# **Emergency response guide**

XF > 2017





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1

## **EMERGENCY RESPONSE GUIDE**



### Table of contents

### TABLE OF CONTENTS

			Page	Date
1.	<b>SECU</b> 1.1 1.2 1.3 1.4 1.5 1.6	JRING THE VEHICLE Switching off the engine Main switch Batteries Airbag Fluids Regeneration unit	1-1 1-1 1-2 1-4 1-5 1-6 1-8	202027 202027 202027 202027 202027 202027 202027 202027
2.	<b>STAE</b> 2.1 2.2 2.3	BILISING THE VEHICLE   Seat adjustment.   Air suspension chassis   Cabin suspension	2-1 2-2	202027 202027 202027 202027
3.	RELE 3.1 3.2 3.3 3.4 3.5 3.6 3.7 3.8 3.9	EASING A TRAPPED DRIVER   Cabin types   Cabin bracket collision ability   Cabin dimensions   Opening the grille   Doors   Door lock   DAF night lock   Steering wheel adjustment   Cabin structure	3-1 3-1 3-2 3-3 3-5 3-6 3-7 3-8 3-9 3-10	202027 202027 202027 202027 202027 202027 202027 202027 202027 202027
4.	<b>TOW</b> 4.1 4.2 4.3 4.4 4.5	ING INFORMATION Removing the prop shaft . Releasing the park brake. Tyre inflating connection . Towing . Jump-starting .	4-1 4-1 4-2 4-3 4-4 4-8	202027 202027 202027 202027 202027 202027 202027
5.	<b>LIFTI</b> 5.1 5.2 5.3 5.4	NG INFORMATION.   Lifting at the front.   Jack up at the front   Lifting at the back   Jack up at the back	5-1 5-2 5-3	202027 202027 202027 202027 202027

Table of contents



### Securing the vehicle

### **1. SECURING THE VEHICLE**

### 1.1 SWITCHING OFF THE ENGINE

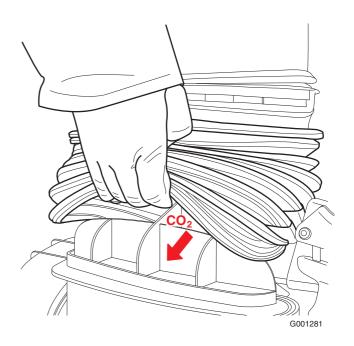
#### **Ignition switch**

If the ignition switch can be reached, an attempt can be made to stop the engine by switching off the ignition.

#### $CO_2$

Another method is to blow  $CO_2$  into the air inlet. The engine no longer receives sufficient oxygen so it stops.

The air inlet can be accessed behind the cabin. First, lift the rubber gaiter and blow  $CO_2$  into the bottom half using a fire extinguisher.





Securing the vehicle

### 1.2 MAIN SWITCH

If the vehicle is equipped with a main switch, it is either mechanically or electronically operated, depending on the vehicle version.

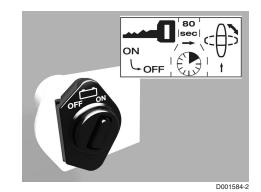
The switch can be used to **interrupt** the power supply from the **batteries** to the **vehicle** (except for the tachograph).

#### **Electronic main switch**

The electronic main switch does not switch OFF at once when it is operated, this happens with a 10-second delay.

This is to allow the after-running of various electrical systems on the vehicle.

The electronic main switch (usually located close to the battery pack).





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If the vehicle is equipped with an electronic main switch, there is also a switch with the above shown symbol on the centre console in the cabin.

Either on position H3 or J2

## Securing the vehicle

#### Mechanical main switch

Mechanically operated main switches only have a switch outside the cabin.



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Securing the vehicle

#### **1.3 BATTERIES**

#### Location of the batteries

The batteries are located on the left- or right-hand side of the chassis frame, or at the rear within the chassis.

#### **Disconnecting the batteries**

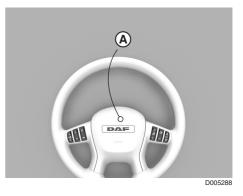
- 1.
- Switch the ignition OFF. Switch OFF all electrical consumers. 2.
- 3. Remove the battery cover.
- Disconnect the battery clamp from the 4. negative pole.
- 5. Disconnect the battery clamp from the positive pole.
- Secure the cables, make sure that they 6. cannot come into contact with the terminals.

