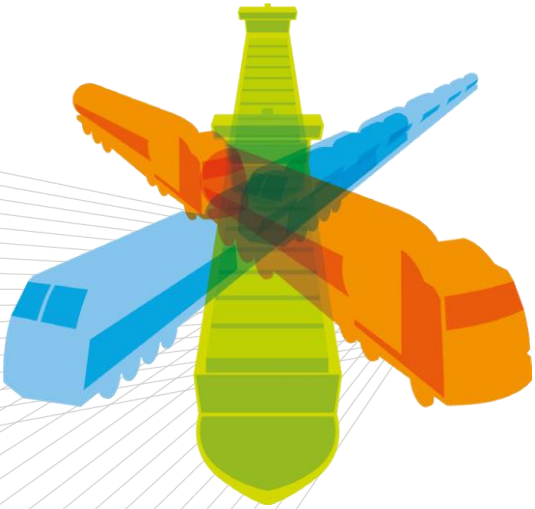


Loading and unloading tank

Things go wrong regularly during loading and unloading, occasionally with severe consequences. Success depends on knowledge and experience, but also on the driver's commitment.

Before loading:

- Always wear the required PPE' s.
- Always wear a reflective vest when leaving the cabin, you stand out better this way.
- Sign in with the porter. Give loading references and ensure you are at the right address.
- If neutral loading is required, first refer to the Procedure for neutral loading and unloading (Driver's Handbook CM-07.04.01).
- Follow the instructions of on-site staff (signs, weighing and sampling).
- Break the seal only when instructed and in the presence of the consignor.
- Always to position the truck properly on the weighbridge and that you weigh in and out in the same way.
- Ensure you are positioned under the correct loading pipe. Always have someone on staff verify this and verify it on the CRM if necessary.
- Ensure the tank is 100% clean and dry (unless customer requirements allow otherwise).
- Only load without cleaning if instructed so by the planning department (e.g., for dedicated transport, or a similar product)
- If the tank is dirty, do not load. Instead, consult the planning department.
- Ensure everything on the tank is closed, except the air duct (if loading with a pump).
- Know the capacity of the various compartments, this is stated on the tank.

Always ensure no items such as pens, mobile phones, or Bluetooth earphones can drop into the tank during inspection or loading operations to prevent physical contamination. Make a habit of never putting loose items in your pockets.

- When working on top of the tank, the handrail should always be used. If working at height cannot be performed safely, contact the planning department immediately.
- Always use your fall protection.
- Check all drip trays to ensure that all taps are closed and that all toggles are properly tightened.
- Be aware if a heated product is to be loaded, in which case the tank should often be preheated. Always log the temperature of the product on the CMR (Driver Handbook CM-07.02.02).

Checklist for loading:

- Outlet closed.
- Sample tap closed.
- Airline closed when loading from above.
- Always: bottom valve closed (double check!).
- All connections to the tank closed: vacuum valves, CIP connections, sample tap (double check!).
- Open air line when loading from the outlet, however, sometimes the customer may have a central suction for return vapours, in which case the air line should be closed. Therefore, make sure you are aware of how to vent.

There are 2 methods of loading:

From the bottom (pumping)

From the top (free fall)

- Keep truck windows and doors closed.
- Connect grounding cable as instructed by the loader.

During loading:

- Sampling of the product is the customer's responsibility. Only upon the customer’s request, will sampling will be carried out on customer instructions. Report this to your planner and report this on the CMR. There is a real danger of the sample container falling into the tank.

After loading:

- Close manhole covers and check manhole covers which have not been used to load.
- Close airline.
- Stow the grounding cable.
- Stow the hose.
- Always clean up spilled product.
- Seal according to the sealing procedure (if required by shipper) (See Driver’s Handbook H-07.06.01)
- Check for defects, leaks, or cracks in the chassis or tank and check that no equipment is missing.
- For ADR: place hazard chart visibly behind window, attach kemler plates with UN and substance number, attach labels.
- Documents and other items that may accompany the cargo:
    - CMR (possibly write/fill in yourself).
    - Certificate of Analysis (COA, COQ).
    - Delivery Note, Lieferschein.
    - Customs documents.
    - Samples in the outlet box, not in the documents box.
    - ADR: hazard card and other documents.

