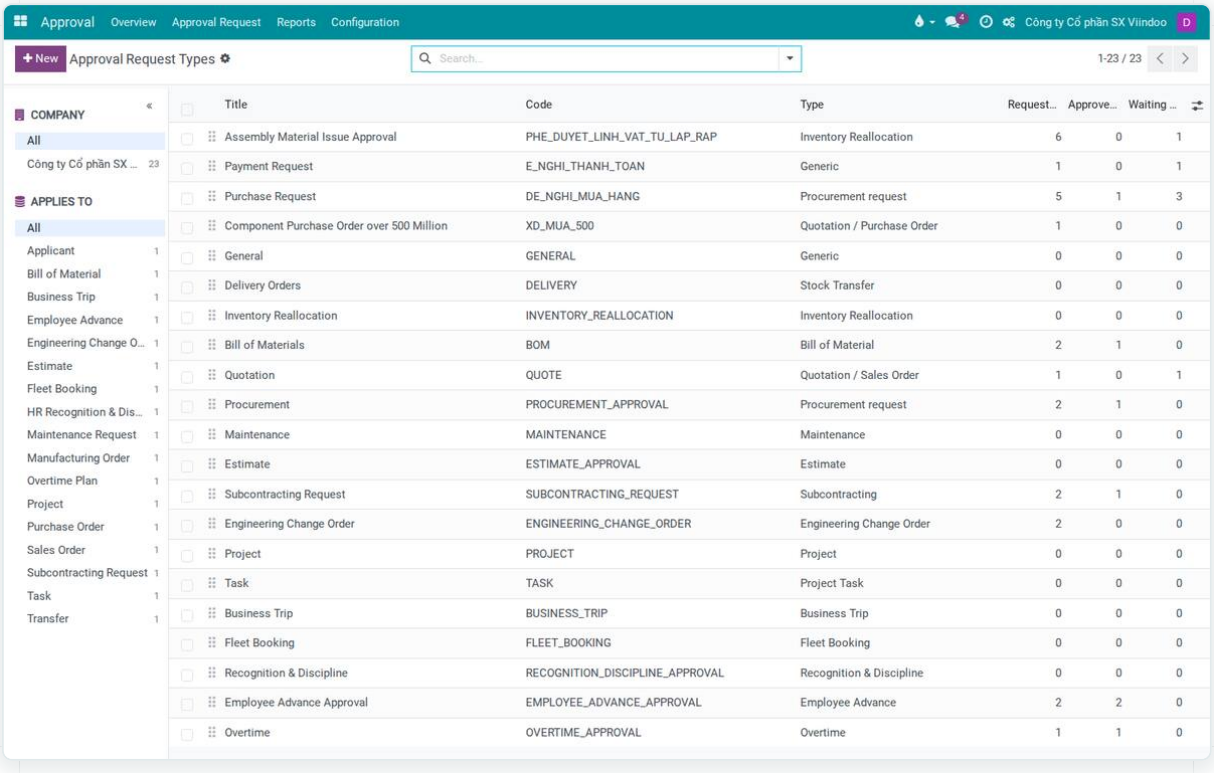
Approval group (label on screen)	State	What is lost if it is off
OmniApproval™ - Flexible Approval Flow	On	There is no approval base, and none of the groups below can be used
OmniApproval™ - MRP Approvals	On	Bills of materials and manufacturing orders have no **Get Approved** button
OmniApproval™ - ECO Approvals	On	Engineering change orders do not go through approval
OmniApproval™ - Procurement Approvals	On	There is no procurement request waiting for approval before a supply method is chosen
OmniApproval™ - Purchase Approvals	On	There is no purchase request and no approval of purchase orders in the approval style
OmniApproval™ - Stock Approvals	On	Delivery orders and warehouse transfers do not go through approval

Approval group (label on screen)	State	What is lost if it is off
OmniApproval™ - MRP Subcontracting Approvals	On	Subcontracting requests do not go through approval
OmniApproval™ - Maintenance Approvals	On	Maintenance requests do not go through approval
OmniApproval™ - Accounting Approvals, Quote & Order Approvals, Employee Contract Approvals, Employee Advance Management, Project & Task Approvals, Overtime Approvals, Recruitment Approvals, Estimate Approvals	On	The matching business process has no approval type
OmniApproval™ - Purpose-Based Approvals, Timesheet Approvals, Product Approval, Partner Approval	Off	Not used at present

Step 2 - See the list of approval types

Go to **Approval > Configuration > Approval Types**.

> *Path:* `Approval > Configuration > Approval Types`



What you should see: 23 types, each line with **Title**, **Code**, **Type** and three counts of requests (all, approved, waiting); on the left there are the filter groups **Company** and **Applies To** (by the business process the type applies to).

The manufacturing-related types that are on for *Công ty Cổ phần SX Viindoo*. The approver names are sample data:

Approval type	What it approves	Who approves	Conditions, thresholds
Bill of Materials	A new or edited bill of materials	Phạm Thu Trang or Phạm Thị Thu Hương (declared together in one step)	Sent from **Actions > Get Approved** of the bill of materials; requires the employee to have a manager
Engineering Change Order	Engineering change orders (ECO)	Phạm Thu Trang	Sent from **Actions** of the change order; requires a manager
Procurement	A procurement request for one or more products; after approval the system chooses the suitable supply method	Phạm Thu Trang	Created only from the Approval screen; requires a manager
Purchase Request	A purchase request	Lê Văn Hậu or Phạm Thu Trang	Created only from the Approval screen; does not require a manager
Component Purchase Order over 500 Million	A purchase order	Step 1 Trần Thị Hạnh, step 2 Nguyễn Văn Quang, in sequence	**Company Total** (converted to VND, including foreign-currency orders) **from 500,000,000 VND** and the order in the status RFQ, RFQ Sent or To Approve
Subcontracting Request	An outside subcontracting request	Phạm Thu Trang or Phạm Thị Thu Hương	Created only from a subcontracting request
Assembly Material Issue Approval	A confirmed manufacturing order	Phạm Thị Thu Hương	Sent from **Actions** of the manufacturing order; does not require a manager
Delivery Orders	Delivery orders that are not yet finished	Phạm Thu Trang or Phạm Thị Thu Hương	Only for delivery orders in the status draft, waiting, confirmed or ready
Inventory Reallocation	Transfers between warehouses	Phạm Thu Trang or Phạm Thị Thu Hương	Created only from the Approval screen
Maintenance	A maintenance request	The seven people declared (Lê Văn Hậu, Nguyễn Thị Hà My, Phạm Thu Trang, Phạm Thị Thu Hương, Trần Thị Ngọc Ánh, Vũ Văn Tài, Đỗ Văn Kiên)	No extra condition

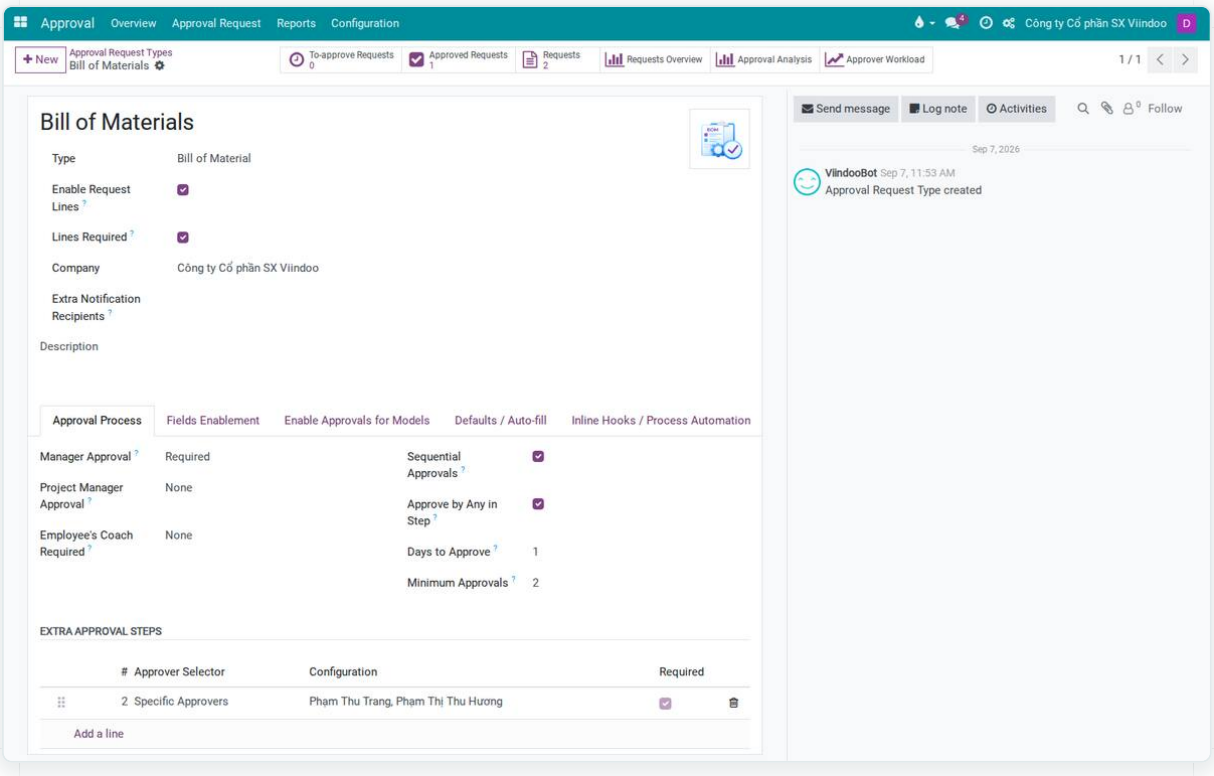
Approval type	What it approves	Who approves	Conditions, thresholds
Payment Request	A general request	Đặng Quốc Bảo, then Lê Thị Hồng Nhung, then Hoàng Minh Khôi (three steps)	In sequence, all three approvals
General	A general request	Phạm Thu Trang	Created only from the Approval screen

The following types are **off** for this company: *Production Order* (a type of its own), *Purchase Order* (the standard type), *Vendor Payments*, *Customer Refunds*, *Customer Invoice* and *Coaching*. The type *Quotation* is on, with one request waiting. So for a manufacturing order the type in use is *Assembly Material Issue Approval*, and it can be sent only when the order has been confirmed (see the lesson *Does approval block confirming a manufacturing order?*).

Step 3 - Open the type Bill of Materials

Click the line **Bill of Materials**.

> *Path:* `Approval > Configuration > Approval Types > Bill of Materials`



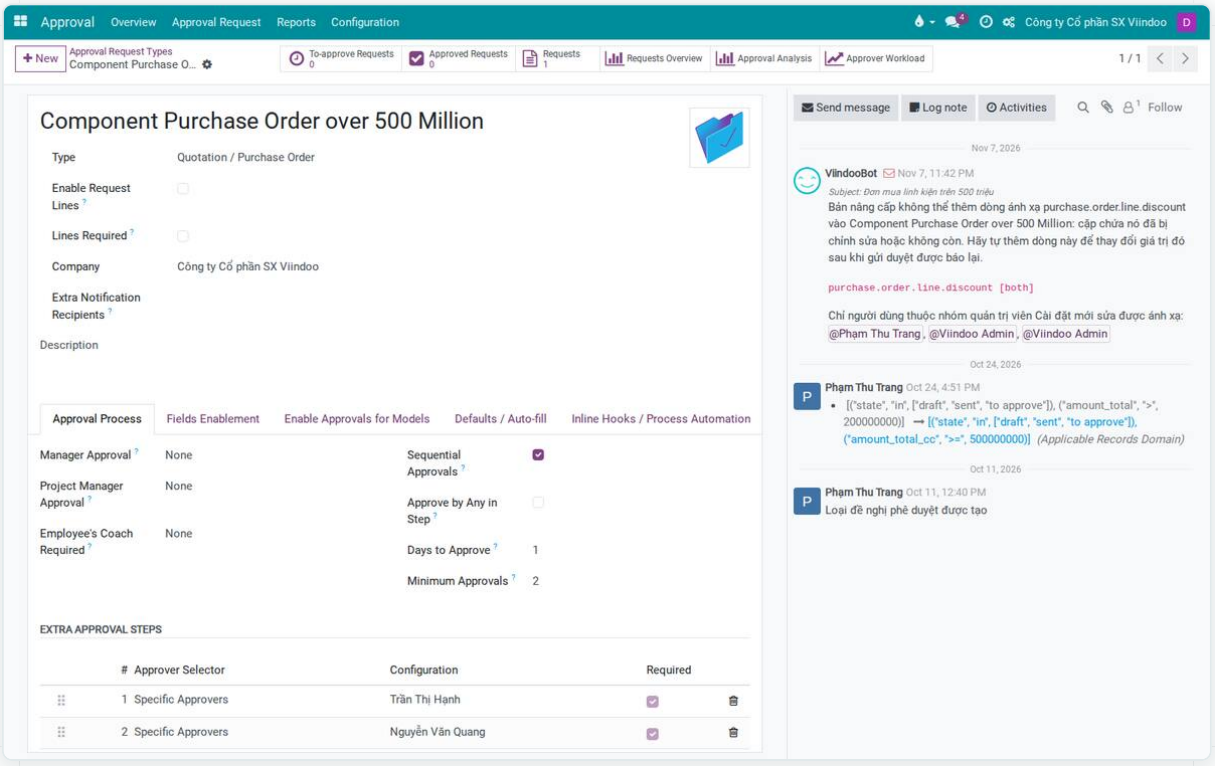
What you should see: the smart buttons *To-approve Requests*, *Approved Requests* and *Requests*, and three report buttons (*Requests Overview*, *Approval Analysis*, *Approver Workload*). The tabs are **Approval Process**, **Fields Enablement**, **Enable Approvals for Models**, **Defaults / Auto-fill** and **Inline Hooks / Process Automation**. The **Approval Process** tab has **Manager Approval** set to *Required*, **Sequential Approvals** ticked, **Approve by Any in Step** ticked, **Days to Approve** 1 and

Minimum Approvals 2; the section **Extra Approval Steps** lists a step *Specific Approvers* with two approver names. On the trial request of the bill of materials, the system assigned only Phạm Thu Trang and recorded the minimum approvals as 1, so the request could go on.

Step 4 - Open the type Component Purchase Order

Click the line **Component Purchase Order over 500 Million**.

> *Path:* `Approval > Configuration > Approval Types > Component Purchase Order over 500 Million`

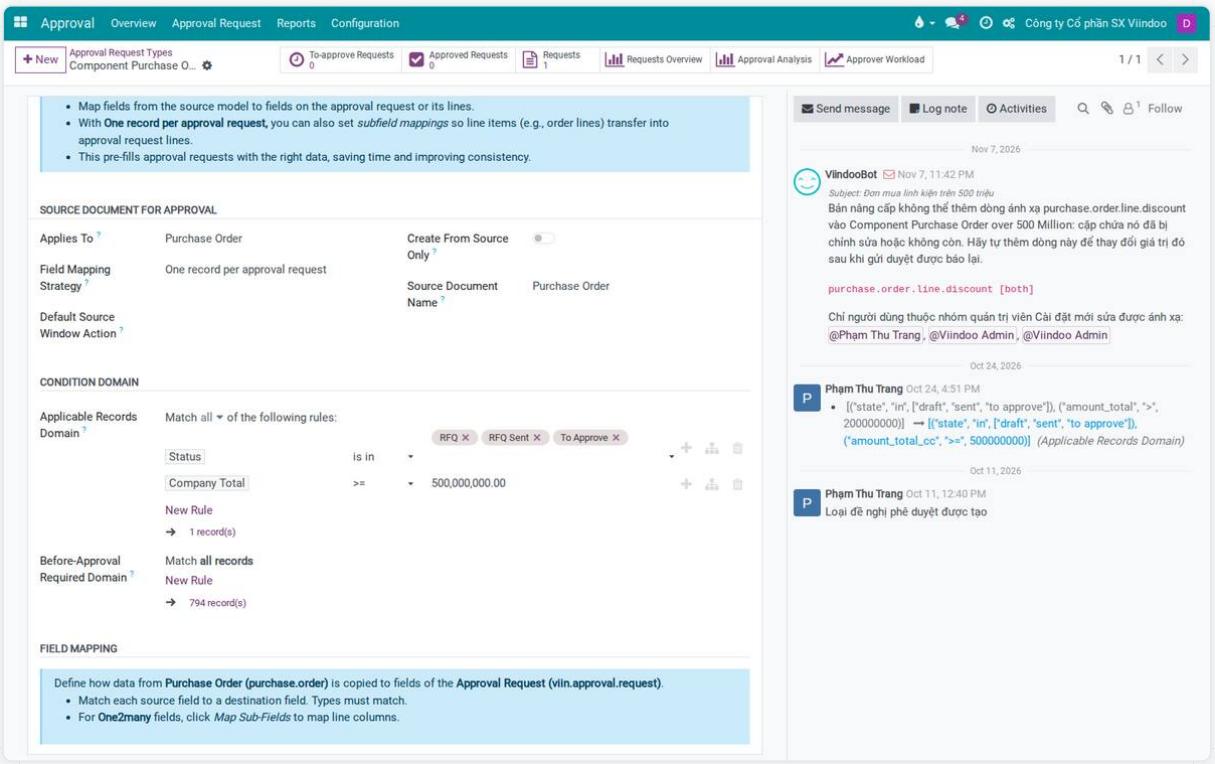


What you should see: Type is *Quotation / Purchase Order*, **Manager Approval** is *None*, **Sequential Approvals** is ticked, **Approve by Any in Step** is not ticked, **Minimum Approvals** 2, two *Specific Approvers* steps: *Trần Thị Hạnh* then *Nguyễn Văn Quang*, both **Required**.

Step 5 - Read the condition of application

Click the tab **Enable Approvals for Models** and scroll down to the section **Condition Domain**.

> *Path:* `Approval > Configuration > Approval Types > Component Purchase Order over 500 Million > Enable Approvals for Models tab`



What you should see: Applies To *Purchase Order* and **Field Mapping Strategy** *One record per approval request*; under **Condition Domain**, **Applicable Records Domain** reads *Match all of the following rules*: **Status** *is in RFQ*, *RFQ Sent*, *To Approve*, and **Company Total** *>= 500,000,000.00*. **Company Total** (the amount converted to VND) is used instead of **Total** so that a purchase order in Chinese yuan or US dollars is compared with the right threshold; the section **Before-Approval Required Domain** is *Match all records*, which means no condition has to be met before sending for approval. Approving purchase orders in the standard purchasing way (two levels by amount) is **off**; the approval threshold of purchase orders of the company comes from this approval type.

76 SUBMITTING AND APPROVING AN APPROVAL REQUEST

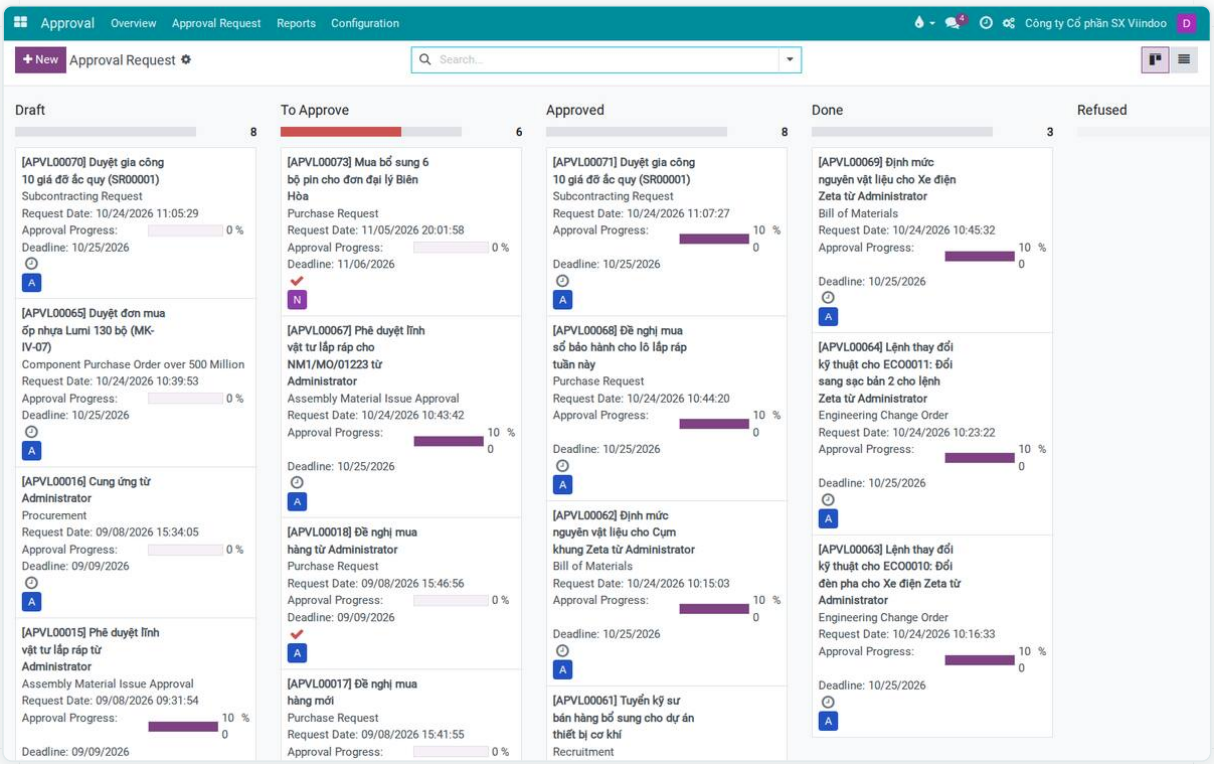
About 15 minutes. By the end of this lesson your company takes the approval request of the bill of materials *Zeta Electric Vehicle* (created in the lesson *Submitting a bill of materials for approval*) from *Draft* to *Done*, and knows what each button does in each status.

If you do not have a request yet, do the lesson *Submitting a bill of materials for approval* first.

Step 1 - Open the request screen

Go to **Approval > Approval Request > Request**.

> *Path:* `Approval > Approval Request > Request`

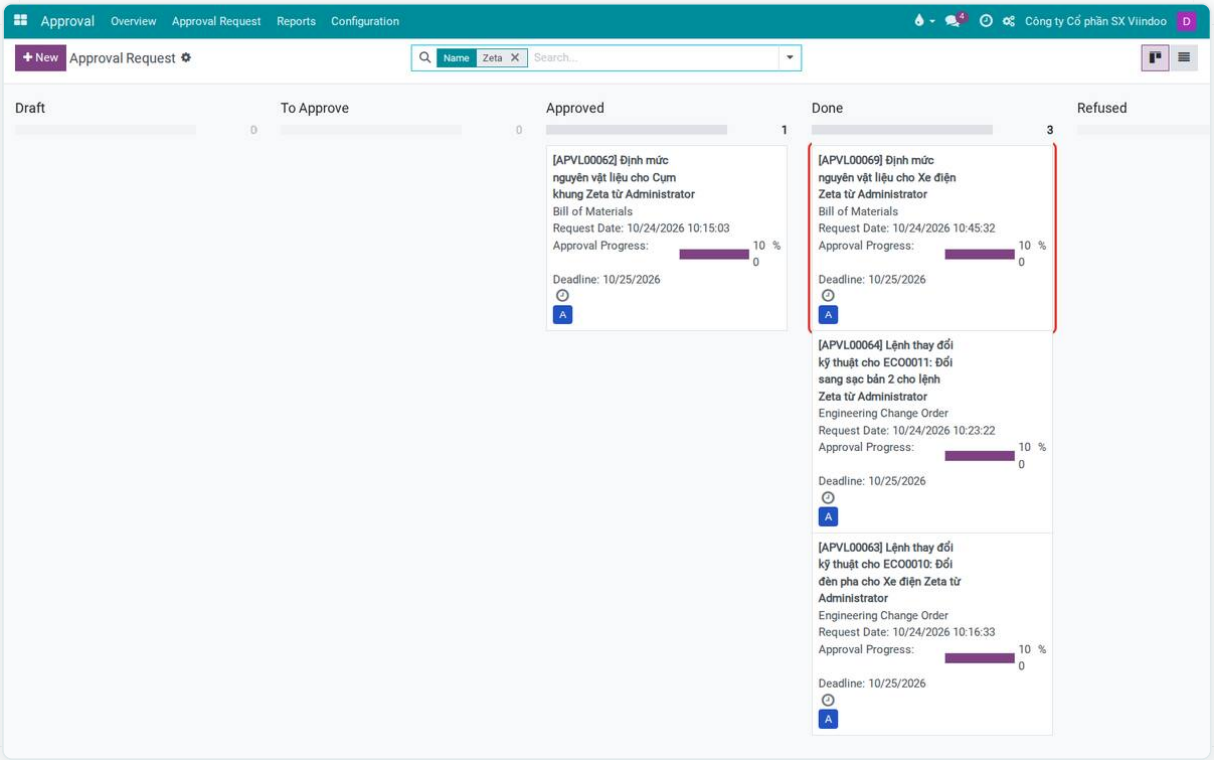


What you should see: the requests are arranged in columns by status: *Draft, To Approve, Approved, Done, Refused, Cancelled* (with a count on each column; in the picture Draft 8, To Approve 6, Approved 8, Done 3); each card shows the number, the title, the type, the request date, the approval progress bar and the deadline.

Step 2 - Find your own request

Type **Zeta Electric Vehicle** in the search box and press Enter.

> *Path:* `Approval > Approval Request > Request`

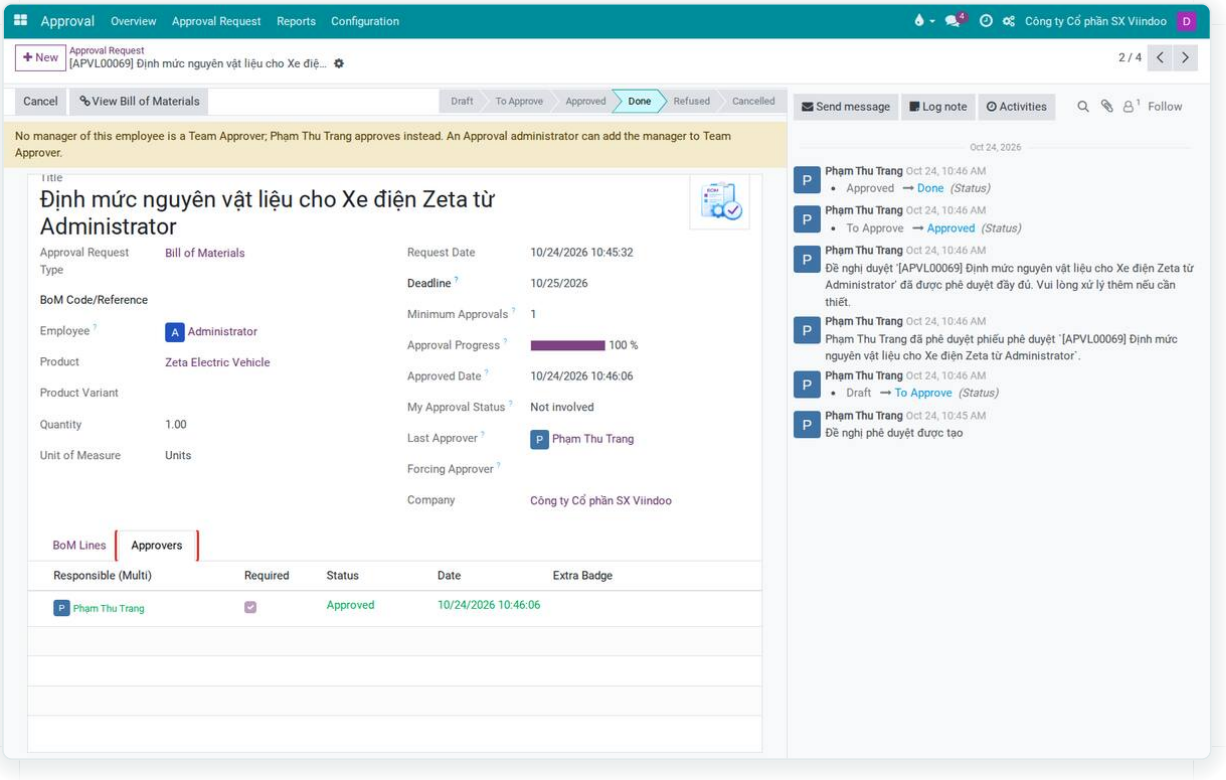


What you should see: only the cards whose name contains *Zeta* remain: the card of your bill of materials request (in the picture one in **Approved** and one, circled, in **Done**) and the cards of the engineering change orders in the **Done** column.

Step 3 - Open the request and see the approvers

Click the card, then click the tab **Approvers**.

> *Path:* `Approval > Approval Request > Request > [APVL...] Bill of Materials for Zeta Electric Vehicle`

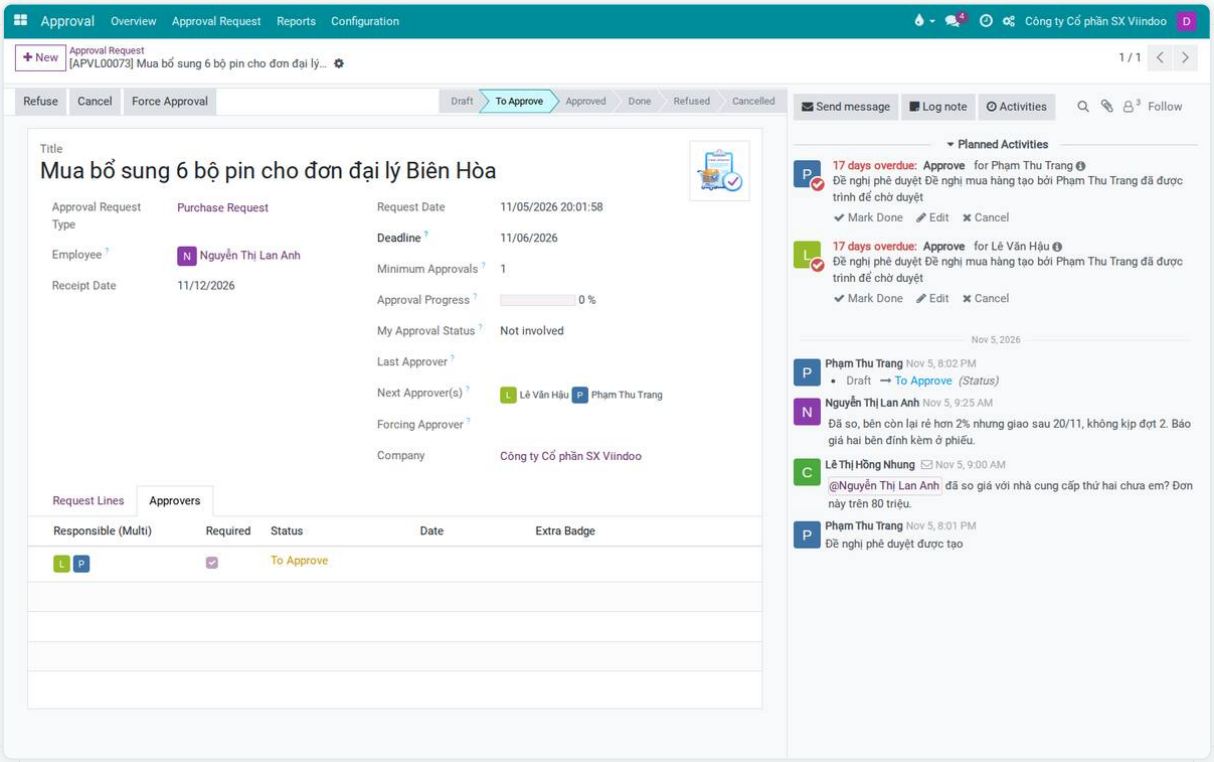


What you should see: one approver line (*Phạm Thu Trang*) with the **Required** box ticked, in a table with the columns **Responsible (Multi)**, **Required**, **Status**, **Date** and **Extra Badge** (in the picture the request is already finished, so the status reads *Approved* with the time); a request in **Draft** has the **Submit** button at the top left. The yellow warning at the top is about the approver set-up, for example *No manager of this employee is a Team Approver; Phạm Thu Trang approves instead. An Approval administrator can add the manager to Team Approver.* (or *Approval request is invalid due to missing required information: Employee linked to the requester...* when the account has no employee record); the request can still be submitted.

Step 4 - Submit the request

Click **Submit**.

> *Path:* `Approval > Approval Request > Request > [APVL...] Bill of Materials for Zeta Electric Vehicle`

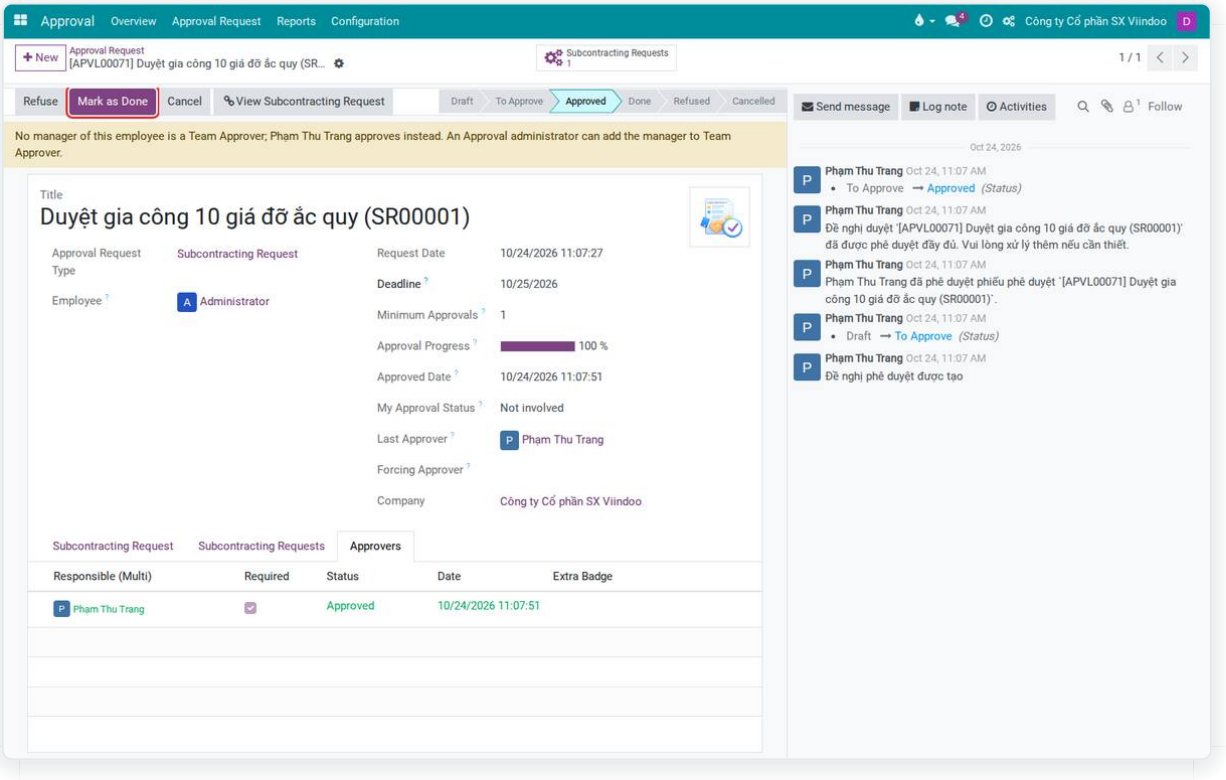


What you should see: the status is **To Approve**; **Next Approver(s)** lists the approvers (*Lê Văn Hậu* and *Phạm Thu Trang* in the picture); the status of the approver line is *To Approve*; the buttons **Refuse** and **Cancel** appear, together with **Approve** for an approver (**Force Approval** in the picture, because the logged-in account is not an approver). In the chatter, *Planned Activities* lists an *Approve* to-do for each approver, due by the approval deadline (1 day).

Step 5 - Approve

The approver clicks **Approve**.

> *Path:* `Approval > Approval Request > Request > [APVL...] Bill of Materials for Zeta Electric Vehicle`

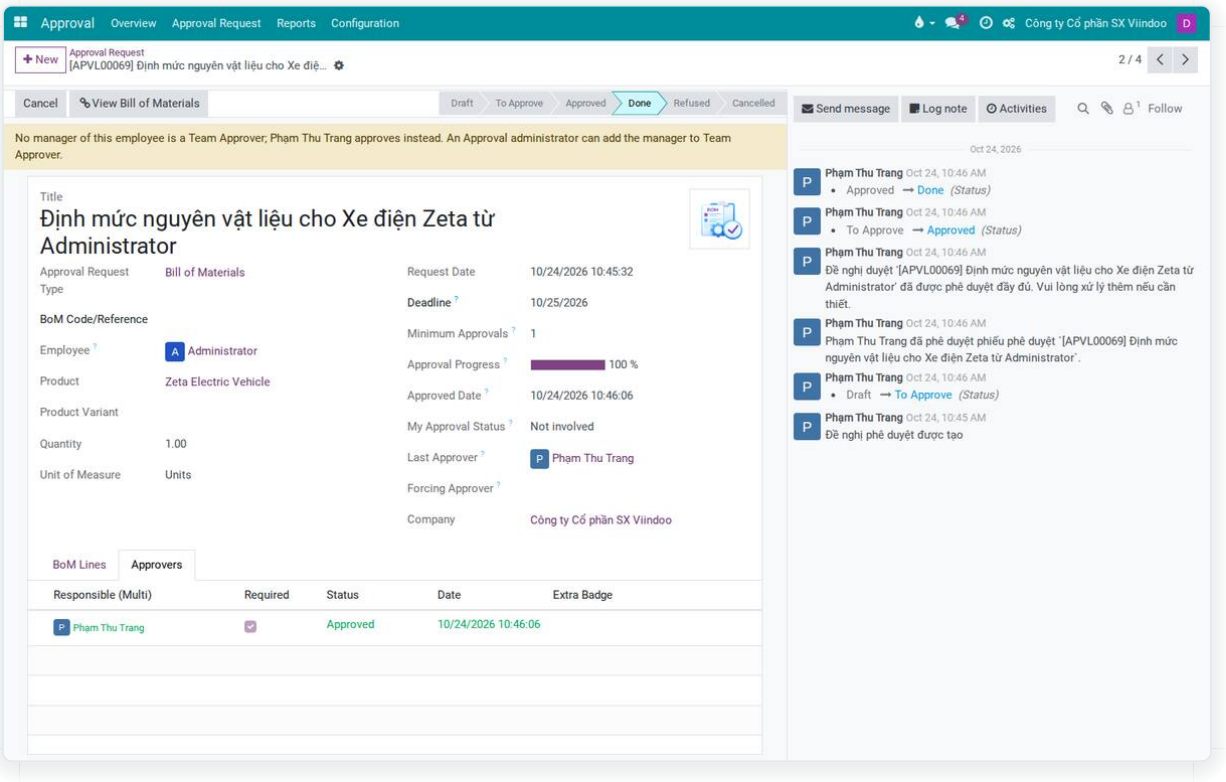


What you should see: the status is **Approved**, **Approval Progress** is 100%, **Approved Date** has a date and time, and the approver line changes to *Approved* with the time. The buttons **Refuse**, **Mark as Done** (circled), **Cancel** and the button to view the source record appear.

Step 6 - Mark as done

Click **Mark as Done** to close the request.

> *Path:* `Approval > Approval Request > Request > [APVL...] Bill of Materials for Zeta Electric Vehicle`



What you should see: the status is **Done**; the chatter records each step: *Draft* → *To Approve*, the approver's approval note, *To Approve* → *Approved*, *Approved* → *Done*. What remains is the button **Cancel** and the button **View Bill of Materials**, to go back to the original bill of materials.

The table of buttons by status:

Status	Buttons that can be clicked	Result
Draft	**Submit**	Goes to *To Approve*, and the approver receives a to-do
To Approve	**Approve**	Goes to *Approved* once enough approvals are given
To Approve	**Refuse**	Goes to *Refused*
To Approve	**Cancel**	Goes to *Cancelled*
Approved	**Mark as Done**	Goes to *Done*; for the request of an engineering change order, this is the moment the change is applied to the order (see the lesson *Engineering change orders (PLM)*)

When the logged-in account is **not** in the approver list of the request, the button **Force Approval** appears instead of **Approve** (see the lesson *Does approval block confirming a manufacturing order?*).

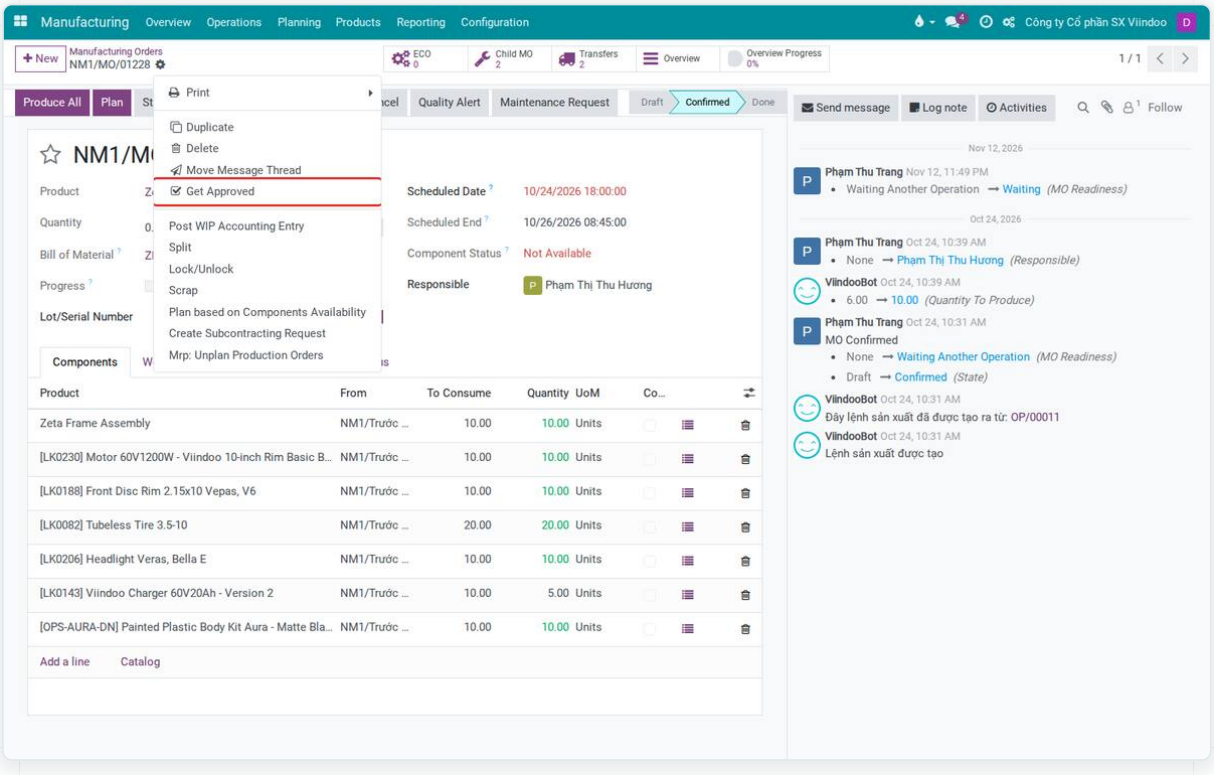
77 DOES APPROVAL BLOCK CONFIRMING A MANUFACTURING ORDER?

About 20 minutes. This lesson answers, with a real run, a common question: if the approval request of a manufacturing order is not approved yet, is the workshop stopped? The conclusion is at the end of the lesson.

Step 1 - Open a confirmed order and open Actions

Open a manufacturing order in the status **Confirmed** (for example the order for one *Zeta Electric Vehicle (Matte black)* in the lesson *Engineering change orders (PLM)*). Click the gear icon **Actions** next to the order number.

> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/... > Actions`

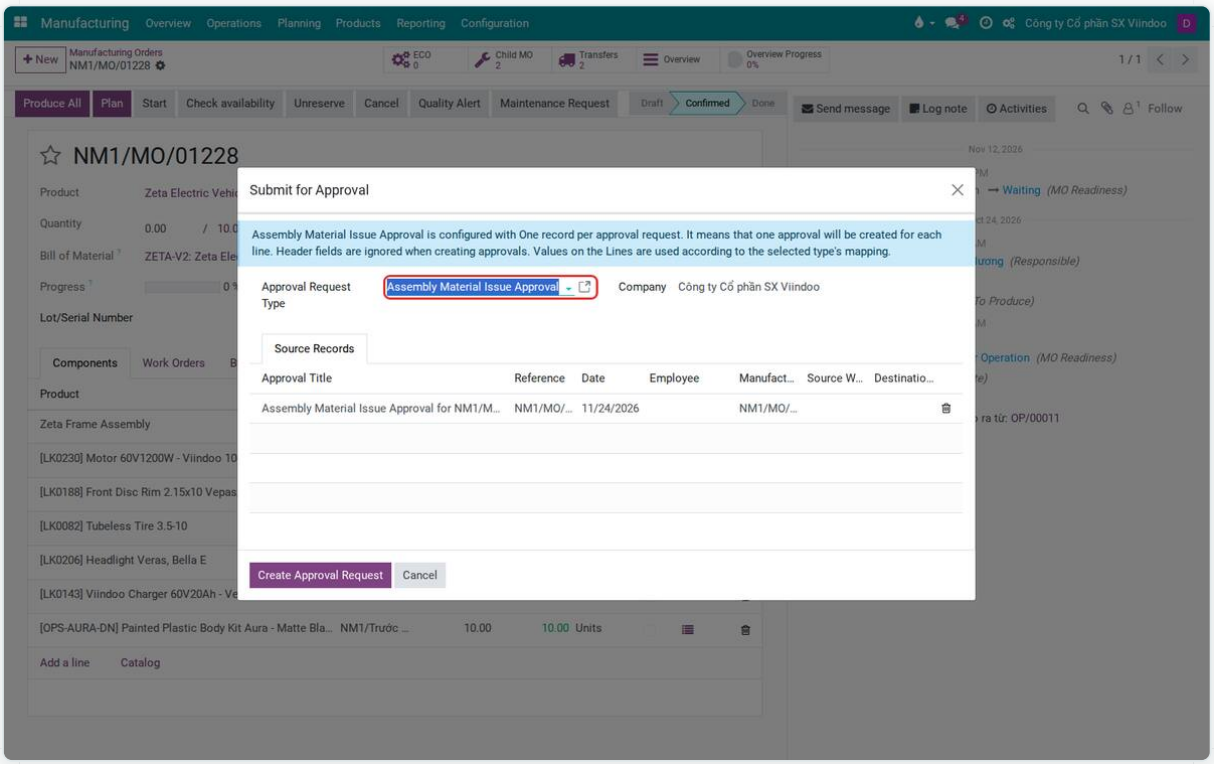


What you should see: the menu has the lines **Print**, **Duplicate**, **Delete**, **Move Message Thread**, **Get Approved** (circled), **Post WIP Accounting Entry**, **Split**, **Lock/Unlock**, **Scrap**, **Plan based on Components Availability**, **Create Subcontracting Request** and **Mrp: Unplan Production Orders**. If the order is still **Draft**, the **Actions** menu does **not** have this line: the order must be confirmed first and then approval can be requested.

Step 2 - Choose Get Approved and create the request

Click **Get Approved**. In the dialog **Submit for Approval**, **Approval Request Type** is *Assembly Material Issue Approval*. Click **Create Approval Request**.

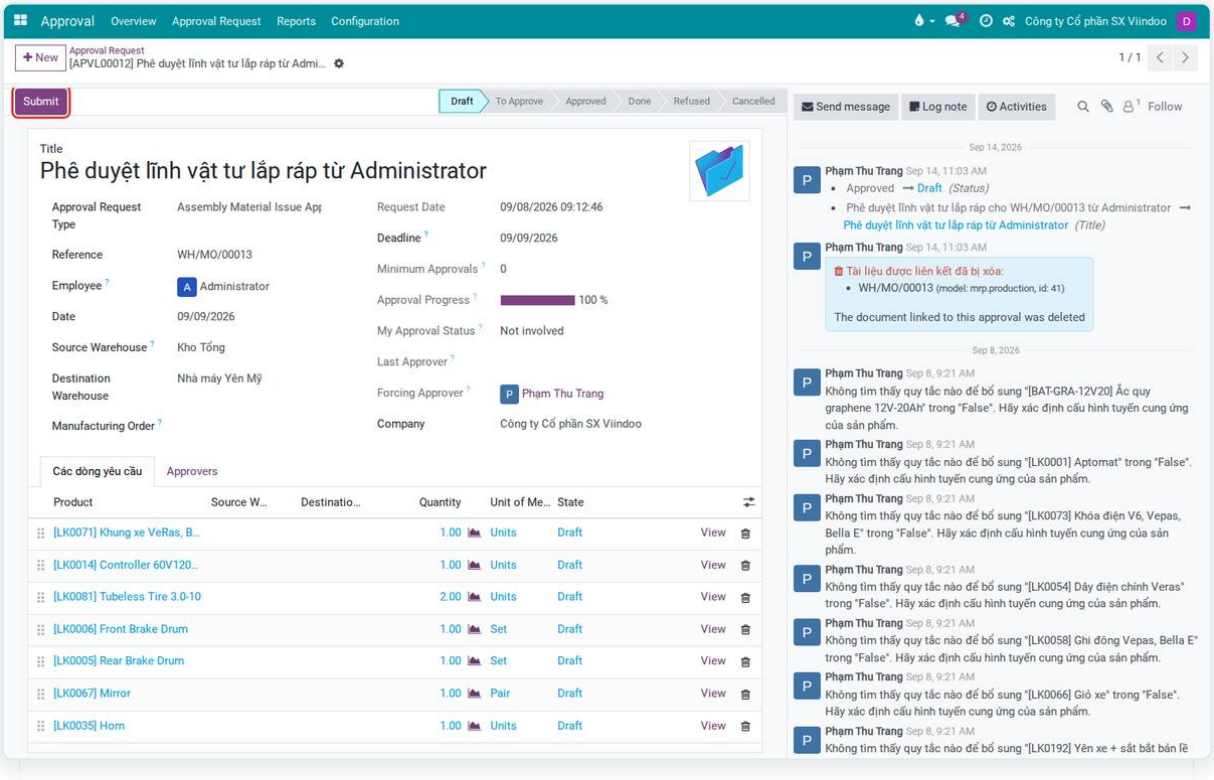
> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/... > Actions > Get Approved`



What you should see: a blue note says the type is configured with *One record per approval request*; **Approval Request Type** is *Assembly Material Issue Approval*; **Source Records** lists the manufacturing order (columns **Approval Title**, **Reference**, **Date**, **Employee**, **Manufacturing Order**, **Source Warehouse**, **Destination Warehouse**).

Step 3 - Read the request just created

> *Path:* `Approval > Approval Request > Request > [APVL...] Assembly Material Issue Approval for NM1/MO/...`

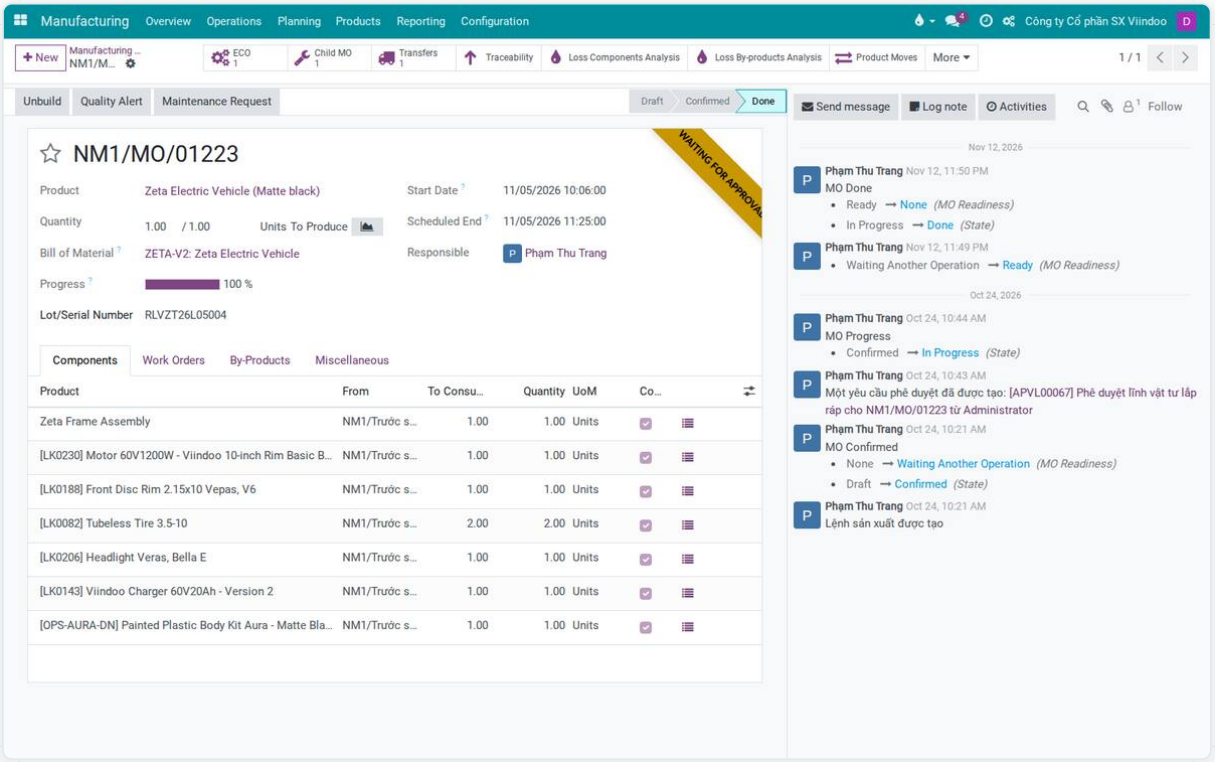


What you should see: the request has a number like *[APVL...]*, **Reference** is the order number, the request lines are the components of the order, and the request is first in **Draft** with a **Submit** button, as in the picture; a request created from an order may also be submitted by the system straight away, and then the status is already **To Approve** (as in the picture of step 6, request *APVL00076*), with the buttons **Refuse**, **Cancel**, **Force Approval** and **View Manufacturing Order**. The approver is *Phạm Thị Thu Hương*, who is not the logged-in account, so **My Approval Status** says *Not involved*.

Step 4 - Go back to the manufacturing order

Click **View Manufacturing Order** (or open the order again from the Manufacturing menu).

> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/...`

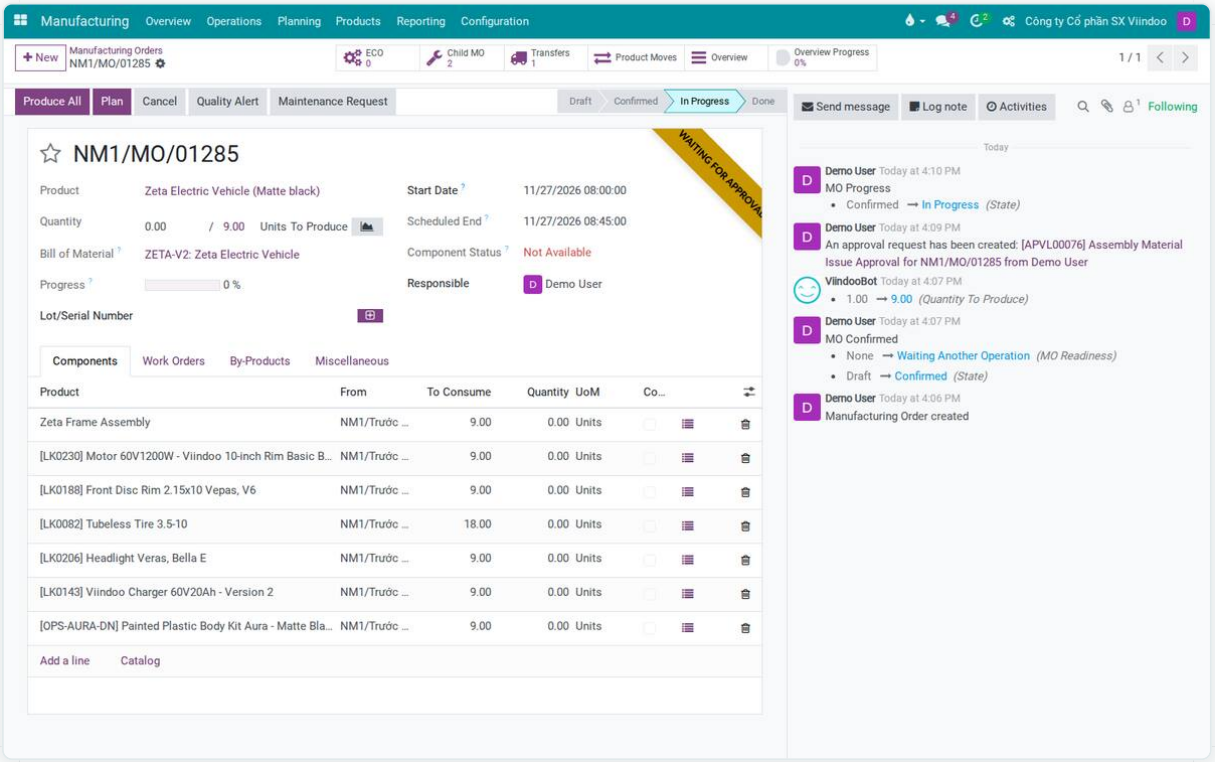


What you should see: at the top right of the order form there is a yellow ribbon **WAITING FOR APPROVALS**; the chatter says *An approval request has been created: [APVL...] Assembly Material Issue Approval for NM1/MO/... from* . The request does not change the status of the order.

Step 5 - Click Start while the request is not approved

Click **Start** on the order.

> *Path:* `Manufacturing > Operations > Manufacturing Orders > NM1/MO/...`

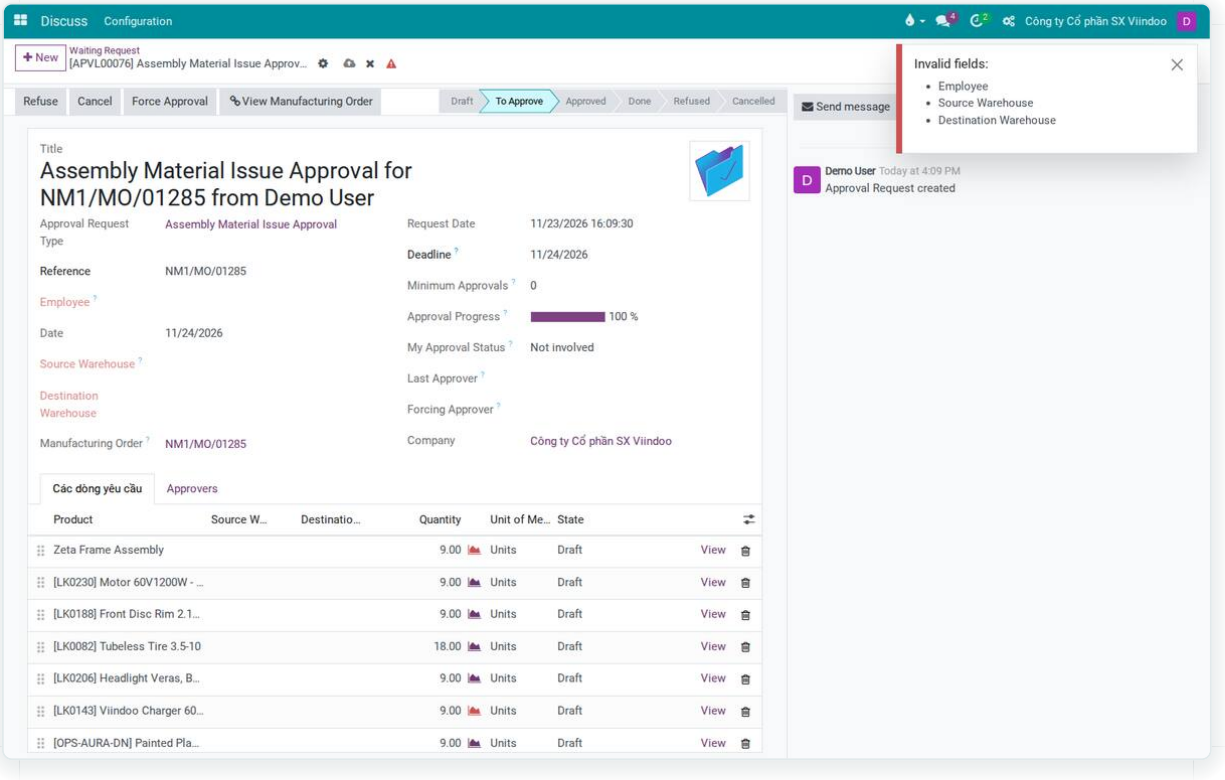


What you should see: the order goes to **In Progress** (**In Progress** lights up on the status bar of *Draft, Confirmed, In Progress, Done*, and the line *Confirmed → In Progress* is in the chatter) while the ribbon **WAITING FOR APPROVALS** is still there. No error dialog blocks it.

Step 6 - Try to refuse or cancel the request with an account that is not the approver

Open the request of step 3 again and click **Refuse** (or **Cancel**).

> *Path:* `Approval > Approval Request > Request > [APVL...] Assembly Material Issue Approval for NM1/MO/...`



What you should see: the system does not change the status; it shows a red message *Invalid fields:* followed by *Employee*, *Source Warehouse* and *Destination Warehouse*, and those three boxes turn red. A request of the type *Assembly Material Issue Approval* created from an order does not fill in these mandatory boxes, so a request of this kind can be acted on further only when they have values. This is a point your company needs to settle when applying it for real (see the section *The figures are assumptions to be confirmed* in the Reference and appendices).

Conclusion from this run:

Question	Result
Can approval be requested while the order is still Draft	No, the line **Get Approved** appears only after the order is confirmed
Does an unapproved request block **Start**	**No block**: the order still goes to *In Progress*, with only the ribbon **WAITING FOR APPROVALS** as a mark
Is the request of a manufacturing order a gate or a record	It is a request-and-tracking mechanism: it records who approves the materials of the order, and does not lock the order by itself
Was **Done** on the order tried	Not yet: clicking Done causes stock receipts and journal entries, so this lesson does not do it; your company can try it on a separate order if needed
For a large purchase order (type *Component Purchase Order over 500 Million*)	Not tried in this lesson; see Part IV. Purchasing and import

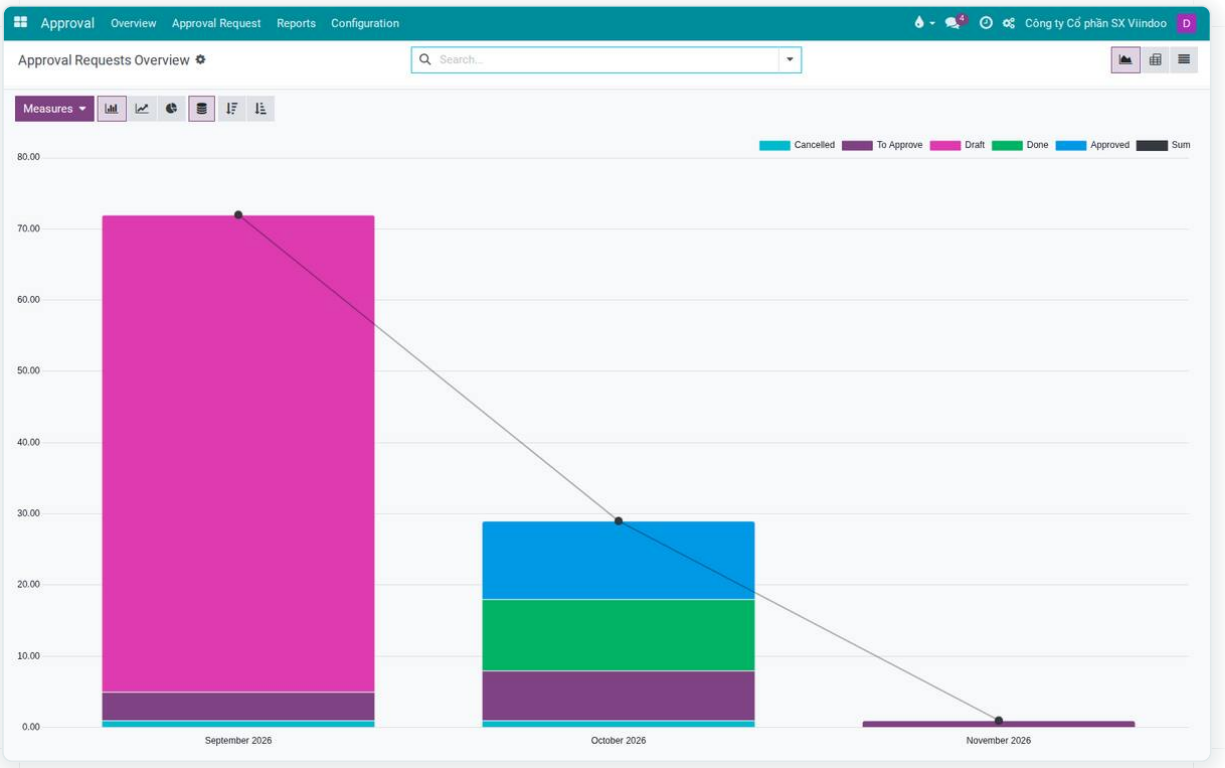
78 APPROVAL REPORTS

About 15 minutes. The Approval app has five reports. The table lists all of them and each report has one step to open it.

Report	What question it answers	Path
Overview	How many requests per month, in which status	`Approval > Reports > Overview`
Approval Analysis	Which request type has the most requests, in which status each type is	`Approval > Reports > Approval Analysis`
Approver Workload	How many requests each person holds, who is the bottleneck	`Approval > Reports > Approver Workload`
Approval Flow Logs	Who changed the approver, at which step, for what reason	`Approval > Reports > Approval Flow Logs`
Flow Modified Approval Requests	Which requests had their approval flow changed midway	`Approval > Reports > Flow Modified Approval Requests`

Step 1 - Open the Overview report

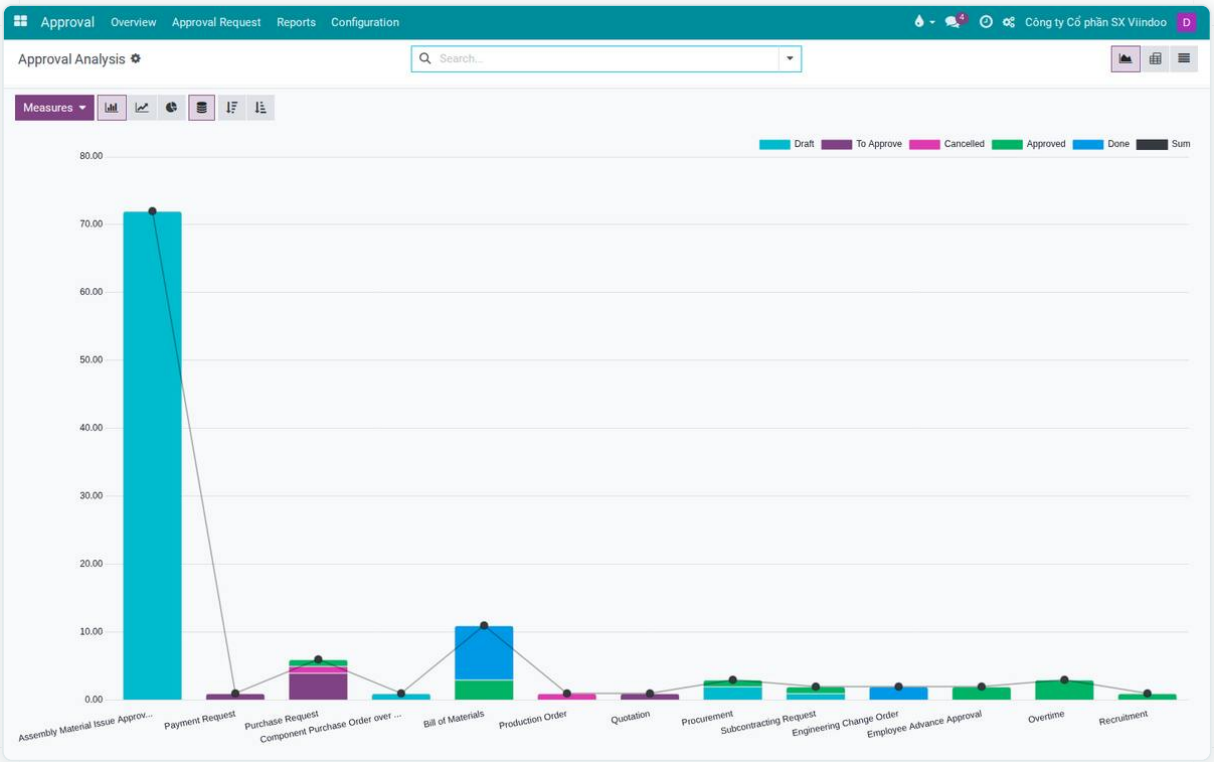
> *Path:* `Approval > Reports > Overview`



What you should see: the screen *Approval Requests Overview*: a bar chart by month (*September 2026*, *October 2026*, *November 2026* in the picture), each bar coloured by status (legend *Cancelled, To Approve, Draft, Done, Approved*) and a line (*Sum*) joining the totals; at the top right there are buttons to switch to a pivot table and a list.

Step 2 - Open Approval Analysis

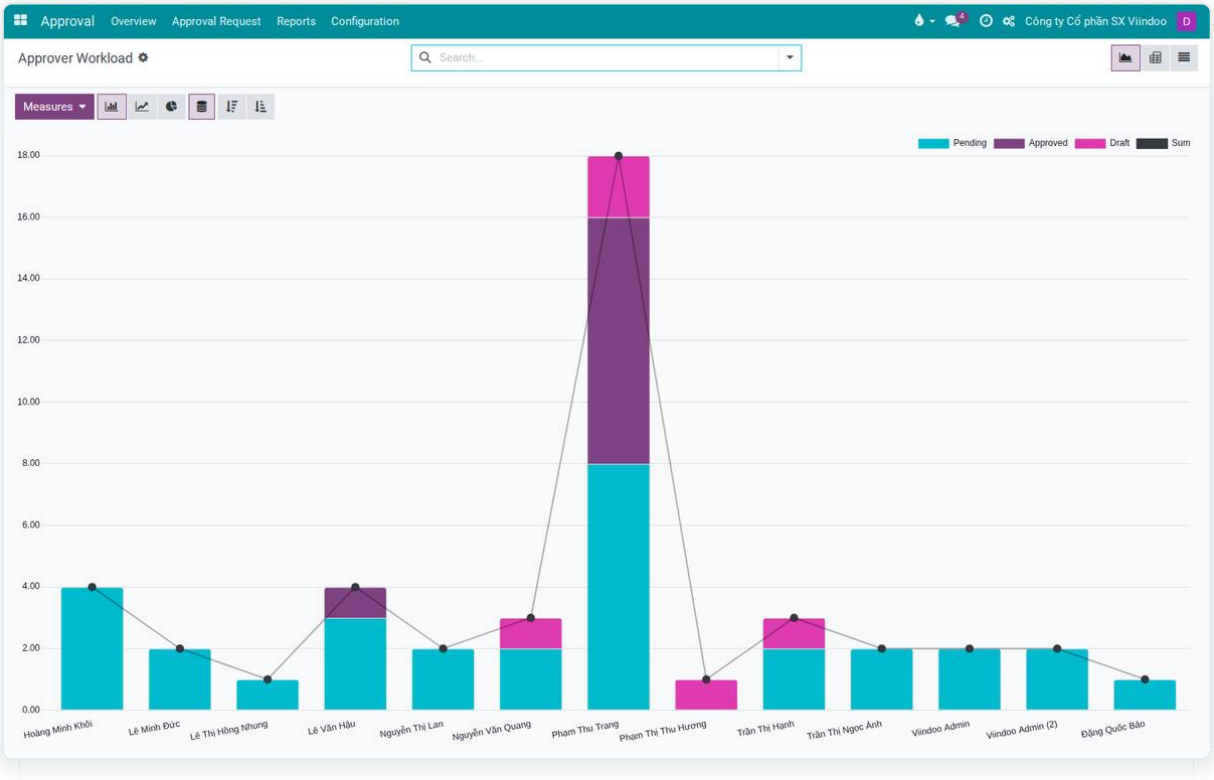
> *Path:* `Approval > Reports > Approval Analysis`



What you should see: a bar chart by approval type (*Assembly Material Issue Approval*, *Payment Request*, *Purchase Request*, *Bill of Materials*, *Engineering Change Order*, *Employee Advance Approval*...), coloured by status. The highest bar is the type that has the most requests.

Step 3 - Open Approver Workload

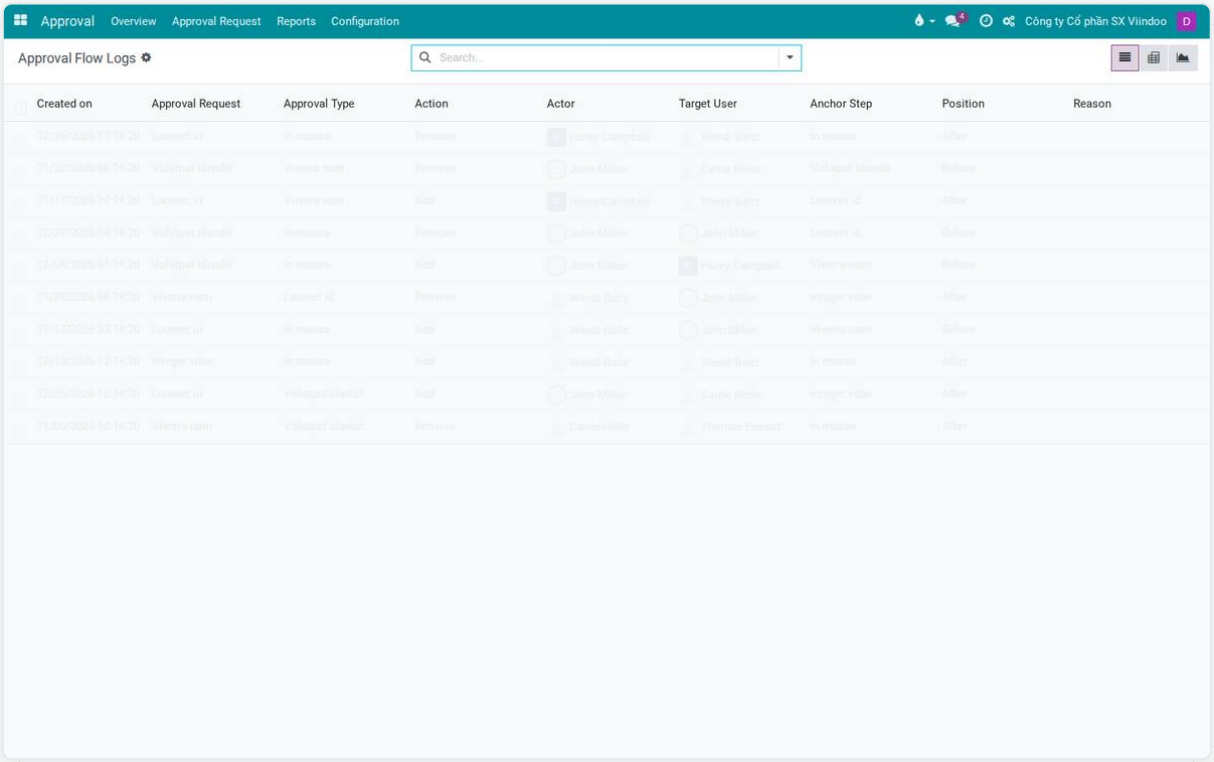
> *Path:* `Approval > Reports > Approver Workload`



What you should see: each bar is one approver with the number of requests they hold, coloured by status (legend *Pending, Approved, Draft*). The person with a high bar in the *Pending* part is the bottleneck.

Step 4 - Open Approval Flow Logs

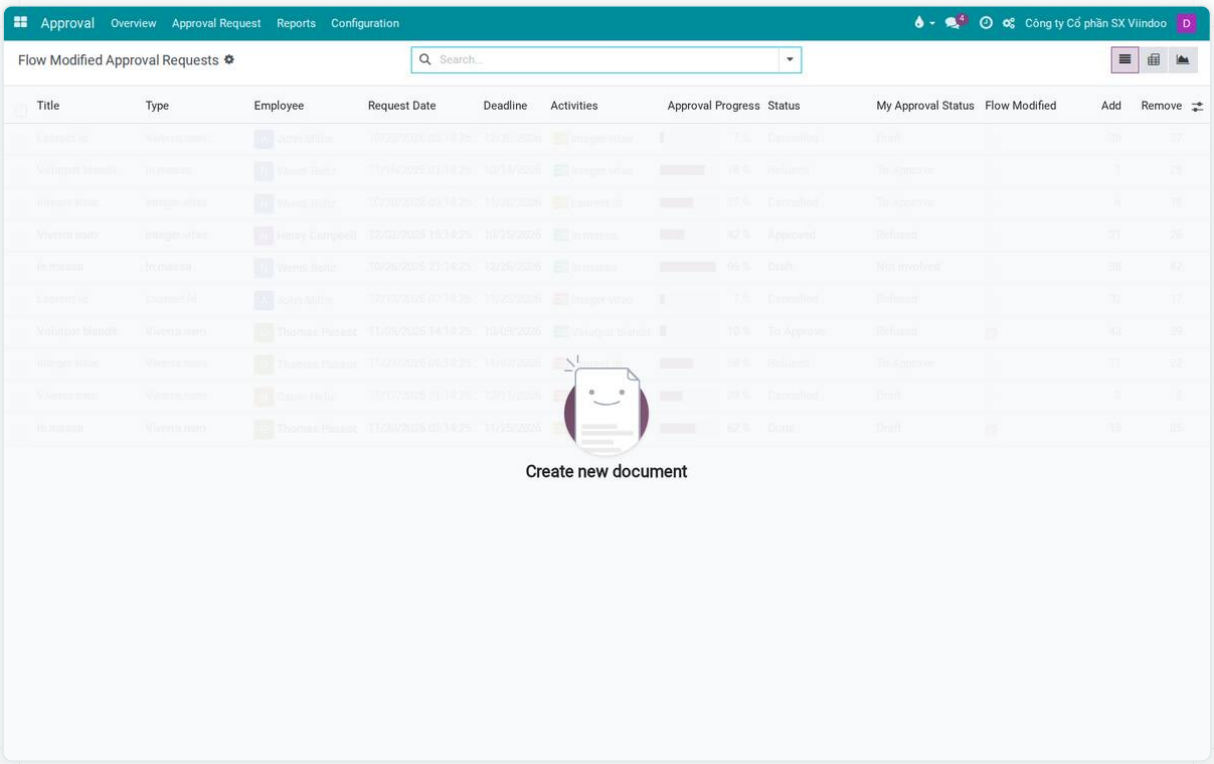
> *Path:* `Approval > Reports > Approval Flow Logs`



What you should see: a table with the columns **Created on**, **Approval Request**, **Approval Type**, **Action**, **Actor**, **Target User**, **Anchor Step**, **Position** and **Reason**. If nobody has changed an approval flow midway, there are no real rows and the screen only shows faded sample rows; that is a correct result.

Step 5 - Open Flow Modified Approval Requests

> *Path:* `Approval > Reports > Flow Modified Approval Requests`



What you should see: a list with the columns **Title**, **Type**, **Employee**, **Request Date**, **Deadline**, **Activities**, **Approval Progress**, **Status**, **My Approval Status**, **Flow Modified**, **Add** and **Remove**; it is empty (the screen shows faded sample rows and *Create new document*) if no request has had its flow changed.

79 PRACTICE EXERCISE: FROM BILL OF MATERIALS TO ENGINEERING CHANGE ORDER

About 40 minutes. There are no step-by-step pictures.

The task. Your company has finished the model *Zeta Electric Vehicle* and the bill of materials *ZETA-V2* in Part II. Manufacturing engineering, and wants every change of a bill of materials to carry an approval mark.

What to do.

1. Send an approval request for the bill of materials *ZETA-V2*, submit it, approve it, mark it as done.
2. Make a new engineering change order (apply on *Production*) that changes any one component in the bill of materials *ZETA-V2* and take it to *Done*.
3. By reading the configuration, write down: (a) who approves the component purchase order and from which amount; (b) which approval type is used for a manufacturing order and when it can be requested.
4. Open **Approval > Reports > Overview** and **Approver Workload**, and write down the number of requests your company has sent in each status.

Self-check. It is right when: (a) the two requests of tasks 1 and 2 have the status *Done* and the history in the chatter has all four steps *Draft* → *To Approve* → *Approved* → *Done*; (b) the manufacturing order of task 2 has changed to the new bill of materials; (c) the answer to task 3: a purchase order is approved in two steps (*Trần Thị Hạnh* then *Nguyễn Văn Quang*) when the company total is from 500,000,000 VND; a manufacturing order uses the type *Assembly Material Issue Approval*, which can be requested only after the order has been confirmed; (d) the report *Approver Workload* has the name of the approver that your company chose.

If it does not come out like this. You do not see the line **Get Approved**: check whether the order has been confirmed (for a manufacturing order) or whether the approval app of that process has been switched on (see the table in the lesson *Approval configuration: which types are on, who approves, what thresholds*). You do not see the button **Approve**: the logged-in account is not an approver of the request; look at the **Approvers** tab.

PART XII. ACCOUNTING AND COSTING

This part answers these questions: how much does one vehicle or one frame assembly cost; how much is the value of work in progress at the end of the period; how do depreciation and workshop payroll enter the product cost; have the receipts and payments been matched to the bank statement; how much VAT is payable; and how are the financial statements under Circular 99 read. The chief accountant, the cost accountant and the director read this part. The base configuration (company, Circular 99, product categories) is in Part I. General configuration.

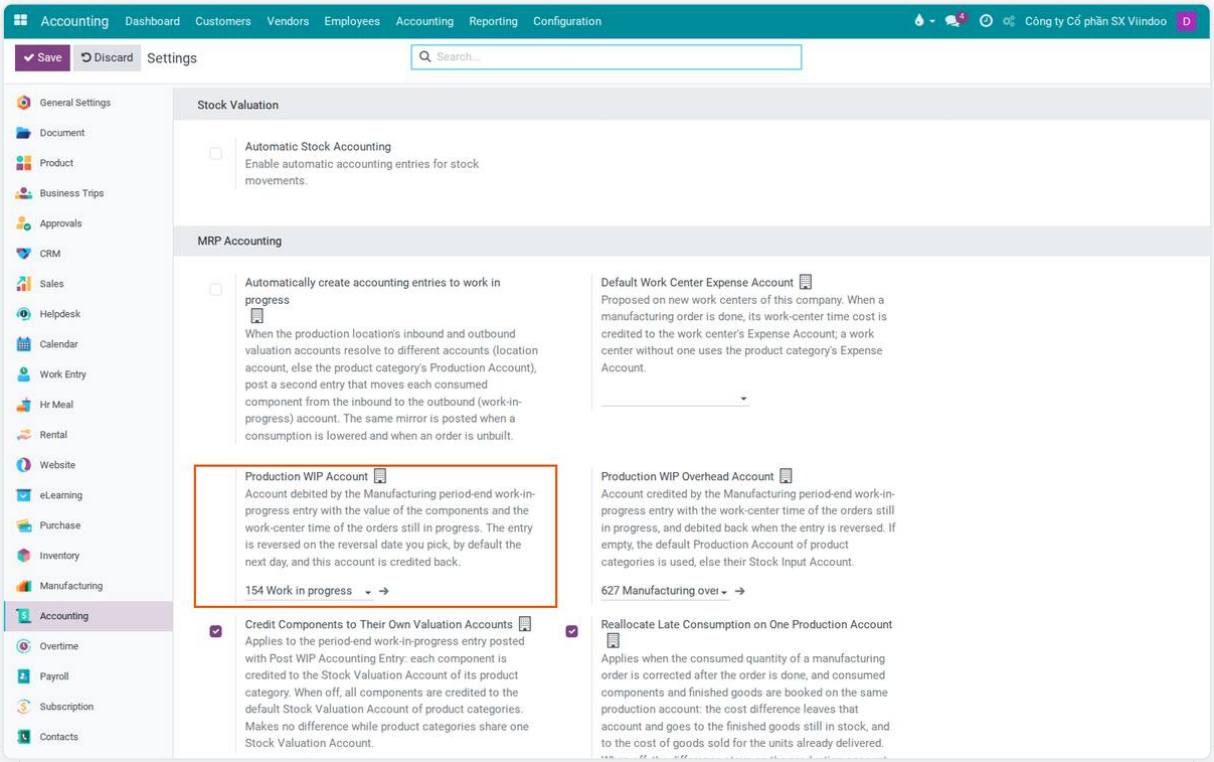
80 COSTING ACCOUNTING AND BANK CONFIGURATION

About 10 minutes. By the end of this lesson your company knows where the system takes the hourly rate, the expense account and the work-in-progress account from.

Step 1 - See the manufacturing accounting accounts of the company

Open the accounting settings page and scroll down to the section **MRP Accounting**.

> *Path:* `Accounting > Configuration > Settings`

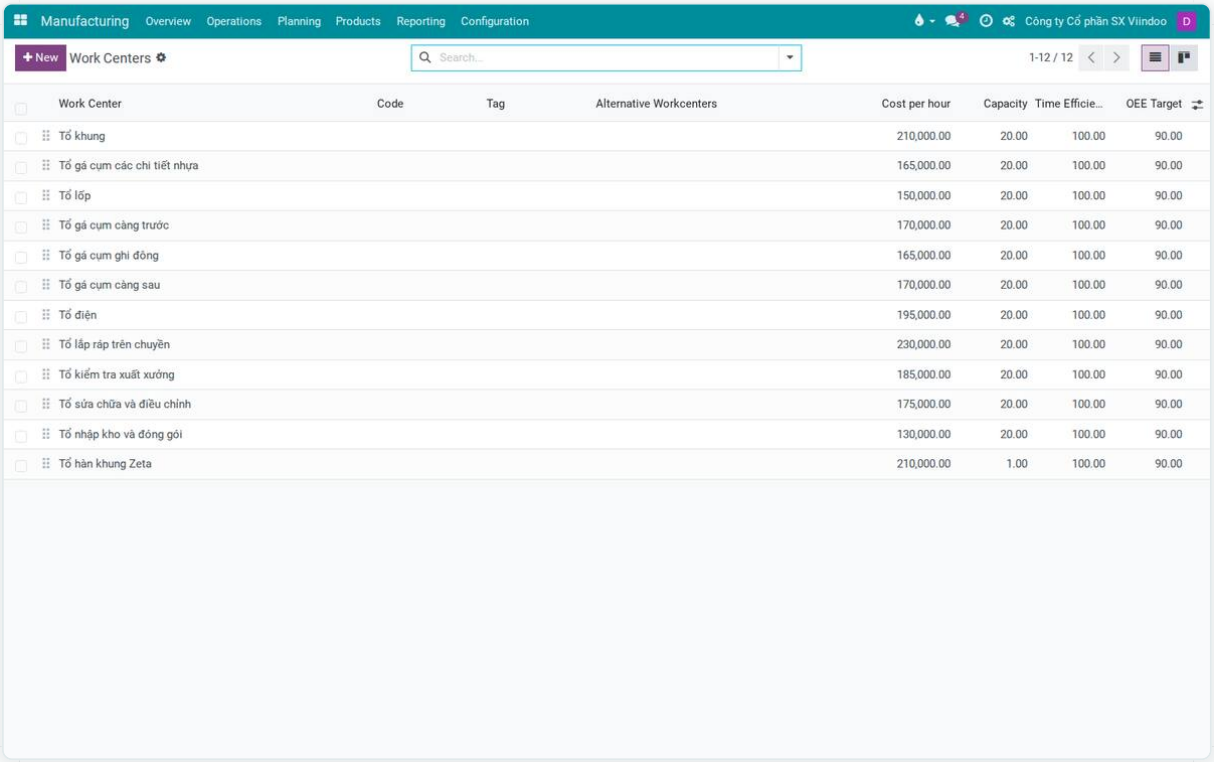


What you should see: Production WIP Account = 154, **Production WIP Overhead Account** = 627, **Default Work Center Expense Account** empty, and the box **Automatically create accounting entries to work in progress** not ticked. The two accounts 154 and 627 are where the period-end work-in-progress entry posts its debit and credit (lesson *Post work in progress at the end of the period*). If **Production WIP Overhead Account** is left empty, the labor-hour part of the work-in-progress entry is credited to the production account of the product category, which means Debit 154 / Credit 154: the entry still balances, but the hours already worked are not separated from 627.

