Engine

- Perkins 3-cylinder Diesel engine
- Output 18.5 kW / 25 HP at 2800 rpm
- Type 403 D – 11 water-cooled
- Capacity 1,131 cm^3

Hydraulic system

- Driving hydraulics
  Flow rate 84 l/min
  Working pressure 450 bar
- Working hydraulics
  Flow rate 33 l/min
  Primary pressure, working pressure 205 bar

PREVIEW - YOUFIXTHIS.COM

Blurred on purpose. The manual you buy has this page in full quality.

Download full manual at youfixthis.com



Fig. 2 Connection to the air filter

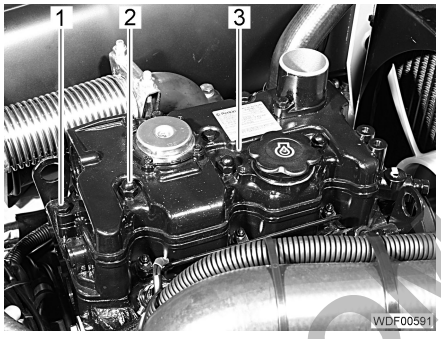


Fig. 3 Cylinder head cover attachment

Removing the cylinder head cover

- Release the 2 clamps (Fig. 2,1 and 3).
- Remove the hose (Fig. 2,2).
- Unscrew the 3 nuts (Fig. 3,2).
- Unscrew the 5 screws (Fig. 3,1).
- Remove the cylinder head cover (Fig. 3,3).

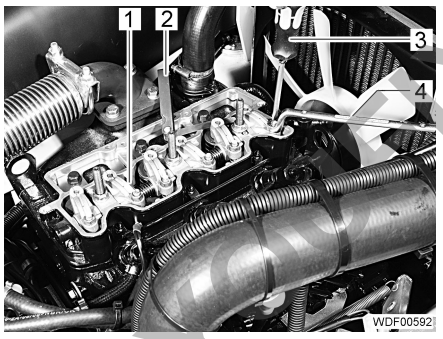


Fig. 4 Valve 1

Checking and adjusting the valve play

- Push the feeler gauge (Fig. 4,1) under the tipping lever (Fig. 4,2).
- If necessary, hold the nut with a suitable ring wrench (Fig. 4,4) and adjust the valve play with a screwdriver (Fig. 4,3).



Fig. 5 Cylinder head cover seal

Installing the cylinder head cover

- Inspect the cylinder head cover seal (Fig. 5, arrow) and replace it if necessary.
- Put the cylinder head cover (Fig. 3,3) into position.
- Screw in the 5 screws (Fig. 3,1).
- Screw the 3 nuts (Fig. 3,2) onto the threaded bolts.
- Tighten the screws and nuts with a tightening torque of 14 Nm.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Hydraulic Schematic 1150 CX