Spills may occur during loading/unloading operations. Take responsibility and clean up. If the spill is too significant, report it to both the loading/unloading location and to your planner.

When coupling a loaded cargo unit, always check for spillage. Wet mudguards are a good indication of a spill. Wet drains also indicate fresh leakage of the manhole cover gasket. Do not leave the location and report this to your planner immediately.

Should a spill occur during transport, stop immediately and inform the local emergency services through your planner. If the spill involves an ADR product, contact the Van den Bosch hazardous goods transport safety advisor right away. An ADR spill must always be formally reported to the proper authorities. Use your ADR kit to prevent more damage.

Before unloading:

If, before unloading, ambiguities or doubts are found regarding the shipping documents, they must be resolved before starting to unload the product. In doing so, proceed as follows:

- Contact planning and report the problem to your planner.
- From that point on, act only by consultation and approval of your planner.
- The planner will discuss the issue with the relevant customer service right away, after which the customer service will always inform the customer/shipper immediately.
- All communication with the customer on this matter is done via the relevant commercial manager (as well as any consignor).
- Planning is instructed to wait to unload until:
    - the original shipping documents are justified.
    - the shipping documents have been replaced (and signed) directly from the customer or shipper, clearly indicating what was loaded and in which compartment.

- The consignee will be requested by our planning department or the customer to sample the loaded product and examine the samples extra carefully. Unloading may only be started after explicit signed approval from the consignee (on the CMR) and approval from the customer.
- The direction to unload only reaches the driver through the Van den Bosch planner.
- Other than the instruction mentioned above or the instruction of third parties, absolutely no unloading is allowed.
- Follow the instructions of on-site staff (weighing and sampling).
    - Sampling of the product is the customer's responsibility. Only upon the customer’s request, will sampling will be carried out on customer instructions. Report this to your planner. There is a real danger of the sample container falling into the tank.
- Check that the truck is positioned on the weighbridge properly (full and empty).
- Check that the weight matches the previous customer's weigh-out (there will be a slight discrepancy due to consumed diesel). This is to prevent problems with deviating weights.
- Wear all PPE, pay attention to the customer's instructions.
- Never remove seals yourself: always by instruction of the consignee and in their presence.
- When handling temperature-sensitive products, always record product temperature on the CMR. (Refer to the Procedure proper use and completion of a CMR).
- Ask the one assigning the unloading address to state this exact number on the CMR and sign for it. If no one is present or willing to sign, contact your planner, an unloading error is more costly than waiting.

Unloading – supervisor hereby orders to unload the above mentioned product in:

SILO: **SIGNATURE:**

Unloading – supervisor hereby signs for giving the order to unload the product in the above mentioned silo and also accounts for giving the driver an instruction which is clear and is not liable for more than one interpretation.

Unloading

There are four ways of unloading:

- Free fall
- Unloading with a pump
- Unloading with pressure
- Unloading with pressure and a pump

Free fall (only Liquid Chemical)

- Air suspension truck in highest position, air suspension trailer or chassis fully lowered.
- Consult with the customer how the tank will be vented (via airline or manhole cover).
- Never rest the manhole cover on the bold, but instead open it with one bold.
- Check the hoses, gaskets, and couplings (see Driver Handbook CM-04.01.01).
- Attach unloading hose.
- If present, open bottom valve.
- Open product valve carefully and inspect for leaks.