Securing the vehicle

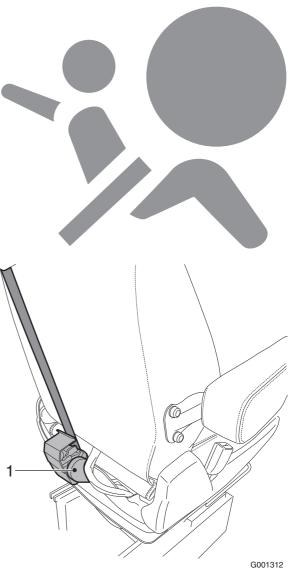
### 1.4 AIRBAG



WARNING! Airbag modules and safety belt tensioners are pyrotechnic systems and contain an explosive charge.



A sticker with the airbag symbol on the windscreen identifies vehicles equipped with an airbag and safety belt tensioner system. In addition, there is an identification 'AIRBAG' visible (A) on the steering wheel. A vehicle equipped with an airbag also has an automatic safety belt tensioner.



1 Safety belt tensioner

The automatic safety belt tensioner is fitted on the rear side of the driver's and co-driver's seat behind the seat covers.

#### Safety instructions

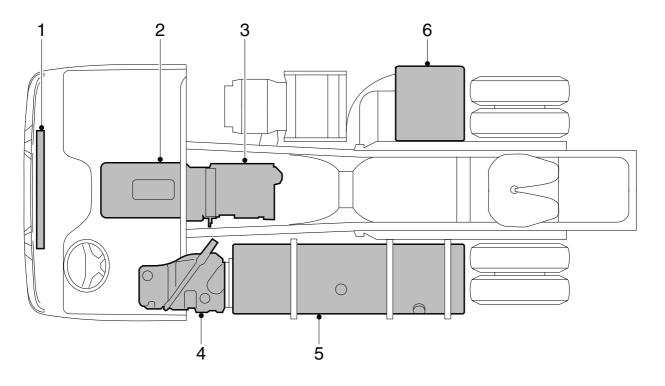
- Do not place any objects near undeployed airbags.
- Before any work is carried out on an airbag system:
  - 1. the ignition must be switched off.
  - 2. the main switch must be turned off.
  - 3. the battery clamp must be removed from the negative pole.
  - 4. wait at least 30 seconds.
- Never disconnect an electrical connector in the airbag or safety belt tensioner circuits if the electronic control unit is energised.

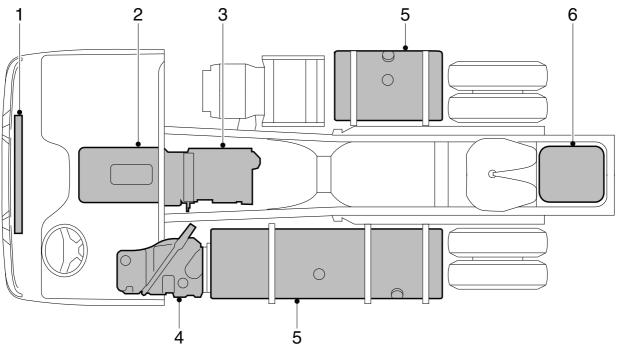


Securing the vehicle

### 1.5 FLUIDS

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- 1 Coolant: 48 litres
- 2 Engine oil: 36 46 litres
- 3 Gearbox oil: 14 litres
- 4 AdBlue: up to 90 litres
- 5 Fuel: up to 1500 litres
- 6 Battery acid

### Securing the vehicle

The capacities and position of the tanks depend on the vehicle type.

#### AdBlue

AdBlue is a non-flammable, non-toxic, colourless, odourless and water-soluble liquid.

AdBlue is a liquid consisting of 32.5% urea and 67.5% water.

AdBlue must meet the specifications according to DIN 70070.

#### **High temperatures**

If AdBlue is heated in the tank to 50°C over a long period of time, the decomposing AdBlue can produce ammonia vapours. Ammonia vapours have a pungent odour. For this reason, avoid inhaling possible ammonia vapours escaping when unscrewing the AdBlue filler cap. These concentrations of ammonia vapours are neither toxic nor hazardous to health.