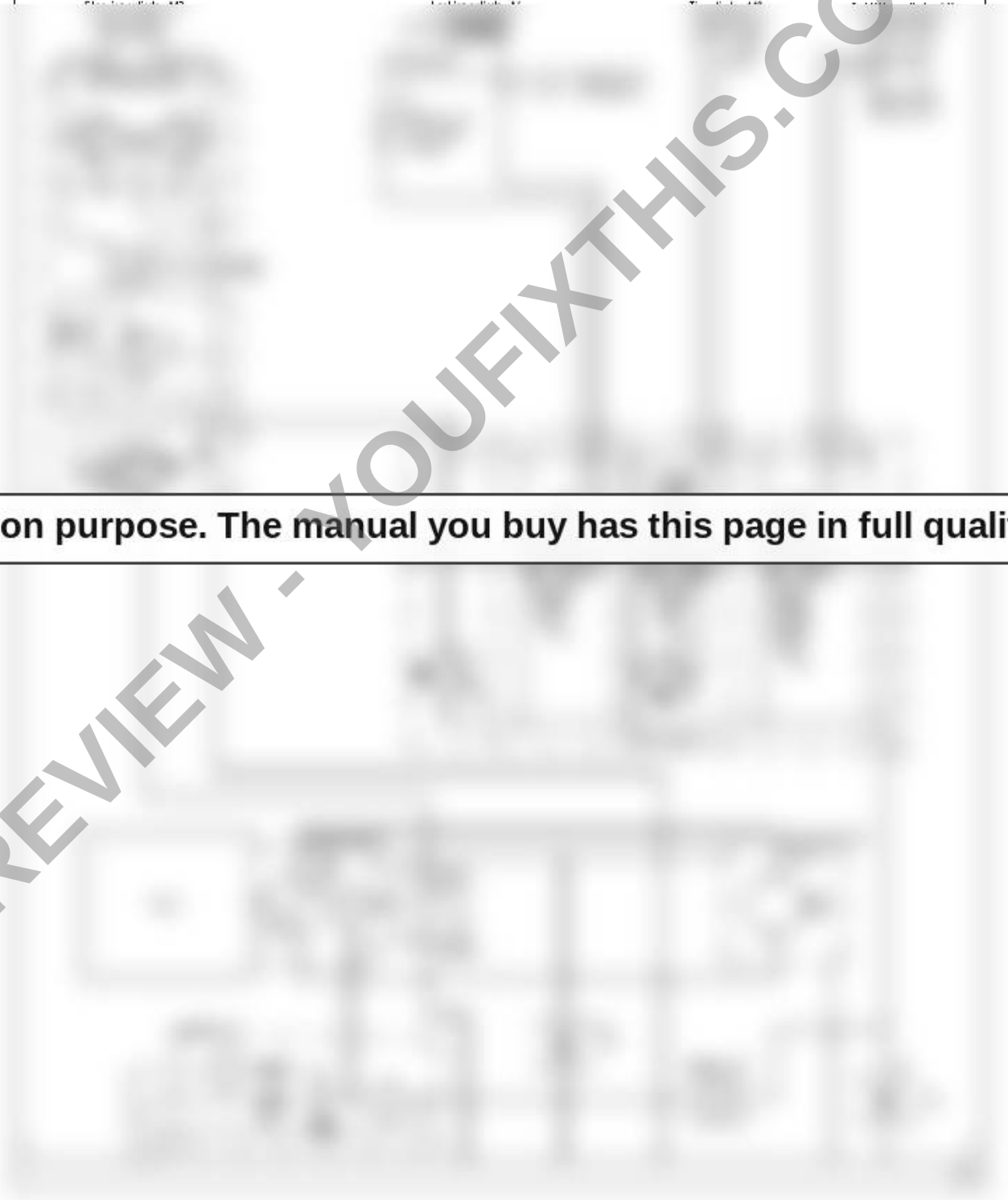
Date: 06.07.09

WEIDEMANN
34519 Diemelsee - Flechtdorf
Tel.: 05633/609-0
Fax: 05633/609-666

A4	Locking cylinder	V6	Check valve 5 bar
A11	Lifting cylinder	V7	Check valve 1 bar
A12	Tip cylinder	V10	3/2 directional valve
A13	Steering cylinder	V14	Control block
M3	Constant motor A2FM80	Z7	Combifilter
P6	Pump 11ccm	Z18	Radiator
P7	Variable pump A4VG28		
S3	Steering valve OSPF 100LS/OLSA80		

KEY

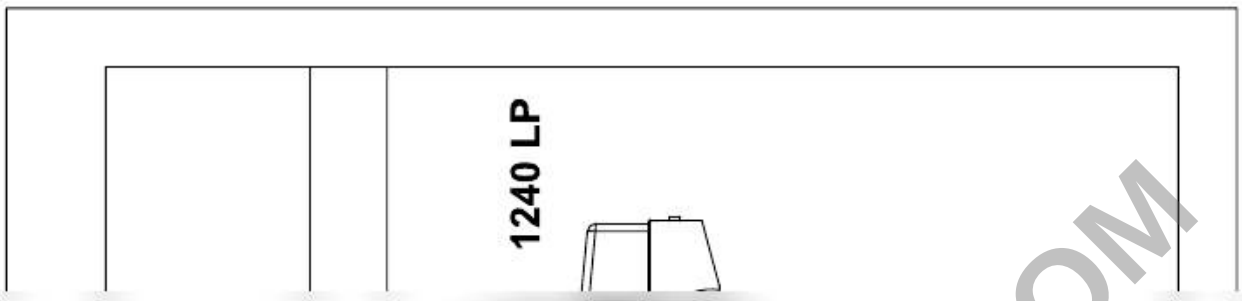
A	Drive units
M	Drive engines
P	Pumps
S	Signal transmitter
V	Valves
Z	Other parts