Step 2 - See the list of work centers and hourly rates

Open the list of work centers.

> *Path:* `Manufacturing > Configuration > Work Centers`



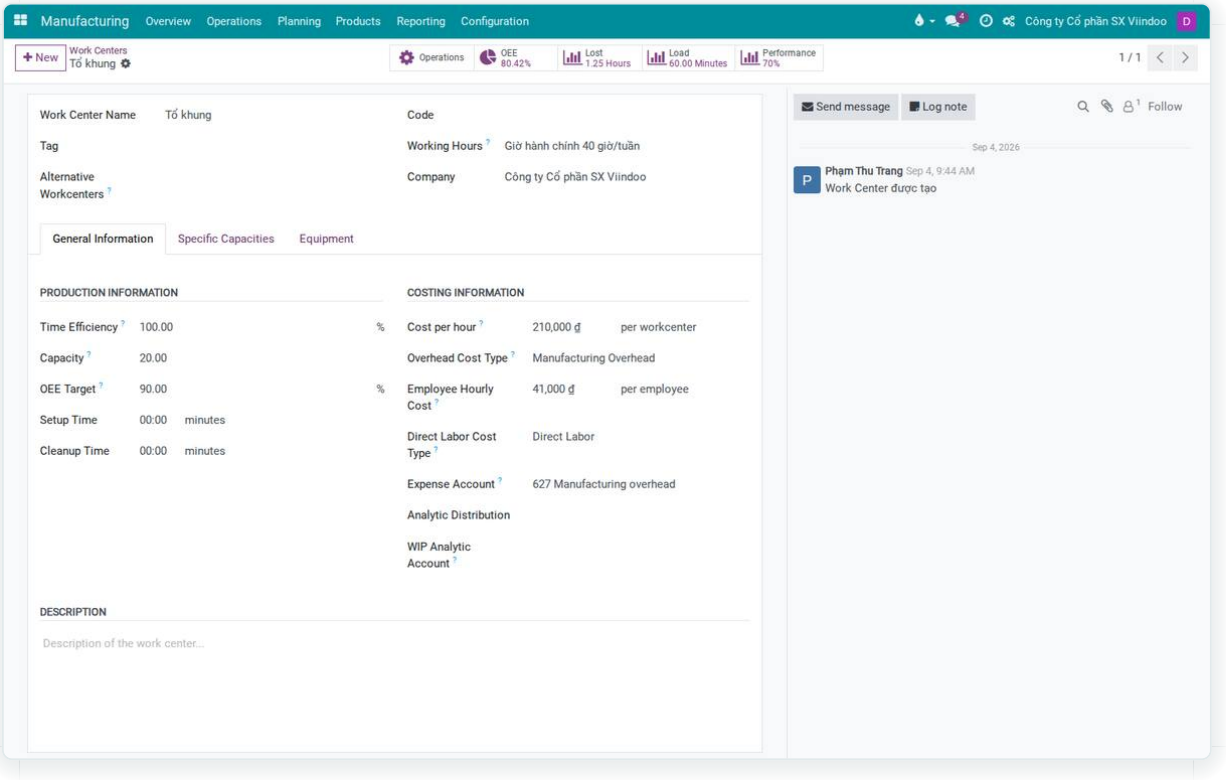
Work Center	Code	Tag	Alternative Workcenters	Cost per hour	Capacity	Time Efficie...	OEE Target
Tổ khung				210,000.00	20.00	100.00	90.00
Tổ gá cụm các chi tiết nhựa				165,000.00	20.00	100.00	90.00
Tổ lốp				150,000.00	20.00	100.00	90.00
Tổ gá cụm càng trước				170,000.00	20.00	100.00	90.00
Tổ gá cụm ghi đông				165,000.00	20.00	100.00	90.00
Tổ gá cụm càng sau				170,000.00	20.00	100.00	90.00
Tổ điện				195,000.00	20.00	100.00	90.00
Tổ lắp ráp trên chuyền				230,000.00	20.00	100.00	90.00
Tổ kiểm tra xuất xưởng				185,000.00	20.00	100.00	90.00
Tổ sửa chữa và điều chỉnh				175,000.00	20.00	100.00	90.00
Tổ nhập kho và đóng gói				130,000.00	20.00	100.00	90.00
Tổ hàn khung Zeta				210,000.00	1.00	100.00	90.00

What you should see: 12 work centers (the teams of the workshop), the column **Cost per hour** from 130,000 to 230,000 VND, **Capacity**, **Time Efficiency** 100 and **OEE Target** 90. The hourly rates are assumed figures of the demo system.

Step 3 - Open the work center Tổ khung

Click the line **Tổ khung** (Frame Team).

> *Path:* `Manufacturing > Configuration > Work Centers` > **Tổ khung**

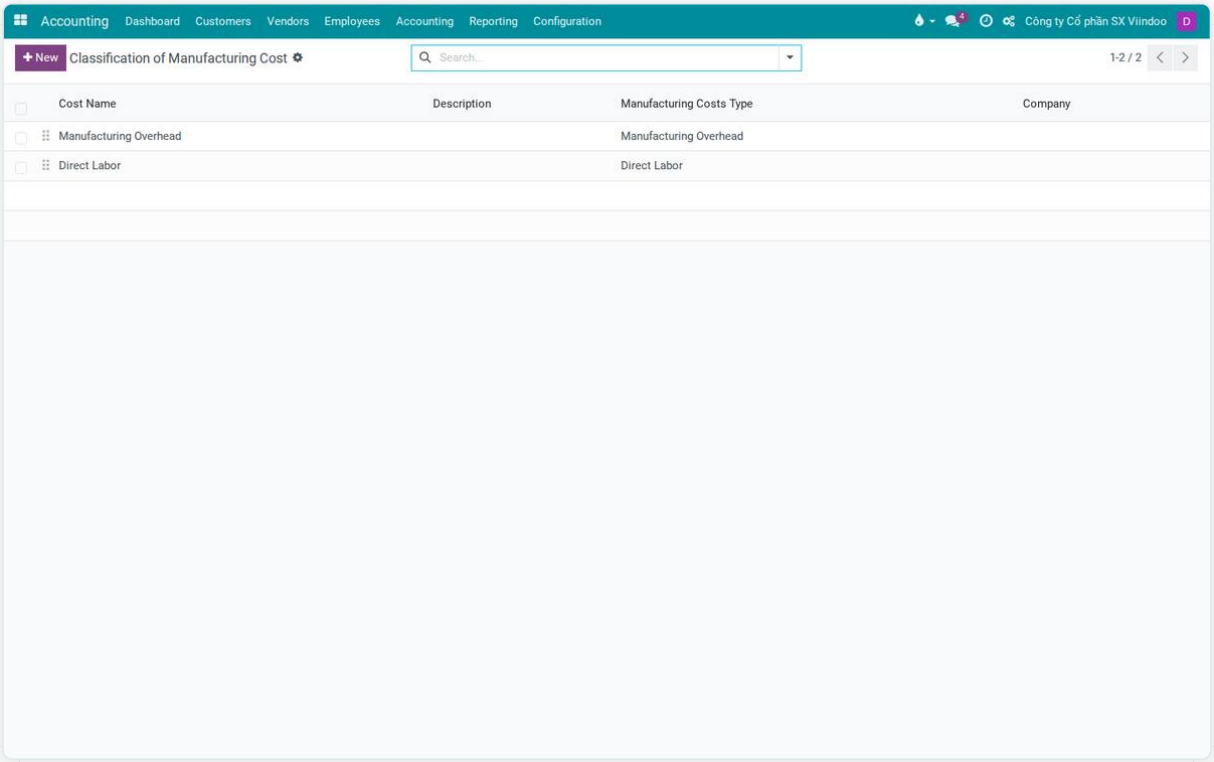


What you should see: the block **Costing Information**: **Cost per hour** 210,000 VND **per workcenter**, shown on the production cost report in the column **Manufacturing Overhead**; **Employee Hourly Cost** 41,000 VND **per employee**, shown in the column **Direct Labor**; **Expense Account** 627 Manufacturing overhead. How to define a work center, operations and hourly rates is written in full in Part II. Manufacturing engineering, lesson Work centers, operations, hourly rates and expense accounts.

Step 4 - See the types of manufacturing cost

Open the list of cost types.

> *Path:* `Accounting > Configuration > Management > Classification of Manufacturing Cost`

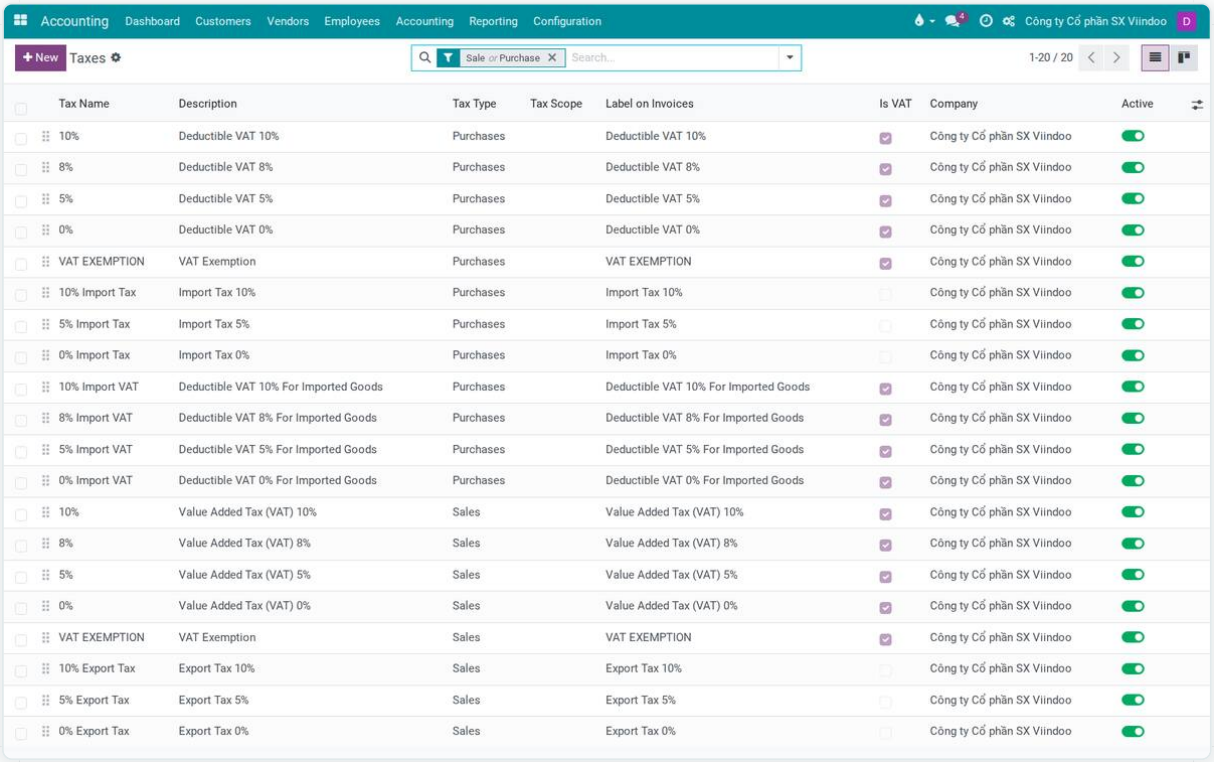


What you should see: two lines, **Manufacturing Overhead** and **Direct Labor**. Each cost allocation document and each hourly-rate line chooses one of these two types; the production cost report splits its columns by type.

Step 5 - See the list of taxes

Open the list of taxes.

> *Path:* `Accounting > Configuration > Accounting > Taxes`



Tax Name	Description	Tax Type	Tax Scope	Label on Invoices	Is VAT	Company	Active
10%	Deductible VAT 10%	Purchases		Deductible VAT 10%	☑	Công ty Cổ phần SX Viindoo	●
8%	Deductible VAT 8%	Purchases		Deductible VAT 8%	☑	Công ty Cổ phần SX Viindoo	●
5%	Deductible VAT 5%	Purchases		Deductible VAT 5%	☑	Công ty Cổ phần SX Viindoo	●
0%	Deductible VAT 0%	Purchases		Deductible VAT 0%	☑	Công ty Cổ phần SX Viindoo	●
VAT EXEMPTION	VAT Exemption	Purchases		VAT EXEMPTION	☑	Công ty Cổ phần SX Viindoo	●
10% Import Tax	Import Tax 10%	Purchases		Import Tax 10%	☐	Công ty Cổ phần SX Viindoo	●
5% Import Tax	Import Tax 5%	Purchases		Import Tax 5%	☐	Công ty Cổ phần SX Viindoo	●
0% Import Tax	Import Tax 0%	Purchases		Import Tax 0%	☐	Công ty Cổ phần SX Viindoo	●
10% Import VAT	Deductible VAT 10% For Imported Goods	Purchases		Deductible VAT 10% For Imported Goods	☑	Công ty Cổ phần SX Viindoo	●
8% Import VAT	Deductible VAT 8% For Imported Goods	Purchases		Deductible VAT 8% For Imported Goods	☑	Công ty Cổ phần SX Viindoo	●
5% Import VAT	Deductible VAT 5% For Imported Goods	Purchases		Deductible VAT 5% For Imported Goods	☑	Công ty Cổ phần SX Viindoo	●
0% Import VAT	Deductible VAT 0% For Imported Goods	Purchases		Deductible VAT 0% For Imported Goods	☑	Công ty Cổ phần SX Viindoo	●
10%	Value Added Tax (VAT) 10%	Sales		Value Added Tax (VAT) 10%	☑	Công ty Cổ phần SX Viindoo	●
8%	Value Added Tax (VAT) 8%	Sales		Value Added Tax (VAT) 8%	☑	Công ty Cổ phần SX Viindoo	●
5%	Value Added Tax (VAT) 5%	Sales		Value Added Tax (VAT) 5%	☑	Công ty Cổ phần SX Viindoo	●
0%	Value Added Tax (VAT) 0%	Sales		Value Added Tax (VAT) 0%	☑	Công ty Cổ phần SX Viindoo	●
VAT EXEMPTION	VAT Exemption	Sales		VAT EXEMPTION	☑	Công ty Cổ phần SX Viindoo	●
10% Export Tax	Export Tax 10%	Sales		Export Tax 10%	☐	Công ty Cổ phần SX Viindoo	●
5% Export Tax	Export Tax 5%	Sales		Export Tax 5%	☐	Công ty Cổ phần SX Viindoo	●
0% Export Tax	Export Tax 0%	Sales		Export Tax 0%	☐	Công ty Cổ phần SX Viindoo	●

What you should see: 20 taxes, with the columns **Tax Type** (Purchases, Sales), **Label on Invoices** and **Is VAT**: deductible VAT and output VAT at 0%, 5%, 8%, 10% and VAT EXEMPTION; import tax and VAT on imported goods; export tax.

Configuration	Current setting	What is lost if it is not set
Expense account of each work center	627 for all 12 work centers	Labor hours fall on the cost of goods 632 or post Debit 154 / Credit 154
Cost per hour of the work center and of the employee	130,000 - 230,000 VND/ hour; 41,000 VND/hour per employee	The product cost has materials only
Production WIP Account (154)	Set	The period-end work-in-progress entry cannot be posted
Production WIP Overhead Account (627)	Set	Work-in-progress labor hours post Debit 154 / Credit 154, and 627 at period end does not drop by the hours already worked
Classification of Manufacturing Cost	Two types	The production cost report does not split direct labor from overhead
Bank journal (account 1122, suspense accounts 1131, 1132)	Exists, with 38 monthly statements from 09/2023 to 10/2026	Reconciliation is not possible

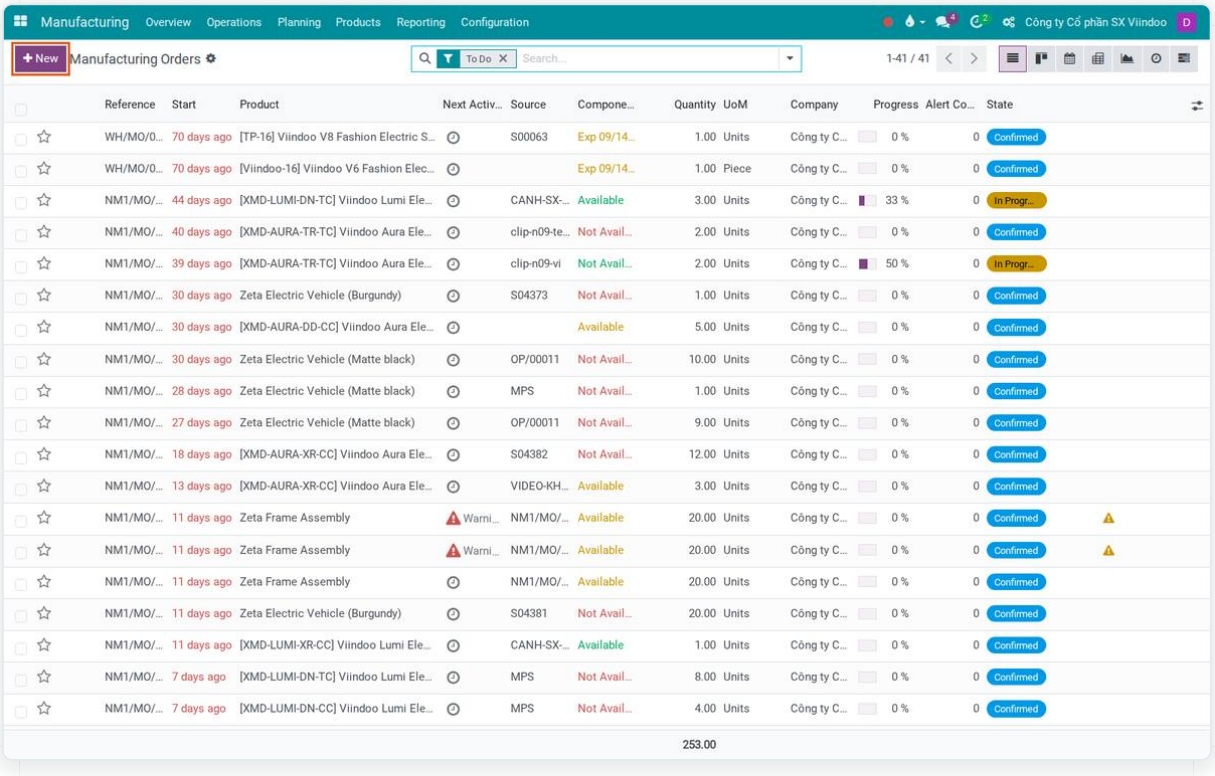
81 COST OF ONE ORDER WHEN IT IS COMPLETED

About 15 minutes. By the end of this lesson your company has made a manufacturing order for one powder-coated frame assembly Nova, seen that the cost is made of materials and labor hours, and can read the three places where the cost is shown. The lesson takes the shortest path for the accountant (it does not use the shop floor screen); the full way of working at the workshop, with a finished vehicle, the frame number and the quality check, is in Part VI. Shop floor production.

Step 1 - Create a new manufacturing order

Open the list of manufacturing orders and click **New**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders`

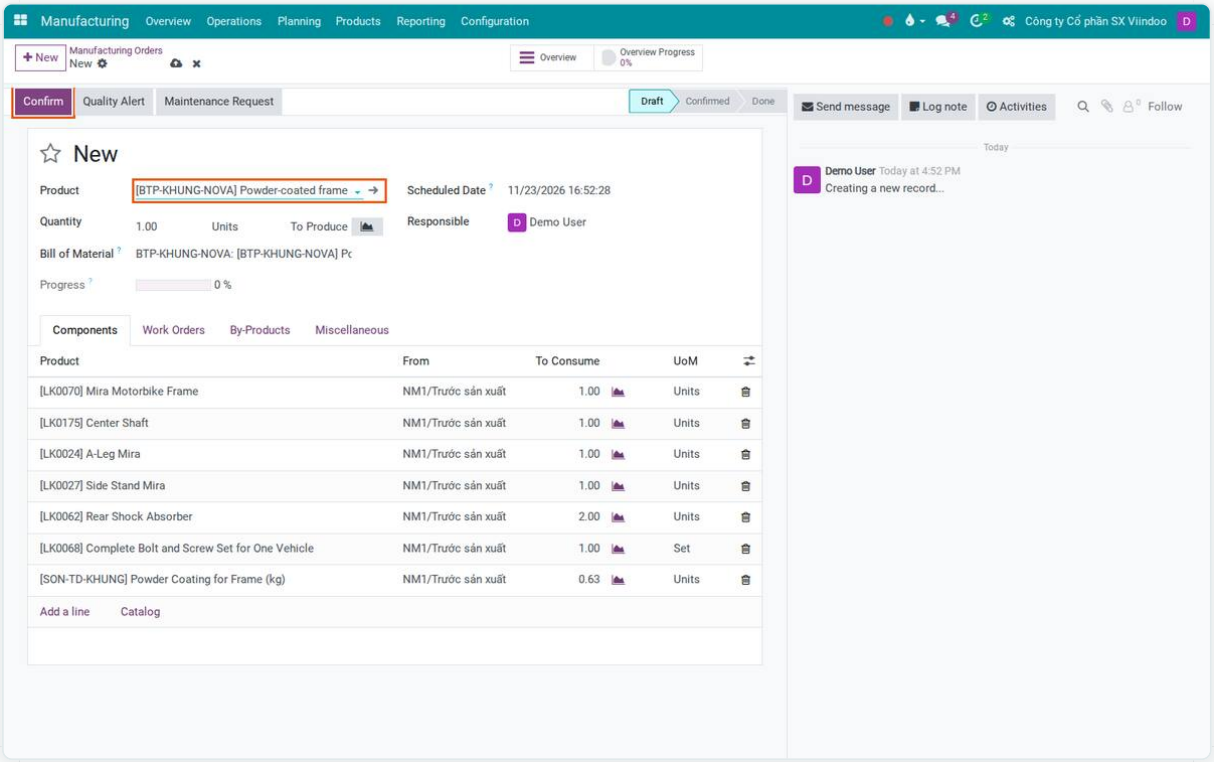


What you should see: a new order form in the status **Draft**.

Step 2 - Choose the product and confirm

In the **Product** box type `BTP-KHUNG-NOVA` and choose **[BTP-KHUNG-NOVA] Powder-coated frame assembly - Nova**, keep **Quantity** at 1, and click **Confirm**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > **New**

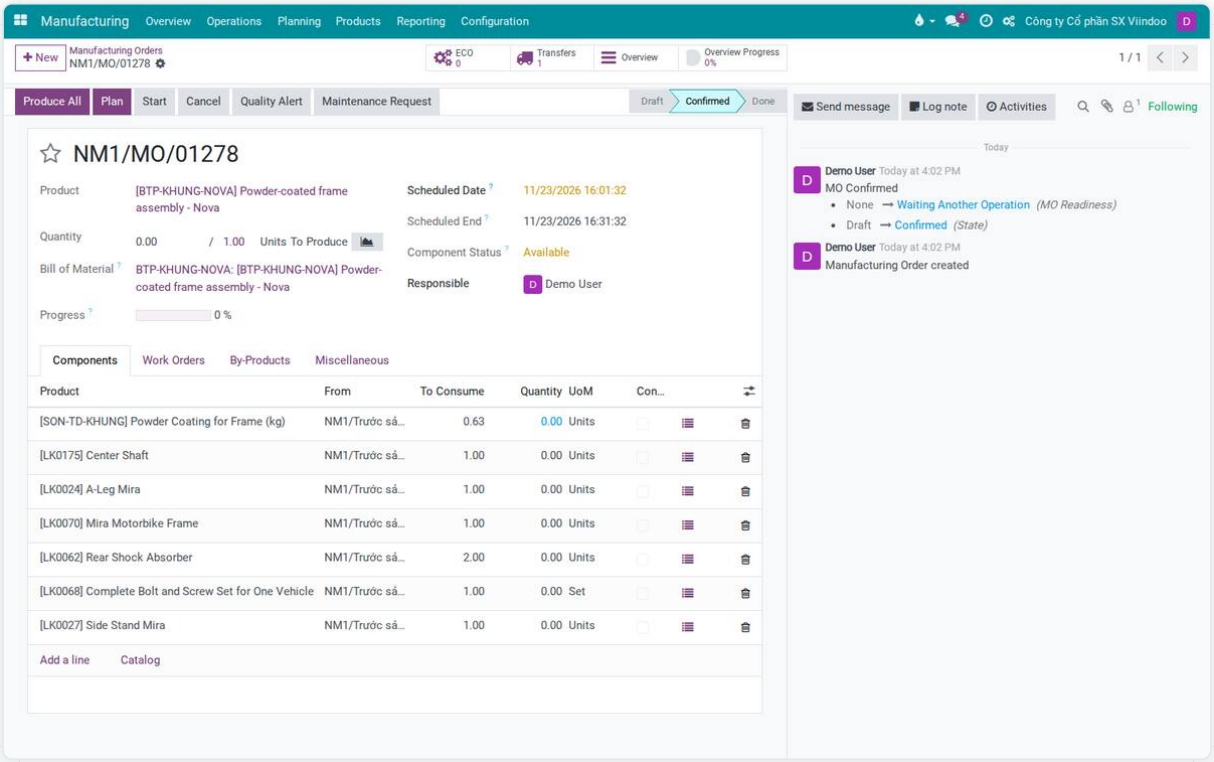


What you should see: before you click, the tab **Components** fills in 7 components by itself from the bill of materials (Mira Motorbike Frame, Center Shaft, A-Leg Mira, Side Stand Mira, 2 Rear Shock Absorber, Complete Bolt and Screw Set for One Vehicle, 0.63 kg of powder coating), taken from `NM1/Trước sản xuất` (NM1/Pre-production).

Step 3 - Read the confirmed order

After you click **Confirm**, read the order again.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > the order you just created

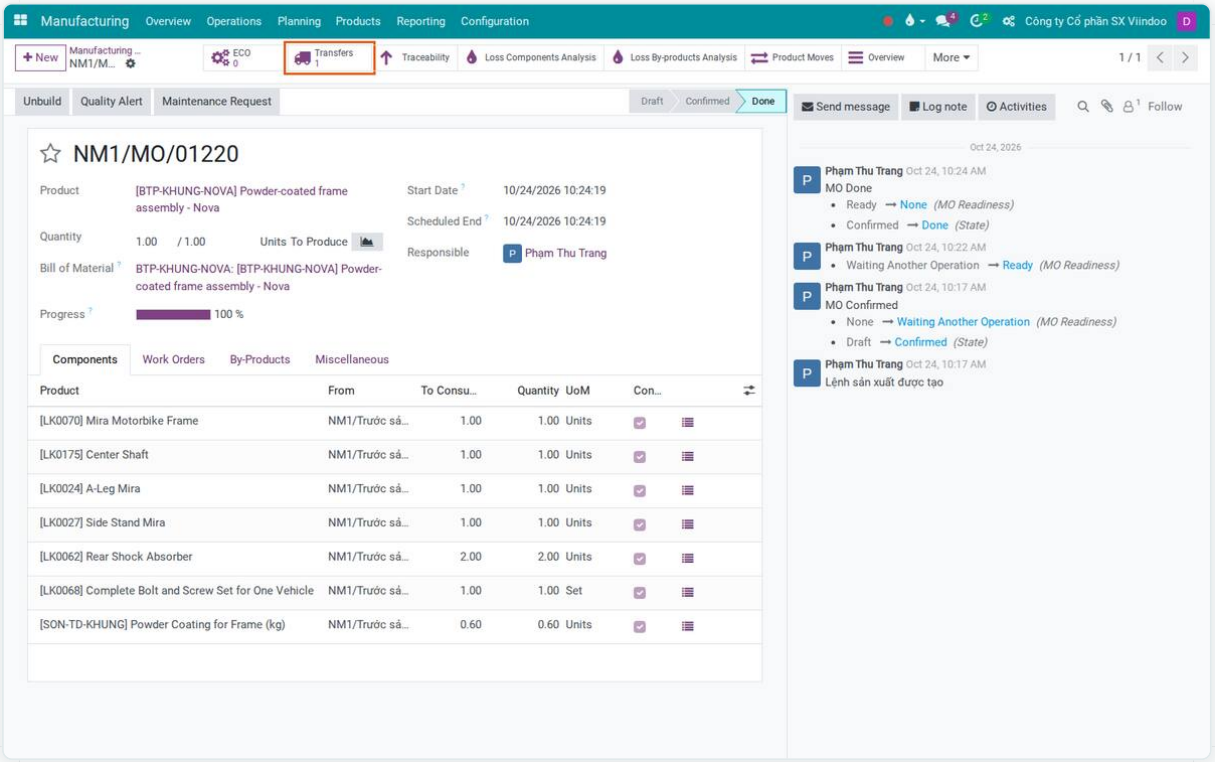


What you should see: the order has a number (NM1/MO/01278 in the trial run), the status **Confirmed**, **Quantity** 0.00 / 1.00, **Component Status** = Available, the smart buttons **ECO**, **Transfers** 1, **Overview** and **Overview Progress**, and the buttons **Produce All**, **Plan**, **Start**, **Cancel**, **Quality Alert** and **Maintenance Request**. The warehouse is set up in two steps: components must be picked from Kho Tổng (Main Warehouse) to the area before production before assembly.

Step 4 - Open the component picking

Click the smart button **Transfers**.

> *Path:* manufacturing order > button **Transfers** (`Manufacturing > Operations > Manufacturing Orders`)

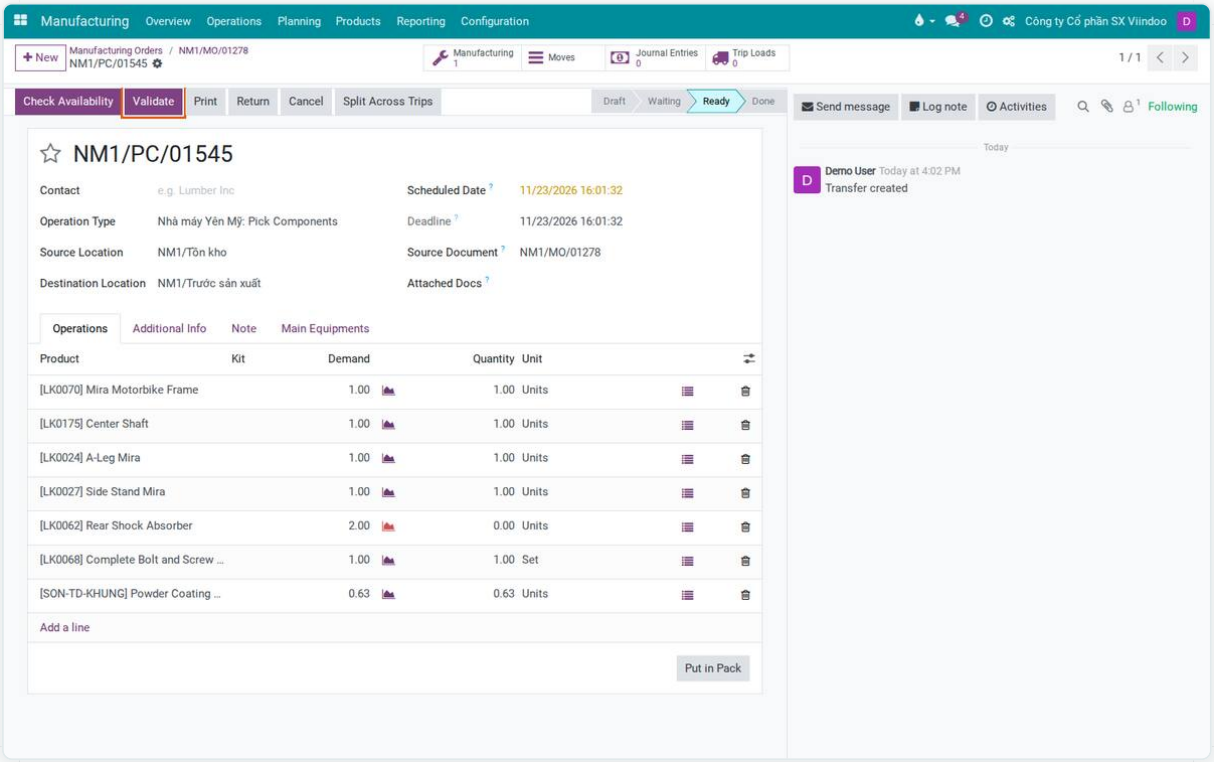


What you should see: the component picking (NM1/PC/01545 in the trial run) in the status **Ready**, with the status bar Draft > Waiting > Ready > Done, **Operation Type** "Nhà máy Yên Mỹ: Pick Components" (Yen My Factory: Pick Components), **Source Location** `NM1/Tồn kho` (NM1/Stock) and **Destination Location** `NM1/Trước sản xuất` (NM1/Pre-production), **Source Document** the order number, and the 7 component lines. The **Quantity** column shows what is reserved; a component that is short in stock shows less than its **Demand** (for example the Rear Shock Absorber), and the button **Check Availability** is offered next to **Validate**.

Step 5 - Validate the component picking

Click **Validate** on the picking.

> *Path:* manufacturing order > **Transfers** > **Validate** (`Manufacturing > Operations > Manufacturing Orders`)

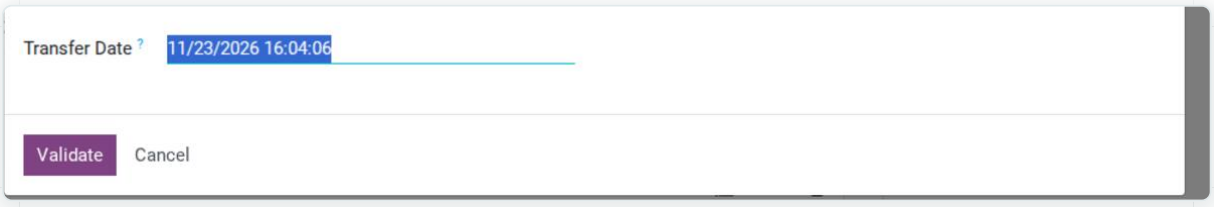


What you should see: the button **Validate** is circled. If a message offers to create a backorder, choose **No Backorder**; the dialog that opens next asks for the **Transfer Date**, which defaults to the moment you click.

Step 6 - Keep the date and confirm

Keep the date and click **Validate** in the dialog.

> *Path:* the **Transfer Date** dialog (`Manufacturing > Operations > Manufacturing Orders`)

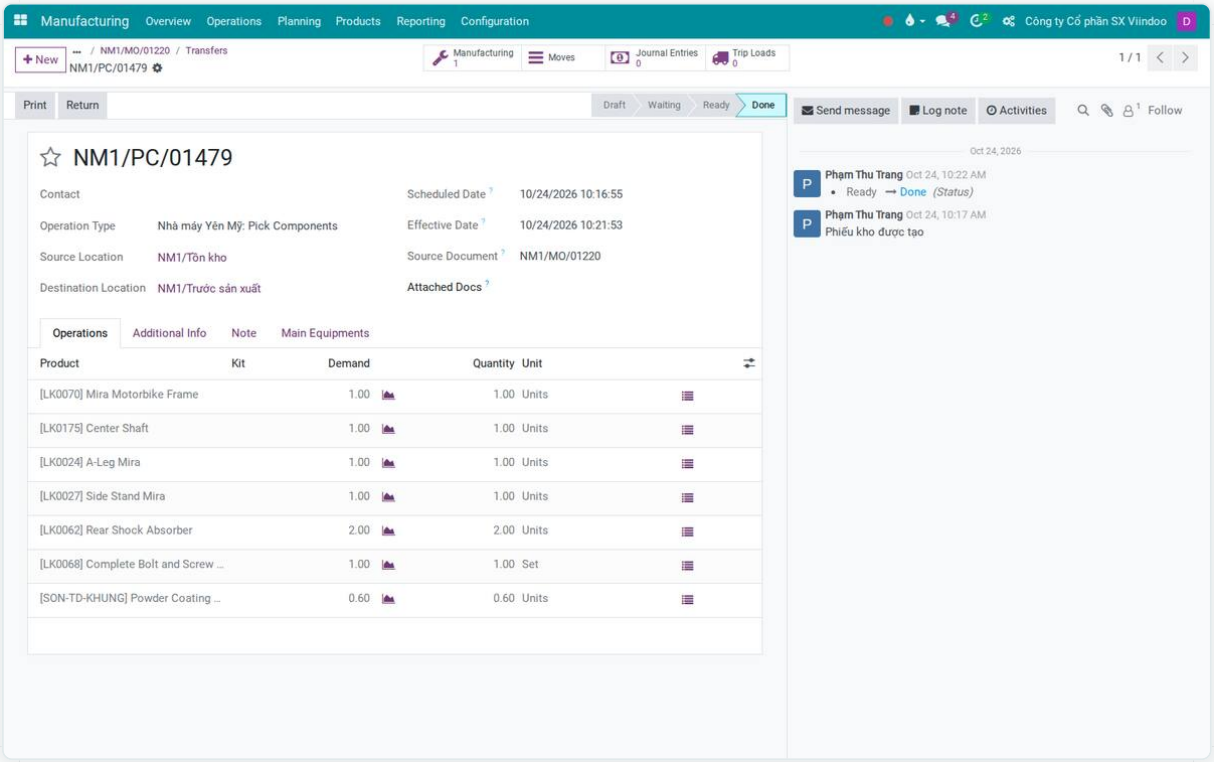


What you should see: the dialog closes. Changing the **Transfer Date** here is how to record a stock transfer that took place the day before.

Step 7 - Check that the picking is done

Read the status of the picking again.

> *Path:* manufacturing order > **Transfers** (`Manufacturing > Operations > Manufacturing Orders`)

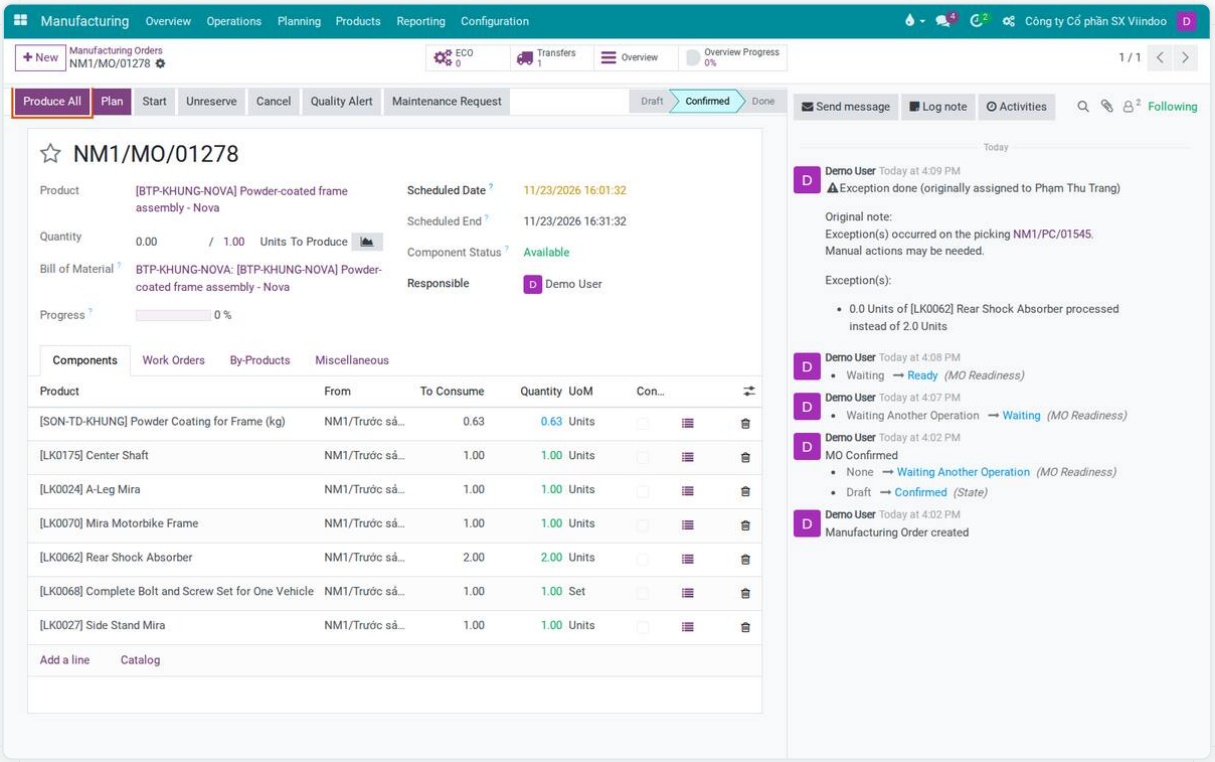


What you should see: the status **Done**. This picking only moves the components between stock locations; it creates no journal entry yet.

Step 8 - Produce all

Go back to the order (if it shows a warning activity about the picking, mark it as done) and click **Produce All**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > the order you just created

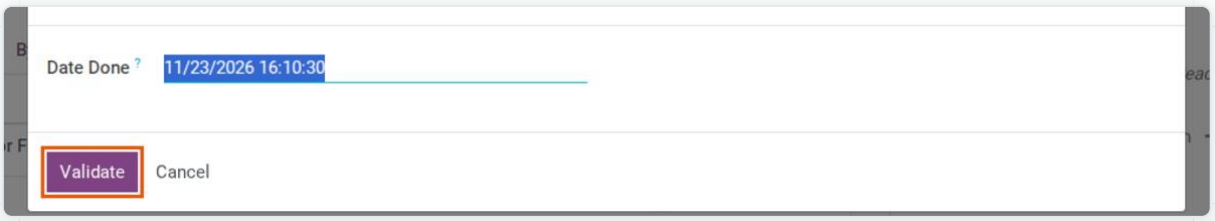


What you should see: the **Quantity** column of the 7 components is filled in (in green: 0.63, 1.00, 1.00, 1.00, 2.00, 1.00, 1.00); clicking the button opens a dialog with the box **Date Done**.

Step 9 - Confirm the completion date

Keep the date and click **Validate**.

> *Path:* the **Date Done** dialog (`Manufacturing > Operations > Manufacturing Orders`)

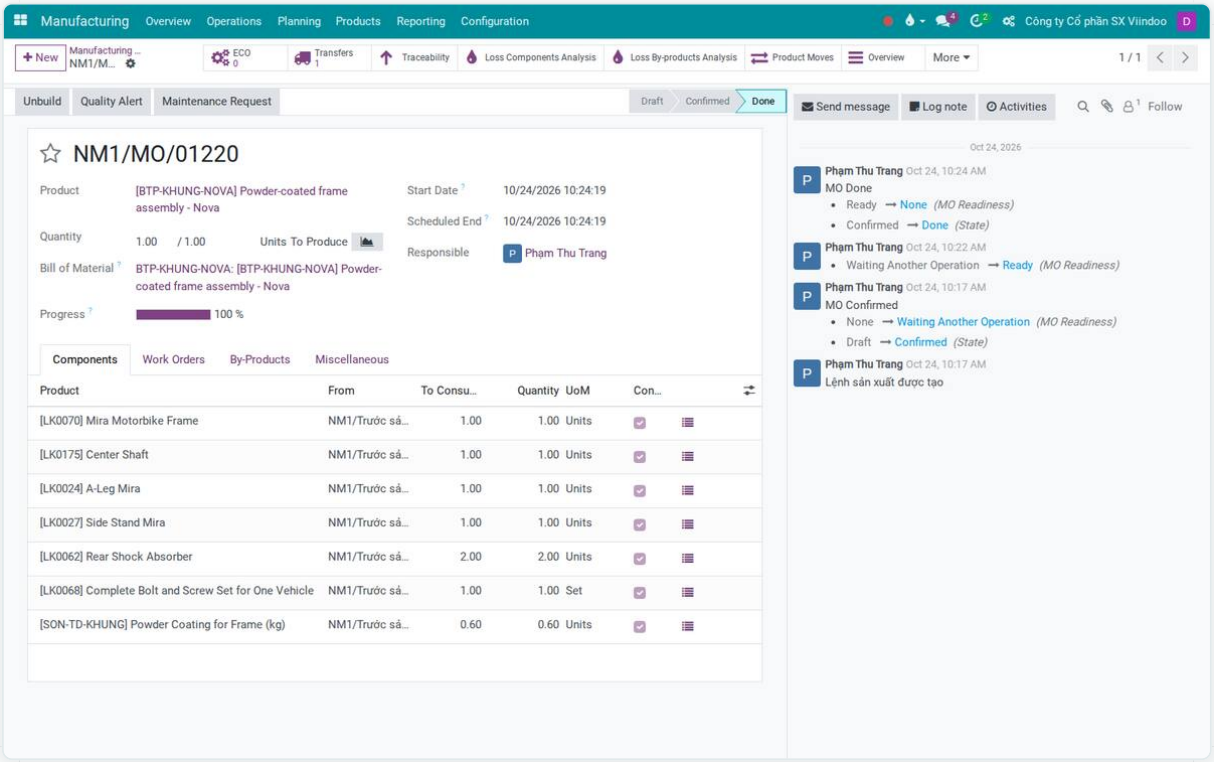


What you should see: the order changes to **Done**.