#### Low temperatures

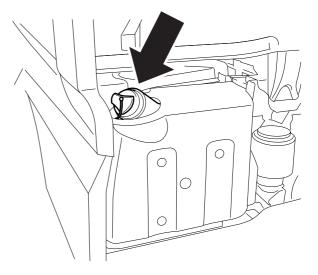
AdBlue freezes at temperatures of approximately -11°C.



### WARNING!

AdBlue safety instructions

- Avoid direct contact. In the event of contact with the skin, rinse with plenty of water.
- In the event of contact with the eyes, rinse for at least 15 minutes with plenty of water and seek medical assistance.
- If swallowed, rinse mouth with plenty of water; do not induce vomiting.
- Use in a ventilated area.
- Procedure after spillage
- Rinse with plenty of water.



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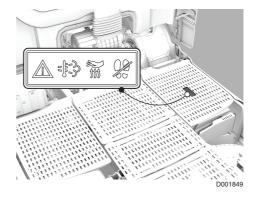
Securing the vehicle

### **1.6 REGENERATION UNIT**

During regeneration the exhaust gases, the surroundings of the regeneration unit and the catwalk can reach high temperatures that can potentially harm bystanders or the surrounding area.



WARNING! There is a risk of fire or other hazardous situation if the temperature can ignite flammable materials.



#### Switch OFF the regeneration unit



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Press the DPF switch (C3) on the Lower side to stop or inhibit regeneration.

#### Stabilising the vehicle

### 2. STABILISING THE VEHICLE

### 2.1 SEAT ADJUSTMENT



NOTE: Before removing the seat, be aware of the safety instructions if the vehicle is equipped with an airbag and therefore an automatic safety belt tensioner.



NOTE: The seat can be adjusted if the vehicle air pressure is at least 7 bar.

#### Seat settings

- 1 Backrest angle adjustment.
- 2 Seat height adjustment.
- 3 Seat tilt adjustment
- 4 Quick down.
- 5 Vertical seat damper.
- 6 Seat length adjustment.
- 7 Seat cushion length adjustment.
- 8 Armrest.
- 9 Safety belt height adjustment.
- 10 Seat heater.
- 11 Lumbar support adjustment.
- 12 Lateral support adjustment.
- 13 Seat ventilation
- 14 Shoulder support adjustment.



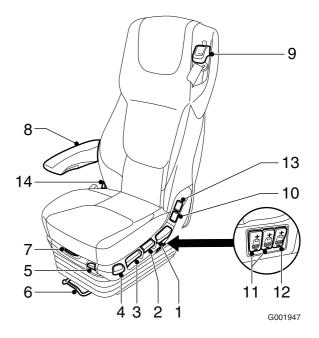
4. Quick down

Knob down (seat in driving position): the seat drops to its lowest position.

Knob up (with lowered seat): the seat rises to the last height adjustment. 3. Seat tilt adjustment



2. Seat height adjustment





Stabilising the vehicle

#### 2.2 AIR SUSPENSION CHASSIS

#### **Basic remote control**

- 1 'ON/OFF' and 'STOP' key. See section 'Stop key'.
- 2 Automatic setting of normal driving height.
- 3 Lifting of chassis while the key is pressed.
- 4 Lowering of chassis while the key is pressed.



NOTE: The remote control is (de-) activated by a long press on the 'STOP' key.

After the ignition is switched off, the remote control is always deactivated. The stop function is always active regardless of the remote control being activated or not.

#### Extended remote control

- 1 Front axle of truck selected.
- 2 Rear axle of truck selected.
- 3 Truck trailing axle selected.
- 4 LED's indicating that the corresponding function is activated.
- 5 Front axle of trailer selected
- 6 Rear axle of trailer selected.
- 7 Trailer trailing axle selected.
- 8 'STOP' key. See section 'Stop key'.
- 9, 10, Lifting the chassis to a pre-set height. See
- 12 section 'Setting memory keys (M keys)'.

and

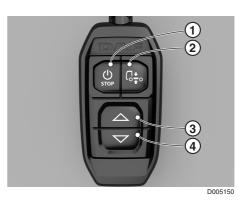
- 13
- 11 Automatic setting of normal driving height.
- 14 Lifting (top part) or lowering (bottom part) the selected axles when the key is pressed.

