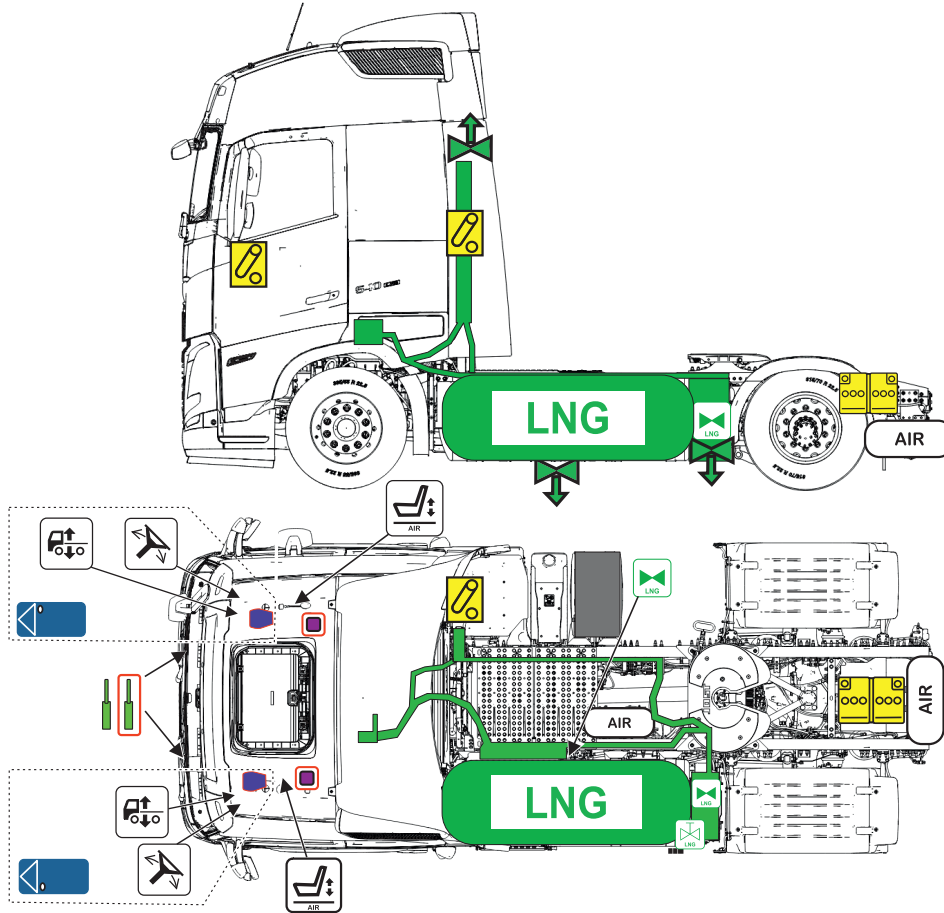






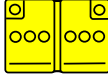





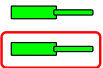


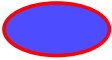



VOLVO TRUCKS

FH / FM GAS POWERED (LNG) (TRACTOR)

PRODUCTION START: 2018



 LNG Tank	 Direction of gas pressure from the safety device	 Manual shut-off valve	 Pressure relief device	 Low-voltage battery	 Air tank	 Seat adjustment
 Height control	 Steering wheel tilt control	 Gas line	 Gas strut, pre-loaded spring	 Starter switch	 Seat belt pretensioner	 Airbag
 Diesel Tank						

Note
The above image shows information for one variant of this product. Number of axles and cab structure can vary depend on the variant of the product. These instructions do not cover the safety aspects of the components and equipments mounted by a third party (example: body builders). Discrepancy may exist in the translated documents as the original document is authored in English.