Step 10 - Read the completed order

Read the order again.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > the order you just created

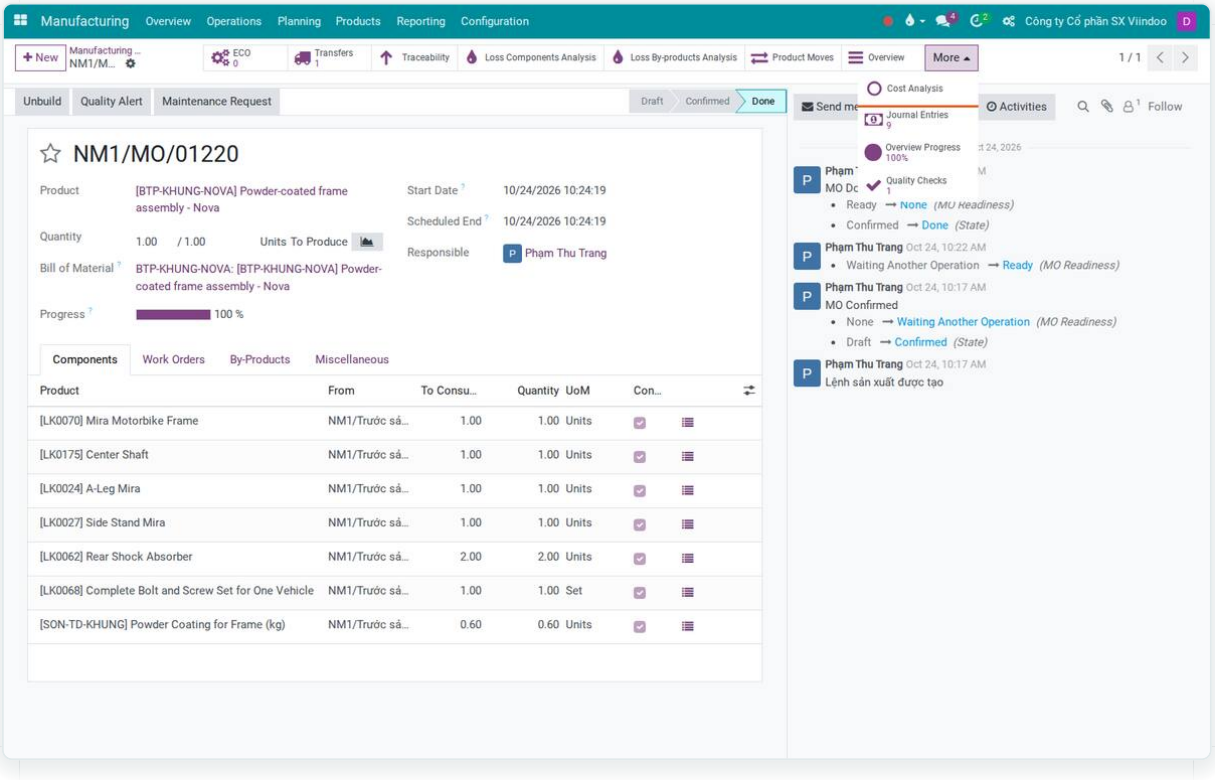


What you should see: the status **Done**, **Progress** 100 %, the column **Consumed** ticked on all 7 lines; the smart button bar now also has **Traceability**, **Loss Components Analysis**, **Loss By-products Analysis**, **Product Moves**, **Overview** and **More**. Nobody has timed the operation "Hàn hoàn thiện, sơn tĩnh điện khung" (finish welding and powder coating of the frame), so the system takes the expected duration of 30 minutes as the real time.

Step 11 - Open the cost analysis

Click **More** and choose **Cost Analysis**.

> *Path:* manufacturing order > **More** > **Cost Analysis** (`Manufacturing > Operations > Manufacturing Orders`)

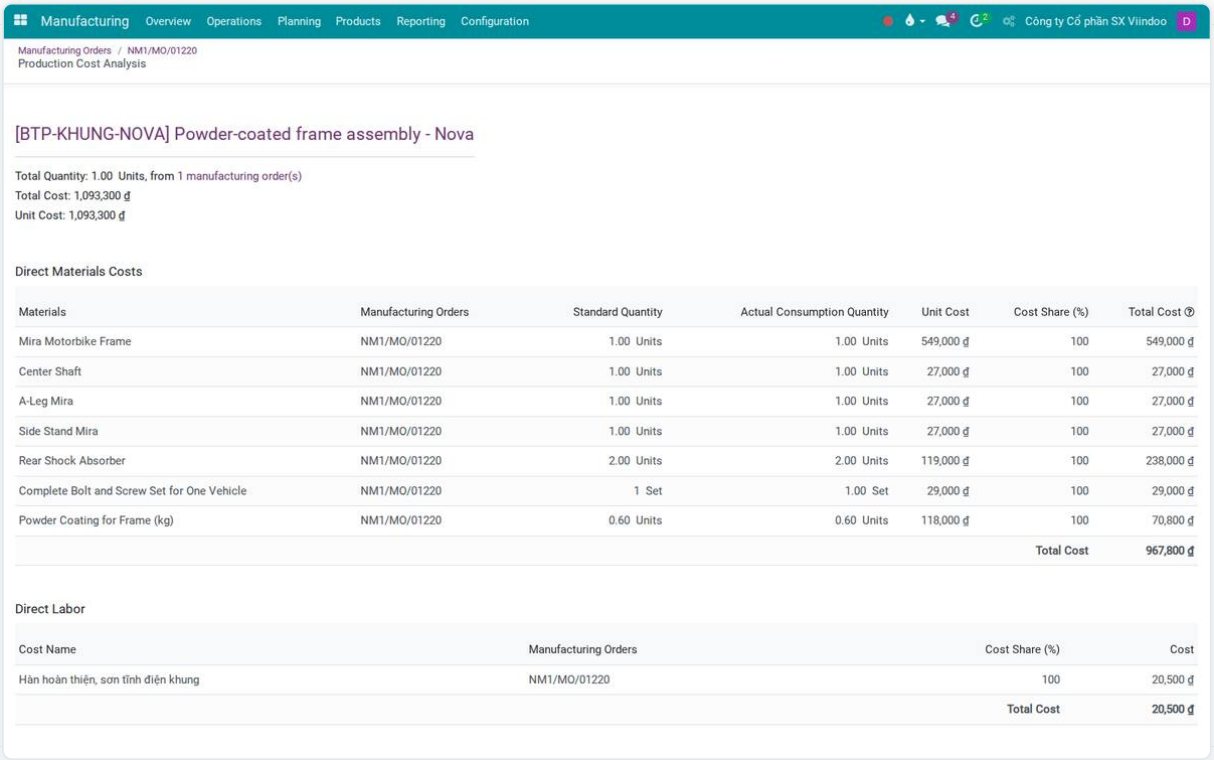


What you should see: the menu **More** has **Cost Analysis**, **Journal Entries** (9), **Overview Progress** and **Quality Checks**. **Cost Analysis** opens only when the order is done.

Step 12 - Read the cost by cost item

Read the **Production Cost Analysis** screen.

> *Path:* manufacturing order > **More** > **Cost Analysis** (`Manufacturing > Operations > Manufacturing Orders`)

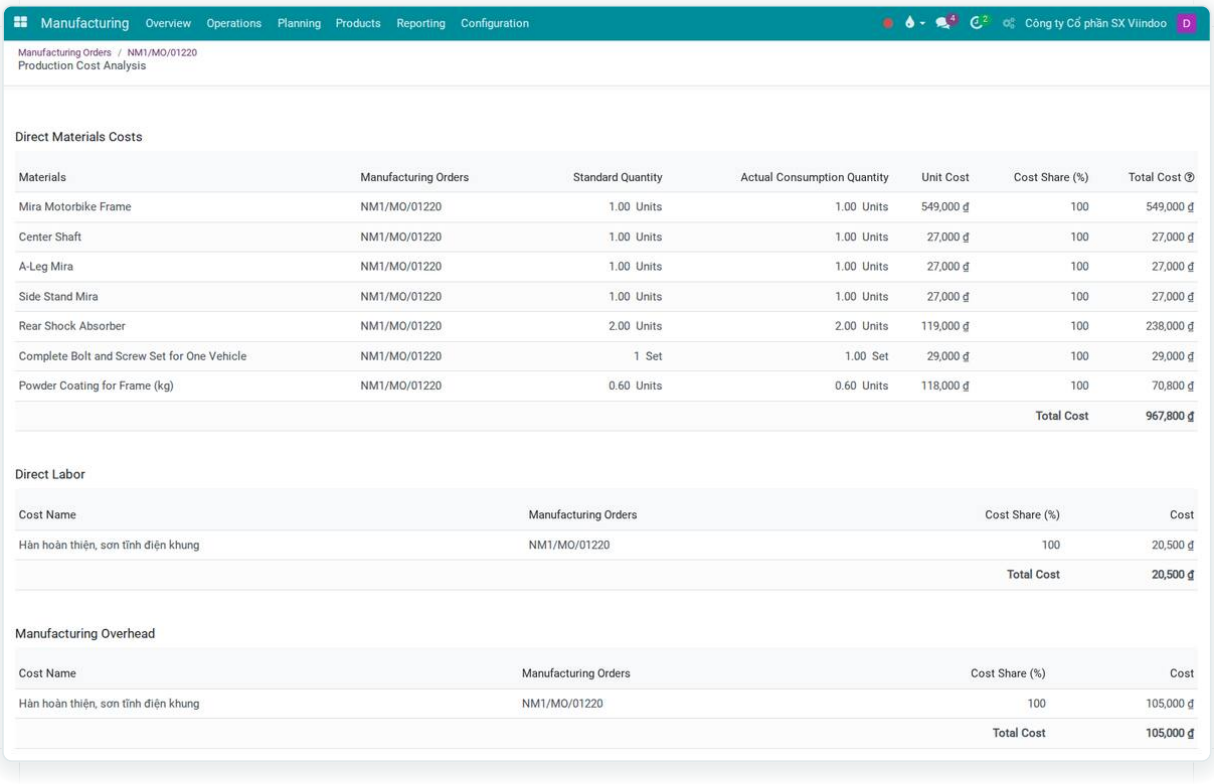


What you should see: at the top **Total Quantity** 1.00 Units, from 1 manufacturing order, **Total Cost** 1,093,300 VND and **Unit Cost** 1,093,300 VND. The block **Direct Materials Costs** has each component with **Standard Quantity**, **Actual Consumption Quantity**, **Unit Cost** and **Total Cost**: a total of 967,800 VND.

Step 13 - Read the labor hours on the cost analysis

Scroll down to the last two blocks.

> *Path:* manufacturing order > **More** > **Cost Analysis** (`Manufacturing > Operations > Manufacturing Orders`)



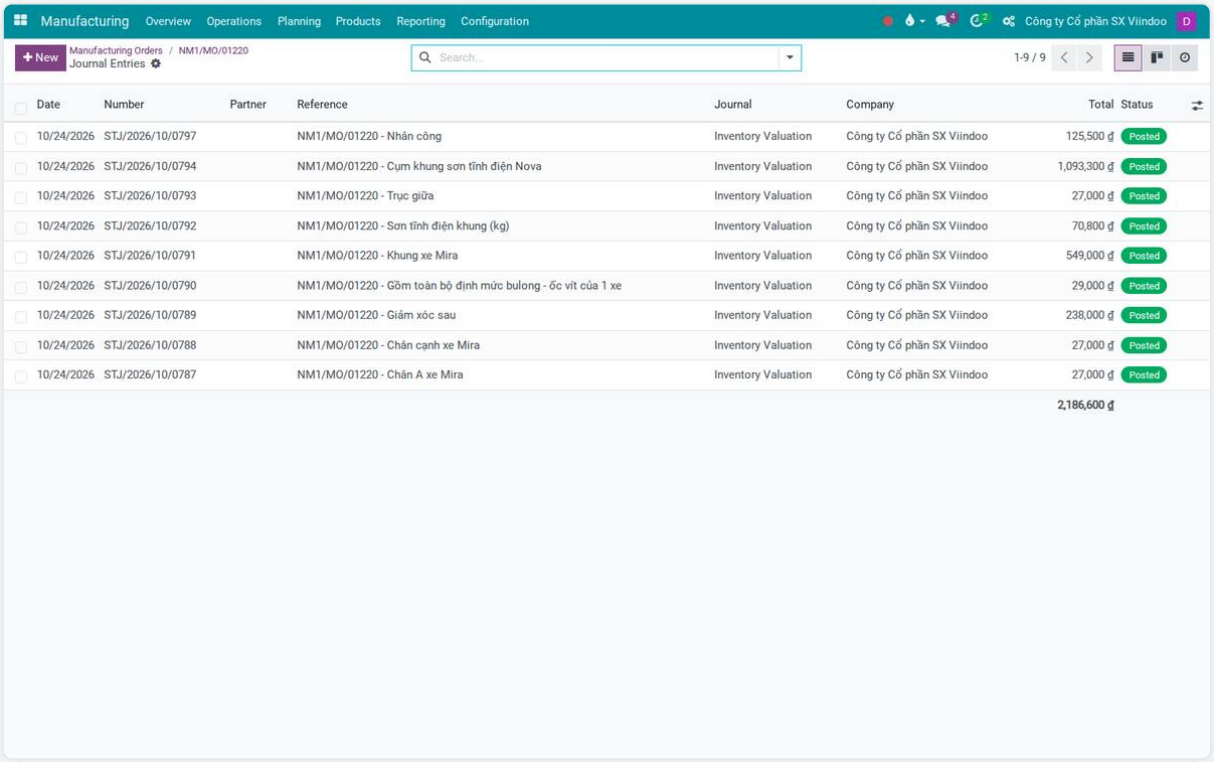
What you should see: Direct Labor 20,500 VND and **Manufacturing Overhead** 105,000 VND, both on the line "Hàn hoàn thiện, sơn tĩnh điện khung".

Cost item	How it is calculated	Trial order
Direct materials	Quantity actually consumed x the average price of the component	967,800 VND
Manufacturing overhead (machine hours)	0.5 hour x 210,000 VND (cost per hour of Tổ khung)	105,000 VND
Direct labor	0.5 hour x 41,000 VND (employee hourly rate of Tổ khung)	20,500 VND
Cost received into stock		**1,093,300 VND**

Step 14 - See the journal entries of the order

Go back to the order, click **More** and choose **Journal Entries**.

> *Path:* manufacturing order > **More** > **Journal Entries** (`Manufacturing > Operations > Manufacturing Orders`)

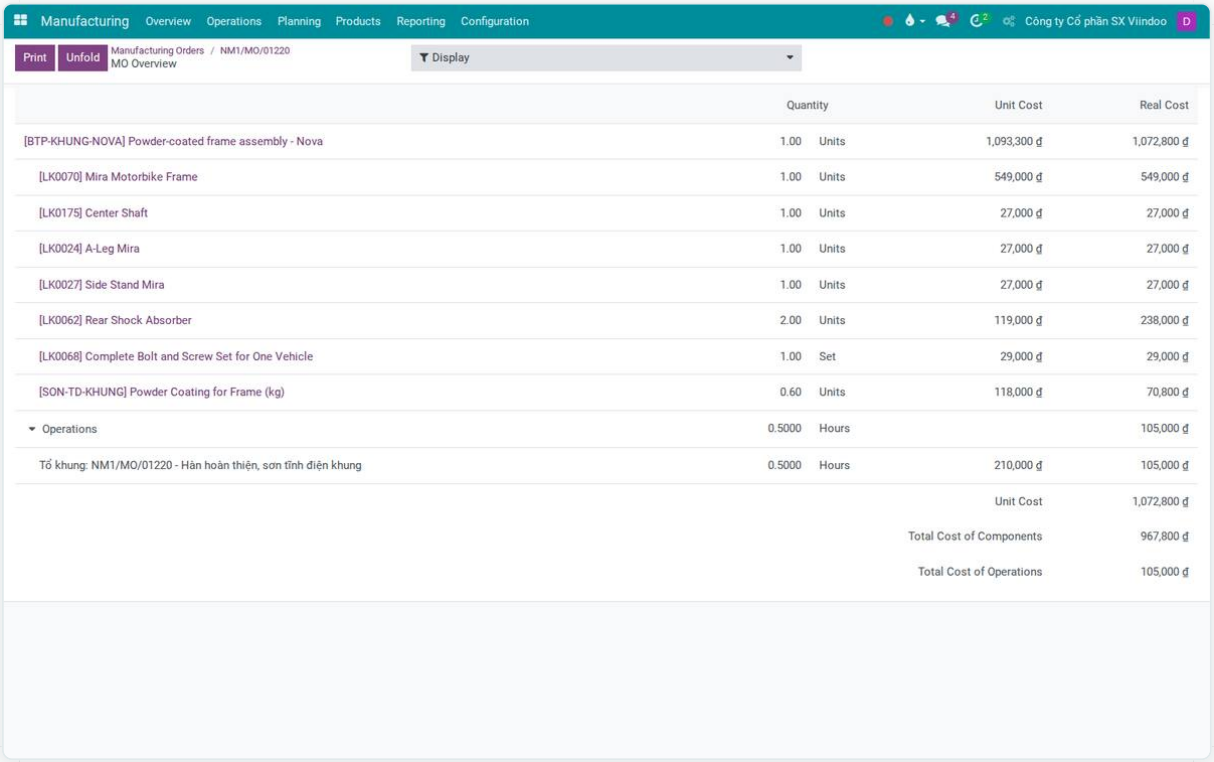


What you should see: 9 entries in the journal **Inventory Valuation**, **Posted**: 7 component entries (Debit 154 / Credit 152, total 967,800 VND), "NM1/MO/01220 - Cụm khung sơn tĩnh điện Nova" (the Nova powder-coated frame assembly) 1,093,300 VND (Debit 155 / Credit 154) and "NM1/MO/01220 - Nhân công" (labor) 125,500 VND (Debit 154 / Credit 627). The account 154 of the order returns to 0.

Step 15 - Compare with the manufacturing order overview

Go back to the order and click the smart button **Overview**.

> *Path:* manufacturing order > **Overview** (`Manufacturing > Operations > Manufacturing Orders`)



What you should see: the **MO Overview** screen with the columns **Quantity**, **Unit Cost** and **Real Cost**: on the first line **Unit Cost** is 1,093,300 VND but **Real Cost** is 1,072,800 VND; the line **Operations** shows 0.5 hours x 210,000 VND = 105,000 VND; at the bottom **Total Cost of Components** 967,800 VND and **Total Cost of Operations** 105,000 VND.

The three places where the cost is shown, and why the figures differ:

Screen	Figure of the trial order	What it calculates
Cost Analysis	1,093,300 VND	Materials + machine hours + labor hours; exactly the value received into stock
The entry that receives the finished goods (Debit 155)	1,093,300 VND	The figure the accountant uses; the cost of goods at sale is taken from it through the average price
Overview of the manufacturing order, column **Real Cost**	1,072,800 VND	Materials + machine hours; **it does not add labor hours** (20,500 VND)

The accountant reconciles against **Cost Analysis** and the entry; the order **Overview** is for a quick comparison with the standard cost.

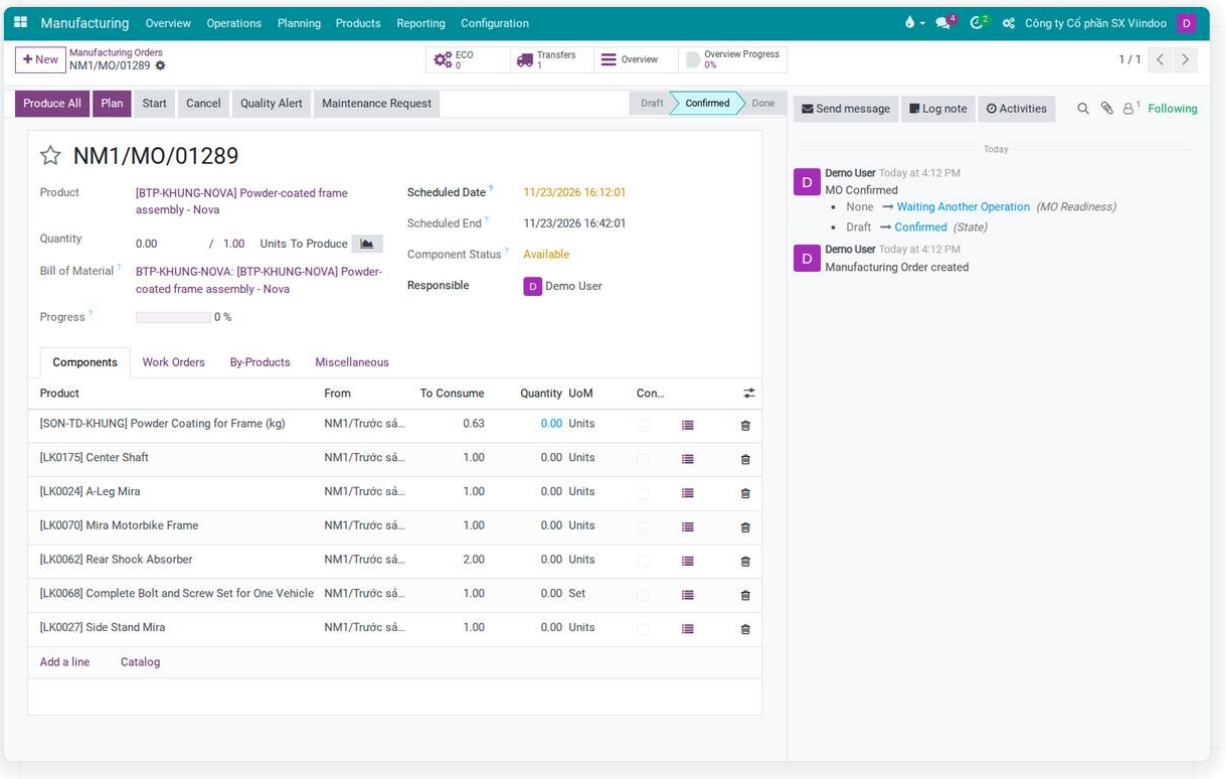
82 POST WORK IN PROGRESS AT THE END OF THE PERIOD

About 10 minutes. By the end of this lesson your company has left one order unfinished and posted the work-in-progress entry at the end of the month for that order. The work-in-progress entry brings the value of the components already taken and the labor hours already worked on unfinished orders into 154 on the last day of the period, then reverses itself on the first day of the next period, so that B01-DN at month end shows the work in progress correctly.

Step 1 - Create and confirm a new order, pick the components

Repeat Step 1 to Step 7 of the lesson *Cost of one order when it is completed* with one Nova frame assembly: create the order, **Confirm**, open **Transfers**, **Validate** the component picking. Stop there and **do not** click **Produce All**.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > **New**

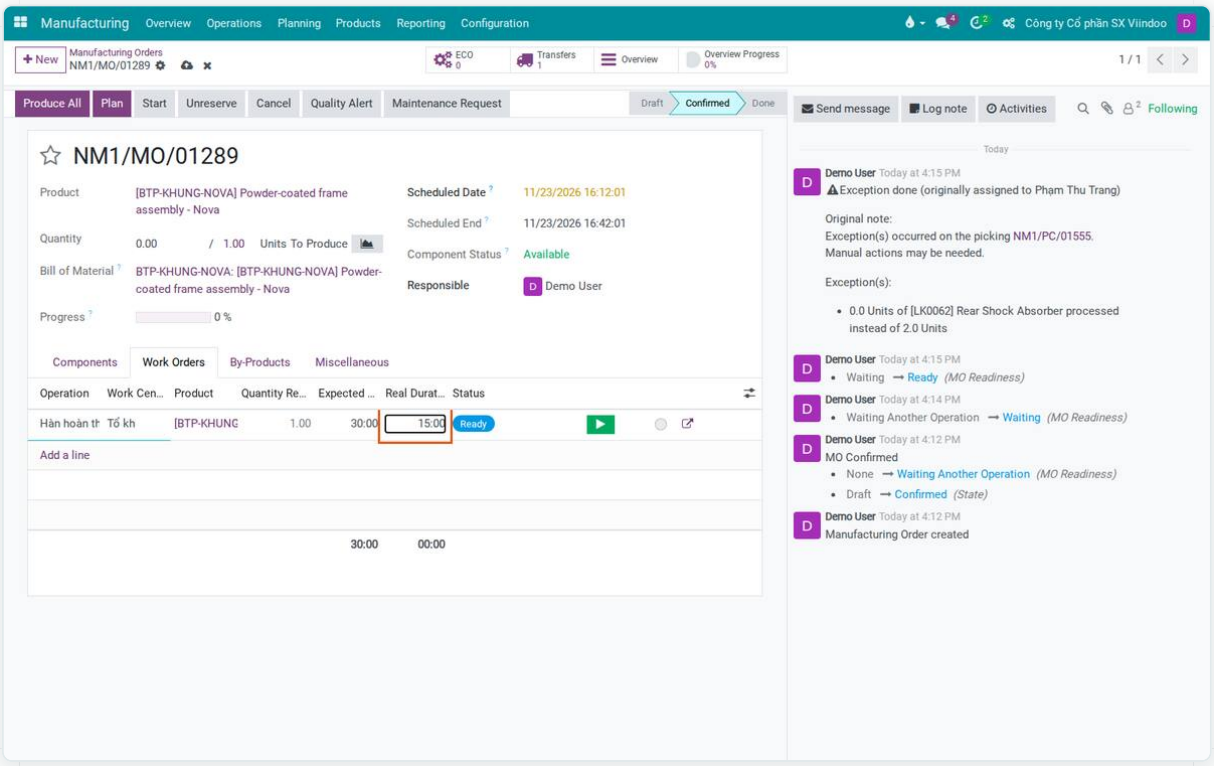


What you should see: the new order (NM1/MO/01289 in the trial run) in **Confirmed**, **Component Status** Available, **Quantity** 0.00 / 1.00.

Step 2 - Record the hours already worked on the operation

Open the tab **Work Orders**, click the **Real Duration** box of the line "Hàn hoàn thiện, sơn tĩnh điện khung", type `15:00` and click the save icon.

> *Path:* manufacturing order > tab **Work Orders** (`Manufacturing > Operations > Manufacturing Orders`)

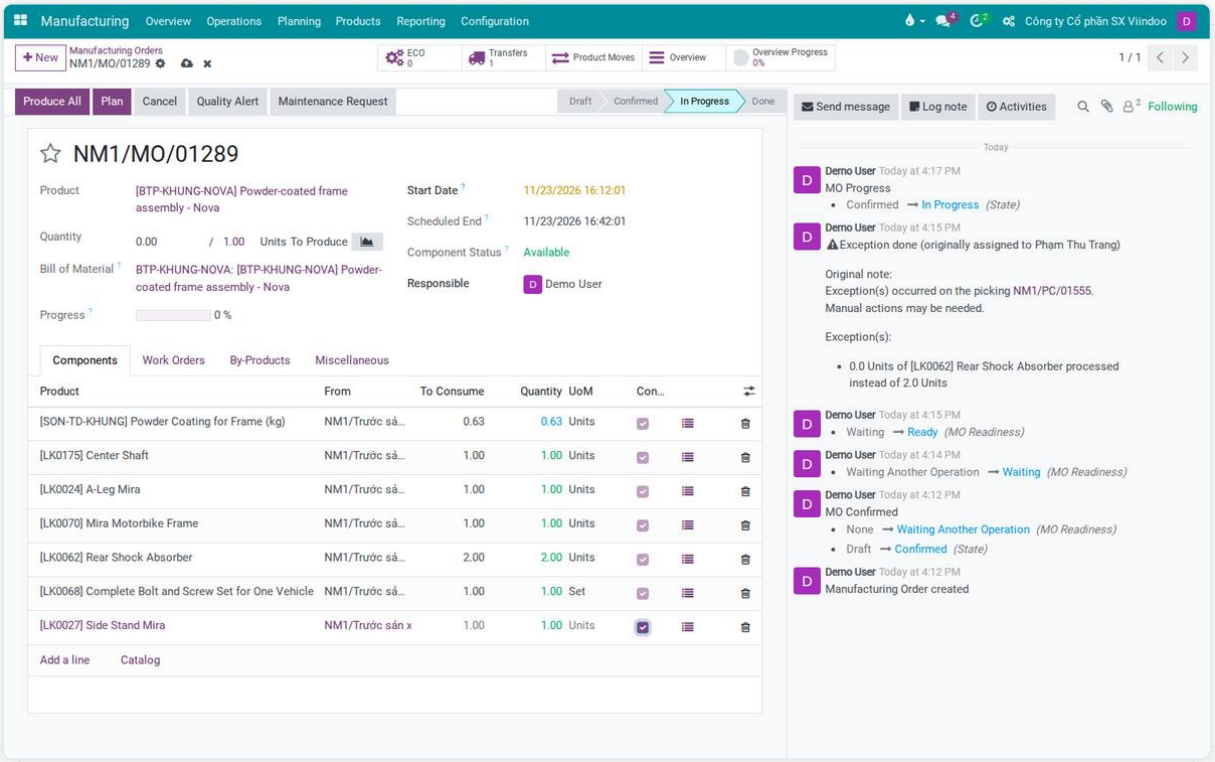


What you should see: before you save, the operation line has the status **Ready**, **Expected Duration** 30:00 and **Real Duration** 15:00; after you save, the status of the operation and of the order changes to **In Progress**. At the workshop the team leader records the hours with the start and pause buttons on the **Shop Floor** screen (Part VI. Shop floor production); typing them here is how the accountant or the workshop manager adds hours.

Step 3 - Mark the components as taken into assembly

Open the tab **Components** and tick the box **Consumed** on all 7 lines.

> *Path:* manufacturing order > tab **Components** (`Manufacturing > Operations > Manufacturing Orders`)

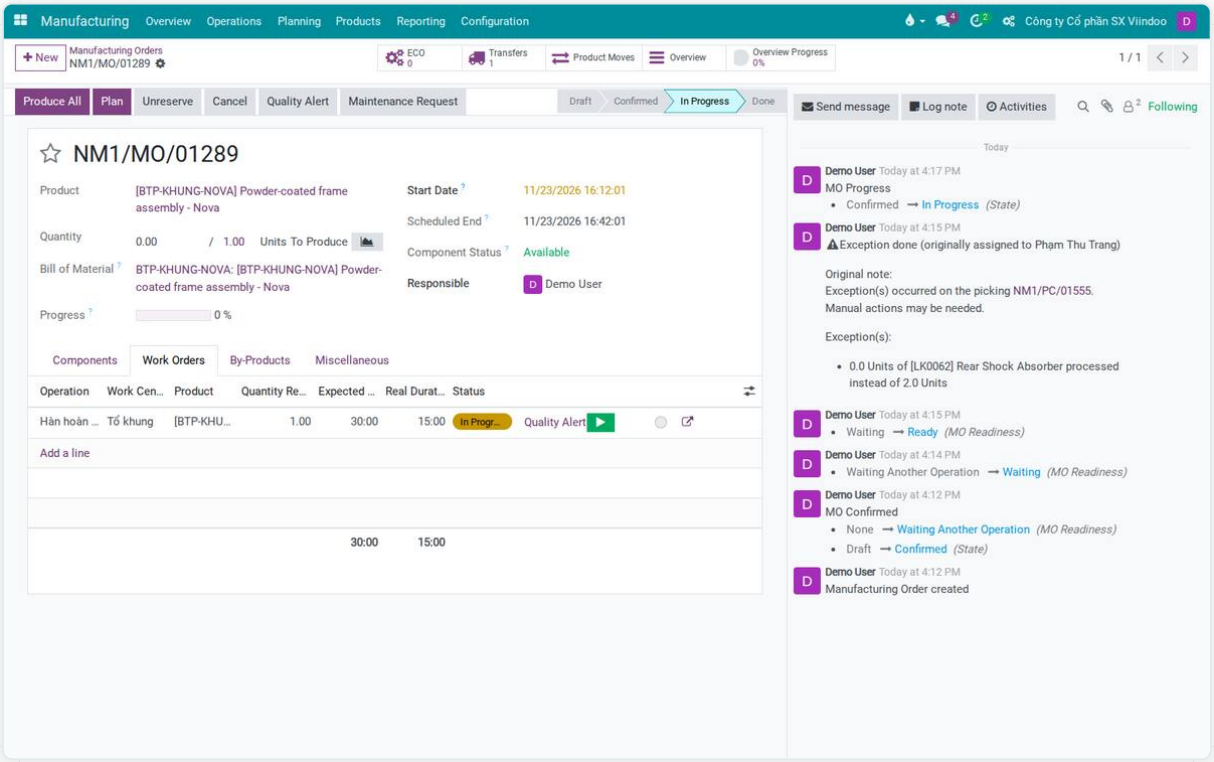


What you should see: the 7 boxes **Consumed** are ticked. Only components marked as consumed are counted in the value of work in progress; a component just moved to the area before production and not yet fitted is still stock.

Step 4 - Read the order in progress

Read the top of the order again.

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > the order you just created

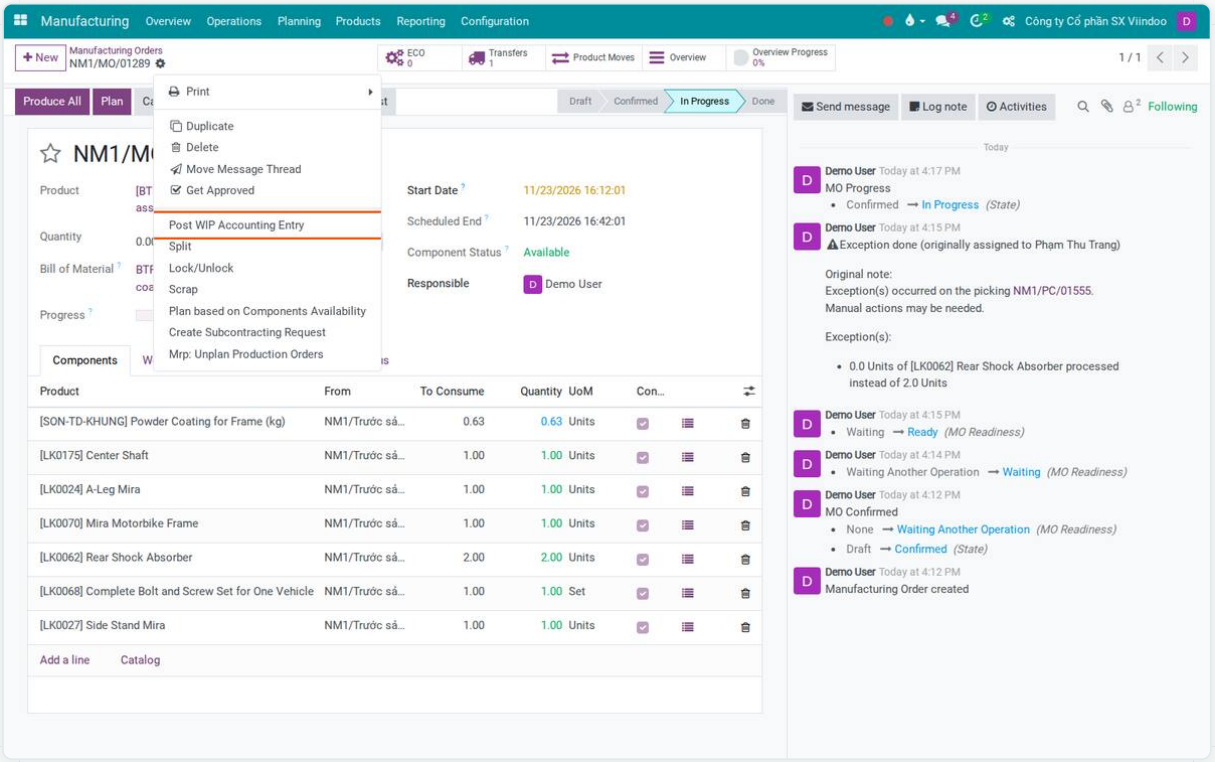


What you should see: the status bar on **In Progress**, **Progress** 0 % (no finished product yet), **Quantity** 0.00 / 1.00; the operation line shows **Expected Duration** 30:00 and **Real Duration** 15:00.

Step 5 - Open the work-in-progress function

Click the gear icon next to the order number and choose **Post WIP Accounting Entry**. (To post for several orders at once: on the list of orders, tick the orders **In Progress**, click **Actions** > **Post WIP Accounting Entry**.)

> *Path:* `Manufacturing > Operations > Manufacturing Orders` > order > gear > **Post WIP Accounting Entry**

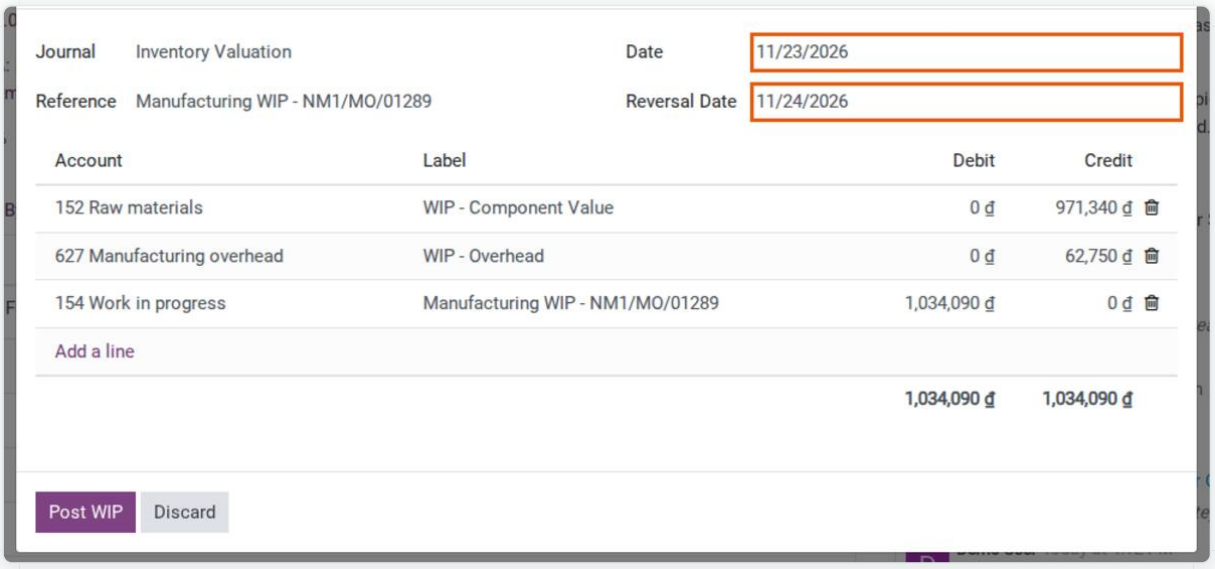


What you should see: the menu has the line **Post WIP Accounting Entry**.

Step 6 - Choose the period-end date and the reversal date, and post

In the dialog, **Date** is the posting date and **Reversal Date** the day the entry reverses itself (the trial run uses 11/23/2026 and 11/24/2026; for a real month end, set the last day of the month and the first day of the next month). Read the lines and click **Post WIP** (the other button is **Discard**).

> *Path:* the dialog **Post Manufacturing WIP** (`Manufacturing > Operations > Manufacturing Orders`)

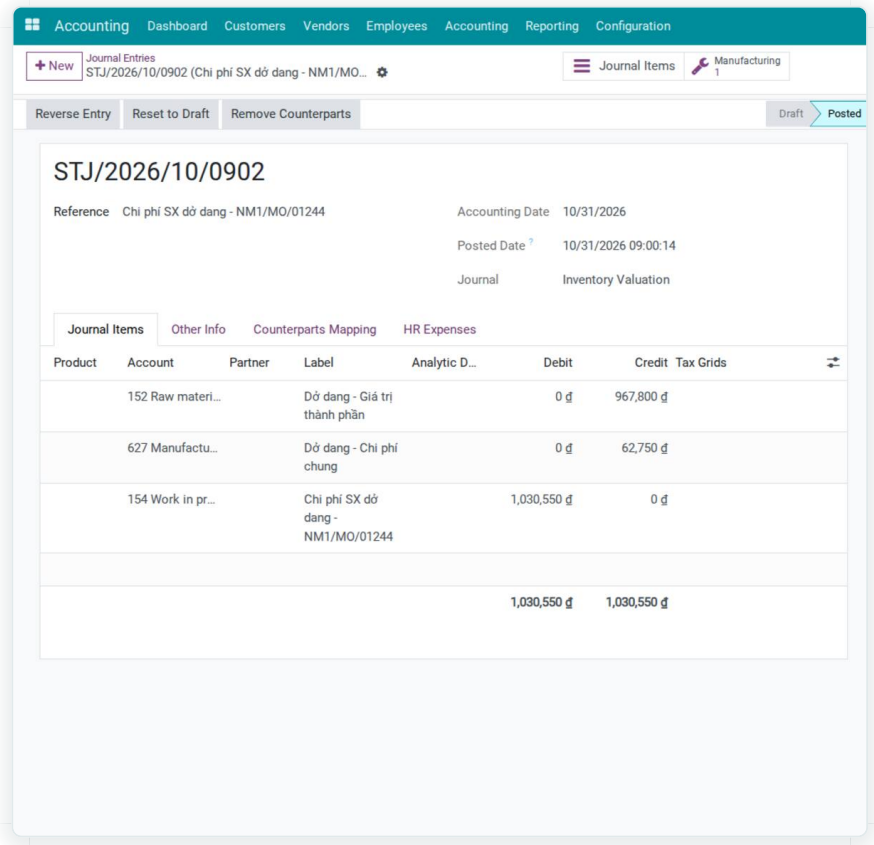


What you should see: Journal Inventory Valuation, **Reference** "Manufacturing WIP - NM1/MO/01289", **Date** 11/23/2026, **Reversal Date** 11/24/2026, and three lines that the system proposes by itself: Credit 152 Raw materials 971,340 VND (label "WIP - Component Value", the value of the consumed components), Credit 627 Manufacturing overhead 62,750 VND (label "WIP - Overhead": 15 minutes x (210,000 + 41,000) VND/hour), Debit 154 Work in progress 1,034,090 VND. The accountant can edit the lines before posting; the entry must balance to be posted, and the reversal date must be after the posting date.

Step 7 - Read the work-in-progress entry

Open the entry you just created.

> *Path:* `Accounting > Accounting > Journal Entries` , find the reference "Chi phí SX dở dang"



What you should see: a posted three-line entry of the same kind (the screenshot shows an example entry, STJ/2026/10/0902, of an earlier order: Credit 152 967,800 VND, Credit 627 62,750 VND, Debit 154 1,030,550 VND, **Accounting Date** 10/31/2026), status **Posted**, with the tabs **Journal Items**, **Other Info** and **Counterparts Mapping**, the buttons **Reverse Entry**, **Reset to Draft** and **Remove Counterparts**, and the smart button **Manufacturing** 1. The reversing entry is created with the entry and is dated on the reversal date. If the posting date is still in the future, the entry stays in **Draft** and posts itself on its accounting date.