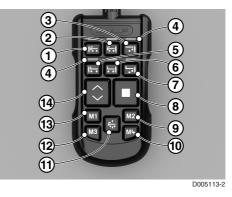


NOTE: If one of the keys 1 till 6 is operated, a green indicator light comes on above the key operated.



NOTE: If both front and rear axle are equipped with air suspension, it is not possible to select for example maximum height on the front axle together with minimum height on the rear axle.







Stabilising the vehicle

### 2.3 CABIN SUSPENSION

The cabin is equipped with full air suspension.

#### Lowering the air suspension

The cabin is lowered by cutting the air hoses.



WARNING! When air hoses are cut. the hose ends can fly around and can therefore cause injuries.



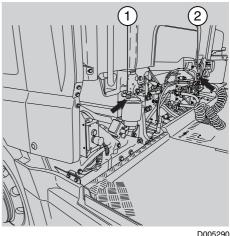
WARNING! When the air hoses for the cabin suspension are cut, the air supply for steering wheel adjustment is also taken away.



WARNING! When the cabin is lowered, the movement may be uncontrolled.

#### Rear cabin air suspension

Cut the air hose to the rear cabin air suspension bellows. See the arrows at positions 1 and 2.



#### Front cabin air suspension

Cut the air hose to the front air suspension bellows at the reservoir. The air reservoir can be found under the cabin at the co-driver side.



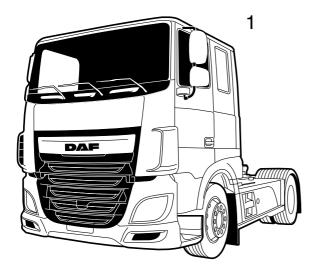
Stabilising the vehicle

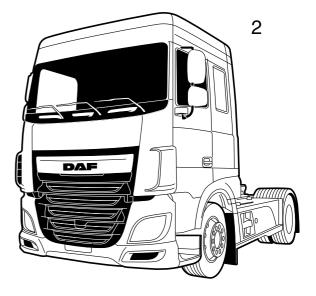


Releasing a trapped driver

### 3. RELEASING A TRAPPED DRIVER

### 3.1 CABIN TYPES







- 1
- Day Cab Space Cab 2
- Super Space Cab 3

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Releasing a trapped driver

### 3.2 CABIN BRACKET COLLISION ABILITY

The cabin bracket has a built-in safety feature that enables the cabin to move back 400 mm in case of a collision. Depending on the severity of the collision there are two situations.

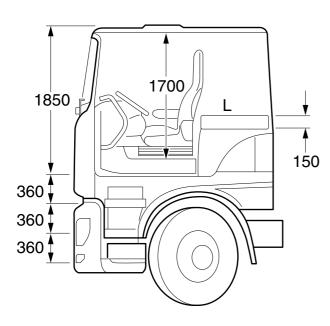
- The safety feature is used. This means that the cabin has moved compared to the chassis with a maximum distance of 400 mm. The cabin is still attached to the chassis.
- The safety feature is used fully before the collision stopped. As a result the bolt of the cabin bracket breaks. If this has happened the cabin is loose from the chassis.

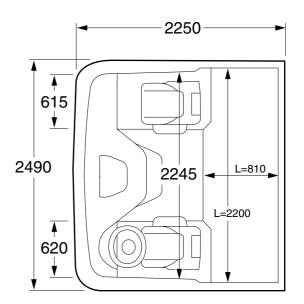
Releasing a trapped driver

### 3.3 CABIN DIMENSIONS

The external dimensions from the ground vary depending on the tyre size, choice of suspension, load and settings.