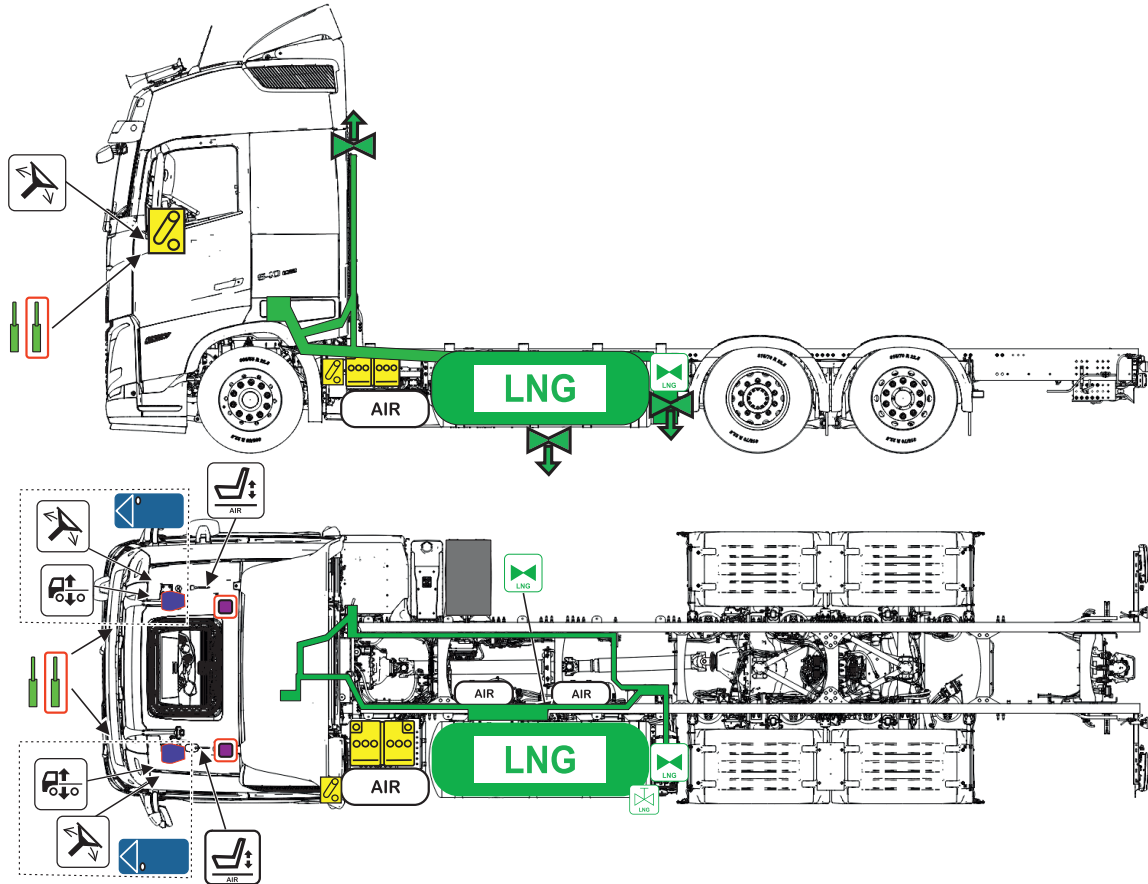
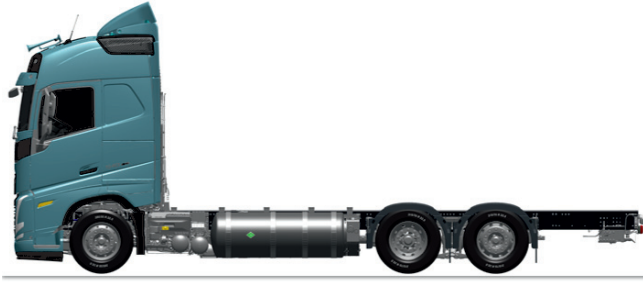
	Identification number 800077265	Version number 10/2023	Page number
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VOLVO TRUCKS

FH / FM GAS POWERED (LNG) (RIGID)

PRODUCTION START: 2018



LNG Tank	Direction of gas pressure from the safety device	Manual shut-off valve	Pressure relief device	Low-voltage battery	Air tank	Seat adjustment
Height control	Steering wheel tilt control	Gas line	Gas strut, pre-loaded spring	Starter switch	Seat belt pretensioner	Airbag
Diesel Tank						

Note

The above image shows information for one variant of this product. Number of axles and cab structure can vary depend on the variant of the product. These instructions do not cover the safety aspects of the components and equipments mounted by a third party (example: body builders). Discrepancy may exist in the translated documents as the original document is authored in English.

	Identification number	Version number	Page number
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1. Identification / recognition



Note:
The truck can be identified by "LNG" or "GAS POWERED" symbol on the side of the cab.