Blurred on purpose. The manual you buy has this page in full quality.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



Blurred on purpose. The manual you buy has this page in full quality.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Part 1 Safety

1 Repair work (complete vehicle) 1-7

2 Engine 1-9

3 Hydraulic system 1-11

4 Drive and axles 1-13

5 Brake system 1-15

6 Vehicle frame and load arm 1-17

7 Electrical system 1-19

Part 2 Technical data, testing equipment and special tools

1 Technical data 2-7

2 Filling quantities 2-9

3 Tightening torques 2-11

4 Pressure values 2-13

5 Flow rates 2-15

6 Safety stickers 2-17

7 Testing equipment 2-23
7.1 Test pressure gauge 2-23
7.2 Flow meter 2-23
7.3 Test pump 2-24

8 Special tools 2-25
8.1 Insertion tool 2-25
8.2 Sealing plate (2 x) 2-25
8.3 Expulsion and driving sleeves 2-25
8.4 Driving bolts 2-26
8.5 Electrical contact key 2-27
8.6 Generator tester 2-27
8.7 Half-shells and pull-off fixture 2-28
8.8 Tool for contact removal 2-29
8.9 Hose clamp 2-29
8.10 Magnetic field tester 2-30

9 Hose book 2-31

Part 3 Inspections, maintenance work and troubleshooting

1 Complete vehicle 3-7
1.1 Inspection log 3-7

2 Engine 3-9
2.1 Checking and adjusting the valve play 3-9
2.2 Inspecting the exhaust system for leaks 3-11
2.3 Checking the radiator installation . . . 3-12
2.4 Checking the engine bearing play 3-12
2.5 Inspecting the radiator for leaks 3-14
2.6 Troubleshooting on the engine 3-16

3 Hydraulic system 3-19
3.1 Checking and adjusting the starting speed 3-19
3.2 Checking and adjusting the inching pedal 3-19
3.3 Checking and adjusting the pressure cut-off 3-20
3.4 Checking the variable displacement pump supply pressure 3-21
3.5 Checking the variable displacement pump high pressure 3-22
3.6 Checking the variable displacement pump positioning pressure 3-24
3.7 Testing the steering hydraulics 3-25
3.8 Checking the gear pump 3-26
3.9 Checking the control valve function 3-29
3.10 Troubleshooting on the hydraulic system 3-29

4 Drive and axles 3-33
4.1 Checking the water filling of the wheels 3-33
4.2 Troubleshooting on the drive 3-34

5 Vehicle frame and load arm 3-37
5.1 Checking and adjusting the curling to load stop 3-37

6 Electrical system 3-39
6.1 Checking the generator 3-39
6.2 Checking the starter 3-39
6.3 Checking the temperature sensors 3-40
6.4 Testing the belt buckle circuit 3-41
6.5 Testing the fuel level sensor 3-41
6.6 Troubleshooting on the electrical system 3-42

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

This part of the repair manual contains special safety instructions relating to the loader's individual assemblies.

Warning notices

Warning notices are identified by a symbol, and differ in terms of the type and severity of the hazard described. The various types are shown below.



▶ **DANGER**

Identifies a hazard that will result in death or serious, irreversible injury if it is not prevented.

Follow the instructions in order to prevent the hazard.



▶ **WARNING**

Identifies a hazard that can result in death or serious, irreversible injury if it is not prevented.

Follow the instructions in order to prevent the hazard.



▶ **CAUTION**

Identifies a hazard that can result in minor reversible injury.

Follow the instructions in order to prevent the hazard.



▷ Identifies possible damage to the loader or to other property.

Notices

The following notices point out important items of information:



▷ Identifies a special item of information that is required for effective and efficient working.