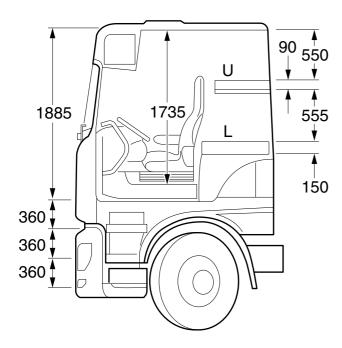
#### Day Cab

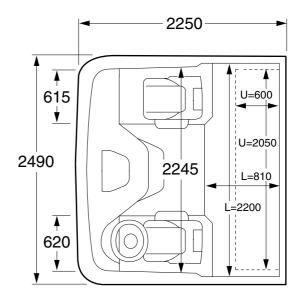




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Space Cab

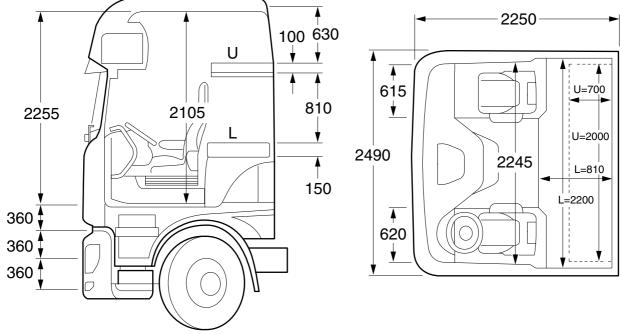




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Releasing a trapped driver

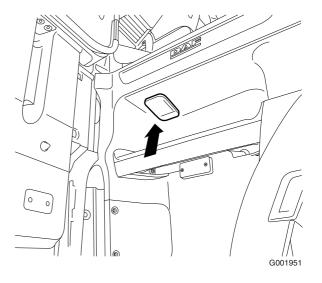


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Releasing a trapped driver

### 3.4 OPENING THE GRILLE

The top section of the grille can be folded up. The grille is opened by opening the driver's door and pulling the lever in the stepwell. When the grille is open, it is held in the raised position by two gas struts.

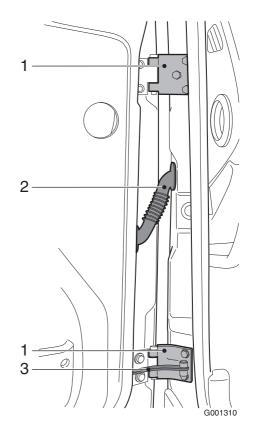




Releasing a trapped driver

### 3.5 DOORS

- 1
- Hinge Wiring harness Door check 2 3



Releasing a trapped driver

### 3.6 DOOR LOCK

The door lock is installed higher than the door handle. The position is indicated in the image.



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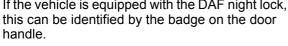


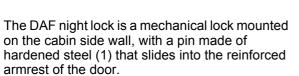
Releasing a trapped driver

### 3.7 DAF NIGHT LOCK

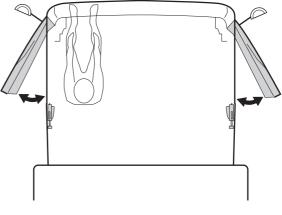


If the vehicle is equipped with the DAF night lock,

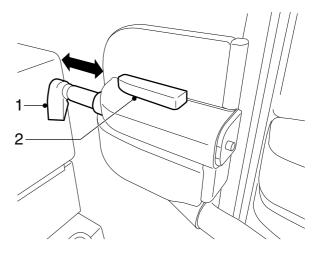




The large red button (2) can be used for disengaging the night lock.



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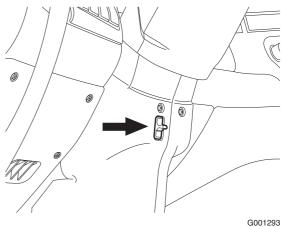
Releasing a trapped driver

### 3.8 STEERING WHEEL ADJUSTMENT



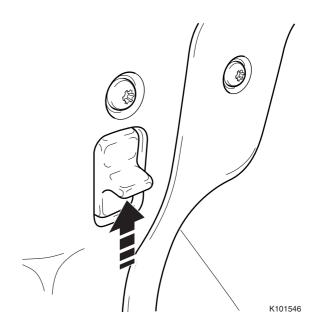
NOTE: The steering wheel can be adjusted if the vehicle air pressure (circuit 4) is at least 7 bar.

WARNING! When the air hoses for the cabin suspension are cut, the air supply for steering wheel adjustment is also taken away.



