

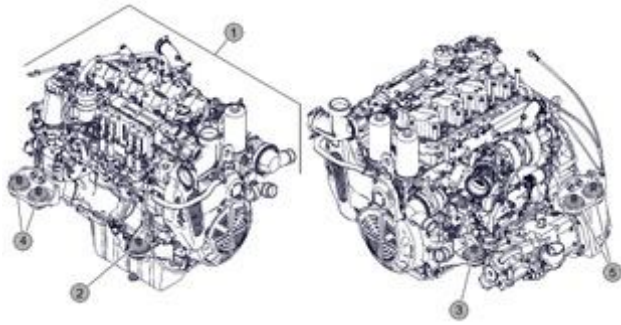
TORION 1914

TORION 1812

Repair Manual

Diesel engine

Technical specifications



Ⓜ

	Value	CCN	Comment/designation	
1	870 kg		Diesel engine (dry)	
2	350 Nm		Rear right engine support - Insert bolts with LOCTITE 241.	
3	350 Nm		Rear left engine support - Insert bolts with LOCTITE 241.	
4	350 Nm		Front right engine support nut	
5	350 Nm		Front left engine support nut	
Tightening torques not specified, see Introduction / tightening torques chapter				

Work preparation

Operating utilities:

- ▶ Lifting equipment with slings for loads of 1600 kg minimum
- ▶ Lifting block
- ▶ 2 ring bolts M16
- ▶ Sealing agents and glue:
Loctite 241
- ▶ Special grease:
Never-Seez - Blue Molly

Removing

<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>
<input type="checkbox"/>

- Park the machine in maintenance position 1.

- Remove protecting covers.

- Drain the coolant.

- Drain the hydraulic oil.

Maintenance position 1

Engine bonnet

Changing the coolant

Changing the hydraulic oil

SCR catalytic

- Remove the SCR catalytic converter.
- Remove the air filter housing.
- Remove the air compressor.

converter

Air filter housing

Compressed-air
compressor



⤵

- ▶ Remove earth cable (5).
- ▶ Expose earth cable (5).



⤵

- ▶ Disconnect terminal 30 (6).



⤵

- ▶ Remove coolant hose (7).

- ▶ Remove heater hoses (8).



- ▶ Slacken off clamps (9) of coolant hoses.
- ▶ Remove coolant hose.
- ▶ Plug the openings.



- ▶ Slacken off clamp (10) of coolant hose.
- ▶ Remove coolant hose.
- ▶ Plug the opening.

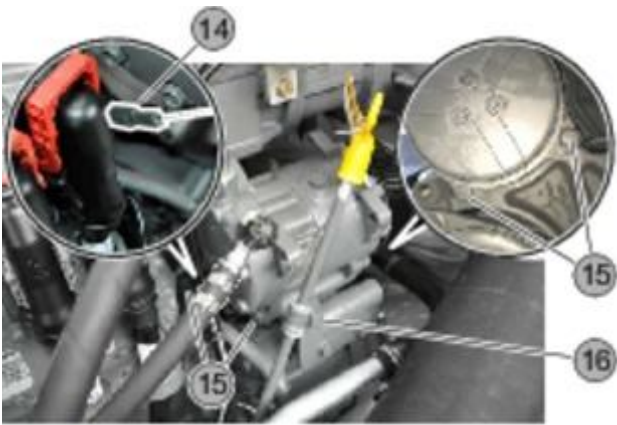


- ▶ Mark the running direction of belt (12).
- ▶ Relieve the load on belt tensioner (11) with a 1/2" square bar.
- ▶ Remove the belt.



▫

- ▶ Slacken off clamp (12).
- ▶ Remove the charge pressure hose.
- ▶ Plug the opening.



▫

- ▶ Unscrew bolt (16) and push away the oil level dipstick.
- ▶ Disconnect connector (14).
- ▶ Unscrew 4 bolts (15).
- ▶ Put down the air conditioner compressor at the side.
 - ▶ Do not bend the air conditioner lines.



▫

- ▶ Unscrew nut (17).
- ▶ Remove bolt (18).
- ▶ Expose the wiring loom.



⌘

- ▶ Disconnect terminal B (19).
- ▶ Disconnect terminal W (20).
- ▶ Expose the wiring loom.



⌘

- ▶ Remove bolt (23).
- ▶ Disconnect the engine control unit connector LBH-A700.X2 (21).
- ▶ Disconnect the engine control unit connector LBH-A700.X1 (22).



⌘

- ▶ Disconnect engine wiring loom connector LBH-X710 (24).
- ▶ Expose the wiring loom.



⌵

- ▶ Remove fuel lines (25).
- ▶ Plug the openings.



⌵

- ▶ Close the valve of manual diesel fuel feed pump (26).