▷ Identifies an environmental notice.

Do not start working until you have read and understood all safety instructions.

Sequence

The sequence of the described work is binding. Keep to the defined sequence in order to avoid hazards.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Abbreviations and units

A	High-pressure connection on the variable displacement pump
Ah	Unit of measurement for electrical battery (ampere-hours)
as req.	As required
B	High-pressure connection on the variable displacement pump
bar	Unit of pressure

PREVIEW - YOUFIXTHIS.COM

Blurred on purpose. The manual you buy has this page in full quality.

Download full manual at youfixthis.com

Safety instructions for working on the vehicle frame and load arm

- Fit the support provided for the lift frame before commencing work on the raised lift frame, so that the lift frame does not descend suddenly and unintentionally. This fixture must conform to ISO 10533.
- When carrying out repair work in the articulation crush zone, always block the articulated link with the articulation frame lock.
- Remove the block after completing the repair work.

Welding work

- Welding work may only be done by persons with the necessary training.
- Containers that contain or have contained materials that are combustible, promote combustion, are explosive or can produce harmful vapor, gas, mist or dust during welding work: Only authorized persons specifically assigned to this work and who are working under the supervision of a competent expert may carry out welding work on these containers. Always consult the manufacturer's Service Department if you have any problems or queries.
- Disconnect the battery before commencing welding work (see "Disconnecting and connecting the battery/changing the battery" in the operator's manual).
- Protect bare terminals and connections against short circuits!
- Attach the welding grounding terminal in the immediate vicinity of the welding location. The welding current must not pass through gears, bolts, articulated joints or hydraulic cylinders.
- Connect the battery after welding (see "Disconnecting and connecting the battery/changing the battery" in the operator's manual).

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

2.6 Troubleshooting on the engine

Symptom	Possible cause	Remedy
Engine will not start	Parking brake not applied	Apply parking brake
	Driving direction switch switched	Bring the driving direction switch into the Neutral position
	Fuel tank empty	Fill the fuel tank and, if necessary, vent the fuel system (see operator's manual "Venting the fuel system")
	Fuel filters dirty (paraffin precipitation in winter)	Change all fuel filters (see operator's manual "Servicing the fuel system"), refill with winter fuel
	Enabling solenoid on the engine does not pick up	Check fuse element for continuity and replace if necessary
	Fuel line leaking	Check the condition of the fuel lines and replace if necessary
	Starter speed too low	Check the battery and charge if necessary, clean the battery pole terminals and check that all is secure
	Starter defective	Replace the starter
Engine speed too low	Insufficient fuel supply	Inspect the fuel filter and fuel pump and replace if necessary
	Accelerator actuator dirty	Clean the accelerator actuator
	Bowden cable of the accelerator actuator stiff	Inspect the accelerator actuator and replace the Bowden cable if necessary
	Air filter system dirty	Check the air filter system for cleanliness
	Engine faulty	Replace the engine or repair it as described in the engine manufacturer's workshop manual

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

B

Belt buckle circuit
Testing 3-41

C

Control valve
Checking the function 3-29
Curling to load stop
Checking and adjusting 3-37

E

Engine
Troubleshooting 3-16
Engine bearing
Play, checking 3-12
Exhaust system
Inspecting for leaks 3-11

F

Fuel level sensor
Testing 3-41

G

Gear pump
Checking 3-26
Generator
Checking 3-39

H

High pressure, checking
Variable displacement pump 3-22

I

Inching pedal
Checking and adjusting 3-19

P

Positioning pressure, checking
Variable displacement pump 3-24
Pressure cut-off
Checking and adjusting 3-20

R

Radiator
Inspecting for leaks 3-14
Installation, checking 3-12

S

Starter
Checking 3-39
Starting speed
Checking and adjusting 3-19
Steering hydraulics
Testing 3-25
Supply pressure, checking
Variable displacement pump 3-21

T

Temperature sensors
Checking 3-40
Troubleshooting
Drive 3-34
Electrical system 3-42
Hydraulic system 3-29

V

Valve play
Checking and adjusting 3-9
Variable displacement pump
High pressure, checking 3-22
Supply pressure, checking 3-21