#### Adjusting

Push up the two-position switch. The steering column is temporarily unlocked. The height and angle of the steering wheel can now be adjusted.



#### Locking

Push down the two-position switch. The steering column is locked.

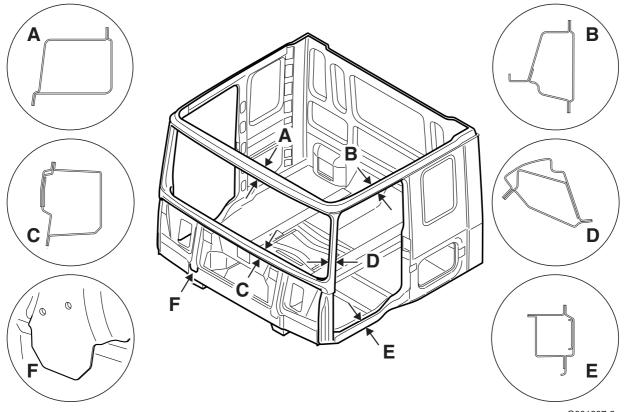


NOTE: A slight hissing noise, caused by the two-position switch, is audible while the steering wheel is being adjusted. If the steering column has not been locked, this switch locks it automatically after 20 - 30 seconds.



Releasing a trapped driver

### 3.9 CABIN STRUCTURE



G001307-2

Towing information

### 4. TOWING INFORMATION

### 4.1 REMOVING THE PROP SHAFT

- Make sure that the park brake is engaged.
- Loosen the prop shaft bolts at the rear axle side, do not remove them.



NOTE: If by accident the prop shaft drops to the floor during towing it is dragged a long. In the other situation dropping of the prop shaft seriously damages both vehicle, road and possibly surroundings.

- Loosen the bearing.
- Hold the shaft while removing the bolts.
- Fix the bearings to the shaft.
- Fasten the shaft to the chassis.
- Cover the prop shaft joint with a plastic bag.



Towing information

### 4.2 RELEASING THE PARK BRAKE



WARNING!

Never release the park brake on an incline without precautionary measures.

Releasing the park brake on an incline causes the vehicle to move unintentionally. This can lead to serious injury and damage to the vehicle.

- 1. Make sure that the driveline is in 'N' neutral.
- 2. Place wheel chocks in front of and behind the wheels.



NOTE: It is **not** permitted to use an Impact wrench to loosen the releasing bolt.

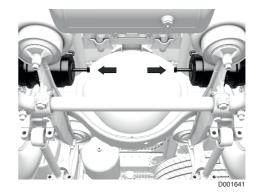
- 3. Turn the releasing bolt (see the arrows) anticlockwise as far as the stop using a ring spanner or socket wrench.
- 4. Carry out this operation for each spring brake cylinder.



NOTE: Place a no brakes warning label on the steering wheel.

5. Bring the park brake back in operating order by turning the releasing bolts clockwise as far as possible.

Tighten them to a torque of 45 Nm (75 Nm for the releasing bolt with control pin). The pressure in the spring brake cylinder circuit must be at least 6.5 bar.



#### Towing information

### 4.3 TYRE INFLATING CONNECTION

NOTE: The tyre inflating connection can also be used as an external inflating connection to fill the air pressure system with air from outside. When doing this, check that the system pressure is correct using the air pressure gauge.

The tyre inflating connection is located:

On the left-hand side of the cabin behind the front panel.



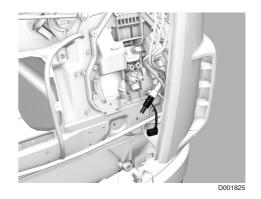
WARNING! Always be aware of possible moving or rotating parts. For example the cooling fans while using the steps in the front of the cabin or working with an open front panel.

 Moving or rotating parts can cause serious injury when coming into contact.

Make sure that the supply pressure on the pressure gauges is not at maximum, but at about 8 to 9 bar.

While inflating the tyres, keep the pressure on this value by having the air compressor running. See chapter 'Technical data and identification' for the correct tyre pressures.

Refit the rubber cap of the tyre inflating connection after the tyre has been inflated.