The effect of one work-in-progress posting:

Place	Change
Stock	No change: the components stay in the area before production until the order is completed
Accounting on the last day of the period	154 goes up, 152 and 627 go down by exactly the part that has been done
Accounting on the first day of the next period	The reversing entry puts 154, 152, 627 back as before; when the order is completed, the completion entry posts in full
Reports	B01-DN on the last day of the period shows the work-in-progress value in the line Inventories

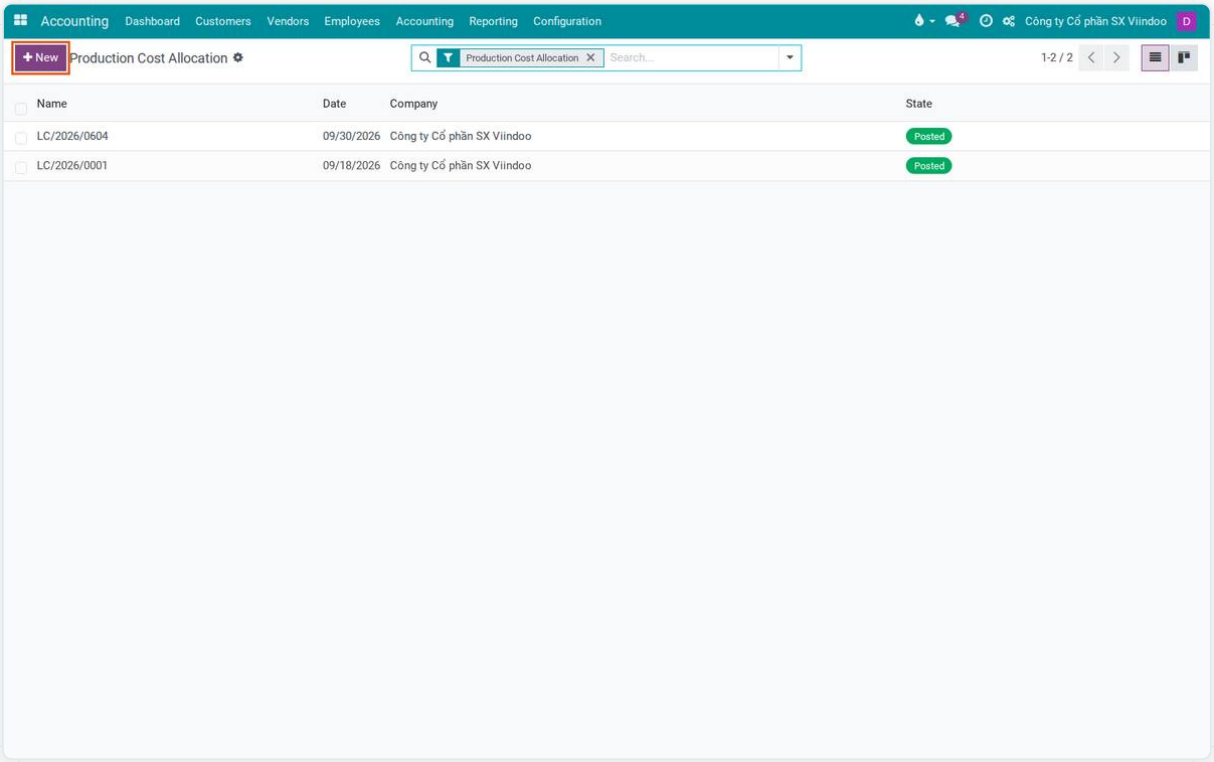
83 ALLOCATE PRODUCTION COSTS TO COMPLETED ORDERS

About 15 minutes. By the end of this lesson your company has brought the depreciation of the assembly line for September into the cost of the Aura vehicles made in September. The cost at the completion of an order has only materials and labor hours at the hourly rate; the other real costs of the workshop (machine depreciation, the difference between actual payroll and the labor hours already counted, electricity) are brought in by the accountant with a **Production Cost Allocation** document. The lesson chooses depreciation because this item is not yet in the cost: the labor hours at order completion were already credited to 627 at the hourly rate, so allocating payroll 622 in full would count the labor hours twice; the depreciation of the line is in no hourly rate, so allocating all of it is correct. For payroll, the accountant allocates only the difference between actual payroll and the labor hours already counted.

Step 1 - Create a new allocation document

Open the list of documents and click **New**.

> *Path:* `Accounting > Accounting > Production Cost Allocation`

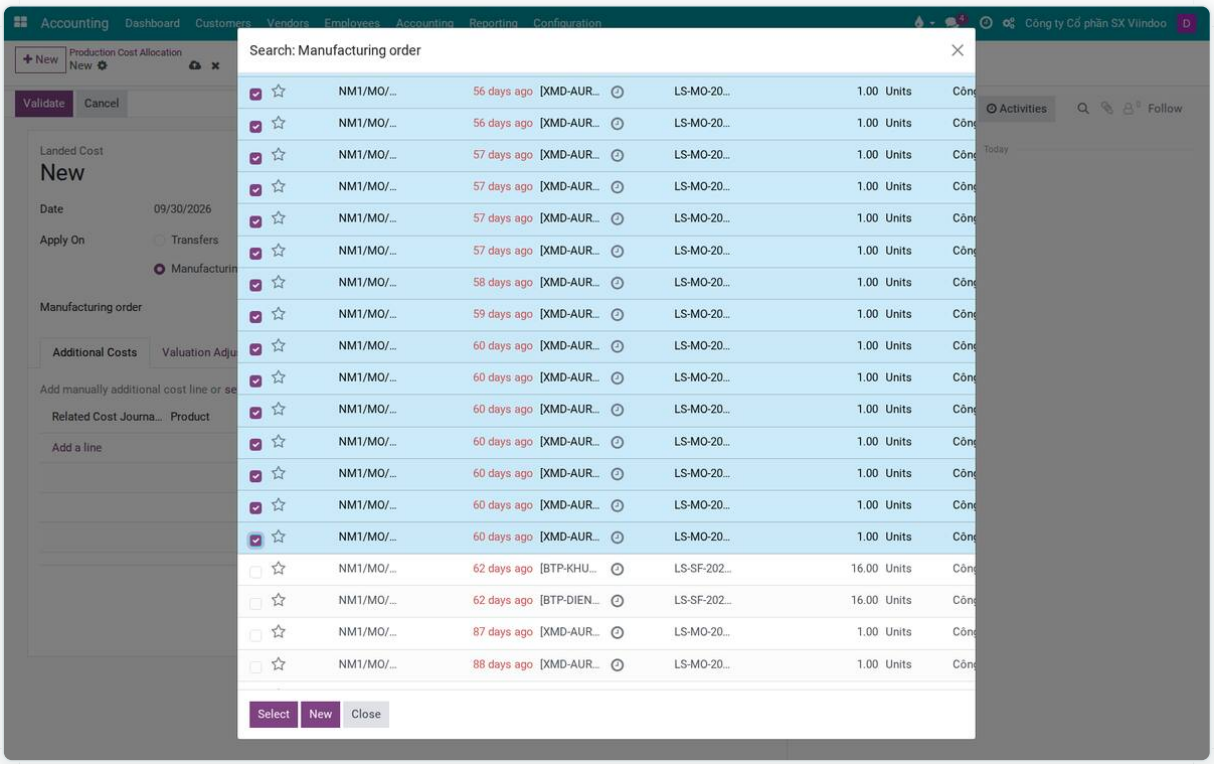


What you should see: a new **Landed Cost** form, status **Draft**, with the boxes **Date**, **Apply On**, **Journal** (Inventory Valuation) and the tab **Additional Costs**.

Step 2 - Choose the orders that receive the cost

Set **Date** to 09/30/2026 (the date format on screen is month/day/year), set **Apply On** to **Manufacturing Orders**. Click the **Manufacturing order** box and choose **Search More...**; in the search box type `Aura` and choose the option that searches the product, click the column title **Start** twice to put the newest on top, tick the Aura vehicle orders that started in September 2026 (hover over the date box to see the exact date), and click **Select**.

> *Path:* allocation document > the box **Manufacturing order** > **Search More...** (`Accounting > Accounting > Production Cost Allocation`)



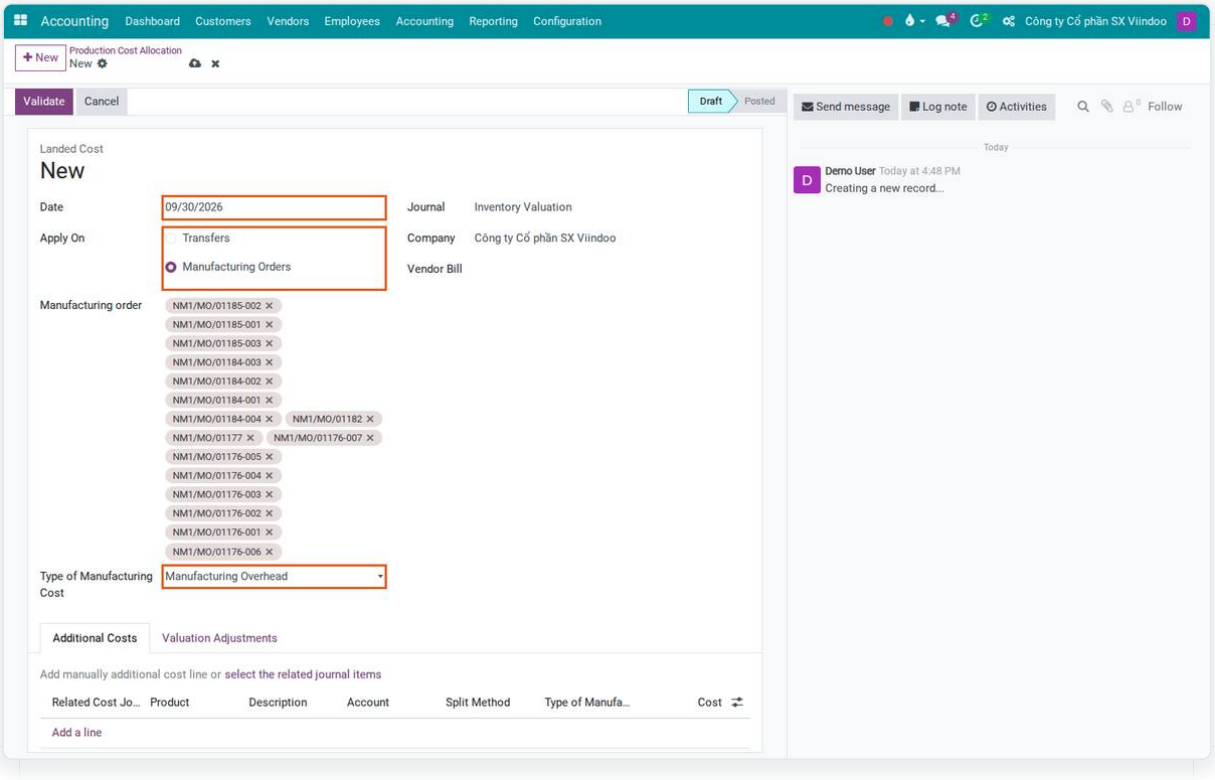
What you should see: the box **Search: Manufacturing order** lists only done orders; the trial run ticks 16 orders (NM1/MO/01176-001 to -007, NM1/MO/01177, NM1/MO/01182, NM1/MO/01184-001 to -004, NM1/MO/01185-001 to -003).

Step 3 - Choose the cost type

> *Path:* still on the screen of the previous step (`Accounting > Accounting > Production Cost Allocation`)

In the box **Type of Manufacturing Cost** choose **Manufacturing Overhead**.

> *Path:* allocation document (`Accounting > Accounting > Production Cost Allocation`)

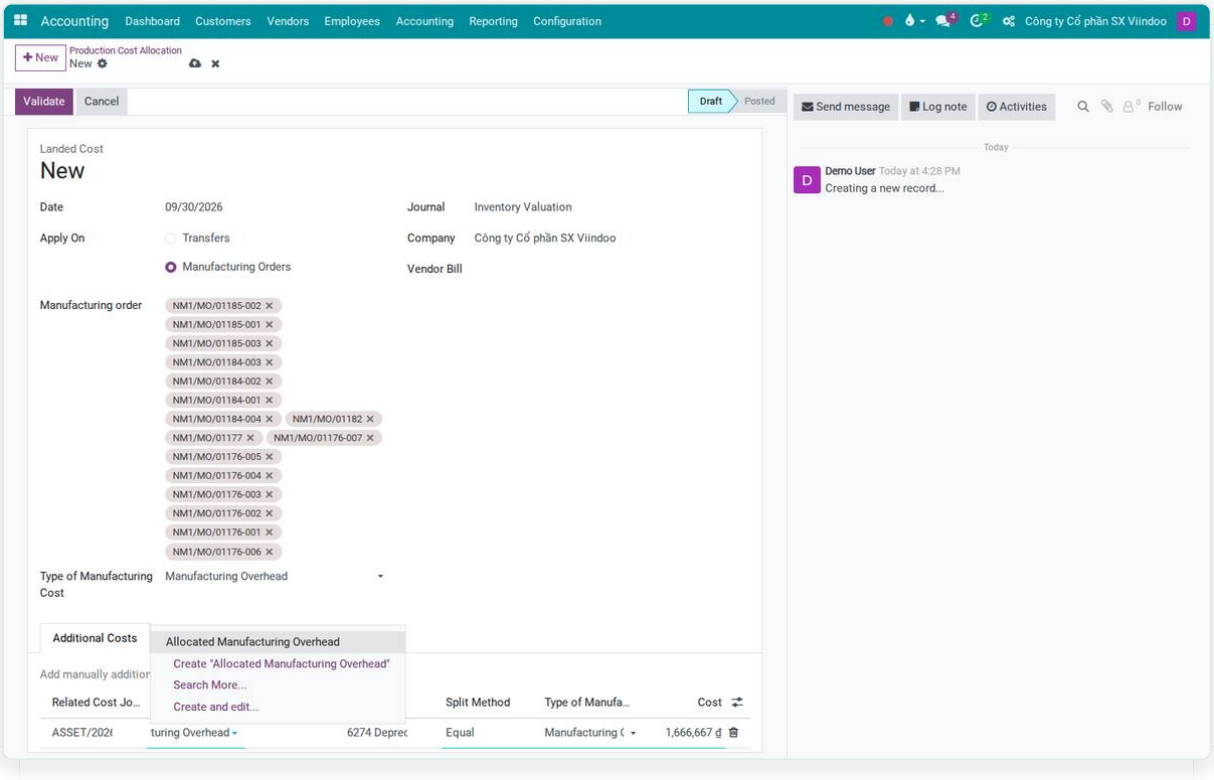


What you should see: Date 09/30/2026, **Apply On** = Manufacturing Orders, 16 orders in the box **Manufacturing order**, **Type of Manufacturing Cost** = Manufacturing Overhead. The cost type box appears only after the orders have been chosen.

Step 4 - Choose the depreciation entry to allocate

In the tab **Additional Costs**, click **Add a line**. In the box **Related Cost Journal Items** type `ASSET/2026/09/0003` and choose the line that ends with **[Debit 6274]**. In the box **Product** type `Allocated Manufacturing Overhead`: the dropdown shows the existing product on top, followed by **Create "Allocated Manufacturing Overhead"**, **Search More...** and **Create and edit...**; choose the existing product.

> *Path:* allocation document > tab **Additional Costs** > **Add a line** (`Accounting > Accounting > Production Cost Allocation`)

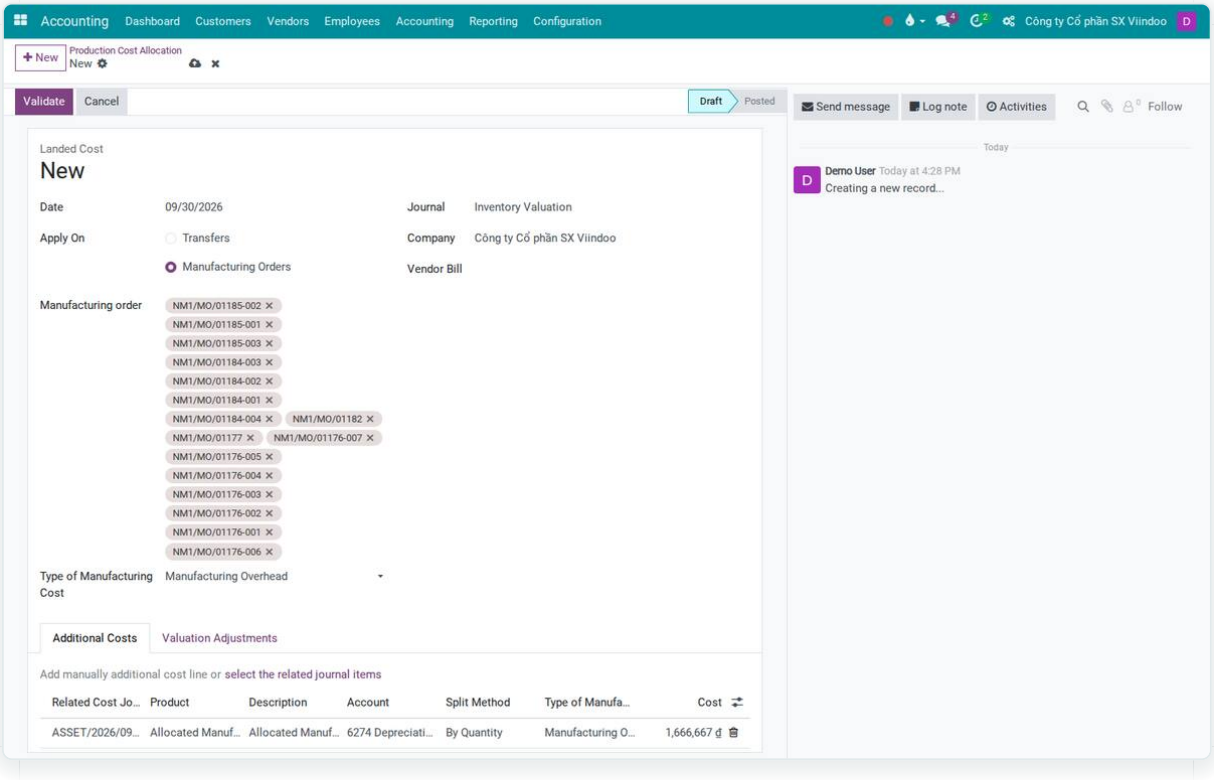


What you should see: the box **Account** fills in 6274 Depreciation expense by itself, and the box **Cost** fills in 1,666,667 VND (the September depreciation of the asset on the journal item ASSET/2026/09/0003). The list of journal items shows only amounts not yet fully allocated; an item already fully allocated does not show again. If the line ASSET/2026/09/0003 is no longer there, choose another 6274 depreciation item that is still on the list.

Step 5 - Choose how to split

In the box **Split Method** choose **By Quantity**, leave the line's **Type of Manufacturing Cost** at **Manufacturing Overhead**, and click the save icon.

> *Path:* allocation document > tab **Additional Costs** (`Accounting > Accounting > Production Cost Allocation`)

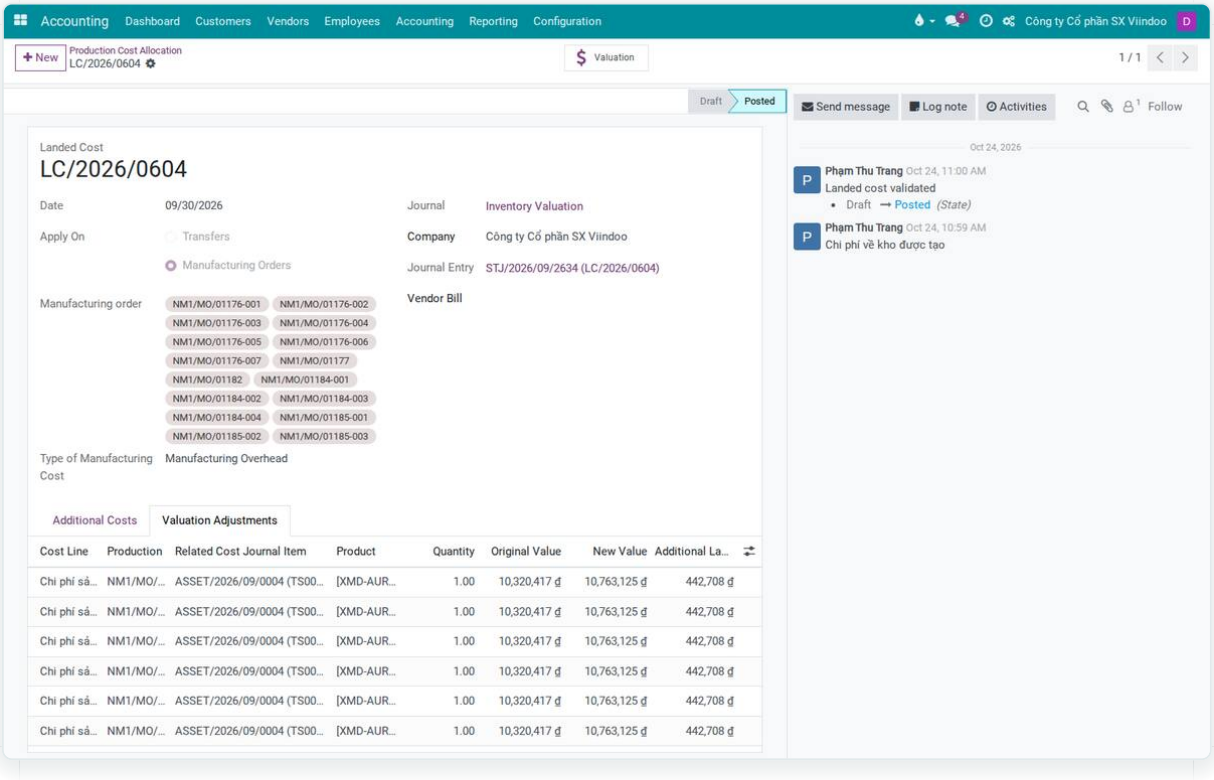


What you should see: the line has the boxes **Related Cost Journal Item**, **Product**, **Description**, **Account** 6274, **Split Method By Quantity**, **Type of Manufacturing Cost Manufacturing Overhead** and **Cost** 1,666,667 VND; the document shows **Date** 09/30/2026, **Apply On** Manufacturing Orders, the 16 orders and the type **Manufacturing Overhead**. The other split methods are **Equal**, **By Current Cost**, **By Weight** and **By Volume**.

Step 6 - Compute and read the split

Click **Compute** and open the tab **Valuation Adjustments**.

> *Path:* allocation document > **Compute** > tab **Valuation Adjustments** (`Accounting > Accounting > Production Cost Allocation`)

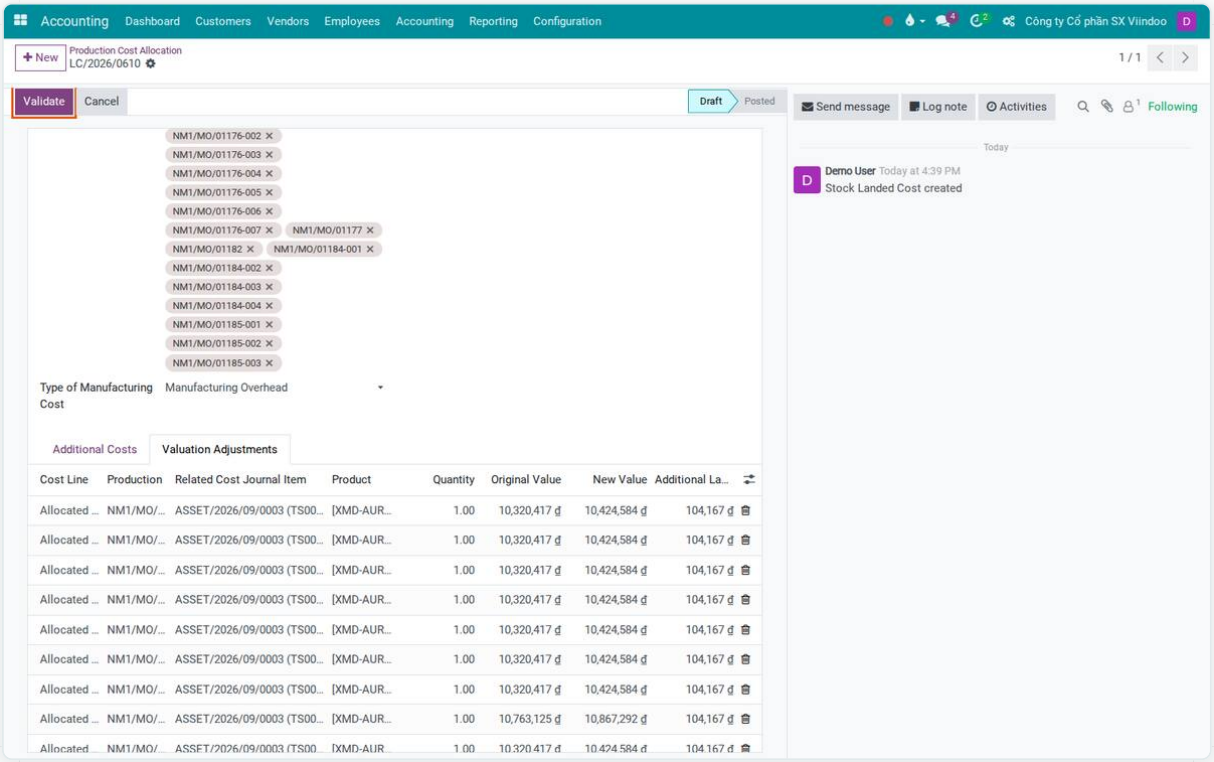


What you should see: one line per order, with the columns **Cost Line**, **Production**, **Related Cost Journal Item**, **Product**, **Quantity**, **Original Value**, **New Value** and **Additional Landed Cost**. In the posted example LC/2026/0604 shown in the screenshot each vehicle line reads **Original Value** 10,320,417 VND, **New Value** 10,763,125 VND, **Additional Landed Cost** 442,708 VND (7,083,333 VND split equally over 16 vehicles).

Step 7 - Validate the document

Click **Validate**.

> *Path:* allocation document > **Validate** (`Accounting > Accounting > Production Cost Allocation`)

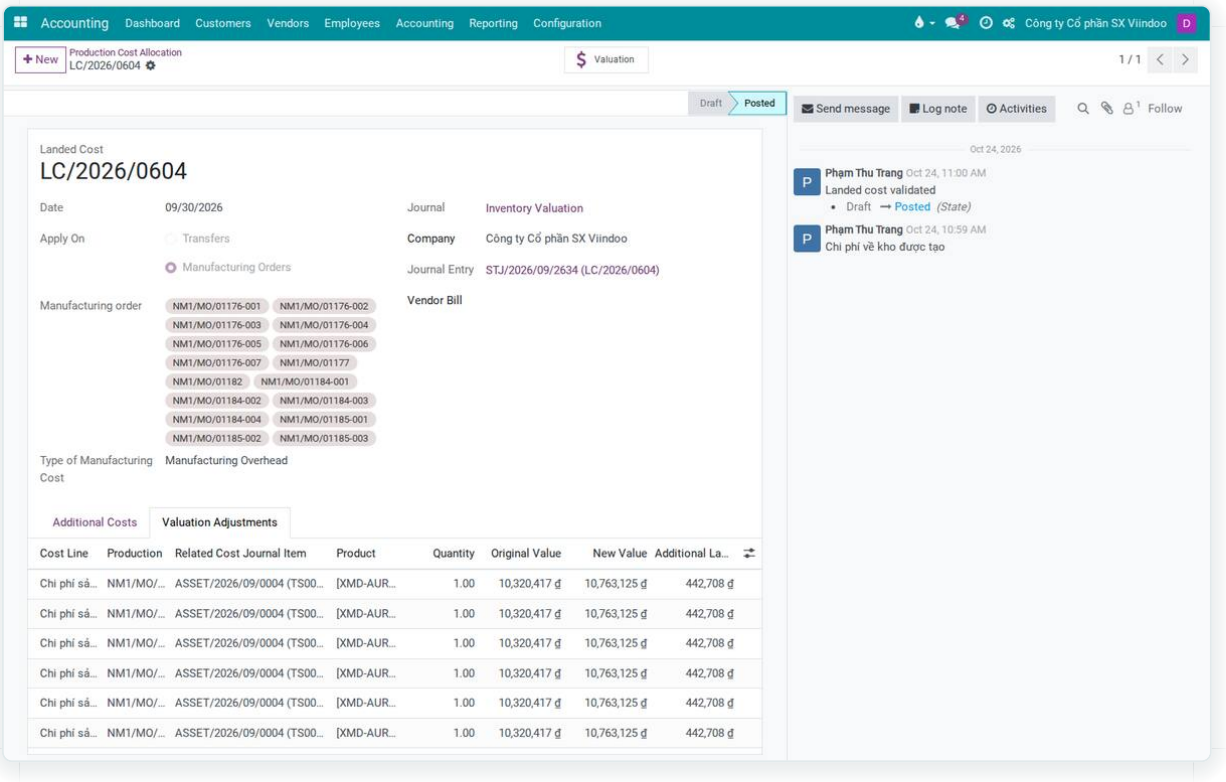


What you should see: the **Validate** and **Cancel** buttons at the top left, and the document is still **Draft** (status bar Draft > Posted).

Step 8 - Read the posted document

Read the document again.

> *Path:* `Accounting > Accounting > Production Cost Allocation` > the document you just created



What you should see: the document has a number (LC/2026/0604 in the posted example), the status **Posted**, the smart button **Valuation**, and the field **Journal Entry** that links to the entry it created. The entry (STJ/2026/09/2634, dated 30/09/2026 in the example): Debit 155 7,083,333 VND / Credit 6274 7,083,333 VND; then, because 15 of the 16 vehicles have been delivered to customers, Debit 632 / Credit 155 6,640,625 VND. The result: 6,640,625 VND goes into the cost of goods of the vehicles already sold, and 442,708 VND stays in the value of the vehicle still in stock.

What the allocation document checks and does not do:

Point	What the system does
Compute is required before **Validate**	Checked
One journal item cannot be chosen twice on the same document; the line must have the same account as the journal item	Checked
Automatically choose the 621, 622, 627 items at period end, and calculate the difference between actual payroll and the labor hours already counted	**Not done**: the accountant chooses the journal item and the amount to allocate
Automatically close 621, 622, 627 at period end	**No** automatic closing entry; this document brings the allocable part into the product cost, and the accountant closes the rest to 632

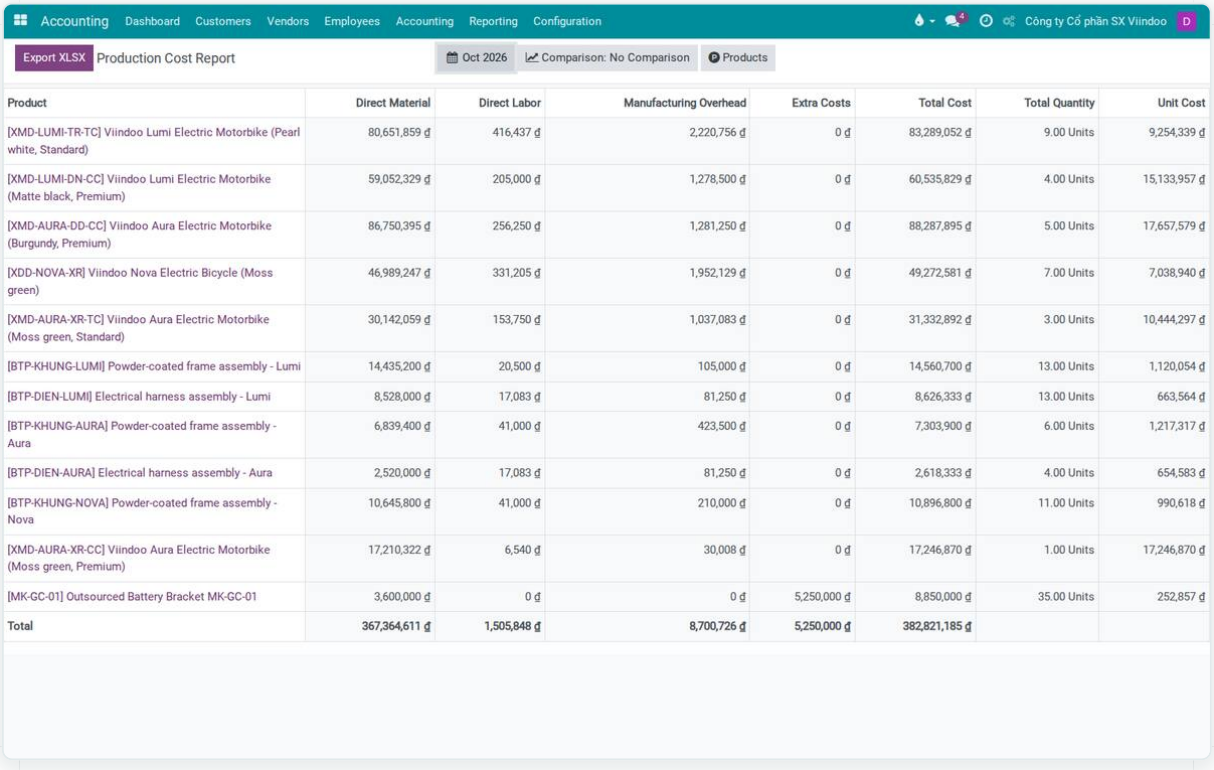
84 PRODUCTION COST REPORT

About 10 minutes. By the end of this lesson your company reads the cost per product and per month, split into three cost items, and sees the depreciation just allocated inside the cost of the Aura vehicles.

Step 1 - Open the production cost report

Open the report.

> *Path:* `Accounting > Reporting > Manufacturing Reports > Production Cost Report` (also at `Manufacturing > Reporting > Production Cost Report`)



Product	Direct Material	Direct Labor	Manufacturing Overhead	Extra Costs	Total Cost	Total Quantity	Unit Cost
[XMD-LUMI-TR-TC] Viindoo Lumi Electric Motorbike (Pearl white, Standard)	80,651,859 ₫	416,437 ₫	2,220,756 ₫	0 ₫	83,289,052 ₫	9.00 Units	9,254,339 ₫
[XMD-LUMI-DN-CC] Viindoo Lumi Electric Motorbike (Matte black, Premium)	59,052,329 ₫	205,000 ₫	1,278,500 ₫	0 ₫	60,535,829 ₫	4.00 Units	15,133,957 ₫
[XMD-AURA-DD-CC] Viindoo Aura Electric Motorbike (Burgundy, Premium)	86,750,395 ₫	256,250 ₫	1,281,250 ₫	0 ₫	88,287,895 ₫	5.00 Units	17,657,579 ₫
[XDD-NOVA-XR] Viindoo Nova Electric Bicycle (Moss green)	46,989,247 ₫	331,205 ₫	1,952,129 ₫	0 ₫	49,272,581 ₫	7.00 Units	7,038,940 ₫
[XMD-AURA-XR-TC] Viindoo Aura Electric Motorbike (Moss green, Standard)	30,142,059 ₫	153,750 ₫	1,037,083 ₫	0 ₫	31,332,892 ₫	3.00 Units	10,444,297 ₫
[BTP-KHUNG-LUMI] Powder-coated frame assembly - Lumi	14,435,200 ₫	20,500 ₫	105,000 ₫	0 ₫	14,560,700 ₫	13.00 Units	1,120,054 ₫
[BTP-DIEN-LUMI] Electrical harness assembly - Lumi	8,528,000 ₫	17,083 ₫	81,250 ₫	0 ₫	8,626,333 ₫	13.00 Units	663,564 ₫
[BTP-KHUNG-AURA] Powder-coated frame assembly - Aura	6,839,400 ₫	41,000 ₫	423,500 ₫	0 ₫	7,303,900 ₫	6.00 Units	1,217,317 ₫
[BTP-DIEN-AURA] Electrical harness assembly - Aura	2,520,000 ₫	17,083 ₫	81,250 ₫	0 ₫	2,618,333 ₫	4.00 Units	654,583 ₫
[BTP-KHUNG-NOVA] Powder-coated frame assembly - Nova	10,645,800 ₫	41,000 ₫	210,000 ₫	0 ₫	10,896,800 ₫	11.00 Units	990,618 ₫
[XMD-AURA-XR-CC] Viindoo Aura Electric Motorbike (Moss green, Premium)	17,210,322 ₫	6,540 ₫	30,008 ₫	0 ₫	17,246,870 ₫	1.00 Units	17,246,870 ₫
[MK-GC-01] Outsourced Battery Bracket MK-GC-01	3,600,000 ₫	0 ₫	0 ₫	5,250,000 ₫	8,850,000 ₫	35.00 Units	252,857 ₫
Total	**367,364,611 ₫**	**1,505,848 ₫**	**8,700,726 ₫**	**5,250,000 ₫**	**382,821,185 ₫**		

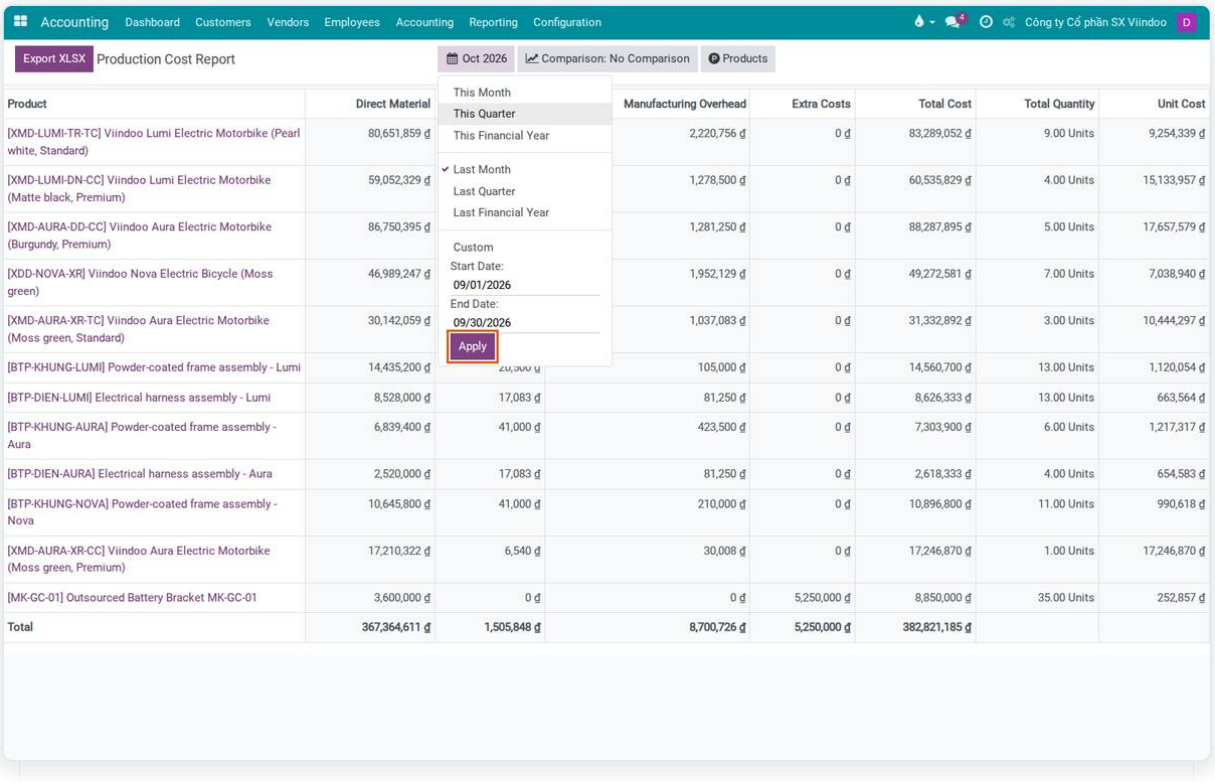
What you should see: the current month by default; one line per product with the columns **Direct Material**, **Direct Labor**, **Manufacturing Overhead**, **Extra Costs**, **Total Cost**, **Total Quantity** and **Unit Cost**; the **Export XLSX** button and **Comparison** with the previous period. The Nova frame-assembly order of the previous lesson is in the line [BTP-KHUNG-NOVA].

Step 2 - Switch to last month

> *Path:* still on the screen of the previous step (`Accounting > Reporting > Manufacturing Reports > Production Cost Report`)

Click the period box (it shows the current month) and, in the section **Custom**, enter **Start Date** `09/01/2026` and **End Date** `09/30/2026`, then click **Apply**.

> *Path:* production cost report > the period box (`Accounting > Reporting > Manufacturing Reports > Production Cost Report`)

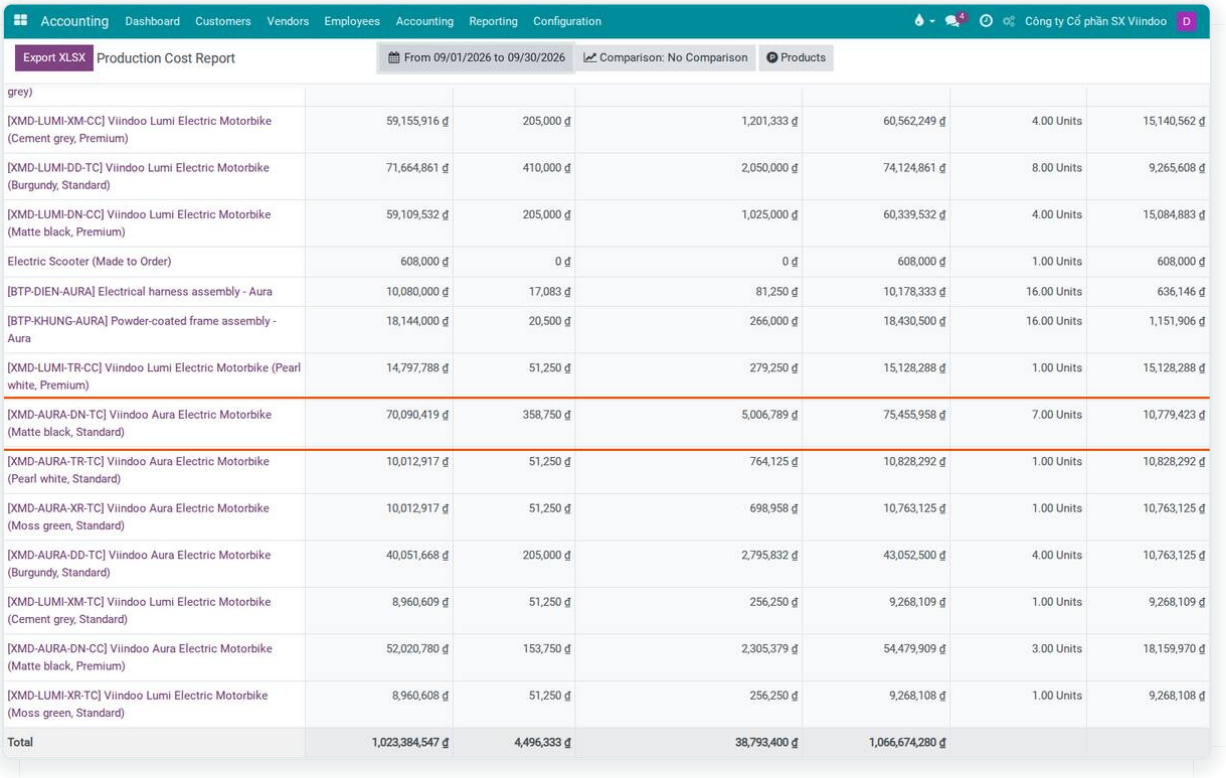


What you should see: the list of periods: **This Month**, **This Quarter**, **This Financial Year**, **Last Month**, **Last Quarter**, **Last Financial Year**, and the section **Custom** with **Start Date**, **End Date** and the button **Apply**. (You can also choose **Last Month** if the previous month is the one you want.)