2. Immobilisation / stabilisation / lifting

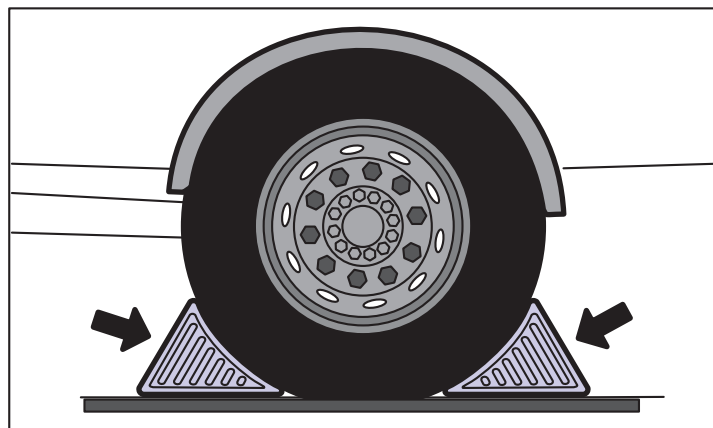


Always approach the LNG truck from the sides to stay out of the potential travel path.

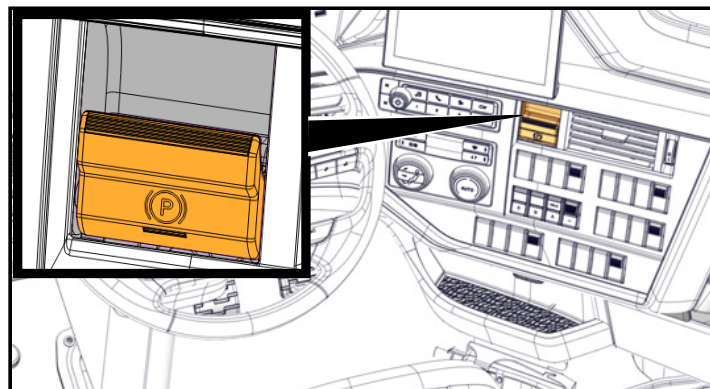


Use portable gas sniffer to detect gas leak before approaching the LNG truck. It is not recommended to approach the LNG truck during a higher rate of gas leak.

1. Chock the wheels.



2. Apply the parking brake.

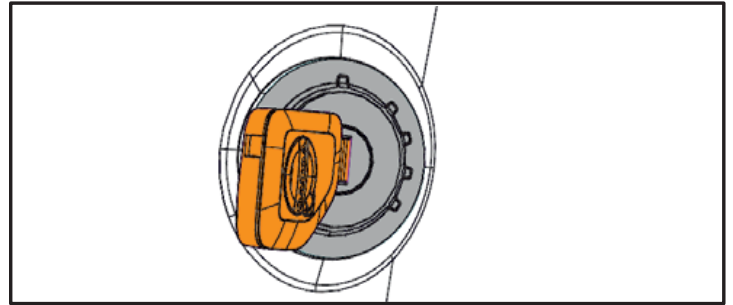


3. Disable direct hazards / safety regulations

For Trucks With ADR (Accord relatif au transport international des marchandises Dangereuses par Route)



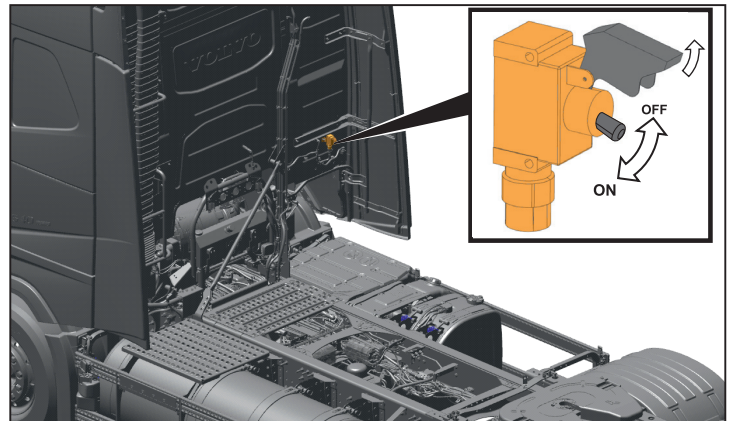
1. If possible turn off the starter switch and remove the key.



2. Turn off the LNG switch on the rear end of the LNG tank to shutdown the LNG Pump.



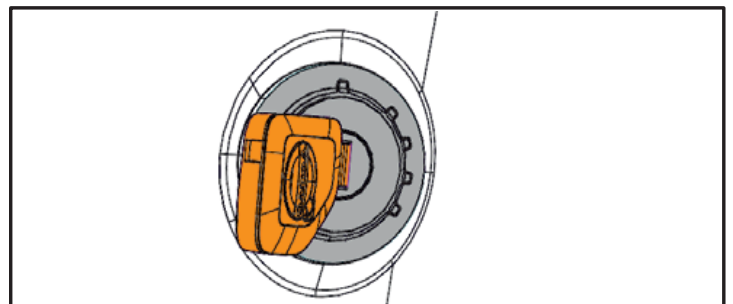
3. Turn off the ADR switch to disable the electrical system.



