en **Operator's manual**

Wheel loader

Document ID

ORIGINAL OPERATOR'S MANUAL

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Product ID

Manufacturer: Liebherr-Werk Bischofshofen GmbH
Type: L 514
Type no.: 1663
From Serial no.: 41988

Contact

Liebherr-Werk Bischofshofen GmbH
Dr. Hans Liebherr-Straße 4
A – 5500 Bischofshofen

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Designation	Emission stage IV	Emission stage V
Nominal power (ISO 14396) at 2400 min^{-1}	76 kW	76 kW
Maximum net torque (ISO 9249 and SAE J1349) at 1600 min^{-1}	405 Nm	405 Nm
Displacement	4.5 litres	4.5 litres
Inclinability	30°	30°

Tab. 4

1.2.5 Electrical system

Description	Unit	Value
Operating voltage	V	12
Number of batteries		2
Battery voltage	V	12
Battery capacity	Ah	100
Alternator	V / A	12 / 90
Starter	V / kW	12 / 4.2

1.2.6 Travel drive

Hydrostatic travel drive

Design: 2-level automated transmission, swash plate – variable displacement pump and axial piston motor in a closed circuit.

Filter: Return-suction filter for closed circuit.

Control: Travel drive controlled by accelerator pedal and tractive force control pedal (inch pedal). The tractive force control pedal facilitates continuous adjustment of tractive or thrust force at full engine speed Forward travel and reverse travel are selected using control lever.

Travel speeds

– For forward and reverse travel
– With standard tyres

Description	Unit	Value
Travel range 1	km/h	0-18.0
Travel range 2	km/h	0-40.0

1.2.7 Axles

– All-wheel drive
– Axle ratio: planetary drives in wheel hubs

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	Designation	Unit	Value	
	Load geometry		A)	A)
	Cutting tool		B)	B)
	Lift arm length		C)	D)
	Bucket capacity	m^3	2.0	2.0
	Bucket width	mm	2500	2500
	Specific material weight	t/m^3	1.3	1.0
A	Dump height at maximum lifting height	mm	2745	3020
E	Maximum height above bucket upper edge	mm	4970	5265
F	Reach at maximum lifting height	mm	1010	1020
L	Overall length	mm	6540	6865
	Tipping load when straight	kg	5680	4955
	Tipping load when fully articulated (ISO 14397-1)	kg	5200	4535
	Operating weight	kg	9250	9350

Tab. 10: Working attachment: light material bucket

A) Z-bar kinematics
B) Undercut blade
C) Standard lift arm length
D) High lift

1.2.23 Working attachment: high dump bucket

Values stated refer to machine:

- In its standard version
- With 17.5R25 L3 tyres (For more information see: 1.2.18 Tyres, page 25)
- Including all lubricants
- With a full fuel tank
- With ROPS/FOPS cab and operator
- On level and stable ground

Note
Tyres and working attachment affect operating weight and tip load.

▶ Note the information about the tyres and working attachment.

▶ See the separate operating manual for more information.

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2.3.5 Maintenance staff

Responsibility

The maintenance staff are responsible for the following:
– Read the operator's manual.
– Read included documentation:
  • Operator's manuals for components
  • Operator's manuals from third party manufacturers
  • Additional instructions
– Maintain machine for safe and reliable function.
– Execute all maintenance tasks specified for maintenance staff in the maintenance and inspection schedule.
– Wear personal protective equipment.
– Adhere to safety regulations at place of use.
– Report all changes to machine that affect safety to operating company.
– Only perform retrofittings of machine after consultation with manufacturer.
– Use original Liebherr spare parts wherever possible.

Requirement

The maintenance staff have the following qualifications and skills:
– Are of the legally specified minimum age.
– Physically and mentally capable of servicing the machine:
  • Satisfactory eyesight
  • Satisfactory hearing ability
  • Quick reactions
  • Are able to estimate distance, height and gaps.
– Have the necessary authorisation for maintenance of the machine.
– Know the machine and the hazards.
– Know all procedures and precautions for maintenance.
– Have knowledge of handling special tools for maintenance and repair.
– Have special knowledge and experience handling hydraulic installations when working with hydraulic systems.
– Are not under any physical or mental impairment that limits one of the prescribed requirements.
– Are not under the influence of alcohol.
– Are not under the influence of drugs.

2.3.6 Refrigeration technician

Responsibility

The refrigeration technician is responsible for the following:
– Read the operator's manual.
– Read included documentation:
  • Operator's manuals of options
  • Operator's manuals from third party manufacturers
  • Additional instructions
– Maintain and repair machine for safe and reliable function.
– Execute all maintenance tasks and repair tasks specified for the refrigeration technician in the maintenance and inspection schedule.
– Isolate battery main switch of power supply system and secure it against switching on again.
– Clearly define and label working position.
– Wear personal protective equipment.

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2.6.3 Emergency actuation of parking brake (option)

Danger to life

Incorrect behaviour

- Before every use of the machine, check the emergency actuation switch on the rear of the wheel loader for damage and make sure the seal has not been broken. If the seal or the switch is damaged, the wheel loader may not be put into operation! Contact Liebherr customer service.
- Ensure that a suitable towing machine or device, with sufficiently strong slinging gear is available for towing the machine in an emergency situation.
- Make sure that the current operating mass of the wheel loader is known.
- Ensure that the emergency plan, that has been drawn up containing all instructions and safety instructions arising from the hazard assessment of the working area around the wheel loader, is known.

2.7 Safe operation

2.7.1 Intoxicants

Danger to life

Physical and mental impairment

- Make sure that no persons working on or with the machine are under the influence of drugs.
- Make sure that no persons working on or with the machine are under the influence of alcohol.
- Make sure that no persons working on or with the machine are under the influence of medication.
- Make sure that no persons working on or with the machine are overtired.
- Make sure that no persons working on or with the machine are exhausted.

2.7.2 Dangerous fuels and operating fluids

Injury

Incorrect handling

- Adhere to safety instructions on handling oils, greases and chemical substances.
- In case of hot lubricants and fuels put on personal protective equipment.

Environmental damage

Incorrect disposal

- Dispose of lubricants and fuels safely and in eco-friendly manner.
- Adhere to guidelines applicable to disposal.