Step 3 - Find the Aura vehicle line

Read the line **[XMD-AURA-DN-TC] Viindoo Aura Electric Motorbike (Matte black, Standard)**.

> *Path:* production cost report > period 09/01/2026 - 09/30/2026 (`Accounting > Reporting > Manufacturing Reports > Production Cost Report`)



grey)						
[XMD-LUMI-XM-CC] Viindoo Lumi Electric Motorbike (Cement grey, Premium)	59,155,916 ₫	205,000 ₫	1,201,333 ₫	60,562,249 ₫	4.00 Units	15,140,562 ₫
[XMD-LUMI-DD-TC] Viindoo Lumi Electric Motorbike (Burgundy, Standard)	71,664,861 ₫	410,000 ₫	2,050,000 ₫	74,124,861 ₫	8.00 Units	9,265,608 ₫
[XMD-LUMI-DN-CC] Viindoo Lumi Electric Motorbike (Matte black, Premium)	59,109,532 ₫	205,000 ₫	1,025,000 ₫	60,339,532 ₫	4.00 Units	15,084,883 ₫
Electric Scooter (Made to Order)	608,000 ₫	0 ₫	0 ₫	608,000 ₫	1.00 Units	608,000 ₫
[BTP-DIEN-AURA] Electrical harness assembly - Aura	10,080,000 ₫	17,083 ₫	81,250 ₫	10,178,333 ₫	16.00 Units	636,146 ₫
[BTP-KHUNG-AURA] Powder-coated frame assembly - Aura	18,144,000 ₫	20,500 ₫	266,000 ₫	18,430,500 ₫	16.00 Units	1,151,906 ₫
[XMD-LUMI-TR-CC] Viindoo Lumi Electric Motorbike (Pearl white, Premium)	14,797,788 ₫	51,250 ₫	279,250 ₫	15,128,288 ₫	1.00 Units	15,128,288 ₫
[XMD-AURA-DN-TC] Viindoo Aura Electric Motorbike (Matte black, Standard)	70,090,419 ₫	358,750 ₫	5,006,789 ₫	75,455,958 ₫	7.00 Units	10,779,423 ₫
[XMD-AURA-TR-TC] Viindoo Aura Electric Motorbike (Pearl white, Standard)	10,012,917 ₫	51,250 ₫	764,125 ₫	10,828,292 ₫	1.00 Units	10,828,292 ₫
[XMD-AURA-XR-TC] Viindoo Aura Electric Motorbike (Moss green, Standard)	10,012,917 ₫	51,250 ₫	698,958 ₫	10,763,125 ₫	1.00 Units	10,763,125 ₫
[XMD-AURA-DD-TC] Viindoo Aura Electric Motorbike (Burgundy, Standard)	40,051,668 ₫	205,000 ₫	2,795,832 ₫	43,052,500 ₫	4.00 Units	10,763,125 ₫
[XMD-LUMI-XM-TC] Viindoo Lumi Electric Motorbike (Cement grey, Standard)	8,960,609 ₫	51,250 ₫	256,250 ₫	9,268,109 ₫	1.00 Units	9,268,109 ₫
[XMD-AURA-DN-CC] Viindoo Aura Electric Motorbike (Matte black, Premium)	52,020,780 ₫	153,750 ₫	2,305,379 ₫	54,479,909 ₫	3.00 Units	18,159,970 ₫
[XMD-LUMI-XR-TC] Viindoo Lumi Electric Motorbike (Moss green, Standard)	8,960,608 ₫	51,250 ₫	256,250 ₫	9,268,108 ₫	1.00 Units	9,268,108 ₫
Total	1,023,384,547 ₫	4,496,333 ₫	38,793,400 ₫	1,066,674,280 ₫		

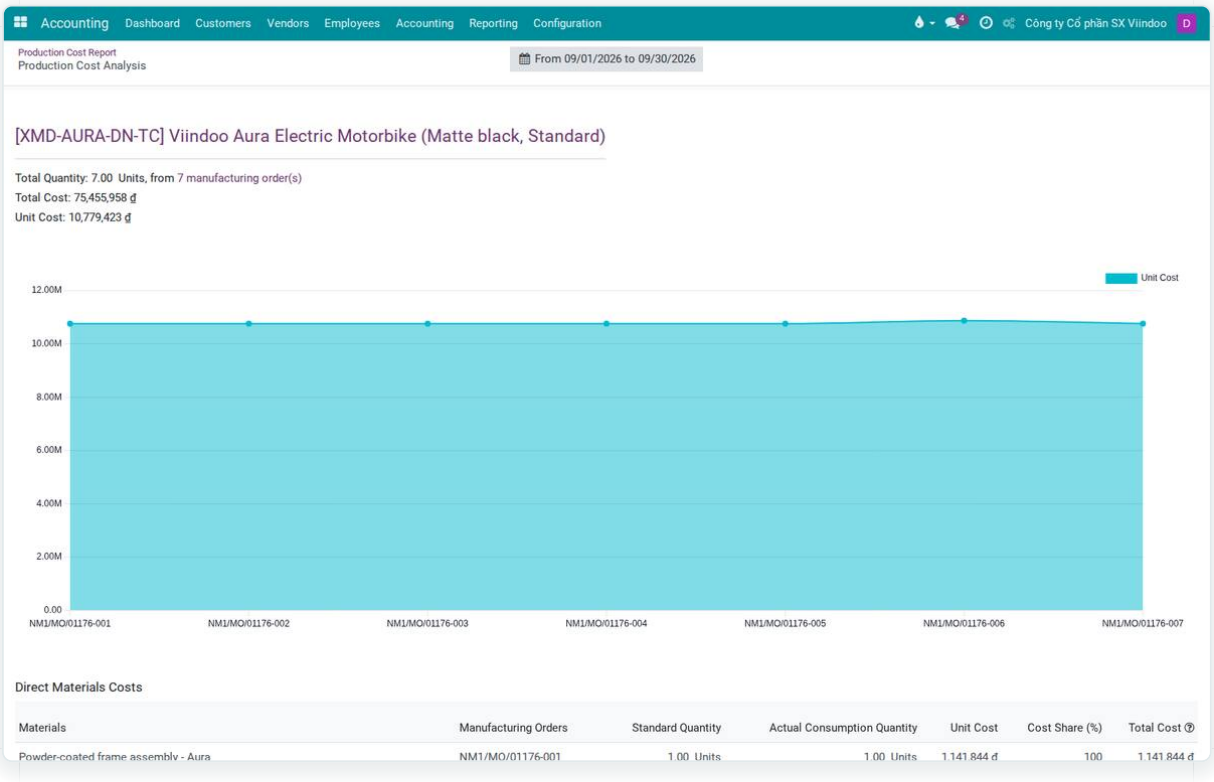
What you should see: the period box reads "From 09/01/2026 to 09/30/2026"; the line Aura Matte black Standard has 7 vehicles, **Total Cost** 75,455,958 VND and **Unit Cost** 10,779,423 VND (including the allocated depreciation); the Aura Standard vehicles in Moss green and Burgundy come to 10,763,125 VND each.

Step 4 - Open the detail of one product

> *Path:* still on the screen of the previous step (`Accounting > Reporting > Manufacturing Reports > Production Cost Report`)

Click the product name on that line.

> *Path:* production cost report > click the product name (`Accounting > Reporting > Manufacturing Reports > Production Cost Report`)

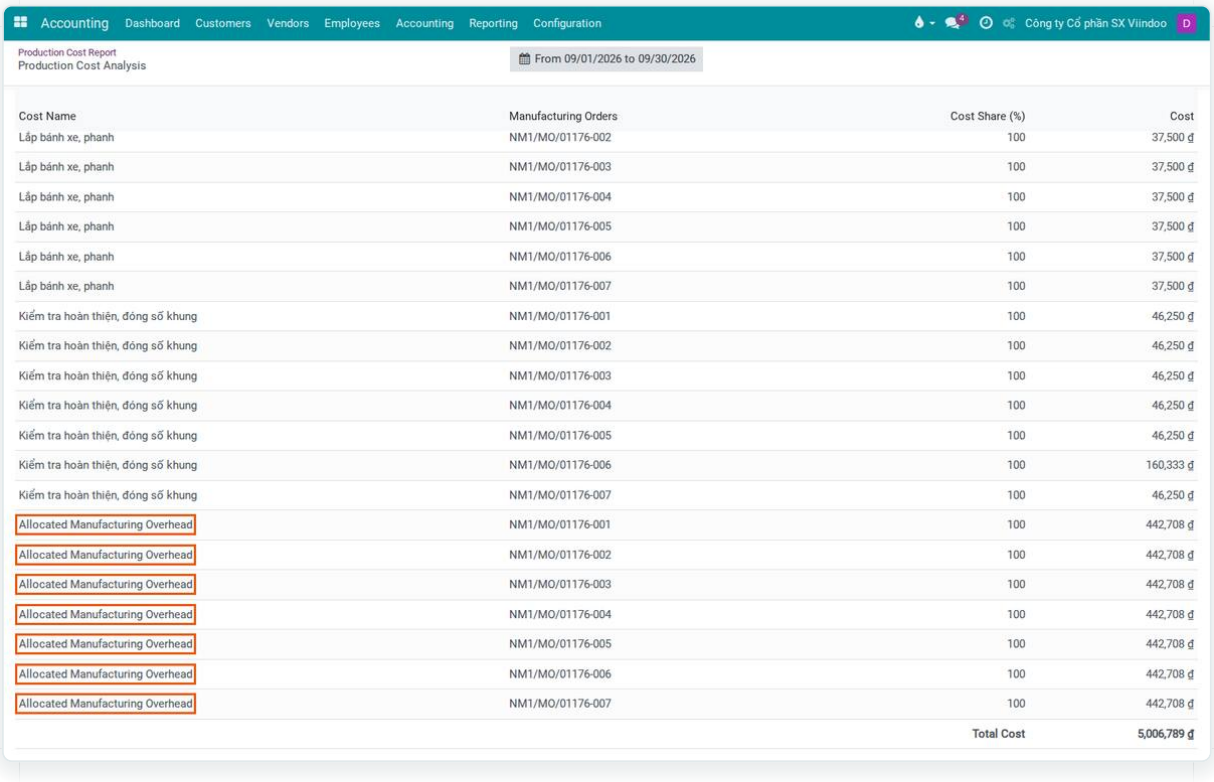


What you should see: the **Production Cost Analysis** screen of the product: **Total Quantity** 7.00 Units, from 7 manufacturing orders, **Total Cost** 75,455,958 VND and **Unit Cost** 10,779,423 VND; a chart of the unit cost of each order; the block **Direct Materials Costs** lists every component of every order with **Standard Quantity** and **Actual Consumption Quantity** so you can see the deviation from the standard; the top of the screen shows **Total Quantity**, **Total Cost** and **Unit Cost**.

Step 5 - Find the depreciation you just allocated

Scroll down to the block of manufacturing overhead.

> *Path:* production cost report > the product name > the block of manufacturing overhead
> (`Accounting > Reporting > Manufacturing Reports > Production Cost Report`)



Cost Name	Manufacturing Orders	Cost Share (%)	Cost
Lắp bánh xe, phanh	NM1/MO/01176-002	100	37,500 ₫
Lắp bánh xe, phanh	NM1/MO/01176-003	100	37,500 ₫
Lắp bánh xe, phanh	NM1/MO/01176-004	100	37,500 ₫
Lắp bánh xe, phanh	NM1/MO/01176-005	100	37,500 ₫
Lắp bánh xe, phanh	NM1/MO/01176-006	100	37,500 ₫
Lắp bánh xe, phanh	NM1/MO/01176-007	100	37,500 ₫
Kiểm tra hoàn thiện, đóng số khung	NM1/MO/01176-001	100	46,250 ₫
Kiểm tra hoàn thiện, đóng số khung	NM1/MO/01176-002	100	46,250 ₫
Kiểm tra hoàn thiện, đóng số khung	NM1/MO/01176-003	100	46,250 ₫
Kiểm tra hoàn thiện, đóng số khung	NM1/MO/01176-004	100	46,250 ₫
Kiểm tra hoàn thiện, đóng số khung	NM1/MO/01176-005	100	46,250 ₫
Kiểm tra hoàn thiện, đóng số khung	NM1/MO/01176-006	100	160,333 ₫
Kiểm tra hoàn thiện, đóng số khung	NM1/MO/01176-007	100	46,250 ₫
Allocated Manufacturing Overhead	NM1/MO/01176-001	100	442,708 ₫
Allocated Manufacturing Overhead	NM1/MO/01176-002	100	442,708 ₫
Allocated Manufacturing Overhead	NM1/MO/01176-003	100	442,708 ₫
Allocated Manufacturing Overhead	NM1/MO/01176-004	100	442,708 ₫
Allocated Manufacturing Overhead	NM1/MO/01176-005	100	442,708 ₫
Allocated Manufacturing Overhead	NM1/MO/01176-006	100	442,708 ₫
Allocated Manufacturing Overhead	NM1/MO/01176-007	100	442,708 ₫
		Total Cost	5,006,789 ₫

What you should see: besides the machine hours of the three assembly operations (columns **Cost Name**, **Manufacturing Orders**, **Cost Share (%)**, **Cost**), each order has a line **Allocated Manufacturing Overhead** of 442,708 VND; the block total is 5,006,789 VND.

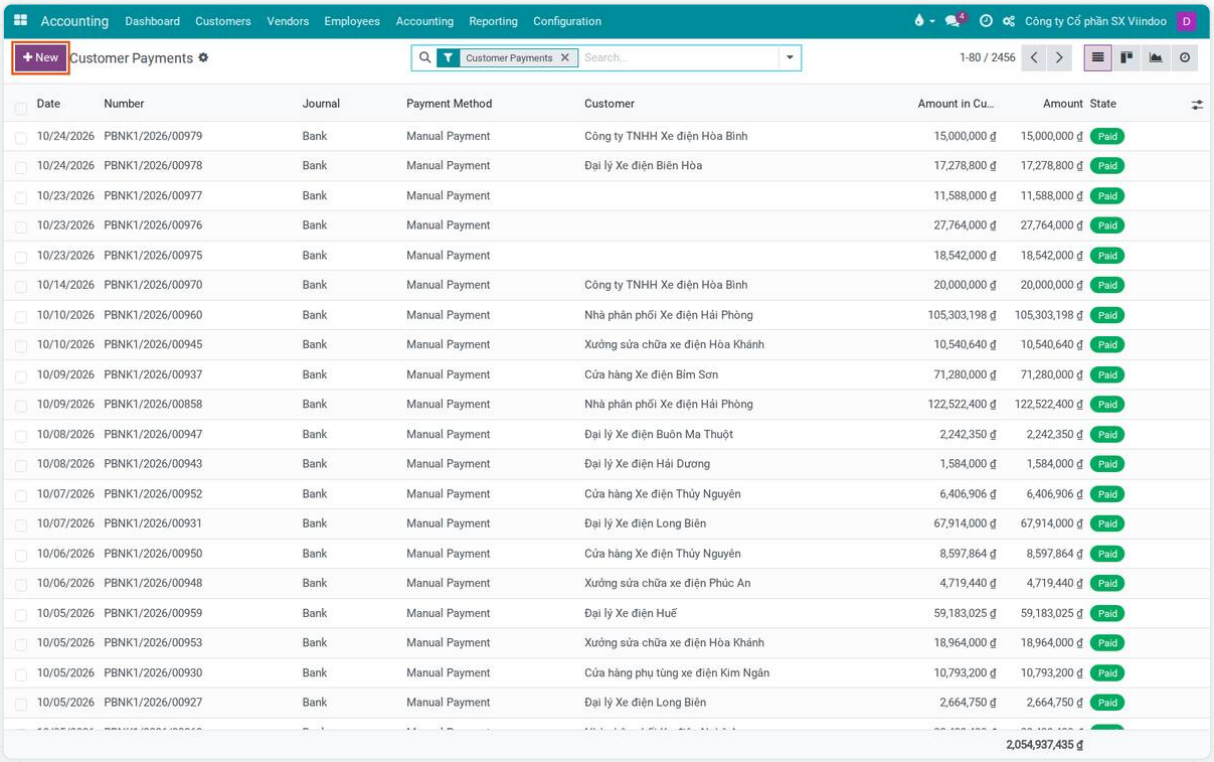
85 RECONCILE THE BANK STATEMENT

About 15 minutes. By the end of this lesson your company has recorded a customer's bank transfer, entered the matching bank transaction line, and reconciled the two. The bank journal of the company already has 38 monthly statements (09/2023 - 10/2026) reconciled; the lesson adds one new transaction of your company's own.

Step 1 - Create a new receipt

Open the list of customer payments and click **New**.

> *Path:* `Accounting > Customers > Payments`

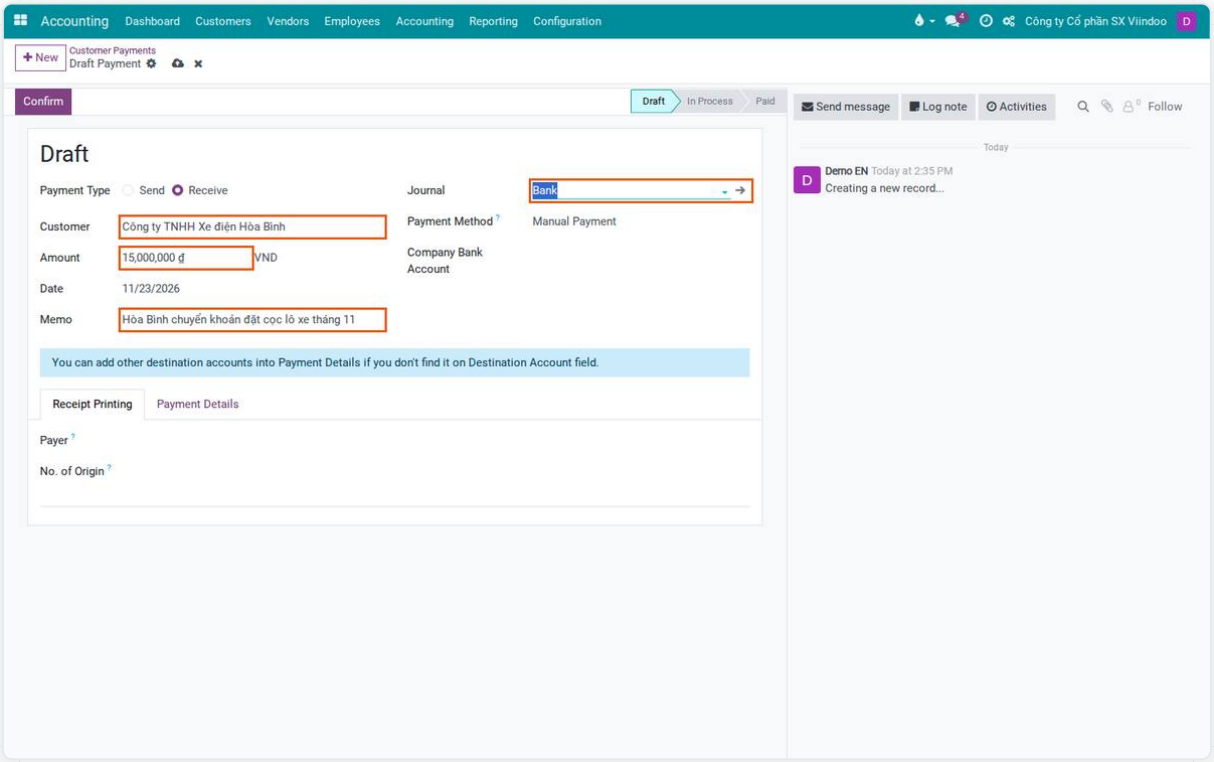


What you should see: the **Customer Payments** form, status **Draft**, **Payment Type** = Receive, and the button **Confirm**.

Step 2 - Fill in the receipt

Choose **Customer** "Công ty TNHH Xe điện Hòa Bình", **Amount** 15,000,000, **Memo** "Hòa Bình chuyển khoản đặt cọc lô xe tháng 11" (Hòa Bình bank transfer, deposit for the November vehicle batch), **Journal** Bank, and click **Confirm**.

> *Path:* `Accounting > Customers > Payments` > **New**

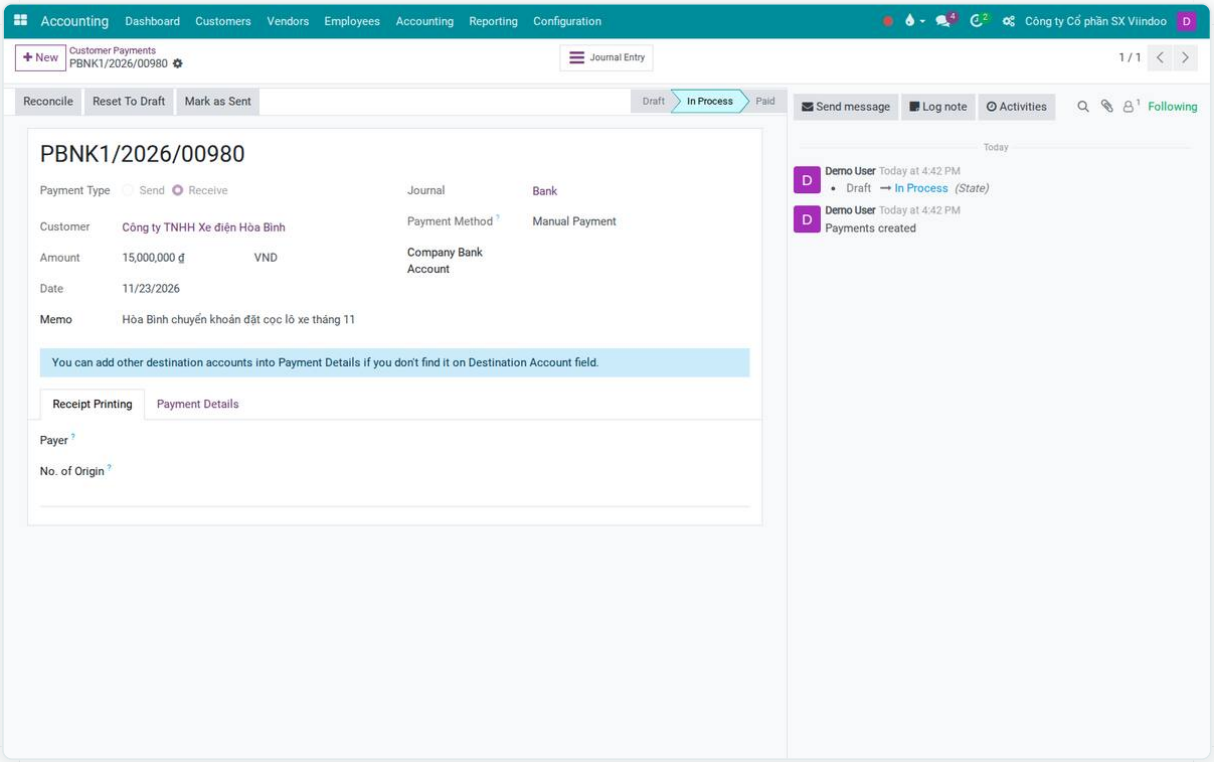


What you should see: Date is today, **Payment Method** "Manual Payment", and the note "You can add other destination accounts into Payment Details if you don't find it on Destination Account field."

Step 3 - Read the confirmed receipt

Read the receipt again.

> *Path:* `Accounting > Customers > Payments` > the receipt you just created

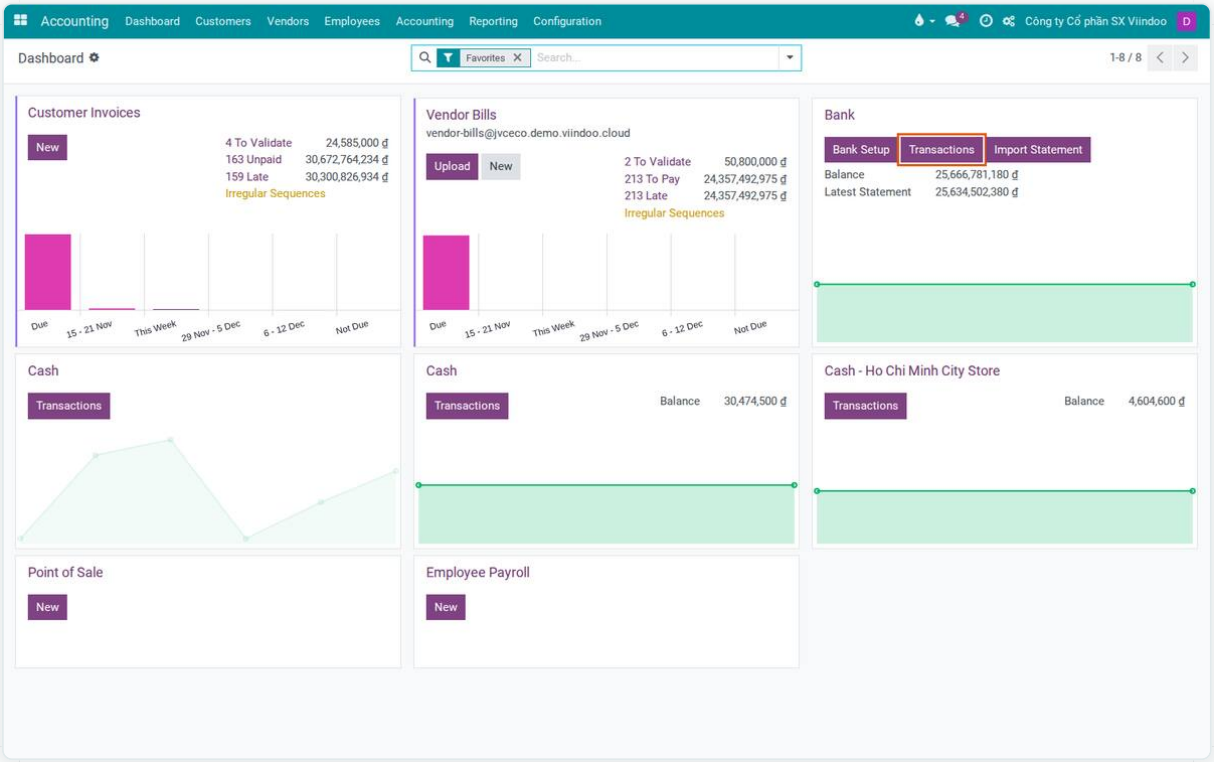


What you should see: a document number (PBNK1/2026/00980 in the trial run), the status **In Process** (status bar Draft > In Process > Paid), the smart buttons **Transaction** and **Journal Entry**, and the button **Reconcile** until the receipt is matched. The entry: Debit 1131 Receipts in Transit - Unreconciled / Credit 131. The money does not reach 1122 until it is matched to the statement.

Step 4 - Open the bank reconciliation screen

Open the accounting **Dashboard**, on the **Bank** card click **Transactions**.

> *Path:* `Accounting > Dashboard` > the **Bank** card > **Transactions**

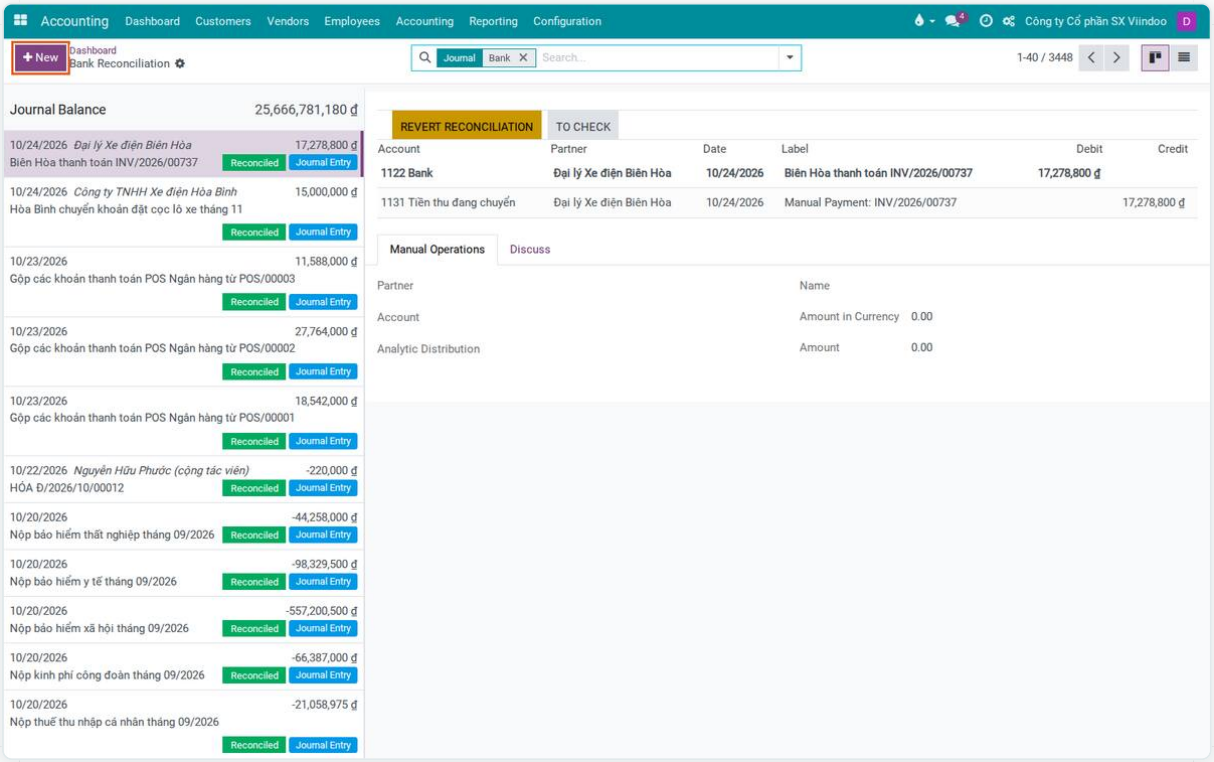


What you should see: the **Bank** card has a **Balance** line (the bank journal balance), a **Latest Statement** line (the balance of the latest bank statement), a **Payments** line when there are receipts and payments not yet reconciled (including the one you just created), and the buttons **Bank Setup**, **Transactions** and **Import Statement**.

Step 5 - Add a bank transaction line

On the **Bank Reconciliation** screen, click **New**.

> *Path:* `Accounting > Dashboard` > **Bank** > **Transactions** > **New**

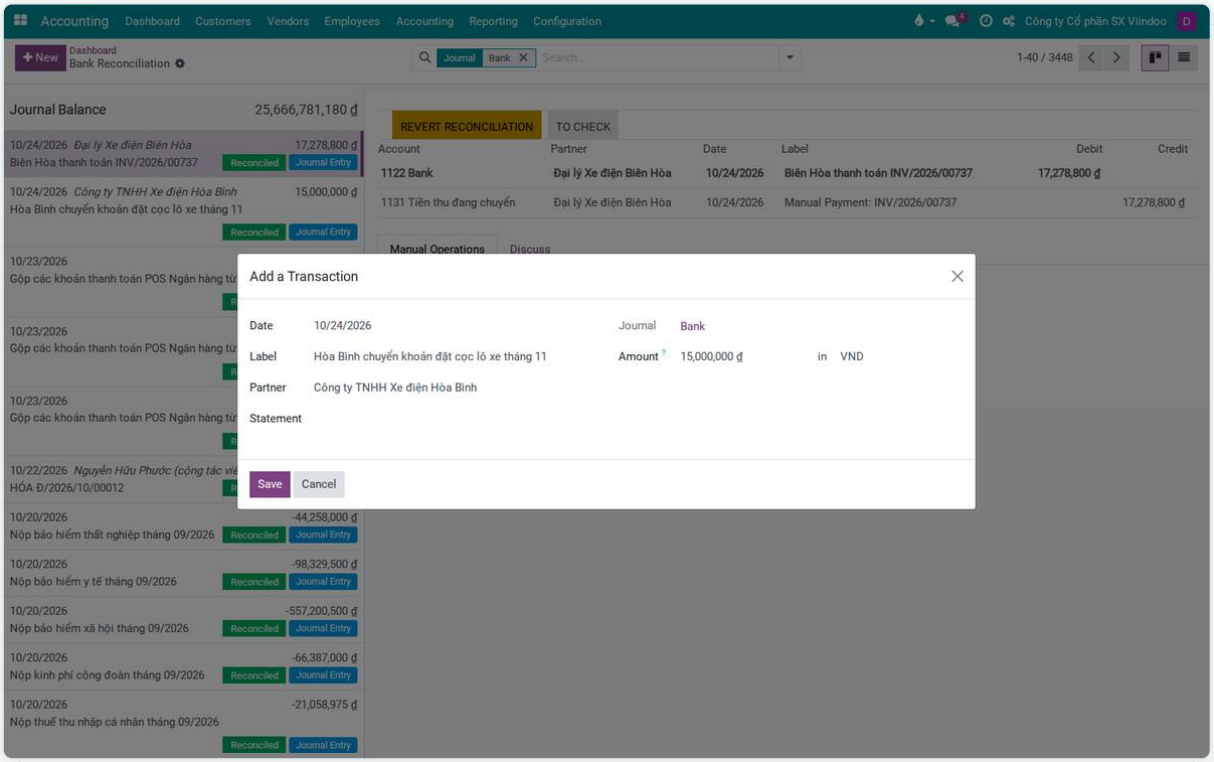


What you should see: the left column holds the bank transactions, and a matched transaction has the label **Reconciled**; the right column holds the journal entry of the chosen transaction. Every day the accountant uses **Import Statement** to load a CSV or XLSX statement file instead of typing; the lesson types one line to keep it short.

Step 6 - Fill in the transaction and save

In the **Add a Transaction** dialog: **Date** today, **Label** "Hòa Bình chuyển khoản đặt cọc lô xe tháng 11" (Hòa Bình bank transfer, deposit for the November vehicle batch), **Partner** "Công ty TNHH Xe điện Hòa Bình", **Amount** 15,000,000, and click **Save**.

> *Path:* the dialog **Add a Transaction** (`Accounting > Dashboard`)

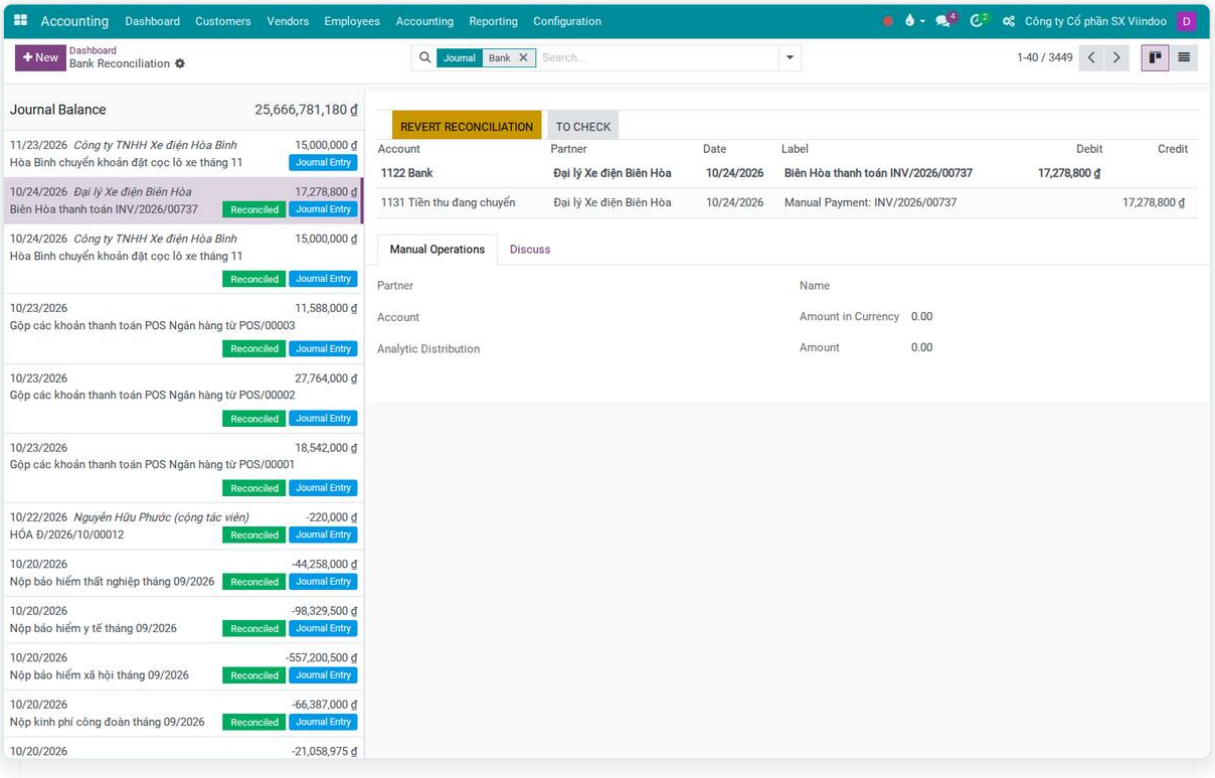


What you should see: Journal Bank, and the box **Statement** may be left empty (the line can be attached to next month's statement).

Step 7 - Open the transaction you just added

Click the transaction card at the top of the left column.

> *Path:* the **Bank Reconciliation** screen (`Accounting > Dashboard`)

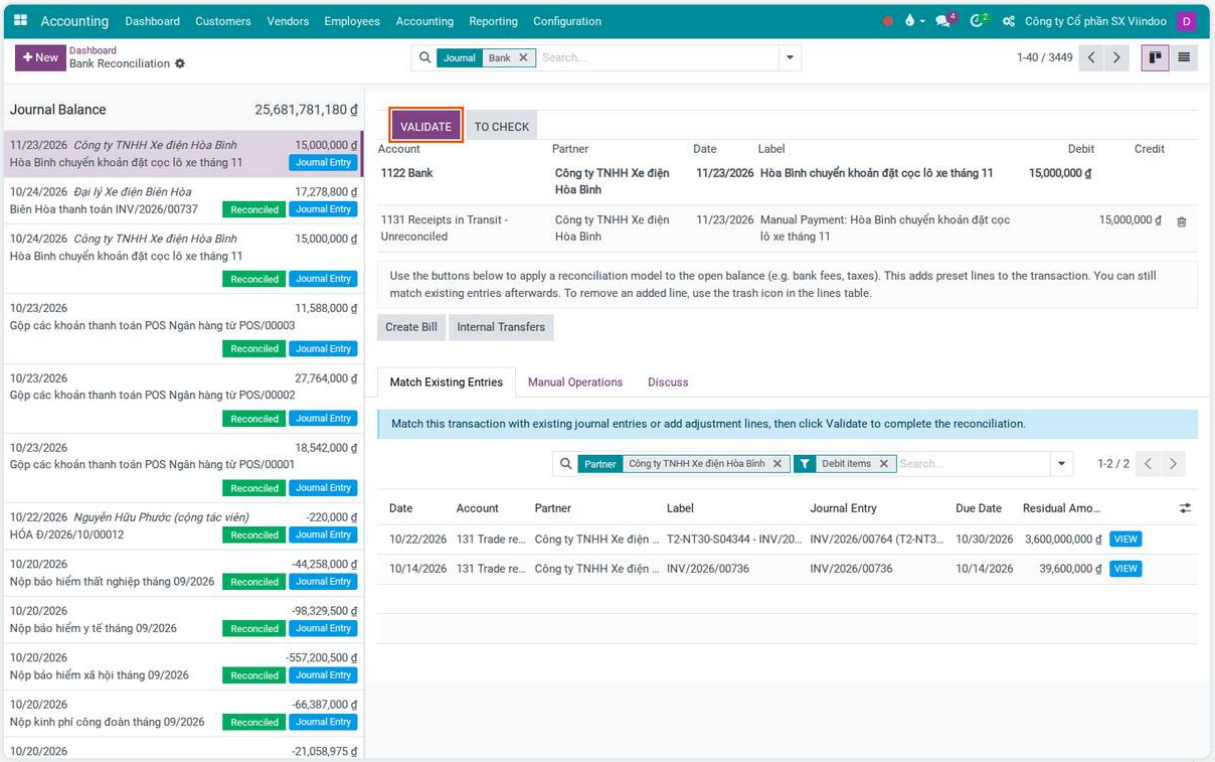


What you should see: the 15,000,000 VND transaction dated today at the top of the list, with only the button **Journal Entry** and without the label **Reconciled**; the other lines of the list carry the green **Reconciled** label.

Step 8 - Accept the suggested match and validate

Read the line the system suggests in the right column and click **VALIDATE**.

> *Path:* the **Bank Reconciliation** screen > the transaction you just added (`Accounting > Dashboard`)

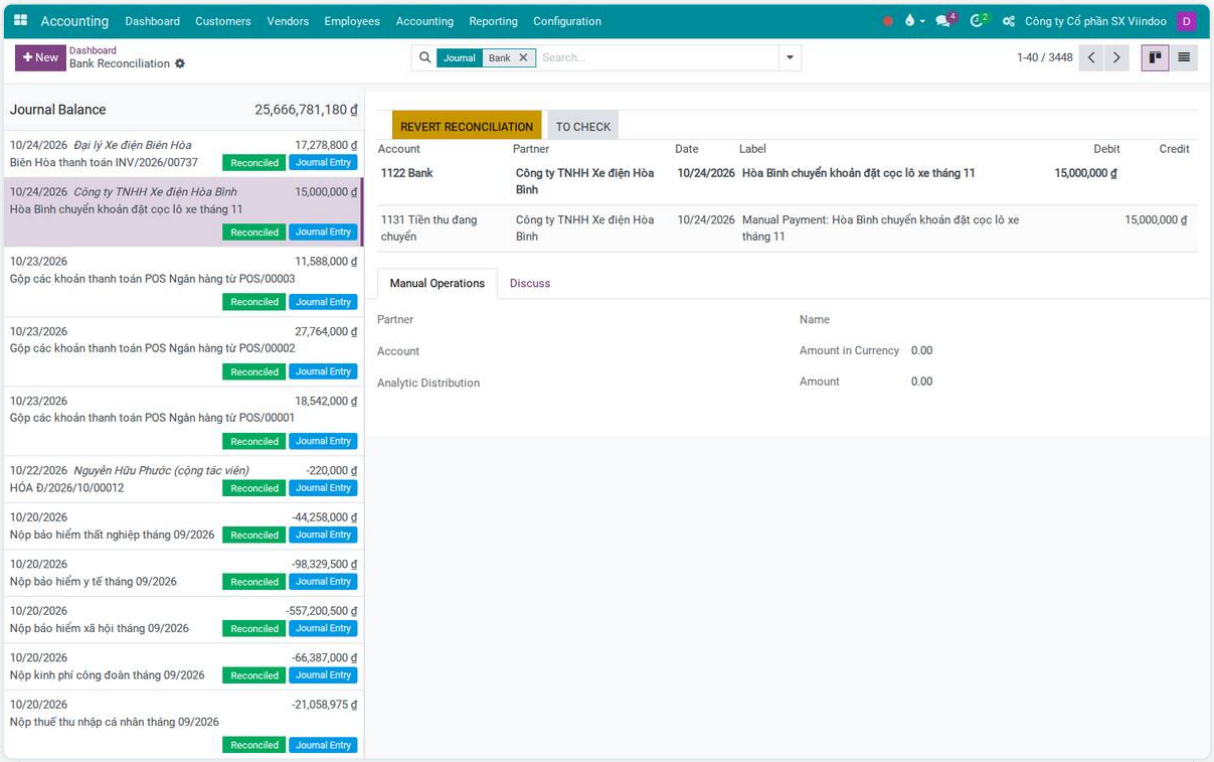


What you should see: the system finds the receipt of the same partner and the same amount and proposes: Debit 1122 Bank 15,000,000 VND / Credit 1131 Receipts in Transit - Unreconciled, label "Manual Payment: Hòa Bình chuyển khoản đặt cọc lô xe tháng 11", 15,000,000 VND. The top buttons are **VALIDATE** and **TO CHECK**, followed by the model buttons **Create Bill** and **Internal Transfers**. Below, the tab **Match Existing Entries** lists the open receivables of the same partner (filters **Partner** and **Debit items**, each with a **VIEW** button) in case you need to match against an invoice instead of the receipt; the other tabs are **Manual Operations** and **Discuss**.