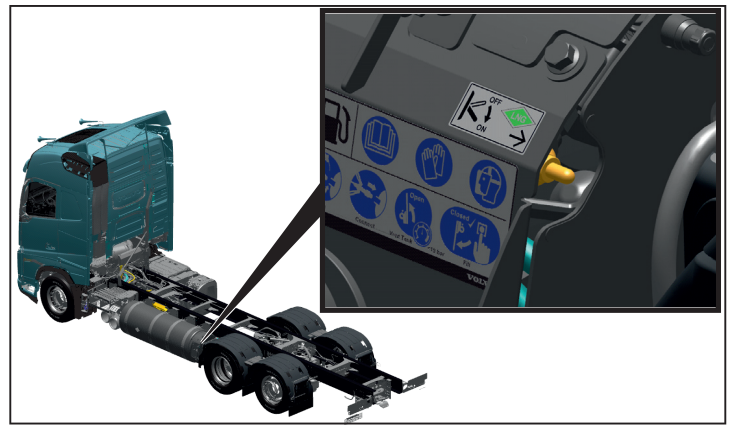
For Trucks without ADR (Accord relatif au transport international des marchandises Dangereuses par Route)



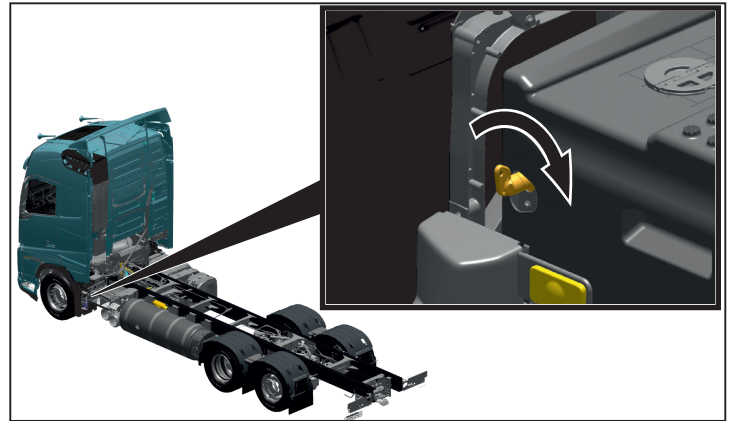
1. If possible, turn off the starter switch and remove the key.



2. Turn off the LNG switch on the rear end of the LNG tank to shutdown the LNG Pump.



3. Turn off the Main switch in the battery box to disable the electrical system.



5. Stored energy / liquids / gases / solids




LNG is stored in the tank at a cryogenic temperature of approximately -160°C . Exposure of the skin to LNG or contact with cold surfaces can cause cryogenic burns.




In case of a large natural gas leaks, escaping gas will be visible in white and foggy appearance. It can also be identified by a hissing sound or by a heavy white frost around the leakage area.

Natural gas is a colorless, odorless. Use gas detectors to identify the small natural gas leak. If natural gas is detected in the cab or around the LNG tanks, shut down the engine immediately. Refer shut down procedures in "3. Disable direct hazards/safety regulations".

 Any atmosphere with insufficient oxygen can lead to dizziness, unconsciousness, suffocation or even death. Do not perform any operation on an LNG truck with fuel leak without an appropriate Personal Protective Equipment (PPE).

Increasing temperature in the LNG tank will cause the pressure to raise inside the LNG tank. Releasing the pressure in the LNG tank can prevent the LNG from boiling and rapid increase of pressure.

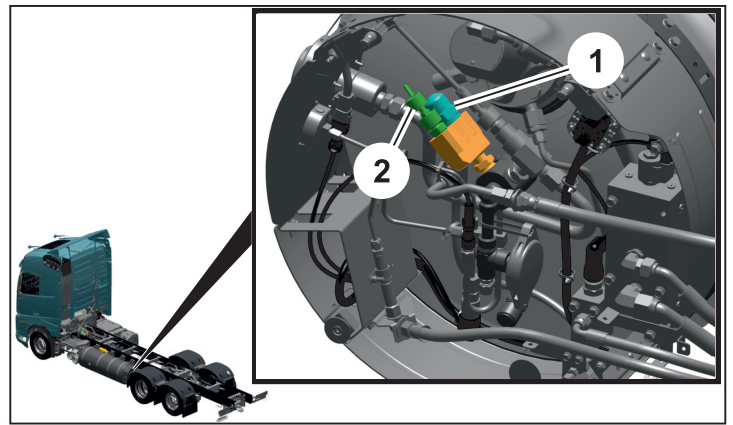
 Avoid flames and sparks near the truck. In case of a confined area, try to vent out the Natural gas from confined area as much as possible.