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3 Handling and operation

3.1 Control elements

3.1.1 Operator's cab

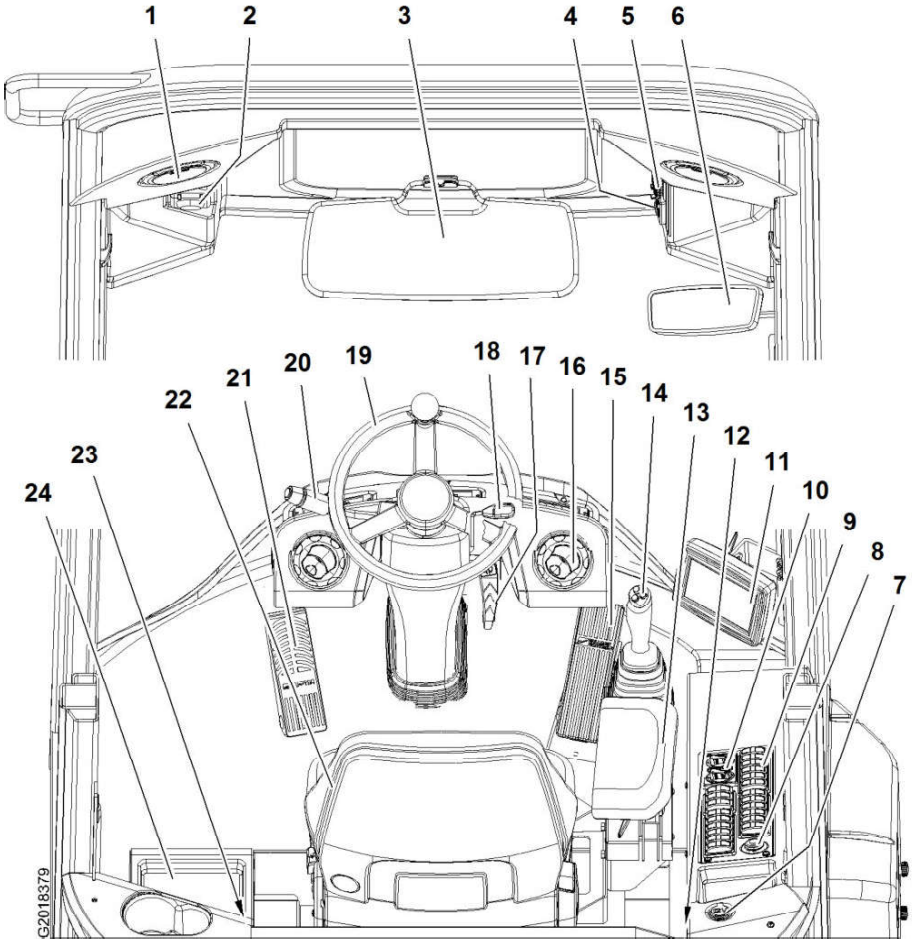

Fig. 53: Operator's cab

1 Speaker
2 Interior lighting
3 Sun visor
4 Radio (optional)
5 Switch panel
13 Adjustable arm rest
14 Control lever
15 Travelling pedal
16 Heating, ventilation and air conditioning nozzles (optional)
17 *Steering wheel distance adjustment* lever

See next page for continuation of the image legend

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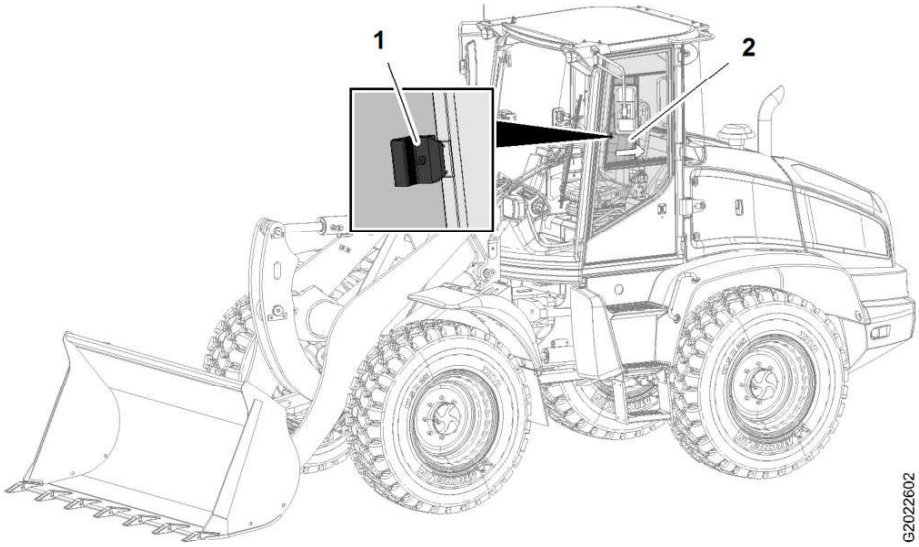

Fig. 90: Left sliding window

1 Handle **2** Sliding window

▶ To open the sliding window: unlock the handle **1** and move the sliding window **2** to the required position.

▶ To close the sliding window: lock the handle **1** with the sliding window frame.

3.2.5 Emergency exit

The right cab window is designed as an emergency exit and should be used as such in an emergency.

Before starting the machine, make sure that it is possible to get out via the emergency exit.

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3.2.11 Electronic immobilizer

This equipment is optional.

Machine comes with two blue ignition key and a red master key. Machine can only be put into operation with a programmed ignition key.

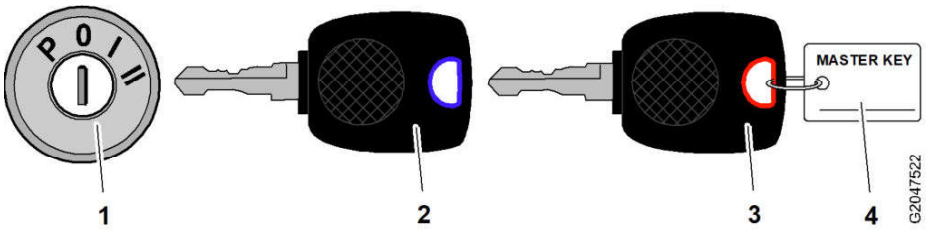

Fig. 124: Electronic immobilizer

1	Starting switch	**3**	Master key (red)
2	Ignition key (blue)	**4**	Type approval number

Note
Keep master key in a safe place away from machine.
Master key is only used to program ignition keys.

▶ Only start machine with programmed ignition key.

Note
If attempt is made to put machine into operation within short period with multiple unprogrammed ignition keys:
Immobiliser is active for 15 minutes.

▶ Use only programmed ignition keys.

Programming new ignition keys

A maximum of 10 ignition keys can be programmed with the master key.

▶ Insert master key **3** in starting switch **1** and put in position **I** for 5 seconds.

▶ Put master key **3** in **0** position and pull it out.

▶ Insert ignition key **2** to be programmed into starting switch **1** within 15 seconds and keep in position **I** for at least 1 second.
▷ Ignition key **2** is programmed.

Note
Program further ignition keys!

▶ Repeat entire procedure.

Deleting programmed ignition keys

Deleting programmed ignition keys is only possible with master key.

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Diesel particulate filter warning symbols	Designation
	Diesel engine warning – Goes on when exhaust counterpressure limit value in diesel particulate filter has been exceeded (excessive soot). (For more information see: 3.3.8 Regenerating the diesel particulate filter, page 135)

Tab. 25: Diesel particulate filter warning symbols

Reversing camera

This equipment is optional.

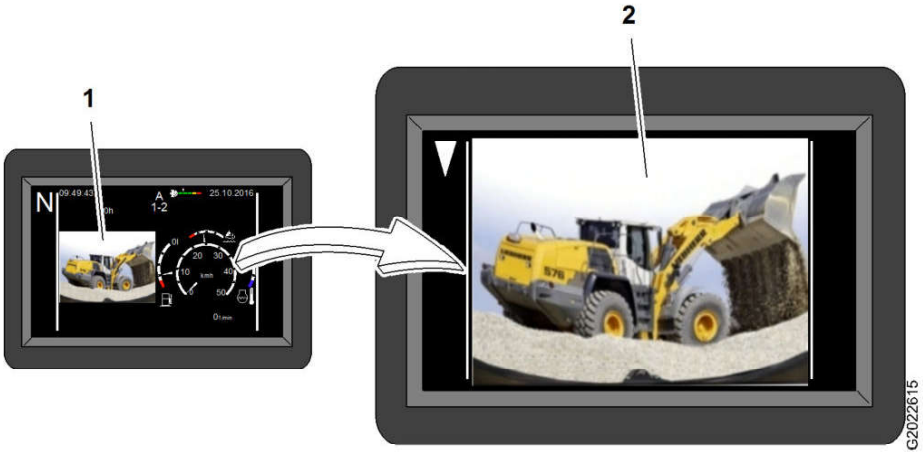

Fig. 163: Reversing camera

1 Reversing camera display

2 Reversing camera display (full screen)

▶ Select neutral or forward travel direction.
▷ The reversing camera is shown in the display **1**.

▶ Select reverse travel direction.
▷ The reversing camera is shown in the display **2**.

Date and time on the display

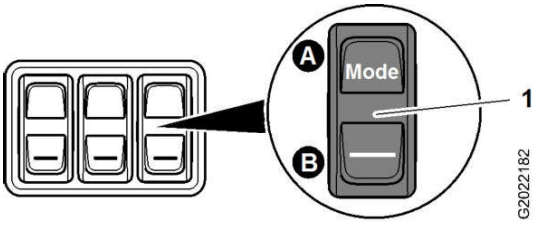

Fig. 164: Date and time on the display

1 *Mode*button

▶ To activate adjustment mode: push button **1** to position **A** for 5 seconds.

▶ To change settings: push button **1** to position **B**.

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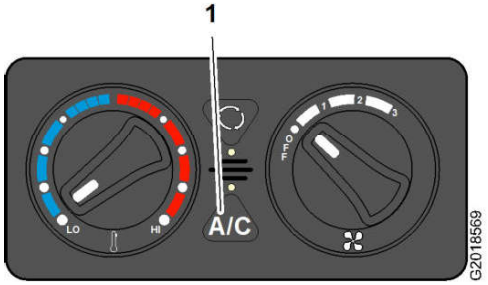

Fig. 186: Air conditioning mode

1 *Air conditioning unit* button

▶ To switch on the air conditioning: press the button **1**.

▶ To switch off the air conditioning: press the button **1** again.

Note

On cold, damp days, you can use air conditioning to dehumidify cab. Switch on the air conditioning in addition to the heating.

3.2.19 Rear window heater and exterior mirror heater (option)

This function is only available when ignition is on.

Switching rear window heater and exterior mirror heater on and off

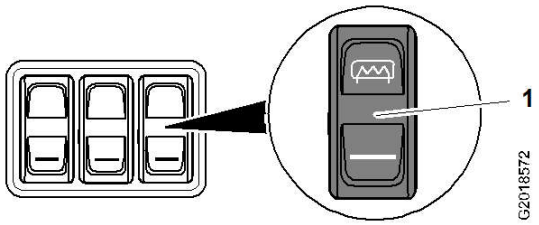

Fig. 187: Switching rear window heater and exterior mirror heater on and off

1 *Rear window heater*, *exterior window heater* button

▶ To switch on rear window heater and exterior mirror heater: press button **1**.

Note

Rear window heater and exterior mirror heater switch off automatically after 15 minutes.

3.2.20 Interior mirror, exterior mirrors and wide-angle mirrors (option)

The machine is equipped with one interior mirror, two exterior mirrors and two wide-angle mirrors (option).

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Note
Operation

- Heating operation (For more information see: 3.2.18 Heating, ventilation, air conditioning (option), page 98) .
- For operation and maintenance of auxiliary heater, see supplied operating instructions for “water heater from WEBASTO”.

Auxiliary heater identification plate

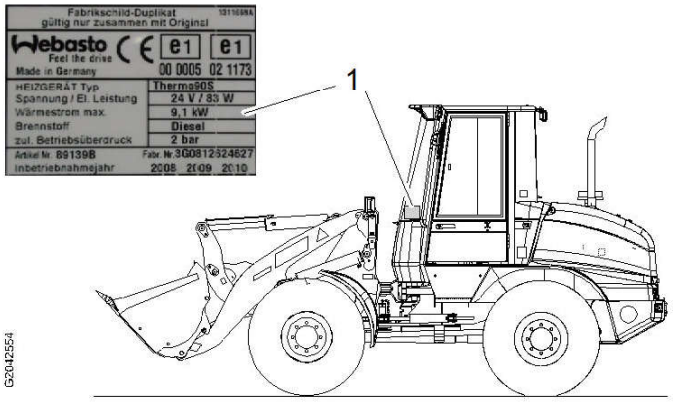

Fig. 201: Auxiliary heater identification plate

1 *Auxiliary heater* identification plate

The plate **1** is mounted on the windscreen.

The year of first use of the auxiliary heater must be marked clearly on the plate **1**.

Activating auxiliary heater

Make sure that following requirements are met:
- ❑ Machine is in a non-fire hazard environment.
- ❑ Machine is outdoors or in a space with an exhaust extractor.
- ❑ Battery main switch is on.

DANGER
Combustible environment.
Explosion, fire.

- Exclusively operate auxiliary heater in a fireproof environment.

DANGER
Inhalation of toxic gases!
Danger to life.

- Do not operate the auxiliary heater in enclosed spaces without an exhaust extraction system.

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Driving

This section deals with the following topics:
- Setting off
- Driving with V_{MAX} (speed restriction)
- Driving with ride control
- Reversing
- Tractive force adjustment

Setting off

Make sure that following requirements are met:
❑ The preparations for travel mode have been completed. (For more information see: 3.3.3 Travel mode, page 119)

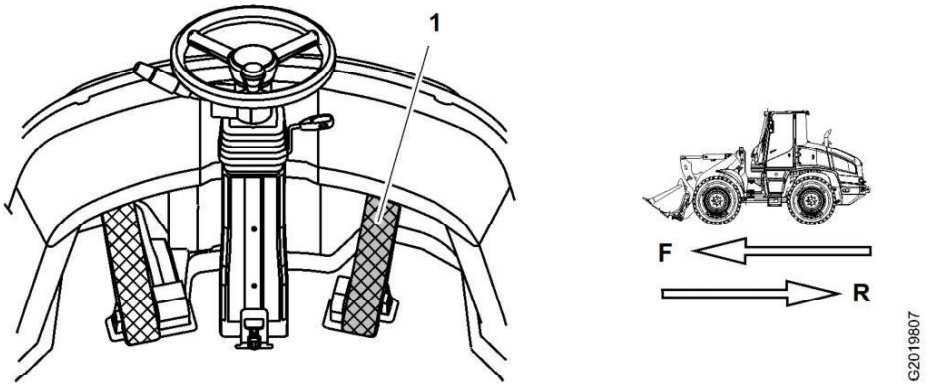

Fig. 216: Setting off

1 Accelerator pedal

▶ Carefully press down the accelerator pedal **1**.
▷ The machine starts moving.
▷ Travel speed and travel range are shown on the display.

Driving with V_{MAX} (speed restriction)

This equipment is optional.

Note

V_{MAX} (speed limit) can only be activated when machine is moving.

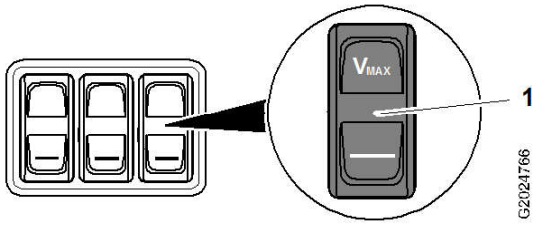

Fig. 217: Driving with V_{MAX} (speed restriction)

1 V_{MAX} button

▶ To activate speed limit with machine moving: Press button **1**.

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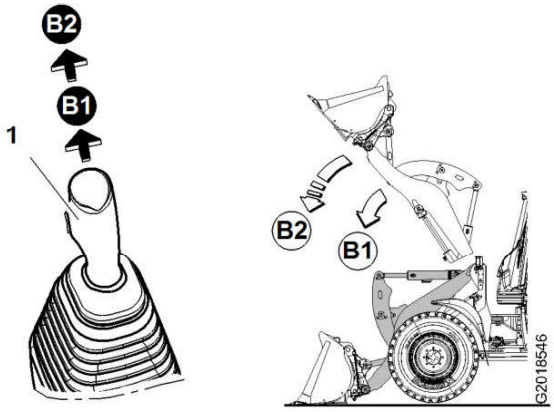

Fig. 235: Lower the lift arms

1 Control lever

- ▶ Normal lowering function: Move the control lever to the action point in direction **B1**.
- ▶ Quick lowering function: Move the control lever to the limit in direction **B2**.

Note
If diesel engine fails, lower lift arms and reduce hydraulic pressure.

- ▶ (For more information see: Lowering the lift arms and depressurising the hydraulics, page 166)

Tilting the bucket in and out

WARNING
Persons in the danger area!
Risk of injury.

- ▶ Make sure there is nobody in the danger area.

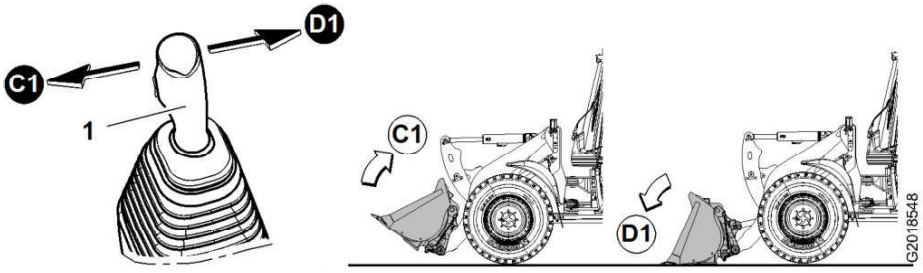

Fig. 236: Tilting the bucket in and out

1 Control lever

- ▶ To tilt in the bucket: Move the control lever **1** in direction **C1**.
- ▶ To tilt out the bucket: Move the control lever **1** in direction **D1**.

Moving lift arms and bucket simultaneously

The lift arms and bucket can be moved simultaneously by moving the control lever diagonally.

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Adjusting the prongs on the fork carrier

The fork prongs can be attached at any position on the fork carrier. The fork prong lock stops them from slipping.

Make sure the following preconditions are met:
- ❑ The forklift is around 10 cm above the ground.
- ❑ The engine is switched off.
- ❑ The wheel loader is secured against rolling away.

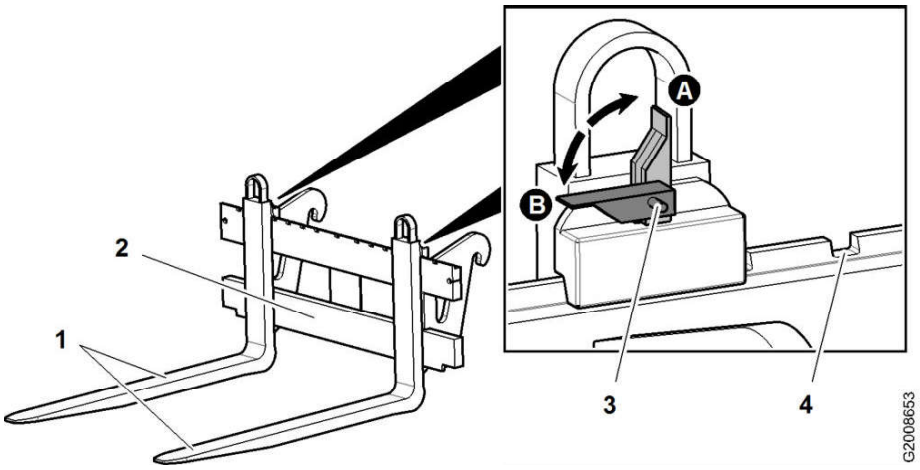

Fig. 261: Adjusting the prongs on the fork carrier

1	Fork prongs	**4**	Notch
2	Fork carrier	**A**	Fork prong lock open
3	Fork prong lock	**B**	Fork prong lock closed

▶ Open the fork prong lock **3**.

▶ Push the prongs **1** to the correct position.

▶ When closing the fork prong lock **3** let it latch in the notch **4**.
▷ The prongs are held tight.

Working with the forklift

– On lift arms with P kinematics or industrial lift arms, there is parallel movement of the load over the entire lifting range.
– On lift arms with Z kinematics, there is no parallel movement of the load over the entire lifting range.

Make sure that the following requirements are fulfilled:
– You have checked the forklift for cracks and damage.
– The prongs are locked on the fork carrier.

DANGER
Machine tipping!
Risk of fatal injury.

▶ Carry out load lifting work very carefully.

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- ▶ Tip the material into the middle of the skip.
- ▶ Load long transport vehicles from front to back.

Working near overhead power lines

DANGER
Beware of flashover near overhead power lines!
Risk of fatal injury.

- ▶ Keep a safe distance.
- ▶ De-energise overhead power lines.

Fig. 276: Working near overhead power lines

- ▶ Keep the machine and attachment a safe distance away from power lines.

Loading large rocks

Make sure that following requirements are met:
❑ Transport vehicle is reinforced to withstand impact of large rocks.

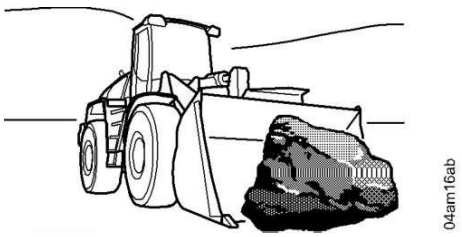

Fig. 277: Loading large rocks

- ▶ First put a load of smaller rocks into the transport vehicle.
- ▶ Carry on loading the transport vehicle.

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3.6 Transport

3.6.1 Transporting the machine

Note
Clean the machine before transport

▶ Remove any loose parts, coarse dirt, mud, ice, snow etc.

Lifting the machine by crane

Observe the general safety instructions when lifting the machine by crane

Find out about:
– Weight and main dimensions of the machine (For more information see: 1.2 Technical data, page 18) (For more information see: 2.4.3 Identification plate, page 48)

NOTICE
Leaking fuel and operating fluid!
Risk of damage to the machine.

▶ Always make sure the machine is level when lifting it.

Make sure that following requirements are met:
❑ Working attachment and loading equipment is lowered and tilted back to its limit.
❑ Articulation lock is engaged.
❑ The control lever is in neutral position.
❑ Diesel engine is switched off.
❑ Doors and service hatches on machine are closed and locked.

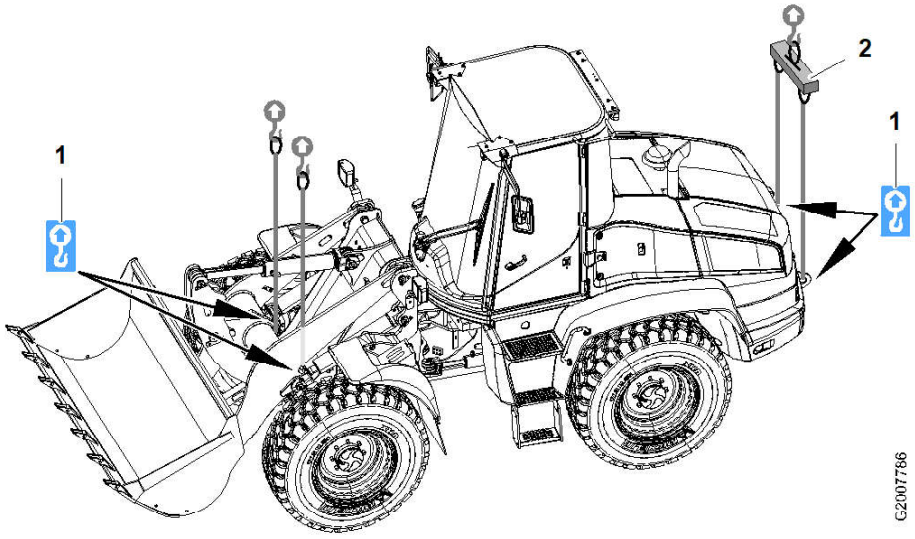

Fig. 287: Lifting the machine by crane

1 Lifting points **2** Crossbar

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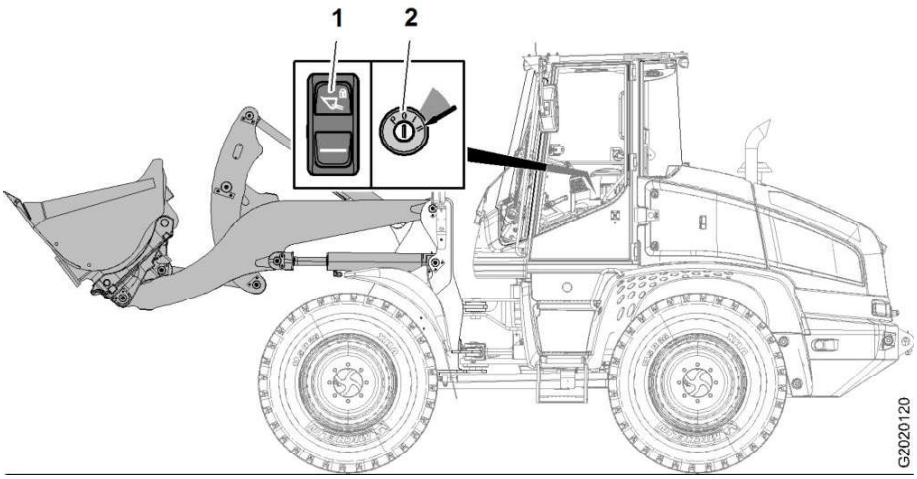

Fig. 297: Towing the machine

1 *Working hydraulics lockout* button **2** Starting switch

▶ Start the diesel engine with the starting switch **2**.

▶ Press the button **1** to lock the working hydraulics.

▶ Carefully tow the machine out of the danger area at no more than 2 km/h.

WARNING
Parking brake not working!
Risk of injury.

▶ Secure the machine against rolling away.

When towing has been completed:

▶ Plug the connector back into the proportional solenoid. (For more information see: Disconnecting the proportional valve from the travel motor, page 169)

▶ Have Liebherr customer service adjust the parking brake.

Towing with the diesel engine off

Keep the towing as short as possible and only do it on solid ground.

If the diesel engine fails, the brakes and steering function are impaired.

The following precautions must be taken before towing the machine:

1. Disconnect the proportional solenoid from the travel motor. (For more information see: Disconnecting the proportional valve from the travel motor, page 172)
2. Release the parking brake mechanically. (For more information see: Releasing the parking brake mechanically, page 173)

Make sure that the following requirements are fulfilled:

❑ Wheel wedges are available.

❑ Have a towing bar of sufficient strength available.

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4.2 Problems - Cause - Remedy

4.2.1 Warning symbols

The following table contains explanations of warning symbols, causes and remedies.

Symbol in the display	Meaning	Cause	Remedy
	Diesel engine: oil pressure too low	Engine oil pressure too low	Switch off the machine, contact Liebherr customer service
	Coolant temperature too high	Coolant temperature above 113 °C	Clean the cooling system, contact Liebherr customer service
	Fuel level too low	Fuel tank is empty	Refuelling with diesel
	Diesel exhaust fluid too low	Diesel exhaust fluid tank empty	Topping up diesel exhaust fluid
	Hydraulic oil temperature too high	Hydraulic oil temperature above 88 °C	Clean the cooling system, contact Liebherr customer service
	Battery not charging	Error in the electrical system	Contact Liebherr customer service
	Switch off the diesel engine	Error on the machine	Contact Liebherr customer service
	Diesel particulate filter warning	High load condition of the diesel particulate filter	Regenerating the diesel particulate filter
	Diesel engine warning	Diesel engine malfunction	Contact Liebherr customer service
	Air filter contamination	Air filter is dirty	Clean/replace air filter, contact Liebherr customer service

Tab. 38: Warning symbols

4.2.2 SCR system warning symbols

A warning tone sounds for every change to the status of the SCR system.

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Fuse	Value	Unit	Designation/function
F66	3	A	Spare
F67	15	A	Spare
F68	10	A	Data transfer
F69	10	A	Working headlights (spare)
F70	10	A	Marker lights
F71	10	A	Start lockout
F72	7.5	A	Left-hand driving light
F73	7.5	A	Left high beam
F74	15	A	Operator's seat
F75	10	A	Cigarette lighter

Tab. 42: Fuses on fuse board in operator's cab

Fuses in right of engine compartment

The fuses are located in the right of the engine compartment, above the battery.

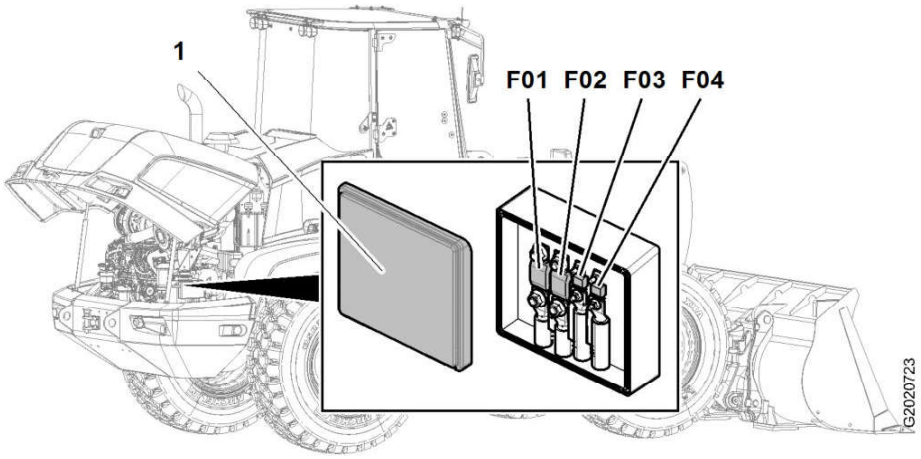

Fig. 319: Fuses in right of engine compartment

1 Cover
F01 Spare
F02 Relay board power supply
F03 Hazard light
F04 Safety function

If fuses have to be replaced:

- ▶ Switch off ignition.
- ▶ Remove the cover **1**.
- ▶ Identify the defective fuse using the table below.
- ▶ Take out the defective fuse and replace it with a new one.
- ▶ Close the cover **1**.

Fuse	Value	Unit	Designation/function
F01	200	A	Spare
F02	100	A	Relay board power supply

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5.3 Lubricants and fuels

5.3.1 General information on lubricants and fuels

General questions

For general questions on lubricants and fuels, please contact the Liebherr Lubricant Hotline by e-mail.

Liebherr Lubricant Hotline (e-mail): lubricants@liebherr.com

Safety data sheets

Safety data sheets for lubricants and fuels are available online via the Liebherr lubricant portal.

Liebherr lubricant portal: lubricants.liebherr.com

Technical data sheets and specific Liebherr standards

For technical data sheets and specific Liebherr standards: contact Liebherr customer service.

5.3.2 General information on changing lubricants and fuels

The values stated for filling quantities in the lubricant table and fuels table are only guidelines. After every oil change or refill, check the corresponding level.

NOTICE
Improper change of lubricants and fuels!
Damage to machine.

▶ Observe manufacturer's instructions for lubricants and fuels.

NOTICE
Contamination due to dirt!
Damage to machine.

▶ Clean filler plugs, filler caps and drain plugs, including their environment, before opening.

When inspecting and changing lubricants and fuels, consider following, among other things:
- Local environmental guidelines.
- Specifications according to operator's manual.
- Avoid naked lights and fire.

5.3.3 Converting hydraulic system from mineral oils to biodegradable hydraulic fluids

For operation of Liebherrearth moving machines with biodegradable hydraulic fluids, we recommend **Liebherr Hydraulic Plus**.

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- ▶ Park machine on level ground.
- ▶ Engage articulation lock.
- ▶ Lower the lift arms.
- ▶ Tilt the bucket out and set it down on the ground on its teeth or cutting edge.
- ▶ Engage parking brake.
- ▶ Turn off diesel engine.
- ▶ Take out ignition key.
- ▶ Turn off the battery main switch.

5.5.2 Service hatches

Engine bonnet

When the engine bonnet open, you can access the following components:
– Diesel engine
– Hydraulic pumps
– Air filter
– Battery
– Battery main switch
– Fuses in the right of the engine compartment
– Windscreen washer fluid reservoir
– Brake fluid equalising reservoir

WARNING
Hot components!
Risk of injury.

▶ Do not open the service hatch until the engine has cooled down.

WARNING
Rotating parts!
Risk of injury.

▶ Only open the service hatch when the engine is shut down.

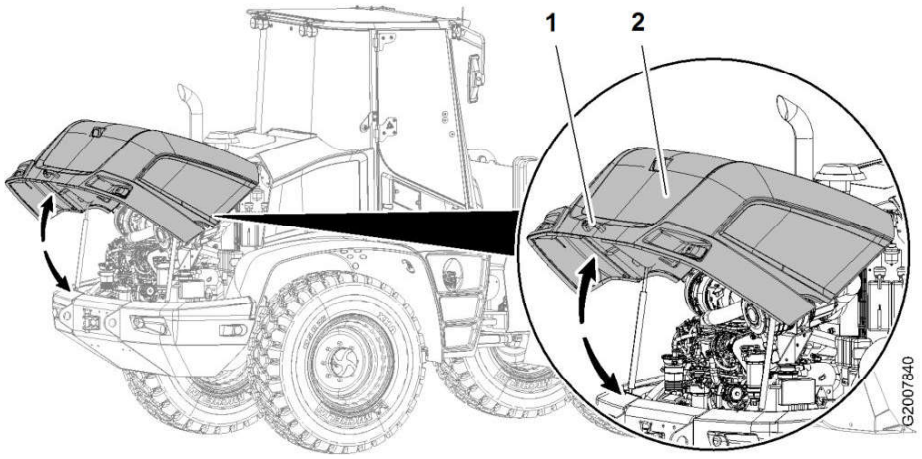

Fig. 326: Engine bonnet

1 Handle **2** Engine bonnet

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5.6.4 Cleaning the machine

Thoroughly clean the machine of all dirt and deposits in the following situations:
– After completing each job
– Before maintenance work
– Before repairs

NOTICE
Beware of corrosive materials and working environments.
Risk of damage to the machine.

▶ Clean the machine thoroughly after completing the work.

Regular cleaning prevents dirt and foreign particles from getting into the machine.

Clean the machine immediately after the following work:
– Working in salty environments (for example contact with road salt, or by the sea)
– Working with alkaline or acidic substances
– Working with corrosive materials (such as lime compounds or cement)

NOTICE
Always carry out cleaning correctly
Risk of damage to the machine.

▶ Only clean electrical systems, cables and wiring harnesses with low-pressure equipment.

▶ Only clean soundproofing material with low-pressure equipment.

▶ When new (or after respraying), do not clean the machine with a high-pressure cleaner for two months.

▶ Observe the operating manual of the high-pressure cleaner.

CAUTION
High-pressure jet!
Risk of injury.

▶ Wear protective clothing and safety glasses.

Cleaning the outside of the machine

Before cleaning

Make sure that the following requirements are fulfilled:
❑ The machine is in maintenance position 2.

Before washing with water or with a high-pressure cleaner, carry out the following tasks in order to prevent water from getting inside.

▶ Lubricate all bearings and pin connections.

▶ Clean oil, fuel and maintenance products from all connections and bolts.

If components behind openings have to be prevented from water getting in:
▶ Cover or mask the openings.

Components particularly at risk are:
– Electric motors
– Control units

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▶ Press the rubber lip on the dust discharge valve **1**.
▷ The dust discharge valve **1** is emptied.

If the dust discharge valve **1** is damaged or stays open:

▶ Replace the dust discharge valve **1**.

5.7.6 Cleaning or changing main element of air filter system

Make sure that following requirements are fulfilled:
❑ Machine is in maintenance position 1.
❑ Service access is open.
❑ Diesel engine has cooled down.
❑ Suitable protective equipment is used.

Removing the main element

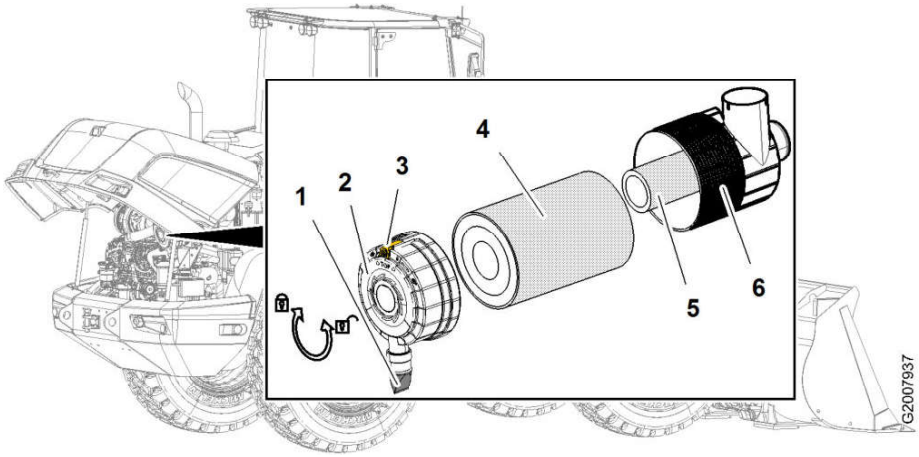

Fig. 346: Removing the main element

1	Dust discharge valve	**4**	Main element
2	Service cover	**5**	Safety element
3	Locking mechanism	**6**	Filter housing

NOTICE
Always carry out maintenance correctly.
Damage to the engine.

▶ Always replace damaged filter elements.

▶ Release the lock **3** on the service cover **2**.

▶ Turn the service cover **2** anticlockwise and remove it.

▶ Remove the main element **4** and check it for damage before cleaning it.

If the main element is damaged:
▶ Change the damaged filter element.

If the main element is not damaged:
▶ Clean the main element.

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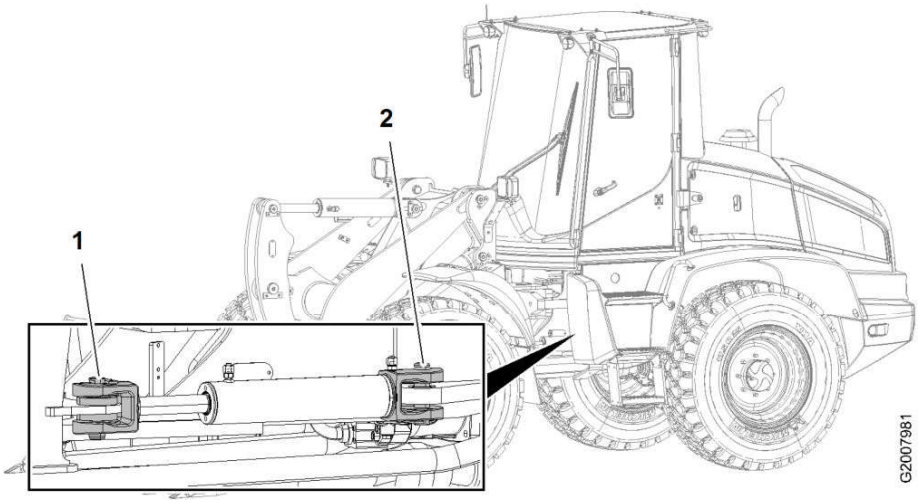

Fig. 357: Steering cylinder: lubricating bearing

1 Steering cylinder, ring side **2** Steering cylinder, piston side

▶ Take cap off grease fitting.

▶ Grease bearing of steering cylinder at lubrication points **1-2**.

▶ Put cap on grease fitting.

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Lubricating the attachment

Note
Lubricate attachment

- ▶ Ensure that the lubricating points are easy to access. Disconnect the attachment if necessary.
- ▶ For detailed information on the maintenance of non-Liebherr attachments, see the operator's manual from the manufacturer.

5.15.2 Lubricating and testing bearings on quick coupler

This equipment is optional.

Lubricating quick coupler

Make sure the following preconditions are met:
- ❑ Machine is in maintenance position 1.
- ❑ The lubricating point has been cleaned.
- ❑ The working attachment is disconnected for lubricating points near the bucket coupling, which are difficult to access.

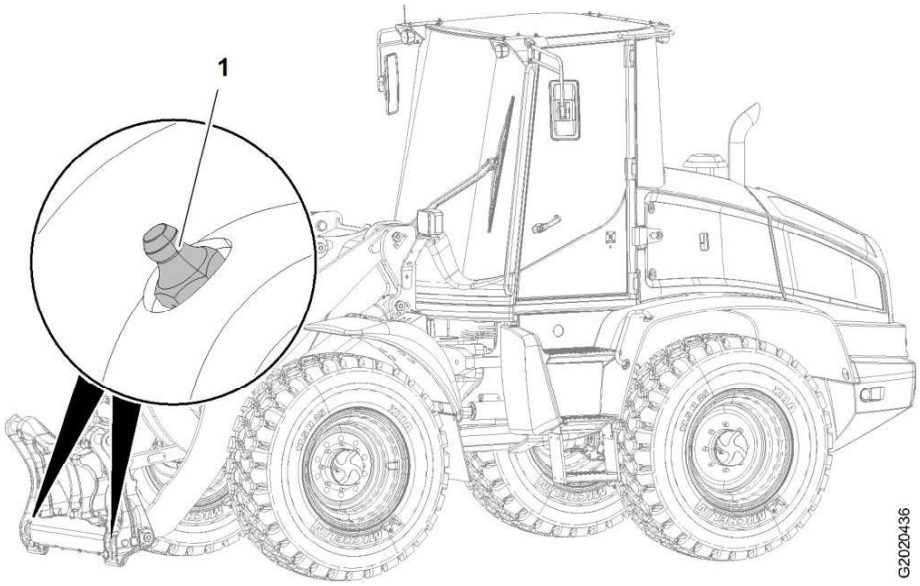

Fig. 367: Lubricating quick coupler

1 Grease fitting (2x)

- ▶ Take cap off grease fitting.
- ▶ Lubricate the grease fitting **1**.
- ▶ Put cap on grease fitting.

Testing quick coupler

Make sure the following preconditions are met:
- ❑ The diesel engine has started.
- ❑ The lift arms have been lowered.

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