Towing information

#### 4.4 TOWING



WARNING! Switch off AEBS while towing or while being towed. Engaging of this system during towing actions can result in unwanted and unexpected vehicle behaviour.



WARNING!

Do not tow the vehicle when fully loaded or with a trailer attached.

Towing a fully loaded vehicle or a vehicle with trailer attached can result in unstable vehicle behaviour during critical driving situations. This applies to both the towing and/ or towed vehicle. This can lead to very dangerous situations. High forces and tensions in the chassis and driveline of the vehicles can also lead to damage to the vehicles.

#### Towing another vehicle

It is allowed to tow another vehicle with an Electric Vehicle.

#### Towing by another vehicle

It is possible to tow the Electric Vehicle. Always use a towing bar when towing. Deviation from this rule is only allowed in emergencies.

- For short distance towing (only a few hundred metres and with a maximum speed of 5 km/h): the vehicle may be towed by another vehicle.
- For long-distance towing: tow the vehicle using a recovery vehicle.

When towing, error messages may be shown on the master display when the ignition is switched on.



NOTE: The maximum permissible vehicle speed, weight and distance vary by country.



Towing information



WARNING!

- Towing may not take place at an angle of more than 20° relative to the vehicle centre line. The towed vehicle may be located asymmetrically (left or right) behind the tractor. Towing at an angle of more than 20° relative to the vehicle centre line can result in unstable vehicle behaviour. This can lead to very dangerous situations. High forces and tensions in the chassis and driveline of the vehicles can also lead to damage to the vehicles.



WARNING! When the high-voltage circuit isn't in operating mode and no additional measures are taken, there is no power steering and eventually insufficient air pressure for the brake system. This results in difficult steering and ultimately leads to automatic engagement of the park brake. This can lead to very dangerous situations.

- Release the park brake and adapt the driving style of the towing combination.
- Turn the ignition key so that the steering wheel is released (unless the vehicle is in a hoist).
- If there is insufficient pressure in the air reservoirs, release the park brake. See section 'Releasing the park brake'.
- To prevent damage to the electric driveline, always disconnect the prop shaft from the differential.



CAUTION: If the prop shaft remains connected during towing, the highvoltage components can be damaged seriously.

Always disconnect the prop shaft before towing the vehicle when the rear axle (drive wheels) is still in contact with the road surface.



NOTE: If the differential is damaged: - Hoist the vehicle at the rear and lock the steering wheel in the straight-ahead position.



Towing information

#### Installing the towing eye

Remove the front plate cover plate at the lefthand or right-hand side by pulling it forward (A).

- 1. Remove the rubber cover.
- 2. Screw in the towing eye fully so the entire thread is used.
- 3. Then turn the towing eye anti-clockwise (maximum 90 degrees) so the towing bar can be attached to the towing eye.

The maximum **GVW** the towing eye may pull is **40** tons.



NOTE: To lift the vehicle two towing eyes must be used and both pins must be perpendicular to the lifting cable or chain. Turn the towing eyes anticlockwise (maximum 180 degrees) to achieve this position.

#### Towing by a recovery vehicle

If the vehicle is being towed by a recovery vehicle, the vehicle can only be hoisted under its rear axle. Lock the steering wheel in the straightahead position.



CAUTION: Do not hoist the vehicle under its front axle with the prop shaft still connected.

If the vehicle is being towed by a recovery vehicle and the rear axle (driven axle) is still in contact with the road surface, the high-voltage components can be seriously damaged.

#### **Tow starting**

It is not possible to tow start an Electric Vehicle.











Towing information

### Towing hook

Tractors may be fitted with a small towing hook at the rear end of the chassis. Use this towing hook only for light shunting work (maximum 10 tons).





Towing information

#### 4.5 JUMP-STARTING

CAUTION: Starting the vehicle using a starting aid with too high a voltage can damage the electrical components.

- Never jump-start the engine with a fast charger.
- Never jump-start the vehicle with a voltage higher than 29 V.

#### CAUTION:



Do not disconnect the battery cables while the engine is running.

Disconnecting the battery cables while the engine is running can damage the electrical components.

#### **Battery systems**

The vehicle is equipped with a regular battery system with a set of two 12 Volt batteries.

The engine may be started with the aid of starter cables that use power from:

- separate auxiliary batteries (approximately 24 V), or
- another vehicle with a running engine (approximately 29 V).

## When this starting procedure is followed, the battery cables must not be disconnected.

The battery box can be placed in various positions: beside the chassis or on the chassis behind the cabin or between the side members at the rear of the chassis.

On some of these positions extra terminals are fitted to facilitate connecting the starter cables.

#### Battery box without extra terminals

Remove the battery box cover and connect the starter cable to the positive pole (+) first. Then connect the starter cable to the negative pole (–). To disconnect, release the negative pole (–) first, then the positive pole (+) and install the cover. When the batteries are **fully** discharged and the engine is running, it is important that the starter cables are **not immediately** disconnected. The engine must run for at least 2 to 3 minutes before the starter cables are disconnected to prevent damage to the electrical system (peak voltage!).

Proceed as follows as soon as the engine starts running:

- Switch on as many power consumers as possible (for example: headlights, fog lamps, heater fan, and so on).
- Remove the starter cables after the engine has run for 2 to 3 minutes.
- Switch off the consumers.



Towing information

#### Battery box with extra terminals

Terminals where the starter cables can be connected are found on the lower side of the battery box or on the left side behind a cover. Remove the cover (1) and connect the starter cable to the positive pole (+) first. Then connect the starter cable to the negative pole (–). To disconnect, release the negative pole (–) first, then the positive pole (+) and install the cover. When the batteries are **fully** discharged and the engine is running, it is important that the starter cables are **not immediately** disconnected. The engine must run for at least 2 to 3 minutes before the starter cables are disconnected to prevent damage to the electrical system (peak voltage!).

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- Remove the starter cables after the engine has run for 2 to 3 minutes.
- Switch off the consumers.

#### **Dual battery**

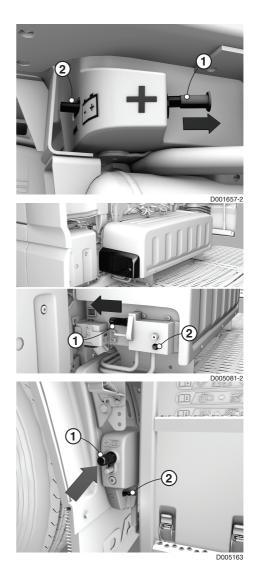
Connect the starter cable to terminal 30 of the dual battery relay first. Then connect the starter cable to the chassis earth (see the sticker on the battery box).

To disconnect, release the negative pole (–) first, then the positive pole (+) and install the battery box cover.

When the batteries are **fully** discharged and the engine is running, it is important that the starter cables are **not immediately** disconnected. The engine must run for at least 2 to 3 minutes before the starter cables are disconnected to prevent damage to the electrical system (peak voltage!).

Proceed as follows as soon as the engine starts running:

- Switch on as many power consumers as possible (for example: headlights, fog lamps, heater fan, and so on).
- Remove the starter cables after the engine has run for 2 to 3 minutes.
- Switch off the consumers.





Towing information

Lifting information

### 5. LIFTING INFORMATION

### 5.1 LIFTING AT THE FRONT

The front of the truck can be lifted with two towing eyes. To lift the front of the truck:

- 1. Install two towing eyes with the axle in horizontal position.
- 2. Attach the lifting equipment to the towing eyes.
- 3. Carefully lift the truck.



CAUTION: The maximum lifting weight for the towing eyes is 3000 kg per towing eye.



NOTE: The two towing eyes can also be used to fix the front of the truck to a platform.



Lifting information

#### 5.2 JACK UP AT THE FRONT

Jacking up the air sprung front axle Place the jack under the special jack up brackets that are attached to the air sprung front axle.

**Jacking up mechanically sprung front axles** Place the jack under the axle.



CAUTION: Do not jack up under the protection bar at the front of the vehicle. This is a protection bar made of sheet metal. If you jack up the vehicle under the protection bar it collapses.

Lifting information

1

### 5.3 LIFTING AT THE BACK

There are no special facilities to lift the truck at the back.



Lifting information

#### 5.4 JACK UP AT THE BACK

There are no special facilities to jack up the truck at the back. Place the jack under the rear axle.

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