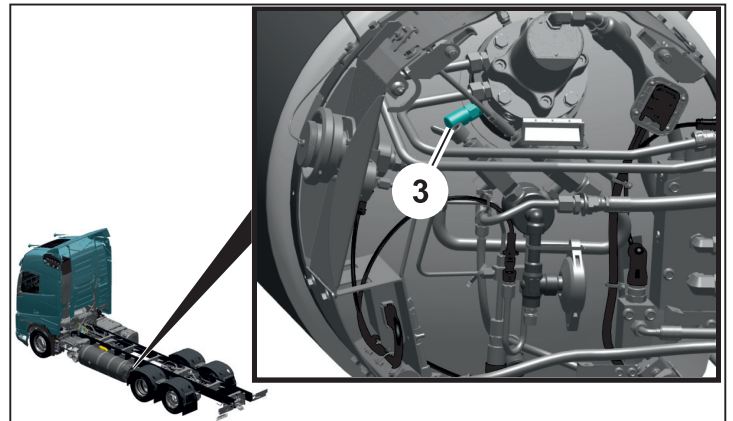
If the pressure in the system goes above 15.9 bar the primary pressure relief valve (1) open to control the pressure.



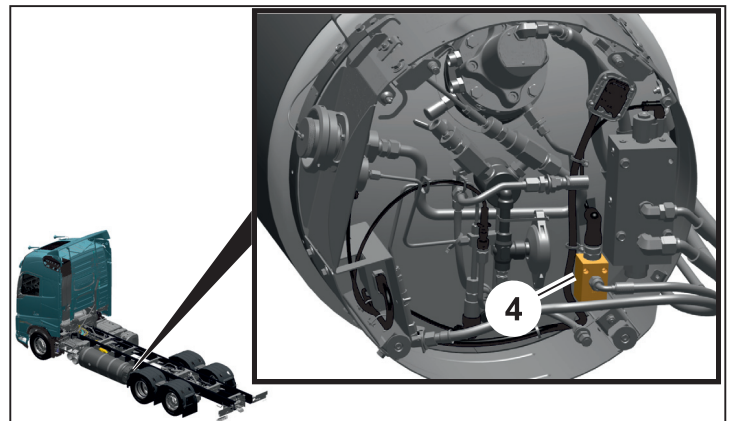
The pressure in the system can also be released manually by opening the vent valve (2).



If the pressure in the system goes above 18.6 bar the secondary pressure relief valve (3) open to control the pressure.



In case of any leak in the downstream high pressure gas system from the LNG tank, the automatic shut-off valve (4) isolates the LNG tank from the rest of the system.



6. In case of fire



To reduce the risk of an increase in the tank pressure, cool the LNG tank with water.

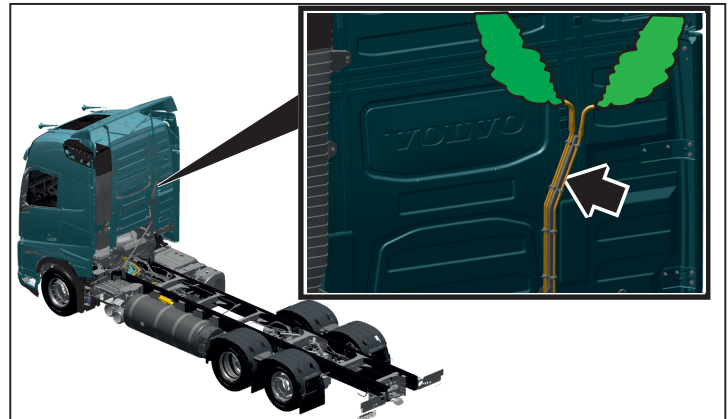


Do not attempt to extinguish a fire involving natural gas before the source of the fuel is shut off.



If other materials are involved, use class ABC fire extinguisher.

When the pressure relief valves are triggered, the natural gas is vented through the vent pipes behind the cab.