W

Wheels
Water filling, checking 3-33

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

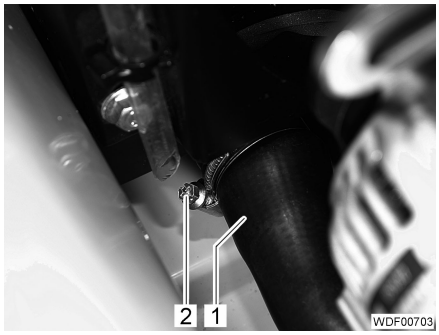


Fig. 44 Cooling hose, bottom

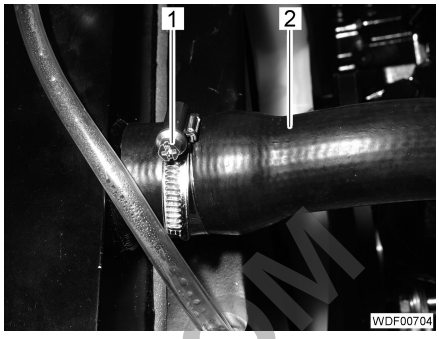


Fig. 45 Cooling hose, top

Removing the cooling hoses

- Place a collecting vessel under the radiator.
- Open the radiator cap.
- Release the hose clamp (Fig. 44,2) on the lower cooling hose (Fig. 44,1).
- Pull off the cooling hose slowly to allow coolant to run off in a controlled manner.
- Release the hose clamp (Fig. 45,1) on the upper cooling hose (Fig. 45,2).
- Slowly pull off the cooling hose and close it (e.g. with cloths).

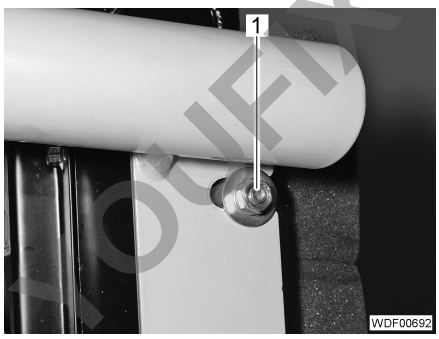


Fig. 46 Radiator attachment (side)

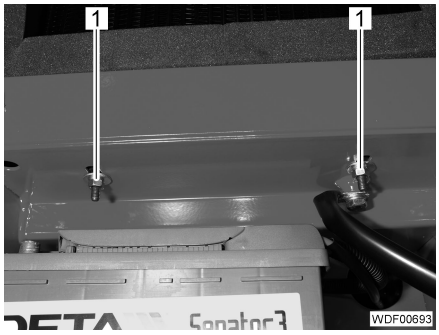


Fig. 47 Radiator attachment (bottom)

Removing the radiator

- Unscrew 1 nut (Fig. 46,1) on the left and right.
- Unscrew 2 nuts (Fig. 47,1) on the underside of the radiator.
- Carefully lift out the radiator upwards and towards the rear.

2.2.2 Installing the radiator

▷ The coolant must consist of equal amounts of water and antifreeze. This mixture guarantees an optimum ratio between cooling performance and corrosion protection.

▷ Do not fill with coolant too quickly. Fill at a maximum of **5 l/min**. If the cooling system is filled too quickly, air can be trapped in the cooling system and cause the engine to overheat.

Spare parts and auxiliary equipment

Designation	Quantity
Water/oil cooler	1
Coolant	approx. 4.5 l

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

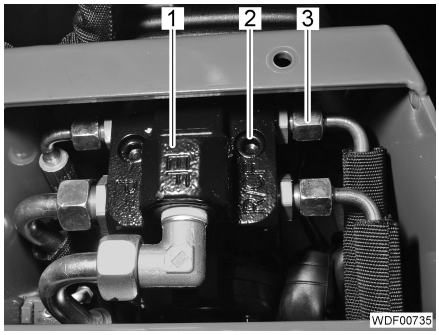


Fig. 90 Priority valve

Removing the priority valve

- Mark the hydraulic lines in order to prevent mix-ups.
- Unscrew and close off the hydraulic lines (Fig. 90,3).
- Unscrew the 2 screws (Fig. 90,2).
- Remove the priority valve (Fig. 90,1).