⌵

- ▶ Remove fuel feed line (27).
- ▶ Remove fuel return line (28).
- ▶ Plug the openings.



⌘

- ▶ Remove hydraulic lines (29) from the gear pump.
- ▶ Plug the openings.



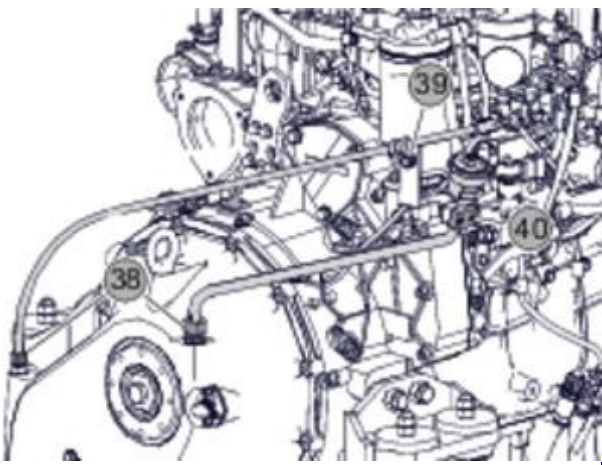
⌘

- ▶ Remove hydraulic lines (30) to (35).
- ▶ Plug the openings.



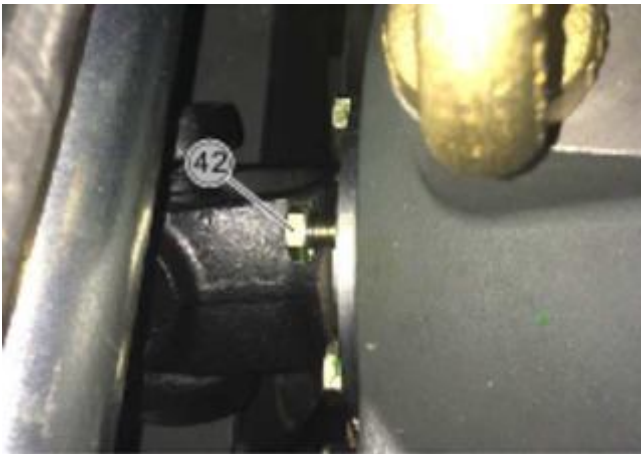
⌘

- ▶ Remove hydraulic lines (36) and (37).
- ▶ Plug the openings.



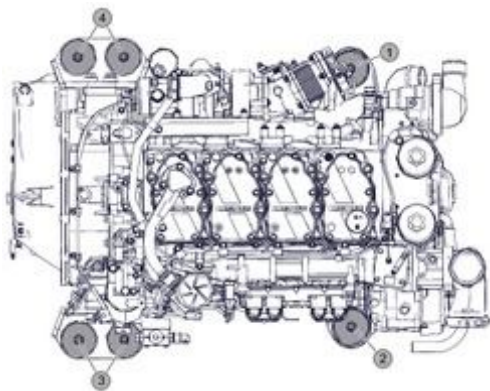
D

- ▶ Remove bolt (39).
- ▶ Remove bracket (40).
- ▶ Remove connections (38).
- ▶ Remove the oil level dipstick and the oil filler tube.
- ▶ Plug the openings.



D

- ▶ Unscrew 8 bolts (42).
- ▶ Rotate the flywheel until the universal drive shaft is exposed.
Observe the installation instructions for the engine cranking device in the diesel engine Repair Manual.



D

- ▶ Remove nuts (1) to (4).



⚠ WARNING

Lifting heavy components.

Risk of death or serious injury.

- ▶ Use a lifting tool with a sufficient bearing load.
- ▶ Use a lifting tool that operates reliably.
- ▶ Use the lifting tool on solid and even ground.
- ▶ Attach the lifting tool to the component at the intended or a suitable position.
- ▶ Only use faultless and sufficiently dimensioned lifting accessories.
- ▶ Protect lifting accessories against sharp corners and edges, for example using protectors.

-
- ▶ Suspend a suitable lifting device at the diesel engine eyelets (5).
 - ▶ Secure the diesel engine against dropping with the lifting device.
 - ▶ Carefully lift the diesel engine out of the machine.
 - ▶ Ensure that no cables or hoses will impede lifting.
 - ▶ Put down the diesel engine on safe ground.



⚠ WARNING

Lifting heavy components.

Risk of death or serious injury.

- ▶ Use a lifting tool with a sufficient bearing load.
- ▶ Use a lifting tool that operates reliably.
- ▶ Use the lifting tool on solid and even ground.
- ▶ Attach the lifting tool to the component at the intended or a suitable position.
- ▶ Only use faultless and sufficiently dimensioned lifting accessories.

- ▶ Protect lifting accessories against sharp corners and edges, for example using protectors.

The tandem pump consists of the steering and working hydraulics hydraulic pumps in a tandem configuration.

- ▶ Fit a suitable sling (8) to the tandem pump.
- ▶ Secure the tandem pump against dropping with a lifting device.
- ▶ Unscrew 4 nuts (6).
- ▶ Remove the tandem pump.
- ▶ Put down the tandem pump carefully.
 - ▶ Ensure that drive shaft (7) is not damaged.



⌵

- ▶ Suspend a suitable sling (9) at the suspension eye of the pump transfer gearbox.
- ▶ Secure the pump transfer gearbox against dropping with a lifting device.



⌵

- ▶ Mark position (10) of pump transfer gearbox.



⚠ WARNING

Lifting heavy components.

Risk of death or serious injury.

- ▶ Use a lifting tool with a sufficient bearing load.
- ▶ Use a lifting tool that operates reliably.
- ▶ Use the lifting tool on solid and even ground.
- ▶ Attach the lifting tool to the component at the intended or a suitable position.
- ▶ Only use faultless and sufficiently dimensioned lifting accessories.
- ▶ Protect lifting accessories against sharp corners and edges, for example using protectors.

-
- ▶ Unscrew 2 nuts (11).
 - ▶ Unscrew 9 bolts (12).
 - ▶ Put down the pump transfer gearbox carefully.
 - ▶ Ensure that drive shaft (13) is not damaged.

Installing



- ▶ Check tothing (15) of clutch (14).
 - ▶ If tothing (15) is damaged, replace clutch (14).
- ▶ Grease the tothing with Never-Seez - Blue Molly special grease.



D

⚠ WARNING

Lifting heavy components.

Risk of death or serious injury.

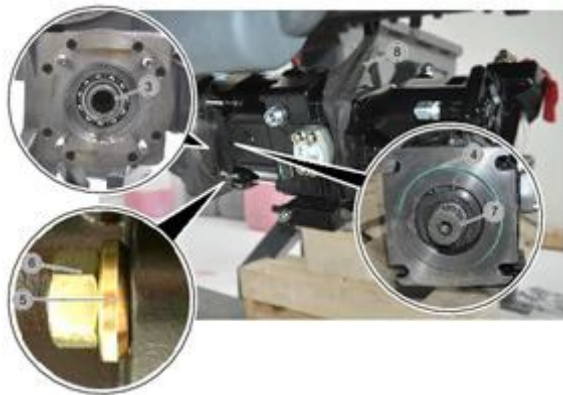
- ▶ Use a lifting tool with a sufficient bearing load.
- ▶ Use a lifting tool that operates reliably.
- ▶ Use the lifting tool on solid and even ground.
- ▶ Attach the lifting tool to the component at the intended or a suitable position.
- ▶ Only use faultless and sufficiently dimensioned lifting accessories.
- ▶ Protect lifting accessories against sharp corners and edges, for example using protectors.

-
- ▶ Suspend a suitable sling (9) at the suspension eye of the pump transfer gearbox.
 - ▶ Secure the pump transfer gearbox against dropping with a lifting device.
 - ▶ Install the pump transfer gearbox on the flywheel housing.
 - ▶ Align tothing of clutch and tothing of drive shaft (13).
 - ▶ Ensure that no axial forces act on drive shaft (13).



D

- ▶ Screw on 2 nuts (11).
- ▶ Screw on 9 bolts (12).



Ⓟ

⚠ WARNING

Lifting heavy components.

Risk of death or serious injury.

- ▶ Use a lifting tool with a sufficient bearing load.
- ▶ Use a lifting tool that operates reliably.
- ▶ Use the lifting tool on solid and even ground.
- ▶ Attach the lifting tool to the component at the intended or a suitable position.
- ▶ Only use faultless and sufficiently dimensioned lifting accessories.
- ▶ Protect lifting accessories against sharp corners and edges, for example using protectors.

- ▶ Replace damaged seal (4). Check the correct seat.
- ▶ The face ends must be clean and bare.
- ▶ Fit a suitable sling (8) to the tandem pump.
- ▶ Secure the tandem pump against dropping with a lifting device.
- ▶ Install the tandem pump.
- ▶ Ensure that no axial forces act on drive shaft (7).
- ▶ Align tothing of drive shaft (7) with tothing of spur gear (3).
- ▶ Align washers (5) with the chamfer towards the pump housing and slide them on the threads.
- ▶ Wet 4 nuts (6) with Loctite 241 and screw them on.



Ⓟ

⚠ WARNING

Lifting heavy components.

Risk of death or serious injury.

- ▶ Use a lifting tool with a sufficient bearing load.
- ▶ Use a lifting tool that operates reliably.
- ▶ Use the lifting tool on solid and even ground.
- ▶ Attach the lifting tool to the component at the intended or a suitable position.

Buy Now



Our support email:

ebooklibonline@outlook.com