7. In case of submersion



The degree of damage of a submerged truck may not be visible. Handling a submerged truck without an appropriate Personal Protective Equipment (PPE) may result in serious injury or death. If possible, disable direct hazards (Refer to “3. Disable direct hazards/safety regulations”).

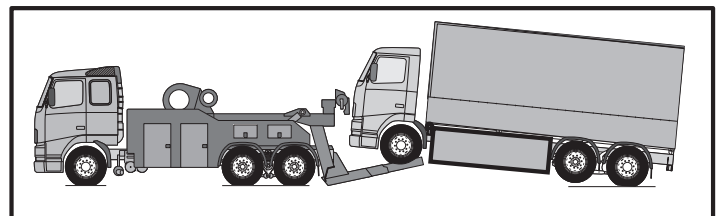
8. Towing / transportation / storage



It is not recommended to tow an LNG fueled truck if there is a leak of LNG, take guidance from emergency response personnel before towing.

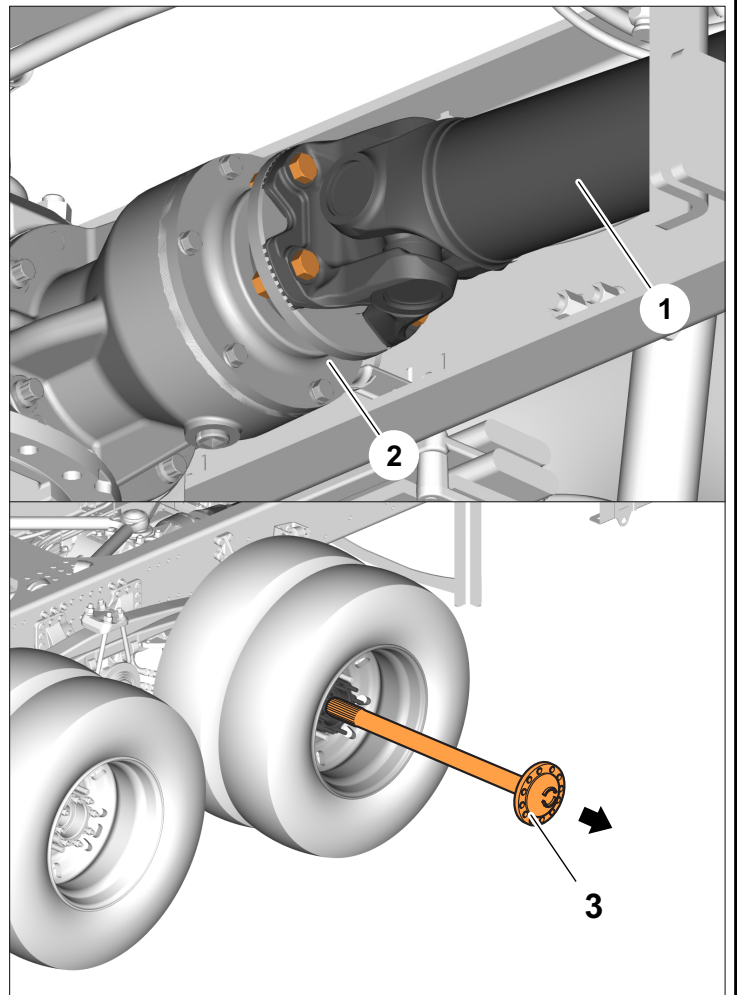


It is recommended to tow an LNG fueled truck with the rear wheels on the ground.

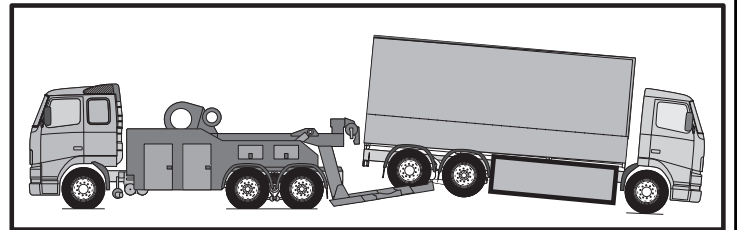


The drive to the wheels is disabled by either uncoupling the propeller shaft (1) from the driven axle (2) or by removing the drive shafts (3).

Note: Moving an LNG truck with the rear wheels on the ground without disabling the drive may cause damage the gearbox.



When the truck is towed with the rear wheels lifted, lock the steering wheel.



9. Important additional information



Do not perform any operation on an LNG truck without an appropriate Personal Protective Equipment (PPE).