Installing the priority valve

- Place the priority valve (Fig. 90,1) into position.
- Screw in and tighten the 2 screws (Fig. 90,2).
- Screw the hydraulic lines (Fig. 90,3) onto the connection on the priority valve and tighten.

3.3.3 Replacing the orbital steering valve

▷ Pay attention to the "Safety instructions for working on the hydraulic system" (see Part 1 "Safety").

Spare parts and auxiliary equipment

Designation	Quantity
Steering	1
Valve	as req.

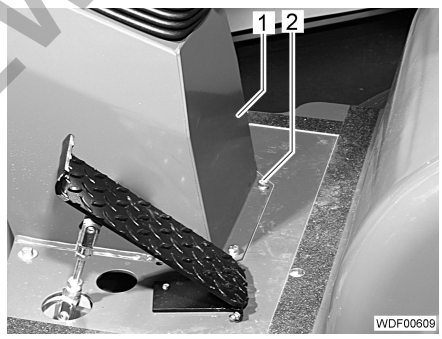


Fig. 91 Steering cover



Fig. 92 Electrical cables

Detaching the cables

- Unscrew the 2 screws (Fig. 91,2).
- Remove the cover (Fig. 91,1).
- Unscrew the screw (Fig. 92,1) and remove the grounding cable.
- Mark and disconnect all plugs (Fig. 92).

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

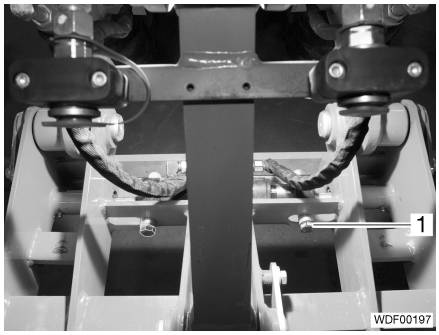


Fig. 162 Euro holder

▷ In the case of the Euro holder, the retaining screws (Fig. 162,1) of the locking pins are not behind a cover.

3.7 Oil cooler, filter and hydraulic lines

3.7.1 Replacing the oil cooler

▷ Pay attention to the "Safety instructions for working on the hydraulic system" (see Part 1 "Safety").

Requirements

Ensure the following:

- The hydraulic system is depressurized (see the section 3.1.1 "Depressurizing the hydraulic system").

Spare parts and auxiliary equipment

Designation	Quantity
Oil cooler	1

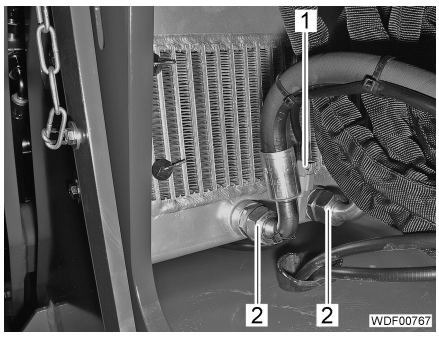


Fig. 163 Connections

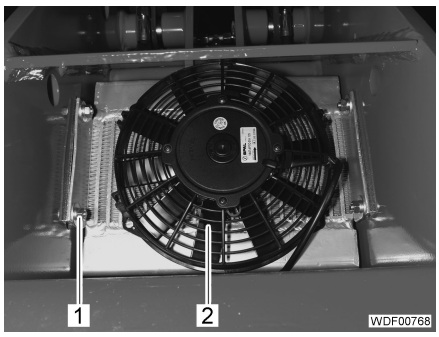


Fig. 164 Oil cooler attachment

- Disconnect the plug (Fig. 163,1).
- Detach and close off the hydraulic lines (Fig. 163,2).
- Unscrew the 4 nuts (Fig. 164,1).
- Carefully remove the oil cooler with fan (Fig. 164,2) towards the front.

Mounting the oil cooler

- Carefully insert the oil cooler with fan (Fig. 164,2) from the front.
- Insert 4 bolts with washers from the outside through the front carriage and oil cooler.

PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

- Slowly guide the brake lever upwards.
- Using suitable lifting gear (e.g. a crane), carefully raise the step plate on the left sufficiently far so that the Bowden cables on the brake lever are accessible.

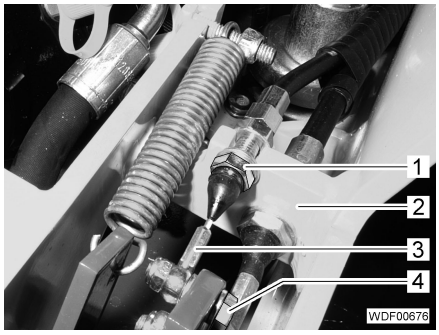


Fig. 225 Front attachment of the Bowden cable

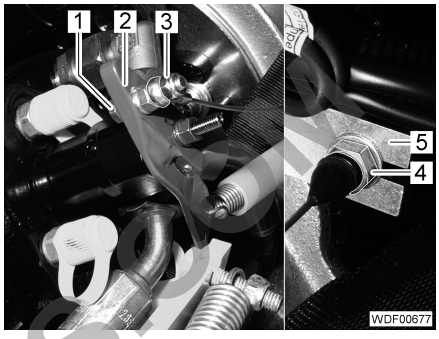


Fig. 226 Rear attachment of the Bowden cable

Removing the Bowden cable

- Unscrew the bolt (Fig. 225,4).
- Unscrew the nut (Fig. 225,1).
- Remove the Bowden cable (Fig. 225,3) upwards out of the holder (Fig. 225,2).
- Unscrew the bolt (Fig. 226,1).
- Unscrew the nut (Fig. 226,4).
- Remove the Bowden cable from the holder (Fig. 226,5) to the side.

Pulling in the Bowden cable

- Undo all fastenings (e.g. cable ties) along the Bowden cable.
- Pull out the Bowden cable towards the brake lever and at the same time pull in the new Bowden cable.

Fitting the Bowden cable

- Push the Bowden cable into the holder (Fig. 226,5) at the side.
- Tighten the nut (Fig. 226,4) with washer.
- Insert the bolt (Fig. 226,1) with washer through the lever (Fig. 226,2) and the eye (Fig. 226,3).
- Tighten the nut so that the eye remains rotatable.
- Push the Bowden cable (Fig. 225,3) into the holder (Fig. 225,2) from above.
- Tighten the nut (Fig. 225,1) with washer.
- Insert the bolt (Fig. 225,4) through the brake lever and the eye.
- Tighten the bolt so that the eye remains rotatable.

Lowering the step plate

- Carefully lower the step plate on the rear carriage.



▶ **CAUTION**

Risk of crush injury from component flying back.

The brake linkage is tensioned by springs.

Work carefully, and guide spring-pretensioned parts slowly into their end position.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

6.6 Tool attachment

6.6.1 Replacing the tool attachment

▷ If the tool attachment has a hydraulic lock, the locking cylinder must first be removed (see the section 3.6.4 "Replacing the locking cylinder").

Spare parts and auxiliary equipment

Designation	Quantity
Tool attachment	1
Lubricating grease	as req.

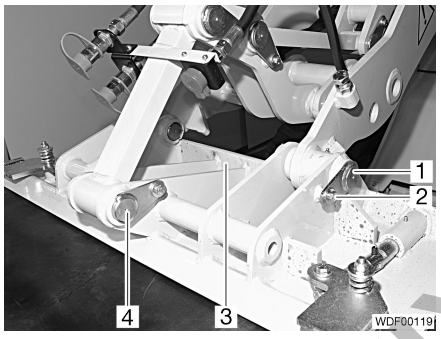


Fig. 291 Securing the tool attachment

Removing the tool attachment

- Set down the tool attachment so that it cannot tip over (e.g. on the work bench).
- Unscrew the 3 screws (Fig. 291,2).
- Drive out the pin (Fig. 291,4) on the drawbar.
- Tilt in the drawbar.
- Drive out the 2 pins (Fig. 291,1).
- Carefully raise the load arm until the tool attachment (Fig. 291,3) is free.