Unloading with a pump

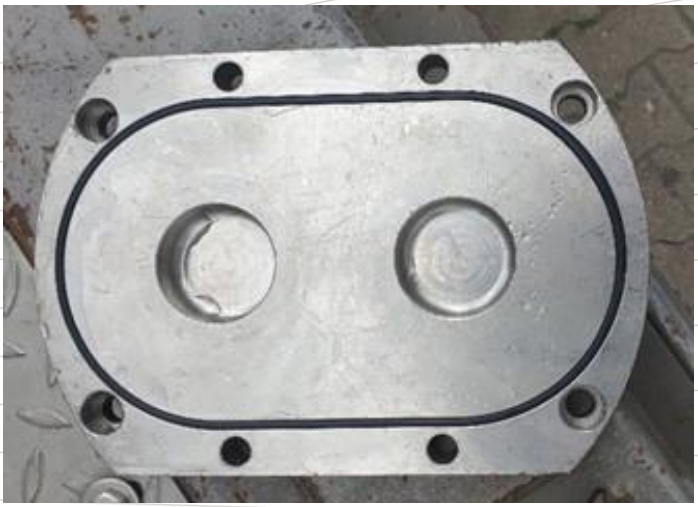
Two options:

1. Unloading with the customer's pump
    - This is a collaboration between the customer and the driver. Usually, the customer operates the pump, and the driver follows the customer's instructions.

2. Unloading with the loading unit's pump
    - The condition and functioning of equipment should be checked prior to-, during- and after cleaning. If the container has been cleaned and loaded by a different driver, a proper check is mandatory after breaking the seal at the unloading address.

- Check the oil level of the hydraulic reservoir beforehand. This must be done via the dipstick attached to the filler cap, or by checking the gauge glass if the hydraulic reservoir has one.

- Check that the electric motor is operational by connecting it to the 380V power source, make sure the main switch is switched to 'on'.
- Check that all attachments (hoses and fittings) are included with the pump and check their condition: gaskets intact, clean, and dry, and hoses undamaged.
- Check that the gasket is in place in the cover of the pump and ensure that the pump wheels are not damaged.



- Ensure you know the rotation direction of the pump; the top pump wheel always rotates in the direction of the customer's tank. If it is rotating in the wrong direction, you may draw product from the customer's tank into your own. You can often see the rotation direction of the top pump wheel axis through the grid on the side.

If needed, mark the pump control lever with a pen so you know which direction is the correct way to turn it.

- Connect the unloading hoses.
- Ensure the air duct is open: product out, air in.
- Only open the manhole covers if you’re instructed by the customer to do so.
- If present, open the bottom valve.
- Carefully open the butterfly valve. Ensure no leaks occur.
- Turn on the pump, continue to check for leaks. Vibrations could cause a leak during the unloading process. The pump could also leak internally. You should report this to your planner immediately.

- Check if the air duct is drawing air to be sure you have the correct direction of rotation. (if needed, hold a sheet of paper in front of it).
- If you are close to empty you will notice this because the unloading hoses become light, and you may also hear it by a slurping sound.
- Ensure that as much product as possible flows into the hoses to the customer's tank by lifting the hoses. In doing so, make sure the couplings do not loosen.
- Make sure the customer closes their tank.
- Disconnect the unloading hose from the customer's tank and ensure that no product spills from this by placing a collection container underneath and/or by lifting the hose.

- Now change the rotation direction of the pump to return any remaining product in the unloading hoses and the pump itself to your own tank. Guide the discharge hoses in the process. Do not do this too long, as it is not good for the pump to run without product for too long.
- Stop the pump.
- Close the butterfly valve and the bottom valve.
- Disconnect the hoses and extension pipe, collect remaining product in a collection container.
- Place the blind caps.
- Place a cap on the pump so no spill can occur during transport.
- Prepare the loading unit for transport.
- Do not forget to return the air suspension to driving position.

Unloading with pressure

- Ensure to have an agreement with the customer on the method and progress of unloading.
- Physically check that all connections to the tank (except the air duct) are closed with the proper tool.
- Raise the truck's air suspension.
- Lower the trailer/chassis air suspension.
- Open the air duct.
- Connect the compressor hose.
- Leave the compressor's air vent open so that you cannot build up pressure while you are in the cabin to start the compressor. Should you forget to open the air duct, nothing can happen this way.
- Several unloading addresses require the use of factory air or nitrogen. In this case it is mandatory to do so.
- Check the hoses, gaskets, and couplings (see handbook driver CM-04.01.01).
- Connect the unloading hose.
- If present, open the bottom valve.
- Always ask yourself two things:
    - Is the customer also ready to unload?
    - What is the highest permitted unloading pressure? This is determined by the customer.

- **Bring the tank under pressure.** If you don't do this, there is a chance that the product in the customer's tank will level out to your tank.
- Check for air leaks and keep an eye on the pressure gauge.
- Carefully open butterfly valve and keep checking for leaks.

- **Note: some companies use nitrogen, for example, instead of air. Verify whether this is the case by asking. If in doubt, contact the planning department.**

Unloading with a tipping chassis

- Ensure there is enough space above and behind the tank to tip.
- Check that the twist locks are tightened and locked.
- Lower the chassis air suspension.
- Connect the tipping cable to the truck's NATO plug. In order to avoid transition resistance, do not leave the cable hanging.
- Connect the remote control and switch on the tipping motor.

- Do not tip immediately. Unload first and only tip when the tank is mostly empty.
- Never drive with a tipped silo (container). The tipping cylinder can only hold the weight of a full silo when at a standstill. Driving can put too much pressure on it and cause it to break.

Throughout unloading

- Always stay with your vehicle during unloading so you can intervene if something goes wrong.
- If something goes wrong immediately shut the bottom valve by pulling the emergency cord (if present). Close the butterfly valve if no bottom valve is present.

- **Never enter a pressurised tank (container).**
- First, release all pressure through the air duct.
- Inform the customer of the leak and ensure you have permission to go on top of the container.
- Always use the handrail and wear proper PPE.
- Then loosen the manhole cover swivels, without removing them.
- Check if pressure is still present by moving the manhole cover back and forth.
- Remove the swivels and open the manhole cover.
- Solve the issue by fitting the gasket correctly or by replacing the gasket.
- **Note: the problem cannot be solved by hitting the swivels with a hammer**.

- Close the manhole cover.
- Handrail in transport position.
- Restart the unloading procedure.
- Ensure to be as empty as possible by giving the remaining product enough time to run to the butterfly valve. Use the pressure in the tank for this, making sure the pressure is not too high. The product's fluidity determines how long you should wait and how often you should repeat this procedure.

After unloading - depending on customer instructions:

- Close the bottom valve first (if any), then close the butterfly valve.
- Lift the hose so that the residual product runs out of the hose towards the factory.
- When the product is pushed into a factory tank from below, make sure to first close the factory's butterfly valve and then the one on the tank. Otherwise, the hose will fill with product from the factory.
- Stop the compressor.
- Release all pressure before disconnecting anything.
- Close the air duct before disconnecting the compressor hose.
- Only disconnect hoses once the pressure is off, use a collection container if possible.
- Place blind caps on ends of unloading hose.
- Stow the unloading hoses in the hose tubes.
- Clean up any spillage.
- Close the dome lids with the rubber seals to prevent rattling of the hatches.
- Place blind caps on the air duct.
- Check out, weigh out, and check shipping documents.

- In case of dedicated transport, reseal, seals.
- After unloading with nitrogen, always seal with yellow nitrogen seals (N2).

If sweeteners (e.g., glucose) have been loaded, ensure all manhole covers, valves, hose tubes, etc. are closed. It is common for large numbers of insects (like bees) to crawl into the tank pipes or hoses due to improper sealing, resulting in possible consequences, such as contamination or rejection of the load.