Step 9 - Check the reconciled transaction

Read the transaction again.

> *Path:* the **Bank Reconciliation** screen (`Accounting > Dashboard`)

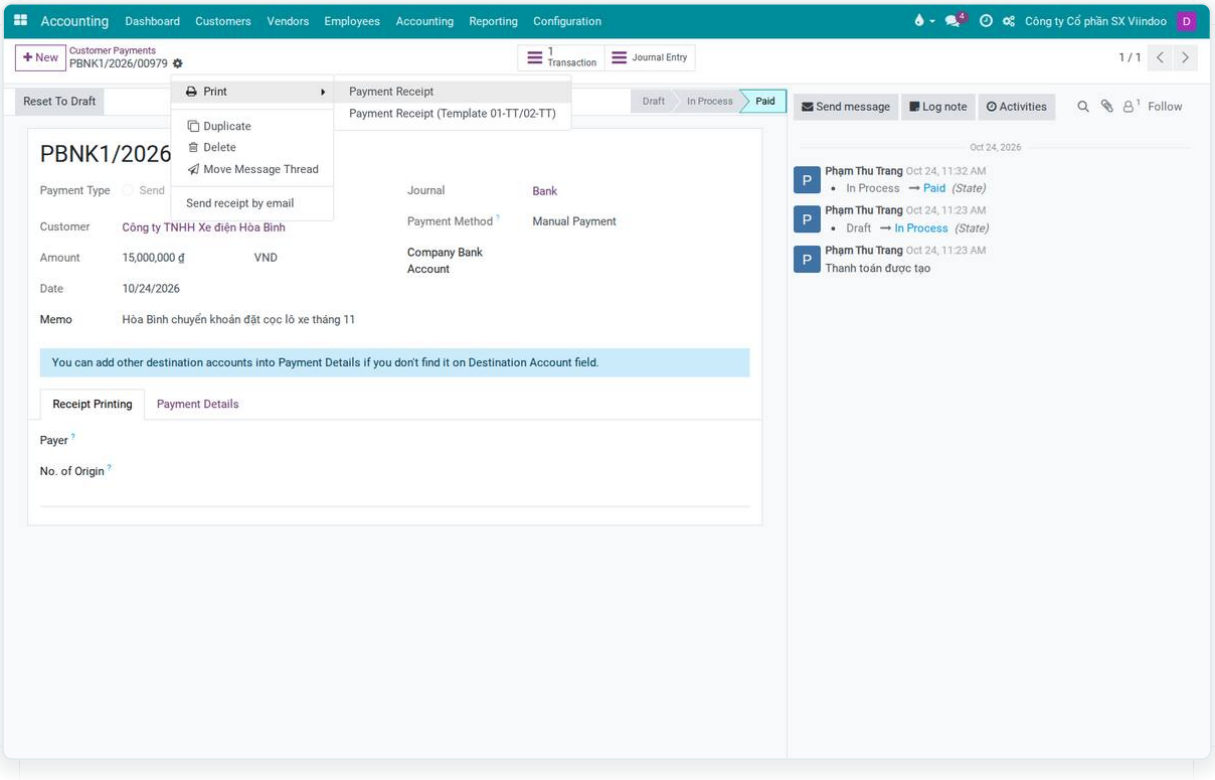


What you should see: the label **Reconciled** on the line, and the top button changes to **REVERT RECONCILIATION** (shown here on a line that was reconciled earlier).

Step 10 - Check the receipt and the print template

Open the PBNK1 receipt again, click the gear icon > **Print**.

> *Path:* `Accounting > Customers > Payments` > the receipt you just created > gear > **Print**



What you should see: the status **Paid**; the menu **Print** has **Payment Receipt** and **Payment Receipt (Template 01-TT/02-TT)** in the form of the Ministry of Finance.

The effect of reconciliation:

Place	Before reconciliation	After reconciliation
Accounts	Debit 1131 / Credit 131	Adds Debit 1122 / Credit 1131: 1131 returns to 0 for this item
The receipt	**In Process**	**Paid**
Dashboard	The **Payments** line of the Bank card includes this item	This item leaves the **Payments** line; **Balance** goes up by 15,000,000 VND; **Latest Statement** goes up only when the transaction is attached to a statement
Aged receivable	The 15,000,000 VND is a payment not yet matched to an invoice	No change: the advance waits to be offset against a later invoice
B03-DN	No cash flow line yet	The cash received from customers goes up

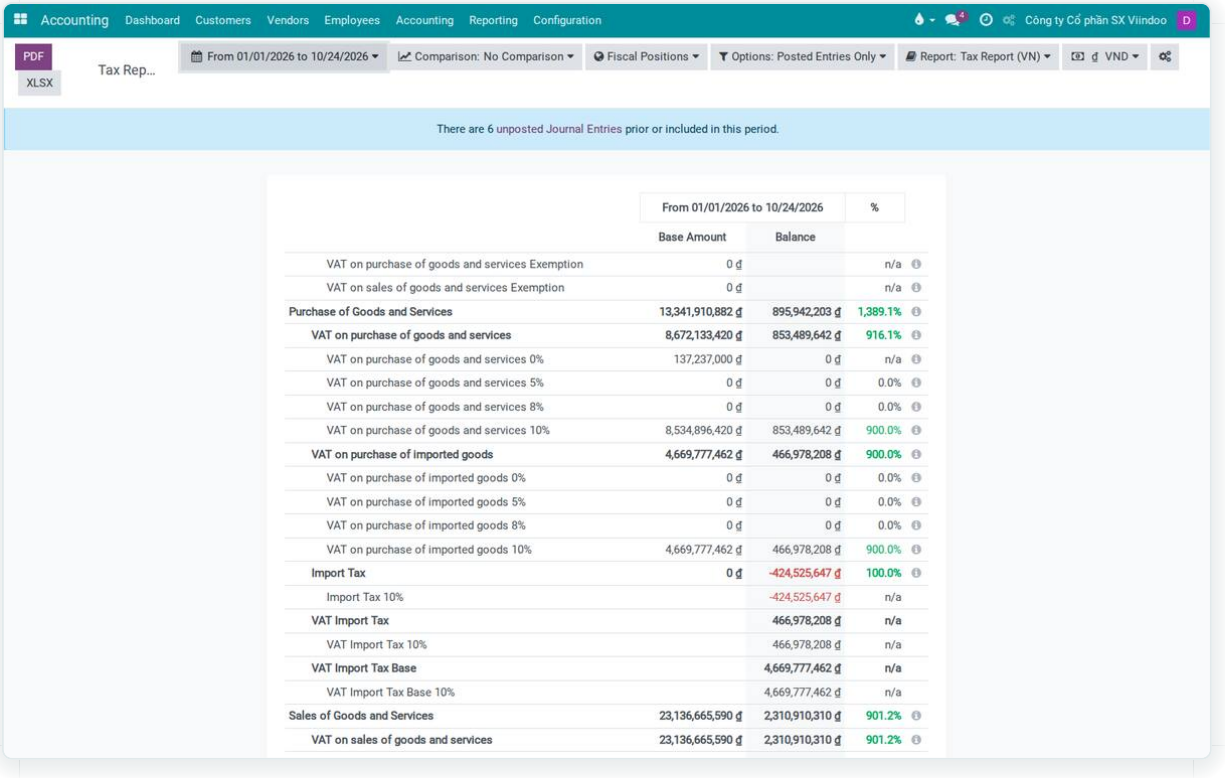
86 VALUE ADDED TAX

About 10 minutes. By the end of this lesson your company reads the input and output VAT of the period and exports the invoice list.

Step 1 - Open the tax report

Open the report.

> *Path:* `Accounting > Reporting > Statement Reports > Tax Report`



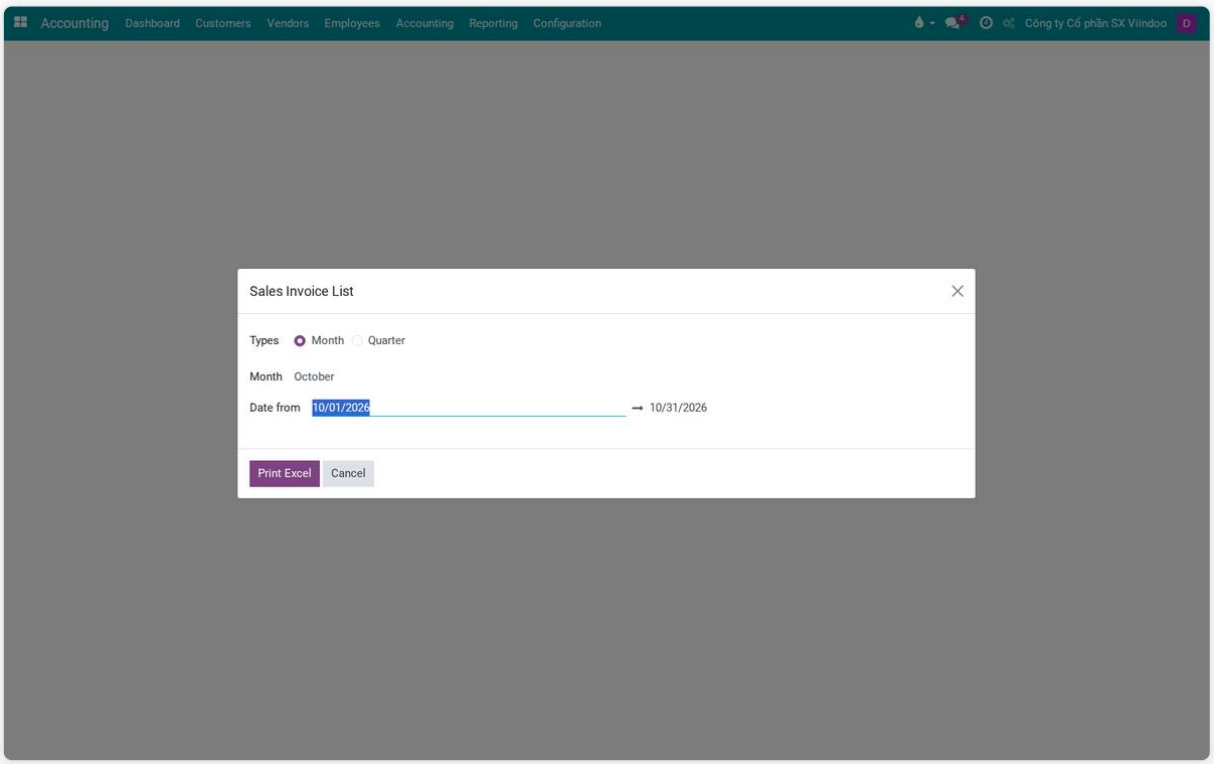
	From 01/01/2026 to 10/24/2026		%
	Base Amount	Balance	
VAT on purchase of goods and services Exemption	0 ₫		n/a
VAT on sales of goods and services Exemption	0 ₫		n/a
Purchase of Goods and Services	**13,341,910,882 ₫**	**895,942,203 ₫**	**1,389.1%**
VAT on purchase of goods and services	**8,672,133,420 ₫**	**853,489,642 ₫**	**916.1%**
VAT on purchase of goods and services 0%	137,237,000 ₫	0 ₫	n/a
VAT on purchase of goods and services 5%	0 ₫	0 ₫	0.0%
VAT on purchase of goods and services 8%	0 ₫	0 ₫	0.0%
VAT on purchase of goods and services 10%	8,534,896,420 ₫	853,489,642 ₫	900.0%
VAT on purchase of imported goods	**4,669,777,462 ₫**	**466,978,208 ₫**	**900.0%**
VAT on purchase of imported goods 0%	0 ₫	0 ₫	0.0%
VAT on purchase of imported goods 5%	0 ₫	0 ₫	0.0%
VAT on purchase of imported goods 8%	0 ₫	0 ₫	0.0%
VAT on purchase of imported goods 10%	4,669,777,462 ₫	466,978,208 ₫	900.0%
Import Tax	**0 ₫**	**-424,525,647 ₫**	**100.0%**
Import Tax 10%		-424,525,647 ₫	n/a
VAT Import Tax		**466,978,208 ₫**	**n/a**
VAT Import Tax 10%		466,978,208 ₫	n/a
VAT Import Tax Base		**4,669,777,462 ₫**	**n/a**
VAT Import Tax Base 10%		4,669,777,462 ₫	n/a
Sales of Goods and Services	**23,136,665,590 ₫**	**2,310,910,310 ₫**	**901.2%**
VAT on sales of goods and services	**23,136,665,590 ₫**	**2,310,910,310 ₫**	**901.2%**

What you should see: the report **Tax Report (VN)** from the start of the year to today; the block **Purchase of Goods and Services** (input VAT at 0%, 5%, 8%, 10%; VAT on imported goods; import tax) and the block **Sales of Goods and Services**, each line with a **Base Amount** (the taxable value) and a **Balance** (the tax amount). Click the period box to choose the month or quarter to declare; **PDF** and **XLSX** export.

Step 2 - Open the list of sales invoices

Open the list.

> *Path:* `Accounting > Reporting > Invoice Lists > Sales Invoice List`



What you should see: the dialog for the list of invoices and documents of goods and services sold (01 -1/GTGT): choose **Types** Month or Quarter, choose the month, click **Print Excel**. The purchase list (01 - 2/GTGT) is on the menu line just below, **Purchase Invoice List**.

On the demo system the deductible VAT is offset every month with an entry "Khấu trừ thuế GTGT tháng ..." (VAT offset for the month ...) (Debit 33311 / Credit 1331) posted by the accountant; the system does not create the offset entry by itself.

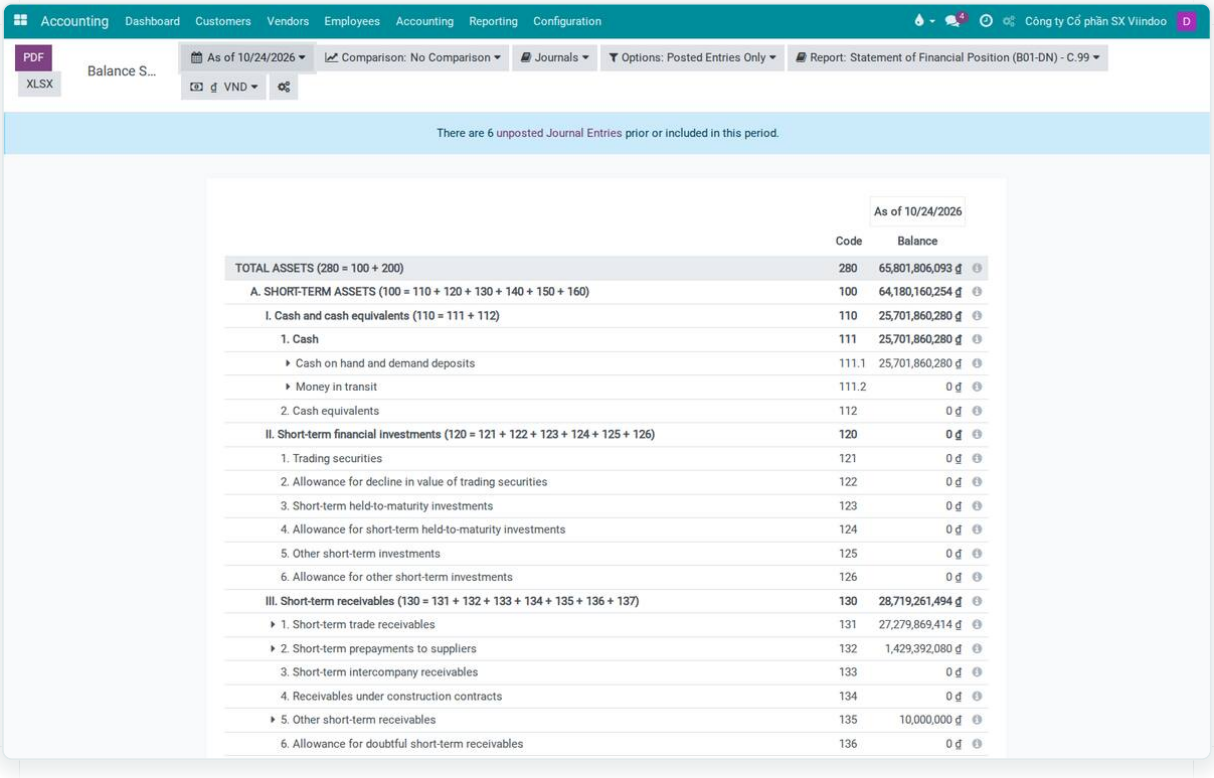
87 FINANCIAL STATEMENTS B01-DN, B02-DN, B03-DN

About 15 minutes. By the end of this lesson your company can open the three financial statements under Circular 99, knows how to reconcile them with the ledger, and knows the places that are easy to misread on the sample data. (B01-DN is the balance sheet, B02-DN the profit and loss statement and B03-DN the cash flow statement of the Vietnamese statutory forms.)

Step 1 - The balance sheet

Open the report.

> *Path:* `Accounting > Reporting > Statement Reports > Balance Sheet`

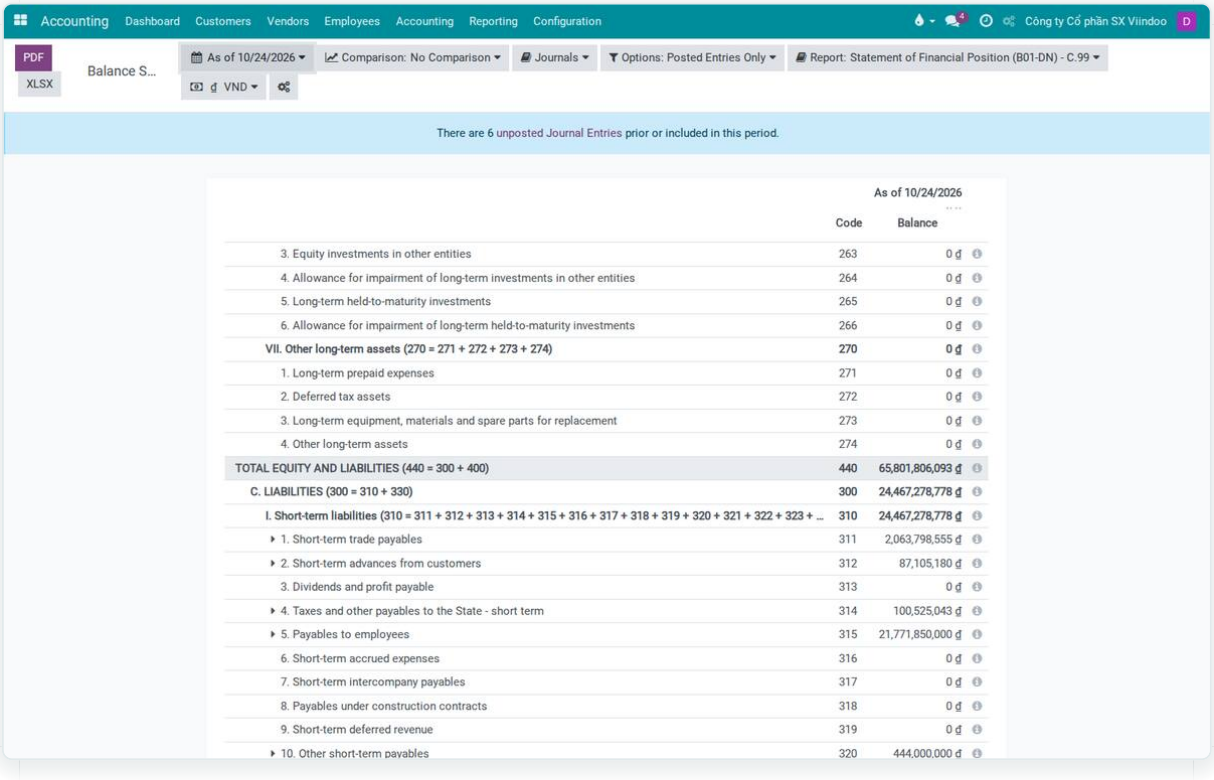


What you should see: the **Report** box shows **Statement of Financial Position (B01-DN) - C.99**, **As of** a date (10/24/2026 on the screenshot); the lines by code 100, 110, 111, 130, 131, 140... The notice above the report, "There are ... unposted Journal Entries prior or included in this period", refers to draft entries (depreciation and next-period payroll that were prepared in advance); they are not counted.

Step 2 - Reconcile total assets and total equity and liabilities

Scroll down to the part on capital.

> *Path:* `Accounting > Reporting > Statement Reports > Balance Sheet`



What you should see: TOTAL EQUITY AND LIABILITIES (440 = 300 + 400) equals exactly **TOTAL ASSETS (280 = 100 + 200)**; **1. Contributed capital** (411) 20,000,000,000 VND; **10. Retained earnings (420 = 420a + 420b)**. Your company can check that 411 + 420 on B01-DN equals the balance of account 4111 plus the accumulated profit of the accounts of class 5 to 8 on the ledger. On the screenshot (as of 10/24/2026) both sides come to 65,801,806,093 VND.

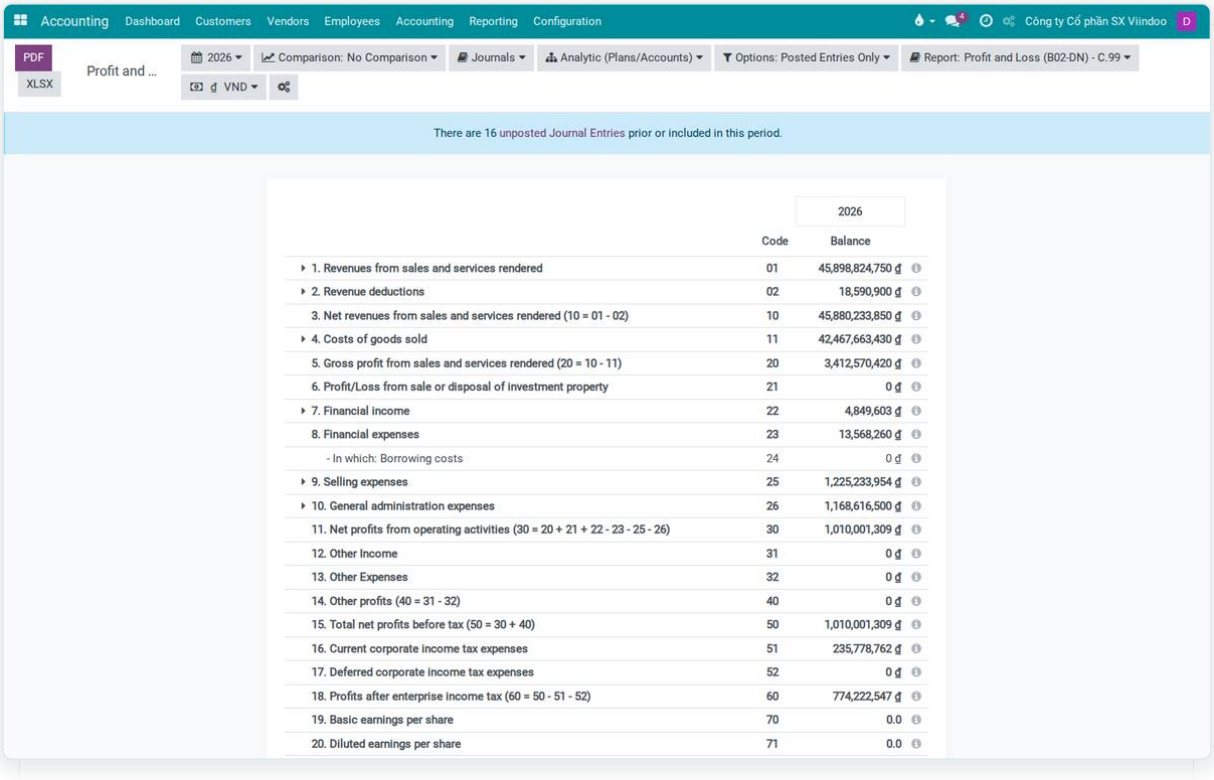
Two things to know when reading B01-DN on the sample data:

- **420a = 0, everything is in 420b.** The profit of earlier years has not been closed to 4211, so the profit accumulated since 2023 is all on the "current period" line.
- **Receivables and payables are shown by partner.** A customer's advance payment is shown in **2. Short-term advances from customers** (312) and a vendor's advance in **2. Short-term prepayments to suppliers** (132), so total assets on B01-DN are larger than the total of the net debit balances of the accounts of classes 1 and 2.

Step 3 - The profit and loss statement

Open the report.

> *Path:* `Accounting > Reporting > Statement Reports > Profit and Loss`



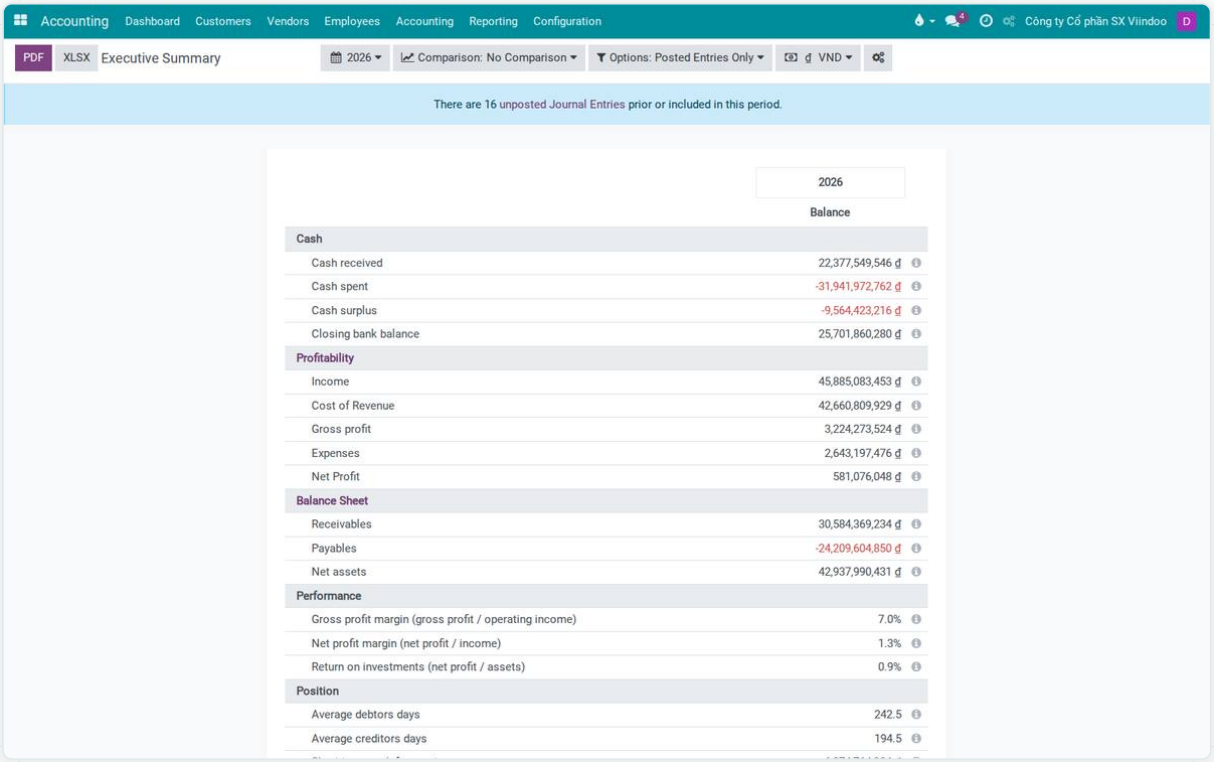
		2026
	Code	Balance
1. Revenues from sales and services rendered	01	45,898,824,750 ₫
2. Revenue deductions	02	18,590,900 ₫
3. Net revenues from sales and services rendered (10 = 01 - 02)	10	45,880,233,850 ₫
4. Costs of goods sold	11	42,467,663,430 ₫
5. Gross profit from sales and services rendered (20 = 10 - 11)	20	3,412,570,420 ₫
6. Profit/Loss from sale or disposal of investment property	21	0 ₫
7. Financial income	22	4,849,603 ₫
8. Financial expenses	23	13,568,260 ₫
- In which: Borrowing costs	24	0 ₫
9. Selling expenses	25	1,225,233,954 ₫
10. General administration expenses	26	1,168,616,500 ₫
11. Net profits from operating activities (30 = 20 + 21 + 22 - 23 - 25 - 26)	30	1,010,001,309 ₫
12. Other Income	31	0 ₫
13. Other Expenses	32	0 ₫
14. Other profits (40 = 31 - 32)	40	0 ₫
15. Total net profits before tax (50 = 30 + 40)	50	1,010,001,309 ₫
16. Current corporate income tax expenses	51	235,778,762 ₫
17. Deferred corporate income tax expenses	52	0 ₫
18. Profits after enterprise income tax (60 = 50 - 51 - 52)	60	774,222,547 ₫
19. Basic earnings per share	70	0.0
20. Diluted earnings per share	71	0.0

What you should see: Profit and Loss (B02-DN) - C.99, this year: revenue (01), deductions (02), cost of goods sold (11), selling expenses (25), general administration expenses (26), current corporate income tax expenses (51), profits after enterprise income tax (60). Your company can check that revenue, cost of goods, selling expenses, administration expenses and corporate income tax equal the 2026 movement of accounts 511, 632, 641, 642 and 821 on the ledger.

Step 4 - Compare with the Executive Summary

Open the summary.

> *Path:* `Accounting > Reporting > Statement Reports > Executive Summary`



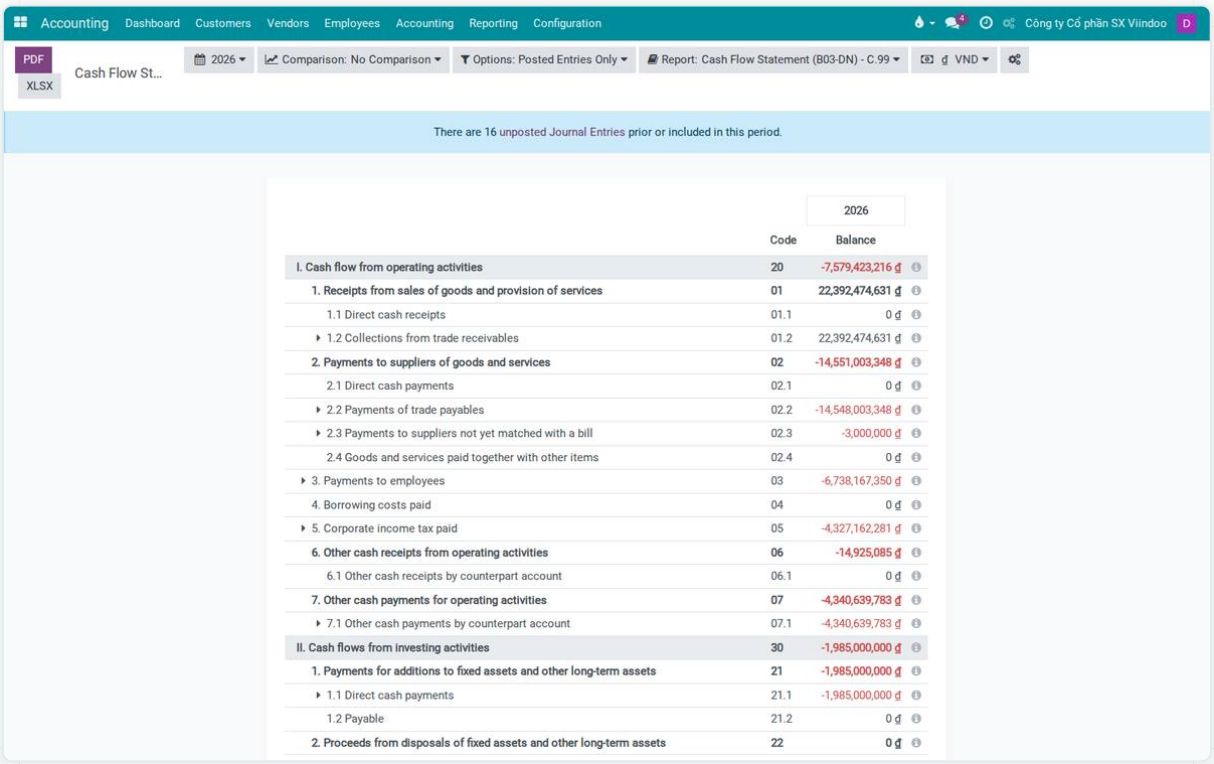
What you should see: the blocks **Cash**, **Profitability**, **Balance Sheet**, **Performance** (profit margins, return on investments) and **Position** (average debtors days...). The line **Net Profit** equals exactly **Profits after enterprise income tax** (60) on B02-DN of the same period, and **Cost of Revenue** equals line 11.

The two reports show the same figure because at the end of every month the accountant has brought all production costs (622 Direct labor cost, the group 627 Manufacturing overhead) into the product cost or the cost of goods: the part that can be allocated to completed orders is done with the **Production Cost Allocation** document (lesson *Allocate production costs to completed orders*), and the rest is closed to 632 with the entry "Kết chuyển chi phí sản xuất chưa phân bổ vào giá vốn" (closing of unallocated production costs into the cost of goods). If these two things are not done at period end, B02-DN will lack those amounts (the B02-DN form has no line for 622 or 627) and the profit on B02-DN will be larger than the Net Profit here. This is sample data: do not compare profit between quarters, because payroll exists only from 07/2026 and the earlier quarters have no labor cost.

Step 5 - The cash flow statement

Open the report.

> *Path:* `Accounting > Reporting > Statement Reports > Cash Flow Statement`



What you should see: Cash Flow Statement (B03-DN) - C.99 by the direct method: **I. Cash flow from operating activities** (receipts from customers, payments to suppliers, payments to employees, corporate income tax paid), **II. Cash flows from investing activities** (payments for fixed assets), **III. Cash flows from financing activities**; at the end of the report **Cash and cash equivalents at the beginning of the period** (60) and **at the end of the period** (70 = 50 + 60 + 61). B03-DN reads only the entries that pass through the cash accounts; a receipt not yet reconciled still sits in 1131 and has no cash flow line, while line 110 of B01-DN already counts 1131.

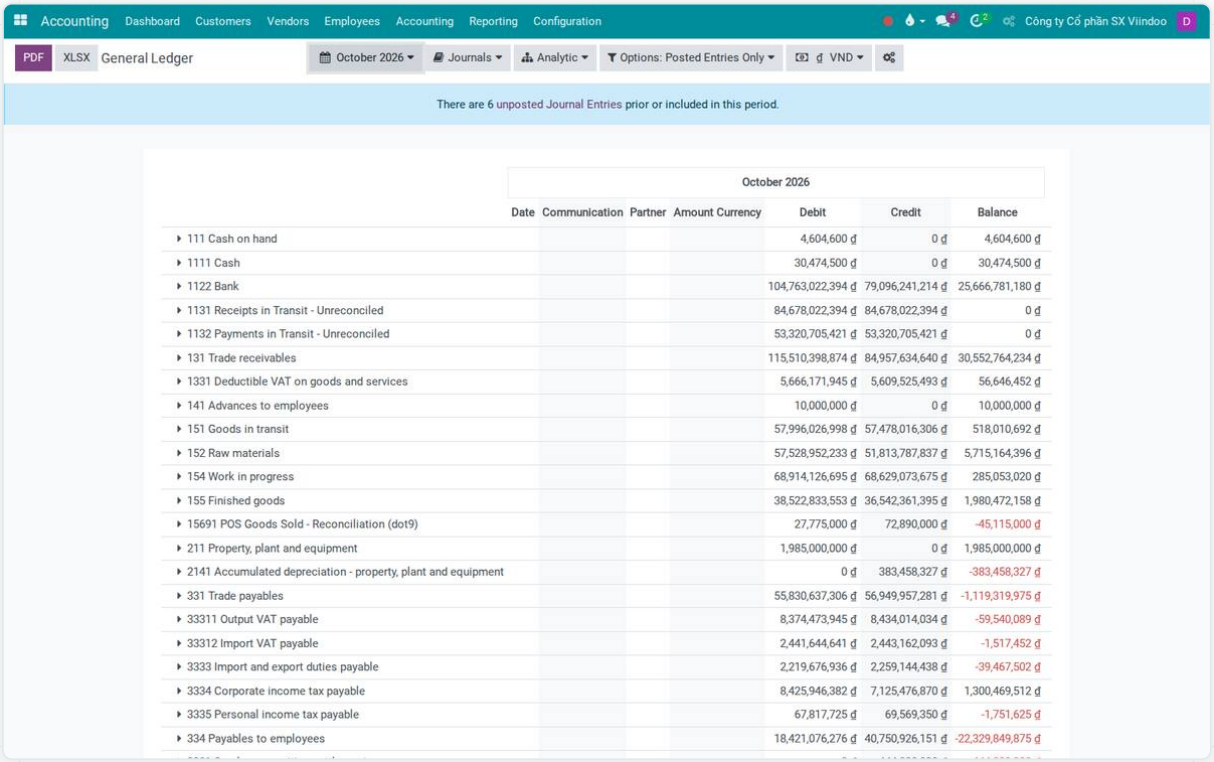
88 THE GENERAL LEDGER, THE TRIAL BALANCE AND THE BOOKS IN THE MINISTRY OF FINANCE FORM

About 10 minutes. By the end of this lesson your company can open the general ledger and the trial balance and knows where the books S03a, S03b, S38, S07, S08 are.

Step 1 - The general ledger

Open the general ledger.

> *Path:* `Accounting > Reporting > Audit Reports > General Ledger`



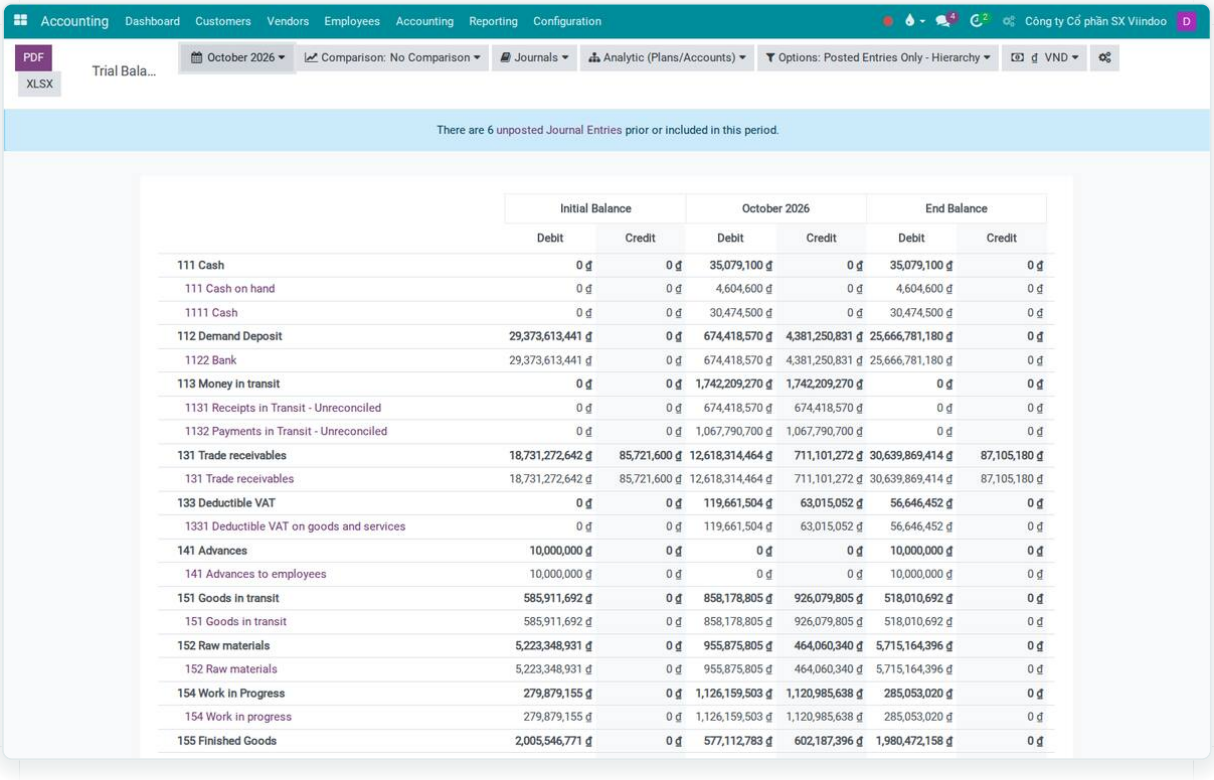
	October 2026						
	Date	Communication	Partner	Amount Currency	Debit	Credit	Balance
▸ 111 Cash on hand					4,604,600 ₫	0 ₫	4,604,600 ₫
▸ 1111 Cash					30,474,500 ₫	0 ₫	30,474,500 ₫
▸ 1122 Bank					104,763,022,394 ₫	79,096,241,214 ₫	25,666,781,180 ₫
▸ 1131 Receipts in Transit - Unreconciled					84,678,022,394 ₫	84,678,022,394 ₫	0 ₫
▸ 1132 Payments in Transit - Unreconciled					53,320,705,421 ₫	53,320,705,421 ₫	0 ₫
▸ 131 Trade receivables					115,510,398,874 ₫	84,957,634,640 ₫	30,552,764,234 ₫
▸ 1331 Deductible VAT on goods and services					5,666,171,945 ₫	5,609,525,493 ₫	56,646,452 ₫
▸ 141 Advances to employees					10,000,000 ₫	0 ₫	10,000,000 ₫
▸ 151 Goods in transit					57,996,026,998 ₫	57,478,016,306 ₫	518,010,692 ₫
▸ 152 Raw materials					57,528,952,233 ₫	51,813,787,837 ₫	5,715,164,396 ₫
▸ 154 Work in progress					68,914,126,695 ₫	68,629,073,675 ₫	285,053,020 ₫
▸ 155 Finished goods					38,522,833,553 ₫	36,542,361,395 ₫	1,980,472,158 ₫
▸ 15691 POS Goods Sold - Reconciliation (dot9)					27,775,000 ₫	72,890,000 ₫	-45,115,000 ₫
▸ 211 Property, plant and equipment					1,985,000,000 ₫	0 ₫	1,985,000,000 ₫
▸ 2141 Accumulated depreciation - property, plant and equipment					0 ₫	383,458,327 ₫	-383,458,327 ₫
▸ 331 Trade payables					55,830,637,306 ₫	56,949,957,281 ₫	-1,119,319,975 ₫
▸ 33311 Output VAT payable					8,374,473,945 ₫	8,434,014,034 ₫	-59,540,089 ₫
▸ 33312 Import VAT payable					2,441,644,641 ₫	2,443,162,093 ₫	-1,517,452 ₫
▸ 3333 Import and export duties payable					2,219,676,936 ₫	2,259,144,438 ₫	-39,467,502 ₫
▸ 3334 Corporate income tax payable					8,425,946,382 ₫	7,125,476,870 ₫	1,300,469,512 ₫
▸ 3335 Personal income tax payable					67,817,725 ₫	69,569,350 ₫	-1,751,625 ₫
▸ 334 Payables to employees					18,421,076,276 ₫	40,750,926,151 ₫	-22,329,849,875 ₫

What you should see: one line per account with **Debit**, **Credit** and **Balance** of the current month; click the arrow at the start of a line to open each entry, and click an entry to open the source document.

Step 2 - The trial balance

Open the trial balance.

> *Path:* `Accounting > Reporting > Audit Reports > Trial Balance`



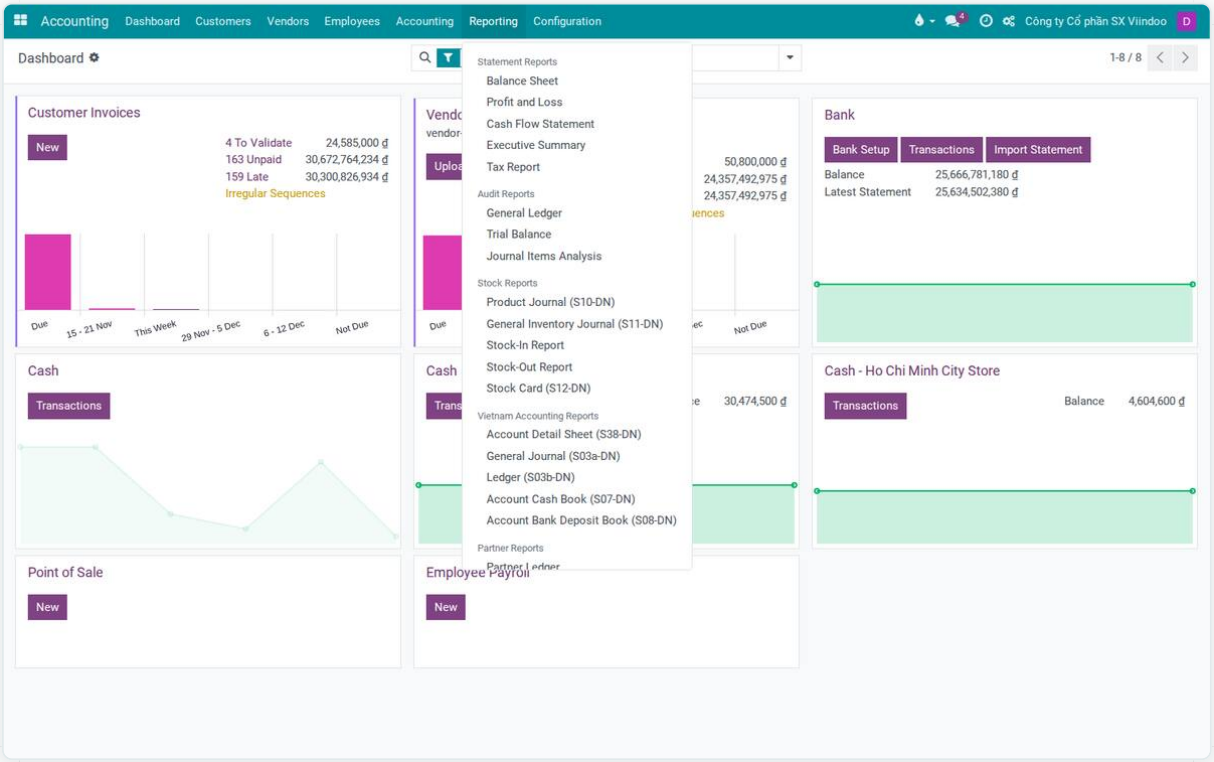
	Initial Balance		October 2026		End Balance	
	Debit	Credit	Debit	Credit	Debit	Credit
111 Cash	**0 ₫**	**0 ₫**	**35,079,100 ₫**	**0 ₫**	**35,079,100 ₫**	**0 ₫**
111 Cash on hand	0 ₫	0 ₫	4,604,600 ₫	0 ₫	4,604,600 ₫	0 ₫
1111 Cash	0 ₫	0 ₫	30,474,500 ₫	0 ₫	30,474,500 ₫	0 ₫
112 Demand Deposit	**29,373,613,441 ₫**	**0 ₫**	**674,418,570 ₫**	**4,381,250,831 ₫**	**25,666,781,180 ₫**	**0 ₫**
1122 Bank	29,373,613,441 ₫	0 ₫	674,418,570 ₫	4,381,250,831 ₫	25,666,781,180 ₫	0 ₫
113 Money in transit	**0 ₫**	**0 ₫**	**1,742,209,270 ₫**	**1,742,209,270 ₫**	**0 ₫**	**0 ₫**
1131 Receipts in Transit - Unreconciled	0 ₫	0 ₫	674,418,570 ₫	674,418,570 ₫	0 ₫	0 ₫
1132 Payments in Transit - Unreconciled	0 ₫	0 ₫	1,067,790,700 ₫	1,067,790,700 ₫	0 ₫	0 ₫
131 Trade receivables	**18,731,272,642 ₫**	**85,721,600 ₫**	**12,618,314,464 ₫**	**711,101,272 ₫**	**30,639,869,414 ₫**	**87,105,180 ₫**
131 Trade receivables	18,731,272,642 ₫	85,721,600 ₫	12,618,314,464 ₫	711,101,272 ₫	30,639,869,414 ₫	87,105,180 ₫
133 Deductible VAT	**0 ₫**	**0 ₫**	**119,661,504 ₫**	**63,015,052 ₫**	**56,646,452 ₫**	**0 ₫**
1331 Deductible VAT on goods and services	0 ₫	0 ₫	119,661,504 ₫	63,015,052 ₫	56,646,452 ₫	0 ₫
141 Advances	**10,000,000 ₫**	**0 ₫**	**0 ₫**	**0 ₫**	**10,000,000 ₫**	**0 ₫**
141 Advances to employees	10,000,000 ₫	0 ₫	0 ₫	0 ₫	10,000,000 ₫	0 ₫
151 Goods in transit	**585,911,692 ₫**	**0 ₫**	**858,178,805 ₫**	**926,079,805 ₫**	**518,010,692 ₫**	**0 ₫**
151 Goods in transit	585,911,692 ₫	0 ₫	858,178,805 ₫	926,079,805 ₫	518,010,692 ₫	0 ₫
152 Raw materials	**5,223,348,931 ₫**	**0 ₫**	**955,875,805 ₫**	**464,060,340 ₫**	**5,715,164,396 ₫**	**0 ₫**
152 Raw materials	5,223,348,931 ₫	0 ₫	955,875,805 ₫	464,060,340 ₫	5,715,164,396 ₫	0 ₫
154 Work in Progress	**279,879,155 ₫**	**0 ₫**	**1,126,159,503 ₫**	**1,120,985,638 ₫**	**285,053,020 ₫**	**0 ₫**
154 Work in progress	279,879,155 ₫	0 ₫	1,126,159,503 ₫	1,120,985,638 ₫	285,053,020 ₫	0 ₫
155 Finished Goods	**2,005,546,771 ₫**	**0 ₫**	**577,112,783 ₫**	**602,187,396 ₫**	**1,980,472,158 ₫**	**0 ₫**

What you should see: three pairs of columns - **Initial Balance**, the movement in the period, **End Balance** (Debit, Credit) - and the level-1 accounts with their child accounts below. This is the place for the month-end check: 1131 and 1132 hold only transactions that have not reached the statement; 154 equals the value of the orders in progress; 621, 622, 627 return to 0 after allocation and closing.

Step 3 - Open the group of books in the Ministry of Finance form

Click the menu **Reporting** on the Accounting menu bar.

> *Path:* `Accounting > Reporting`

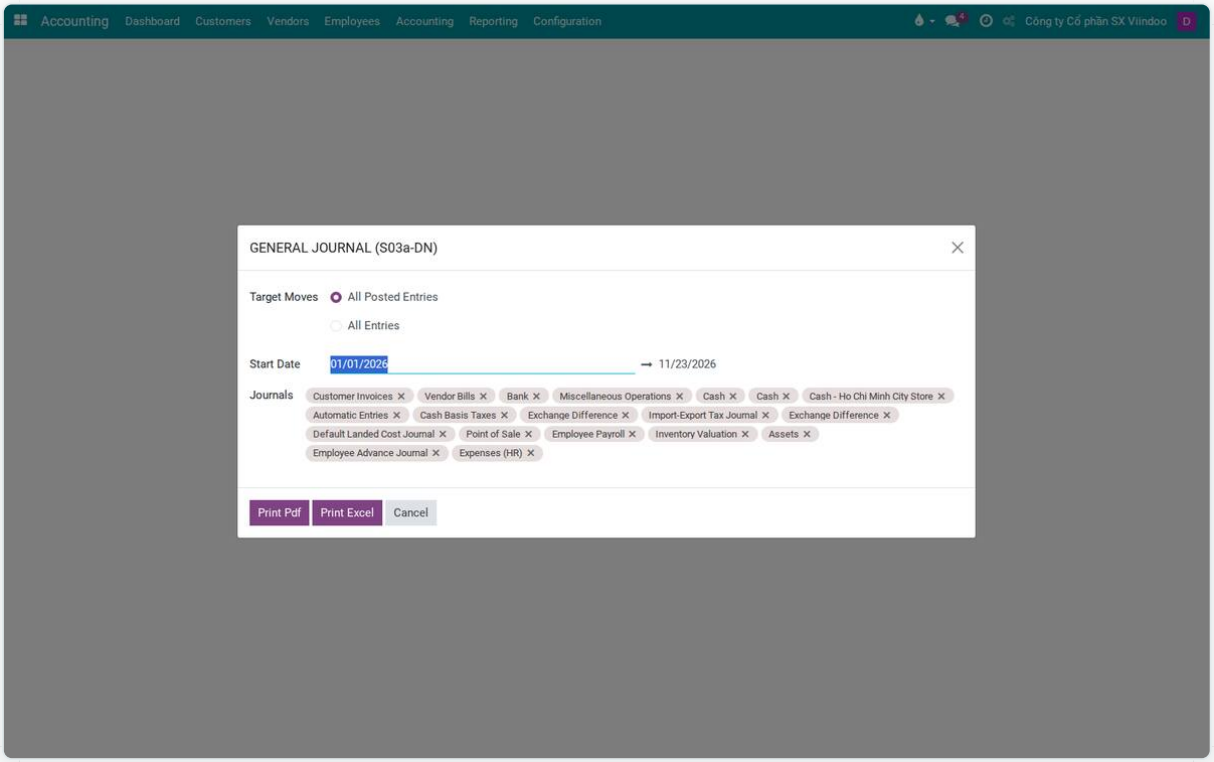


What you should see: the groups **Statement Reports**, **Audit Reports**, **Stock Reports**, **Vietnam Accounting Reports** (Account Detail Sheet (S38-DN), General Journal (S03a-DN), Ledger (S03b-DN), Account Cash Book (S07-DN), Account Bank Deposit Book (S08-DN)), **Partner Reports**, **Management**, **Invoice Lists** and **Manufacturing Reports**.

Step 4 - Export the general journal

Click **General Journal (S03a-DN)**.

> *Path:* `Accounting > Reporting > Vietnam Accounting Reports > General Journal (S03a-DN)`



What you should see: the dialog **GENERAL JOURNAL (S03a-DN)**: **Target Moves** (All Posted Entries or All Entries), **Start Date** and **End Date**, the list of **Journals**; click **Print Pdf** or **Print Excel** to get the book in the form of the Ministry of Finance. The books S03b, S38, S07 and S08 have similar dialogs.

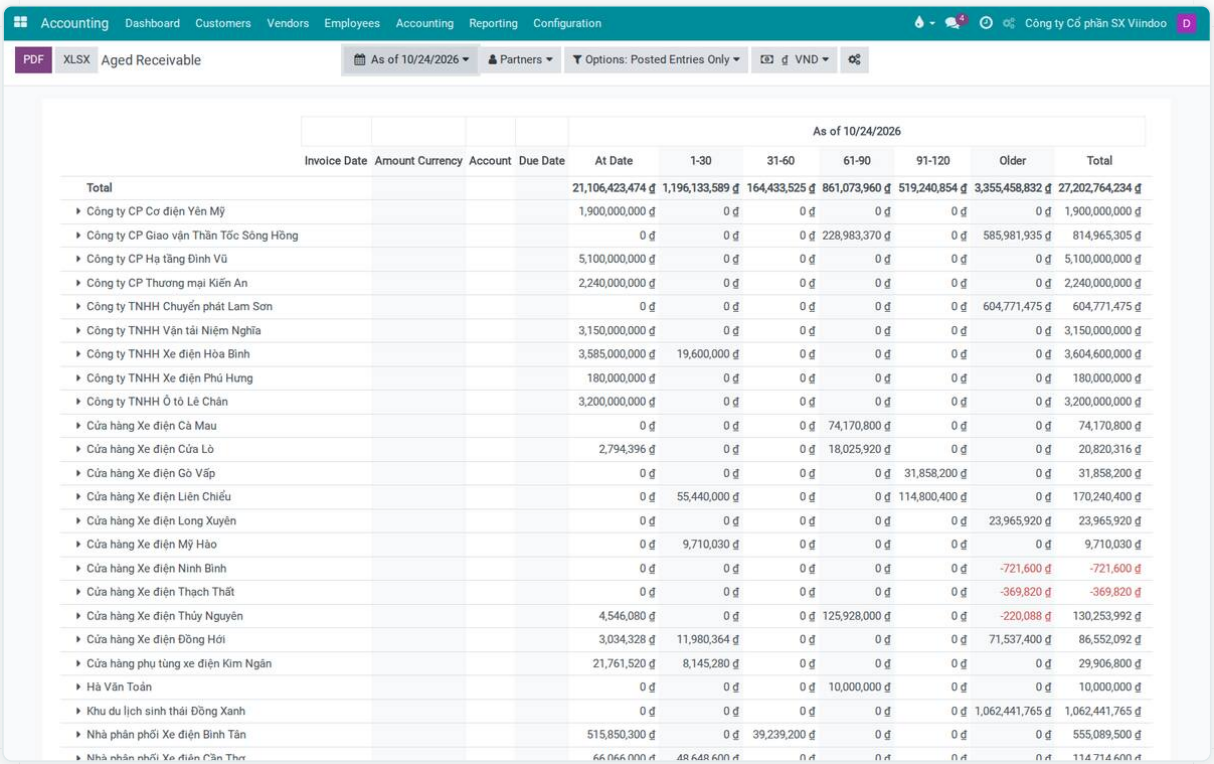
89 AGED RECEIVABLES AND PAYABLES

About 5 minutes. By the end of this lesson your company knows which customers owe overdue money and whom the company owes.

Step 1 - Aged receivable

Open the report.

> *Path:* `Accounting > Reporting > Partner Reports > Aged Receivable`



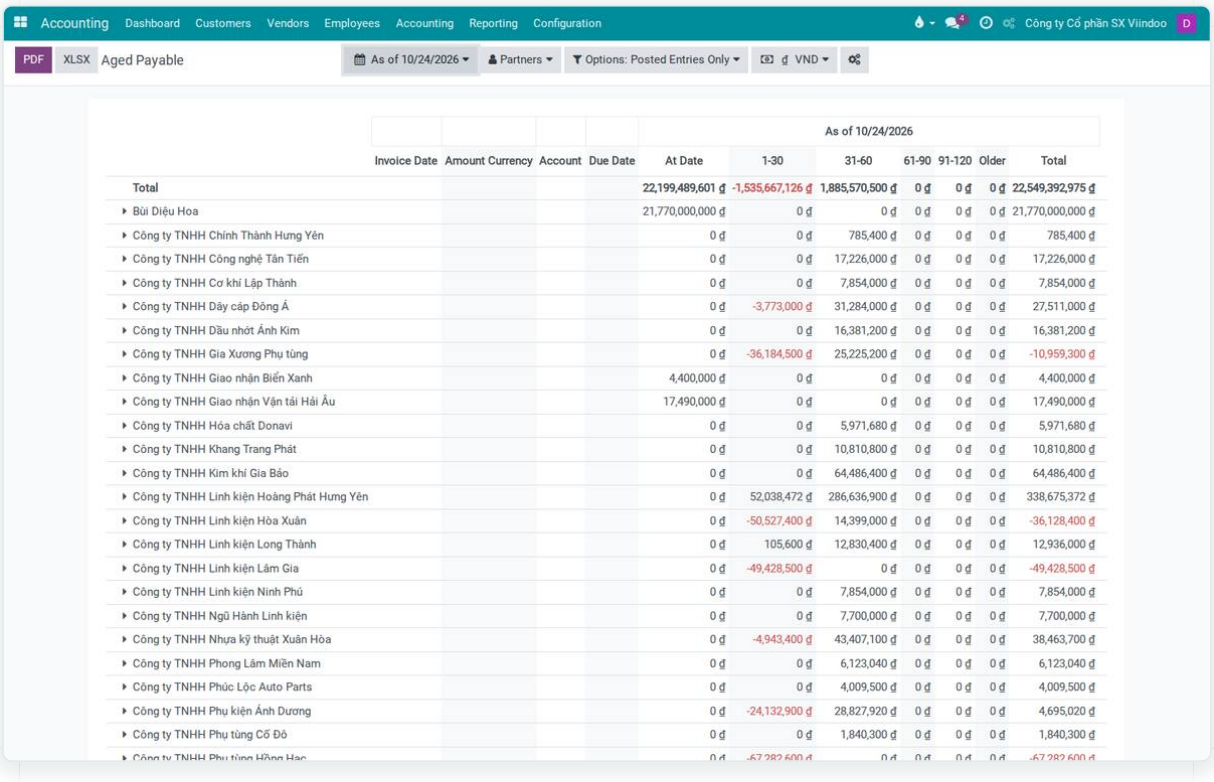
	Invoice Date	Amount Currency	Account	Due Date	As of 10/24/2026 At Date	1-30	31-60	61-90	91-120	Older	Total
Total					21,106,423,474 ₫	1,196,133,589 ₫	164,433,525 ₫	861,073,960 ₫	519,240,854 ₫	3,355,458,832 ₫	27,202,764,234 ₫
Công ty CP Cơ điện Yên Mỹ					1,900,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	1,900,000,000 ₫
Công ty CP Giao vận Thần Tốc Sông Hồng					0 ₫	0 ₫	0 ₫	228,983,370 ₫	0 ₫	585,981,935 ₫	814,965,305 ₫
Công ty CP Hạ tầng Đình Vũ					5,100,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	5,100,000,000 ₫
Công ty CP Thương mại Kiến An					2,240,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	2,240,000,000 ₫
Công ty TNHH Chuyển phát Lam Sơn					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	604,771,475 ₫	604,771,475 ₫
Công ty TNHH Vận tải Niệm Nghĩa					3,150,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	3,150,000,000 ₫
Công ty TNHH Xe điện Hòa Bình					3,585,000,000 ₫	19,600,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	3,604,600,000 ₫
Công ty TNHH Xe điện Phú Hưng					180,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	180,000,000 ₫
Công ty TNHH Ô tô Lê Chân					3,200,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	3,200,000,000 ₫
Cửa hàng Xe điện Cà Mau					0 ₫	0 ₫	0 ₫	74,170,800 ₫	0 ₫	0 ₫	74,170,800 ₫
Cửa hàng Xe điện Cửa Lò					2,794,396 ₫	0 ₫	0 ₫	18,025,920 ₫	0 ₫	0 ₫	20,820,316 ₫
Cửa hàng Xe điện Gò Vấp					0 ₫	0 ₫	0 ₫	0 ₫	31,858,200 ₫	0 ₫	31,858,200 ₫
Cửa hàng Xe điện Liên Chiểu					0 ₫	55,440,000 ₫	0 ₫	0 ₫	114,800,400 ₫	0 ₫	170,240,400 ₫
Cửa hàng Xe điện Long Xuyên					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	23,965,920 ₫	23,965,920 ₫
Cửa hàng Xe điện Mỹ Hào					0 ₫	9,710,030 ₫	0 ₫	0 ₫	0 ₫	0 ₫	9,710,030 ₫
Cửa hàng Xe điện Ninh Bình					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	-721,600 ₫	-721,600 ₫
Cửa hàng Xe điện Thạch Thất					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	-369,820 ₫	-369,820 ₫
Cửa hàng Xe điện Thủy Nguyên					4,546,080 ₫	0 ₫	0 ₫	125,928,000 ₫	0 ₫	-220,088 ₫	130,253,992 ₫
Cửa hàng Xe điện Đồng Hới					3,034,328 ₫	11,980,364 ₫	0 ₫	0 ₫	0 ₫	71,537,400 ₫	86,552,092 ₫
Cửa hàng phụ tùng xe điện Kim Ngân					21,761,520 ₫	8,145,280 ₫	0 ₫	0 ₫	0 ₫	0 ₫	29,906,800 ₫
Hà Văn Toán					0 ₫	0 ₫	0 ₫	10,000,000 ₫	0 ₫	0 ₫	10,000,000 ₫
Khu du lịch sinh thái Đồng Xanh					0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	1,062,441,765 ₫	1,062,441,765 ₫
Nhà phân phối Xe điện Bình Tân					515,850,300 ₫	0 ₫	39,239,200 ₫	0 ₫	0 ₫	0 ₫	555,089,500 ₫
Nhà phân phối Xe điện Cần Thơ					66,066,000 ₫	48,648,600 ₫	0 ₫	0 ₫	0 ₫	0 ₫	114,714,600 ₫

What you should see: one line per customer, with the columns **At Date**, **1-30**, **31-60**, **61-90**, **91-120**, **Older**, **Total**; the **Total** line at the top. A negative figure (in red) is an advance or overpayment not yet matched to an invoice, as with the deposit of the lesson *Reconcile the bank statement*. Click the arrow at the start of a line to see each invoice.

Step 2 - Aged payable

Open the report.

> *Path:* `Accounting > Reporting > Partner Reports > Aged Payable`



					As of 10/24/2026						
	Invoice Date	Amount Currency	Account	Due Date	At Date	1-30	31-60	61-90	91-120	Older	Total
Total					22,199,489,601 ₫	-1,535,667,126 ₫	1,885,570,500 ₫	0 ₫	0 ₫	0 ₫	22,549,392,975 ₫
Bùi Diệu Hoa					21,770,000,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	21,770,000,000 ₫
Công ty TNHH Chính Thành Hưng Yên					0 ₫	0 ₫	785,400 ₫	0 ₫	0 ₫	0 ₫	785,400 ₫
Công ty TNHH Công nghệ Tân Tiến					0 ₫	0 ₫	17,226,000 ₫	0 ₫	0 ₫	0 ₫	17,226,000 ₫
Công ty TNHH Cơ khí Lập Thành					0 ₫	0 ₫	7,854,000 ₫	0 ₫	0 ₫	0 ₫	7,854,000 ₫
Công ty TNHH Dây cáp Đông Á					0 ₫	-3,773,000 ₫	31,284,000 ₫	0 ₫	0 ₫	0 ₫	27,511,000 ₫
Công ty TNHH Dầu nhớt Ánh Kim					0 ₫	0 ₫	16,381,200 ₫	0 ₫	0 ₫	0 ₫	16,381,200 ₫
Công ty TNHH Gia Xương Phụ tùng					0 ₫	-36,184,500 ₫	25,225,200 ₫	0 ₫	0 ₫	0 ₫	-10,959,300 ₫
Công ty TNHH Giao nhận Biển Xanh					4,400,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	4,400,000 ₫
Công ty TNHH Giao nhận Vận tải Hải Âu					17,490,000 ₫	0 ₫	0 ₫	0 ₫	0 ₫	0 ₫	17,490,000 ₫
Công ty TNHH Hóa chất Donavi					0 ₫	0 ₫	5,971,680 ₫	0 ₫	0 ₫	0 ₫	5,971,680 ₫
Công ty TNHH Khang Trang Phát					0 ₫	0 ₫	10,810,800 ₫	0 ₫	0 ₫	0 ₫	10,810,800 ₫
Công ty TNHH Kim khí Gia Bảo					0 ₫	0 ₫	64,486,400 ₫	0 ₫	0 ₫	0 ₫	64,486,400 ₫
Công ty TNHH Linh kiện Hoàng Phát Hưng Yên					0 ₫	52,038,472 ₫	286,636,900 ₫	0 ₫	0 ₫	0 ₫	338,675,372 ₫
Công ty TNHH Linh kiện Hòa Xuân					0 ₫	-50,527,400 ₫	14,399,000 ₫	0 ₫	0 ₫	0 ₫	-36,128,400 ₫
Công ty TNHH Linh kiện Long Thành					0 ₫	105,600 ₫	12,830,400 ₫	0 ₫	0 ₫	0 ₫	12,936,000 ₫
Công ty TNHH Linh kiện Lâm Gia					0 ₫	-49,428,500 ₫	0 ₫	0 ₫	0 ₫	0 ₫	-49,428,500 ₫
Công ty TNHH Linh kiện Ninh Phú					0 ₫	0 ₫	7,854,000 ₫	0 ₫	0 ₫	0 ₫	7,854,000 ₫
Công ty TNHH Ngũ Hành Linh kiện					0 ₫	0 ₫	7,700,000 ₫	0 ₫	0 ₫	0 ₫	7,700,000 ₫
Công ty TNHH Nhựa kỹ thuật Xuân Hòa					0 ₫	-4,943,400 ₫	43,407,100 ₫	0 ₫	0 ₫	0 ₫	38,463,700 ₫
Công ty TNHH Phong Lâm Miền Nam					0 ₫	0 ₫	6,123,040 ₫	0 ₫	0 ₫	0 ₫	6,123,040 ₫
Công ty TNHH Phúc Lộc Auto Parts					0 ₫	0 ₫	4,009,500 ₫	0 ₫	0 ₫	0 ₫	4,009,500 ₫
Công ty TNHH Phụ kiện Ánh Dương					0 ₫	-24,132,900 ₫	28,827,920 ₫	0 ₫	0 ₫	0 ₫	4,695,020 ₫
Công ty TNHH Phụ tùng Cố Đô					0 ₫	0 ₫	1,840,300 ₫	0 ₫	0 ₫	0 ₫	1,840,300 ₫
Công ty TNHH Phụ tùng Hồng Hạc					0 ₫	-67,282,600 ₫	0 ₫	0 ₫	0 ₫	0 ₫	-67,282,600 ₫

What you should see: the same layout for vendors: one vendor per line, split by age; a negative figure (in red) is an advance or an overpayment not yet offset against a bill. The report gathers every payable account by partner: payroll and the contributions on payroll show here only while they are unpaid. To see one vendor only, filter with the **Partner** box.

90 CATALOG OF ACCOUNTING REPORTS AND PRINT TEMPLATES

Read in 5 minutes. The Accounting application has 33 report entries on the menu `Accounting > Reporting`; 7 of them also open in another application (shown in the last column).

Report	What question it answers	Also in
Balance Sheet (B01-DN)	Assets, liabilities and capital on one date	-
Profit and Loss (B02-DN)	Revenue, cost of goods, expenses and profit in the period	-
Cash Flow Statement (B03-DN)	Cash in and out by operating, investing and financing activities	-
Executive Summary	Cash, profit, payables and receivables, margins on one page	-
Tax Report	Input VAT, output VAT and import tax by period	-

Report	What question it answers	Also in
General Ledger	Movement and balance of each account, down to the document	-
Trial Balance	Opening, movement and closing of every account	-
Journal Items Analysis	Filter, group and pivot the journal items by any field	-
Product Journal (S10-DN)	Stock in, out and balance of each material in the Ministry of Finance form	Inventory (Part V. Warehouse and quality)
General Inventory Journal (S11-DN)	Summary of stock in, out and balance by period	Inventory (Part V. Warehouse and quality)
Stock-In Report	List of stock receipts in the period	Inventory (Part V. Warehouse and quality)
Stock-Out Report	List of stock issues in the period	Inventory (Part V. Warehouse and quality)
Stock Card (S12-DN)	Stock card of each item	Inventory (Part V. Warehouse and quality)
Account Detail Sheet (S38-DN)	Detail of one account in the statutory form	-
General Journal (S03a-DN)	Every entry by date	-
Ledger (S03b-DN)	The ledger in the form of the Ministry of Finance	-
Account Cash Book (S07-DN)	Cash receipts and payments	-
Account Bank Deposit Book (S08-DN)	Receipts and payments through the bank	-
Partner Ledger	Debt of each partner, document by document	-
Aged Receivable	Which customer owes, and how overdue	-
Aged Payable	Whom the company owes, and when it is due	-
Invoice Analysis	Revenue and invoice value by customer, product, month	-
Invoice & Bill Analysis	Compare sales invoices and purchase bills by partner, product	-

Report	What question it answers	Also in
Analytic Report	Cost and revenue by analytic account (department, project)	-
Transfer / Allocation Analysis	The automatic transfer and allocation entries that have run	-
Budget Report	Actual against budget	-
Assets	List of fixed assets, original cost, remaining value	-
Asset Depreciation	Depreciation by month, by asset	-
Sales Invoice List (01 -1/GTGT)	The invoice list that goes with the VAT declaration	-
Purchase Invoice List (01 - 2/GTGT)	The invoice list that goes with the VAT declaration	-
Production Cost Report	Cost by product, period, cost item	Manufacturing (Part VI. Shop floor production)
Subcontracting Report	Ordered, received and remaining; materials supplied and used for subcontracting	Purchase (Part VII. Subcontracting)
Accounting Reports (configuration)	The list of report templates, where the B01, B02, B03 indicators are edited	`Accounting > Configuration > Management > Accounting Reports`

The last report in the table is a configuration screen and is not counted in the 33 entries. Besides the menu, a manufacturing order has **Cost Analysis** and **Overview**.

Print templates of Accounting (15 templates): Invoice PDF; PDF without Payment; Original Bills; the system-generated invoice archive copy; Journal Entry; Payment Receipt (Template 01-TT/02-TT) on the journal entry and on the payment; Payment Receipt; Statement; Account Asset Card (S23-DN); General Journal (S03a-DN); Ledger (S03b-DN); Account Cash Book (S07-DN); Account Bank Deposit Book (S08-DN); Account Detail Sheet (S38-DN). A print template opens from the gear icon > **Print** on each document; the reports export **PDF** and **XLSX** with the buttons at the top left.

91 WHAT THE SYSTEM DOES NOT DO BY ITSELF

Read in 5 minutes. The cost accountant needs to know in advance that the items below are still the work of a person, so as not to wait for the system to do them.

Item	The system	How the accountant does it
Period-end closing of 621, 622, 627	Does not close them by itself	The **Production Cost Allocation** document brings the movements into completed orders; the rest is closed to 632 with a month-end entry (the demo system has one entry "Kết chuyển chi phí sản xuất chưa phân bổ vào giá vốn" (closing of unallocated production costs into the cost of goods) for each month), or use an automatic transfer template (`Accounting > Configuration > Management > Automatic Transfer Models`). If this is not done, B02-DN lacks these amounts
Calculate the difference between actual payroll and the labor hours already counted in the cost	Does not calculate	The accountant compares 622, 627 on the Trial Balance, then allocates the difference
Split direct labor (622) from overhead (627) on the order completion entry	Does not split: each work center has one expense account	See the split on the **Production Cost Report**
Bring actual payroll from the payroll sheet into the cost of each order	Does not: labor hours are counted at the hourly rate of the work center and of the employee	Production cost allocation at the end of the period
An OEE indicator with all three components (availability x performance x quality)	Only availability and performance	See Part X. Equipment maintenance
Hard-block the confirmation or running of an order when there is no approval	An approval request only creates and synchronizes the order and the bill of materials	See Part XI. Approvals
A separate rework order for a finished product that failed; automatically create an empty bill of materials for a code that has none	Not available	Scrap, unbuild, or a new order; a draft order and then create the bill of materials

Item	The system	How the accountant does it
Quarantine and release status on a lot; a print template for the certificate of analysis (COA)	Not available	See Part V. Warehouse and quality
The month-end VAT offset entry	Does not create it	The accountant posts Debit 33311 / Credit 1331
Closing profit and loss to 4211 at year end	Does not close it	The accountant posts the year-end closing entry

92 SELF-STUDY EXERCISE - A MONTH OF PRODUCT COST

About 30 minutes, no step-by-step screenshots.

1. Make one order of a Nova frame assembly through to **Done** (lesson *Cost of one order when it is completed*). Write down the cost on **Cost Analysis** and on the **Overview** of the order; explain the difference with **Direct Labor**.
2. Make a second order and leave it unfinished with 10 minutes on the operation; post the work-in-progress entry on the last day of the month. Calculate by hand beforehand: the value of the components + 10/60 x (210,000 + 41,000); compare with the Debit 154 line the system proposes.
3. Open `Accounting > Reporting > Audit Reports > Trial Balance` for last month; write down the end balance of 6274.
4. Create a **Production Cost Allocation** document for a 6274 journal item still on the list, split **By Current Cost** over the Lumi vehicle orders completed in the same month. Read the tab **Valuation Adjustments**: which vehicle gets more, and why.
5. Open the **Production Cost Report** for that month and find the line **Allocated Manufacturing Overhead** in the detail of a Lumi model.
6. Create a receipt from a dealer, add a bank transaction for the same amount and reconcile. Check that the receipt changes to **Paid**.

PART REFERENCE AND APPENDIX

This part is for the executive and for the person in charge of implementation: which report to open for which question, what the demo system does not have yet, which figures are assumptions that your company needs to confirm, and the path to every screen mentioned in the handbook.

MANAGEMENT QUESTIONS AND THE REPORTS THAT ANSWER THEM

Question	Open this report	Where in the handbook
How much did this vehicle cost to make?	**Cost Analysis** on the manufacturing order	Part XII. Accounting and costing, *Cost of one order when it is completed*; Part VI. Shop floor production, Actual hours, cost and journal entries when the order is completed
The cost of each vehicle model this month against last month?	**Production Cost Report**, button **Comparison**	Part XII. Accounting and costing, *Production cost report*
How much does this vehicle, this order, earn?	The sales report with the margin column	Part VIII. Sales and distribution, Sales reports and margin by channel
Distributor, dealer, store - which channel earns?	The sales report grouped by pricelist, by customer	Part VIII. Sales and distribution, Sales reports and margin by channel
How much profit does the company make this year?	**Profit and Loss** (B02-DN) and **Executive Summary** - read both	Part XII. Accounting and costing, *Financial statements B01-DN, B02-DN, B03-DN*
How much cash does the company have, where does the cash go?	**Balance Sheet** line 110; **Cash Flow Statement**	Part XII. Accounting and costing, *Financial statements B01-DN, B02-DN, B03-DN*

Question	Open this report	Where in the handbook
Which stock is holding the money?	**Valuation** in Inventory; B01-DN line 140	Part V. Warehouse and quality, Warehouse reports
Which dealers are overdue, and by how long?	**Aged Receivable**	Part XII. Accounting and costing, *Aged receivables and payables*; Part VIII. Sales and distribution, Receivables
How much must be paid to vendors this week?	**Aged Payable**	Part XII. Accounting and costing, *Aged receivables and payables*; Part IV. Purchasing and import, Vendor bills and payables
How much VAT must be paid this month?	**Tax Report**; the invoice lists 01-1 and 01-2/GTGT	Part XII. Accounting and costing, *Value added tax*
What does a batch of imported components really cost when it reaches the warehouse?	**Landed Costs Analysis**	Part IV. Purchasing and import, Import costs in inventory cost
Have depreciation and workshop payroll entered the product cost?	**Trial Balance** (balances of 622, 627, 6274); **Production Cost Report**, the manufacturing overhead column	Part XII. Accounting and costing, *Allocate production costs to completed orders*
How much money sits in work in progress?	The list of orders **In Progress**; the work-in-progress entry; B01-DN line 141	Part XII. Accounting and costing, *Post work in progress at the end of the period*
Which order used more than the standard components?	**Loss Components Analysis**; the columns **Standard Quantity** and **Actual Consumption Quantity** of the cost analysis	Part II. Manufacturing engineering, Standard consumption and loss rate; Part VI. Shop floor production, When reality departs from the plan
Which team is slow, which machine often stops?	**Overall Equipment Effectiveness**, **Work Orders**	Part VI. Shop floor production, Shop floor manufacturing reports; Part X. Equipment maintenance, Maintenance reports and station performance
Which vendor often delivers faulty components?	**Quality Alerts** grouped by vendor	Part V. Warehouse and quality, Quality alerts viewed by vendor
Which lot of components was the vehicle with this frame number made from, and where is it now?	**Traceability Report**	Part IX. Warranty and repairs, Look up a chassis number to get a vehicle's history

Question	Open this report	Where in the handbook
How many vehicles must be made next month, how many components bought?	**Master Production Schedule**	Part III. Production planning, Master production schedule from a forecast
Which requests wait for my approval, who approves slowly?	The reports of the **Approval** application	Part XI. Approvals, Approval reports
How much material does the subcontractor still hold?	**Subcontracting Report**	Part VII. Subcontracting, Subcontracting reports
How much do warranty and repairs cost this month?	The warranty reports, **Repair Analysis**	Part IX. Warranty and repairs, Warranty, repair and cost reports
The books for the tax authority and the auditors, in the form of the Ministry of Finance?	S03a-DN, S03b-DN, S38-DN, S07-DN, S08-DN; S10-DN, S11-DN, S12-DN	Part XII. Accounting and costing, *The general ledger, the trial balance and the books in the Ministry of Finance form*; Part V. Warehouse and quality

WHAT THE DEMO SYSTEM DOES NOT HAVE

Item	Note
An artificial-intelligence assistant that answers by voice	The industry introduction video shows it as an illustration; the demo system does not have it
An OEE indicator with all three components	Only availability and performance; there is no quality component yet
Automatically bring actual payroll into the cost of each order, automatically close 621, 622, 627, automatically calculate the difference	The accountant does it with the Production Cost Allocation document (Part XII. Accounting and costing)
Split 622 from 627 on the order completion entry	The split is on the production cost report
Hard-block a manufacturing order that is not approved	Part XI. Approvals
A separate rework order; automatically create an empty bill of materials	Use scrap, unbuild, or a new order
Quarantine status on a lot; a certificate of analysis (COA) print template	The inspection sheet records measured values by lot, but there is no status and no print template yet
Reading a scale or a scanner at the machine through an IoT box	Needs real devices, which the demo system does not have

Item	Note
An automatic bank connection that fetches statements	The demo system loads statements from a file or by typing

THE FIGURES ARE ASSUMPTIONS TO BE CONFIRMED

Every customer name, vendor name and employee name, and every figure on the demo system, is sample data. The figures below directly affect the cost and the reports; in a real implementation your company supplies the real figures.

Figure	Value on the demo system	Affects
Cost per hour of the 12 work centers	130,000 - 230,000 VND/hour (Tổ khung 210,000, Tổ lắp ráp trên chuyền (Assembly-line team) 230,000)	Manufacturing overhead in the cost
Employee hourly rate of the work center	41,000 VND/hour	Direct labor in the cost
Standard time of an operation	For example 30 minutes to weld and coat one frame assembly	Labor hours when nobody records real time
Purchase price of components, exchange rates	1 USD = 26,250 VND, 1 CNY about 3,680 VND (updated 01/10/2026)	Cost of imported components
Import duty rate	10% by default	Cost of imported components
Capital contribution	20,000,000,000 VND	B01-DN line 411
Fixed assets	5 assets, original cost 1,985,000,000 VND, straight-line depreciation; all 5 post depreciation to 6274, including the office computers and the delivery truck	Office and delivery depreciation should post to 6424, 6414; your company decides the accounts at implementation
Payroll, insurance	Only from 07/2026	Do not compare profit between quarters: Q3/2026 has payroll cost, earlier quarters do not
Production costs not allocated into the cost	Closed to 632 at the end of every month	Cost of goods on B02-DN; your company decides the allocation method at implementation
Profit of earlier years	Not yet closed to 4211	B01-DN line 420a = 0
Corporate income tax	20%, booked yearly for 2023 - 2025, estimated for Q1 and Q2/2026 and reduced cumulatively in Q3/2026 (Q3 is a loss because of payroll)	B02-DN line 51

Figure	Value on the demo system	Affects
How depreciation is split in the allocation lesson	By quantity, only for the Aura vehicles of September	An illustration, not a costing policy
Spare parts for a warranty vehicle	Posted Debit 154 / Credit 152	The warranty cost account is for your company to decide at implementation
Scrap in production	Posted Debit 632 / Credit 152	May be changed to a separate loss account at implementation

QUICK LOOKUP OF THE PATH TO EACH SCREEN

Configuration

Screen	Path
Company profile	`Settings > Users & Companies > Companies`
Users and rights	`Settings > Users & Companies > Users`
Accounting settings (localization, Anglo-Saxon, MRP accounting)	`Accounting > Configuration > Settings`
Chart of accounts	`Accounting > Configuration > Accounting > Chart of Accounts`
Taxes	`Accounting > Configuration > Accounting > Taxes`
Currencies	`Accounting > Configuration > Accounting > Currencies`
Journals	`Accounting > Configuration > Accounting > Journals`
Fiscal years	`Accounting > Configuration > Accounting > Fiscal Years`
Product categories	`Accounting > Configuration > Management > Product Categories`
Classification of manufacturing cost	`Accounting > Configuration > Management > Classification of Manufacturing Cost`
Automatic transfer models	`Accounting > Configuration > Management > Automatic Transfer Models`
Asset categories	`Accounting > Configuration > Management > Asset Categories`
Bank reconciliation models	`Accounting > Configuration > Banks > Reconciliation Models`

Screen	Path
Payment terms	`Accounting > Configuration > Invoicing > Payment Terms`
Manufacturing settings	`Manufacturing > Configuration > Settings`
Work centers	`Manufacturing > Configuration > Work Centers`
Operations	`Manufacturing > Configuration > Operations`
Bills of materials	`Manufacturing > Products > Bills of Materials`
Inventory settings	`Inventory > Configuration > Settings`
Warehouses	`Inventory > Configuration > Warehouse Management > Warehouses`
Operation types	`Inventory > Configuration > Warehouse Management > Operations Types`
Routes	`Inventory > Configuration > Warehouse Management > Routes`
Rules	`Inventory > Configuration > Warehouse Management > Rules`
Units of measure	`Inventory > Configuration > Units of Measures`
Purchase settings	`Purchase > Configuration > Settings`
Sales settings	`Sales > Configuration > Settings`

Data and business processes

Screen	Path
Manufacturing orders	`Manufacturing > Operations > Manufacturing Orders`
Work orders	`Manufacturing > Operations > Work Orders`
Subcontracting requests	`Manufacturing > Operations > Subcontracting Requests`
Scrap in manufacturing	`Manufacturing > Operations > Scrap`
Manufacturing orders progress	`Manufacturing > Operations > Manufacturing Orders Progress`
Master production schedule	`Manufacturing > Planning > Master Production Schedule`
Lots and serial numbers	`Manufacturing > Products > Lots/Serial Numbers`
Production cost report	`Accounting > Reporting > Manufacturing Reports > Production Cost Report`
Subcontracting report	`Accounting > Reporting > Manufacturing Reports > Subcontracting Report`

Screen	Path
Overall equipment effectiveness	`Manufacturing > Reporting > Overall Equipment Effectiveness`
Loss components analysis	`Manufacturing > Reporting > Loss Components Analysis`
Stock transfers	`Inventory > Operations > Transfers`
Replenishment	`Inventory > Operations > Procurement > Replenishment`
Landed costs (imports)	`Inventory > Operations > Adjustments > Landed Costs`
Inventory valuation	`Inventory > Reporting > Valuation`
Landed costs analysis	`Inventory > Reporting > Landed Costs Analysis`
Books S10, S11, S12	`Inventory > Vietnam Legal Reports`
Sales invoices	`Accounting > Customers > Invoices`
Customer payments	`Accounting > Customers > Payments`
Vendor bills	`Accounting > Vendors > Bills`
Vendor payments	`Accounting > Vendors > Payments`
Accounting dashboard, bank reconciliation	`Accounting > Dashboard` > the **Bank** card > **Transactions**
Journal entries	`Accounting > Accounting > Journal Entries`
Journal items	`Accounting > Accounting > Journal Items`
Production cost allocation	`Accounting > Accounting > Production Cost Allocation`
Assets, depreciation	`Accounting > Accounting > Assets` ; `Accounting > Accounting > Asset Depreciation`
Lock dates	`Accounting > Accounting > Lock Dates`
B01-DN	`Accounting > Reporting > Statement Reports > Balance Sheet`
B02-DN	`Accounting > Reporting > Statement Reports > Profit and Loss`
B03-DN	`Accounting > Reporting > Statement Reports > Cash Flow Statement`
Executive Summary	`Accounting > Reporting > Statement Reports > Executive Summary`
Tax Report	`Accounting > Reporting > Statement Reports > Tax Report`
General ledger	`Accounting > Reporting > Audit Reports > General Ledger`
Trial balance	`Accounting > Reporting > Audit Reports > Trial Balance`

Screen	Path
Books in the Ministry of Finance form	`Accounting > Reporting > Vietnam Accounting Reports`
Aged receivable, aged payable, partner ledger	`Accounting > Reporting > Partner Reports`
VAT invoice lists	`Accounting > Reporting > Invoice Lists`
Quotations, sales orders	`Sales > Orders > Quotations`
Requests for quotation, purchase orders	`Purchase > Orders > Requests for Quotation`
Approval requests	`Approval > Approval Request > Request`
Shop floor screen	`Shop Floor`

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