Installing the tool attachment

- Lower the load arm into the tool attachment (Fig. 291,3) so that the holes of the pin holders line up precisely.
- Grease pin and bearing slightly.
- Drive in the 2 pins (Fig. 291,1).
- Tilt out the drawbar until the pin holders line up precisely.
- Drive in the pin (Fig. 291,4).
- Tighten the 3 screws (Fig. 291,2).

Final work

- Check and, if necessary, adjust the curling to load and dumping stops (see Part 3, section "Checking and adjusting the curling to load stop").
- Lubricate the tool attachment bearings.
- If necessary, install the locking cylinder (see the section 3.6.4 "Replacing the locking cylinder").

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

8.5.3 Replacing the headlight

▷ This section describes replacement of a suspended headlight.
The vertically mounted headlight is replaced in the same way.

Spare parts and auxiliary equipment

Designation	Quantity
Headlight	1

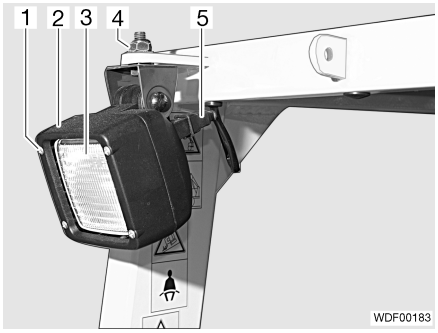


Fig. 343 Rear headlight

Removing the headlight

- Remove the plug (Fig. 343,5).
- Unscrew the nut (Fig. 343,4).
- Remove the headlight.

Fitting the headlight

- Place the new headlight into position.
- Screw the nut (Fig. 343,4) onto the thread and tighten it.
- Attach the connector (Fig. 343,5) onto the headlight.

▷ The lamp glass (Fig. 343,3) must be aligned so that the lettering is not upside down. Align the lamp glass as necessary.

Aligning the lamp glass

- Unscrew the 4 screws (Fig. 343,1).
- Remove the frame (Fig. 343,2).
- Rotate the lamp glass (Fig. 343,3) into the desired position.
- Place the frame into position.
- Tighten the 4 screws.

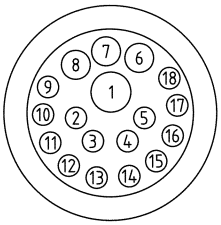
Final work

- Check that the lighting system is working.

PREVIEW - YOUFIXTHIS.COM

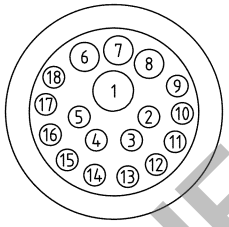
Download full manual at youfixthis.com

Deutsch 18-pole
Art. No. HDP 24-24-18 PE



P	Color	Ø [mm²]	Designation
16	VI/WH	1	Indicator lamp, forwards driving Ignition breaker relay KL86
17	GR/BL	1	Indicator lamp, reversing Ignition breaker relay KL85
18	GR	1	F3

Deutsch 18-pole
Art. No. HDP 26-24-18 SE



X1

S	Color	Ø [mm²]	Designation
1	RD	10	Battery current, KL30 via fuse element
2	-	-	Not assigned
3	GR/RD	1	Generator KL D+
4	GR/BK	1	Engine oil pressure switch
5	-	-	Not assigned
6	BK	2.5	Glow plugs
7	BK	2.5	Glow plugs
8	BK/YE	2.5	Starter KL50
9	RD	1.5	Shut-off Fuel pump Generator
10	BL/WH	1	Cooling water temperature switch Hydraulic fluid temperature switch
11	BL/RD	1	Fuel level sensor, fuel reserve switch
12	GR/YE	1	Fuel level sensor, fuel supply
13	BN/WH	1	Switch, parking brake contact 4
14	VI	1	Switch, hydraulic fluid temperature, oil cooler
15	VI/BK	1.5	Oil cooler
16	VI/WH	1	Multi-function lever, switch, forwards travel
17	GR/BL	1	Multi-function lever, switch, reversing
18	GR	1	Switch, parking brake contact 1

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 18 of 336 pages

The full manual includes:

- All 336 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Weidemann 1150 CX30 Repair Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual