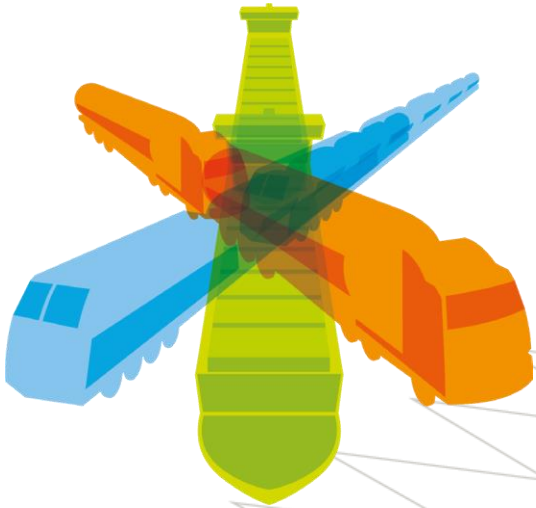

Tank heating of a tank trailer

In our HACCP analysis, there are two major risks that can affect the condition of the product:

1. no or incorrect sealing.
2. product temperature is not safeguarded.

The temperature of many liquid products must be safeguarded. Furthermore, reheating is done to prevent residual load and to accelerate cleaning. Therefore, it is very important that heating and/or cooling systems are always operating properly and set correctly. A driver should ensure that they are operating correctly.

When coupling a tank trailer, always check the heating system. Even if you don't need to load any product that needs to be heated; the job could always change. Defects should be reported to your planner immediately.

The product temperature must be stated on the CMR after loading and again before unloading, always double-check this.

There are several options for heating:

1. Connect to the truck (not all trucks are equipped with a heat exchanger)
2. Connect to a 380V outlet.

1. Connecting to the truck

Some trucks are equipped with a heat exchanger. Glycol is pumped around by an electric pump and warmed up by the truck's engine coolant. The product can never get warmer than the coolant temperature (+/- 90°C).

Conditions for truck heating are that the engine must be at operational temperature. Additionally, the engine must always be running, otherwise there is no circulation. The planner will have to arrange for parking with an external power source during rest.

- Connect the hoses behind your cabin to the trailer.

- There is a lock on the quick-release couplings. Make sure it is locked.

- Close the shut-off valve, otherwise there will be no circulation.

- The truck's pipe network may not contain glycol, in which case, the truck draws glycol from the tank. This may cause a shortage of glycol in the tank.
- Always check the glycol level in the reservoir. Glycol should be visible in the reservoir. If not, report this to your planner.
- When there is too little glycol in the reservoir, the pump may fail because it is pumping air. Make sure the fluid is always above the intake point.
- Set the product temperature after loading. This will be shown on your on-board computer. If not, report this to your planner.
- The tank often needs to be preheated before loading. Check that the tank is indeed preheated.

Ice switch

- Turn on the switch in the cabin. This switch shows an ice symbol or reads "tank heater".
- In the cabin, a display lights up red; on this you can set the temperature.

- First click on the “ENTER” button.

- A light will flash at the top left of the display; you can now set the temperature.
- **The set temperature should never be more than 5 degrees higher than the product temperature.**
- When the temperature is set, the light stops flashing and heating starts.
- If the switch is on and the display does not light up, report this to your planner right away.
- **If you do not connect the tank heater hoses to the trailer, connect them to one another instead so that it is a closed circuit again.**

2. Connecting to a 380V outlet

- Uncouple the trailer.
- Open the shut-off valve on the trailer.

Temperature gauge

shut-off valve

Heater

Thermostat

Pump

- Check the set temperature of the thermostat (see subchapter thermostats).
- Verify that the pump is at the highest setting (some pumps have three settings).
- You have set the shut-off valves in the correct position when the pipes at the front get warm (sometimes a temperature gauge is fitted).
- If the pipes are not warming up at the front of the tank but the shut-off valves are in the right position, check whether a valve is closed somewhere else (see photo).

- If there is no shut-off valve in the heating box, then the position of the valve is automatically correct. **However, note that it must be in the correct position in front of the tank as well. Also check if the pump is turned on (pump makes noise and vibrates).**

Thermostats

Single thermostat:
The desired temperature can be set by turning the knob to the specified temperature.

With this type of thermostat, a fixed maximum value is set by the technical department, the temperature set by the driver cannot exceed the fixed maximum temperature.

Double thermostat: both have the same function. In case one fails, the other serves as a backup.

Chocolate thermostat: The desired thermostat can be selected by turning the switch in the middle. The top thermostat should be used with chocolate. This thermostat prevents chocolate from burning and cannot be set higher than 55 C°.