2.1 Technical data, BC 463 RB -3 ..... **68**
2.1.1 Technical data 68
2.2 Technical data, BC 473 RB -3 ..... **72**

PREVIEW - YOUFIXTHIS.COM

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

Download full manual at youfixthis.com

1.3 Maintenance and repair

1.3.1 Notes on repair

1.3.1.1 General repair instructions

NOTICE!

Ensure strict cleanliness when performing repair work!

- No foreign objects should enter into open systems.
- Thoroughly clean the area around the affected components.
- Dry off wet locations with compressed air.

Before removing or disassembling parts, assembly groups, components or hoses mark these parts for easier assembly.

1.3.1.1.1 Repair notes for electrics

Electrics and welding

NOTICE!

Electrical components may get damaged by welding work!

- Always remove the main battery switch.
- Disconnect the batteries and connect negative and positive cables.
- Pull the plugs off the control units.

Always fasten the earth clamp of the welding unit in the immediate vicinity of the welding location.

When choosing the location for the earth clamp make sure that the welding current will not pass through joints or bearings.

Battery

Maintenance free batteries also need care. Maintenance free only means that the fluid level does not need to be checked.

Every battery has a self-discharge, which may, if not checked occasionally, even cause damage to the battery as a result of exhaustive discharge.

Exhausted batteries (batteries with formation of sulphate on the plates) are not covered under warranty!

- When removing a battery always disconnect the minus pole before the plus pole. When installing the battery connect the minus pole after the plus pole to avoid short circuits.
- Assemble the battery terminal clamps without force.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

7 Troubleshooting

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

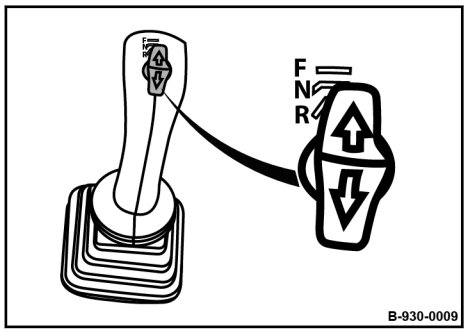


Fig. 518

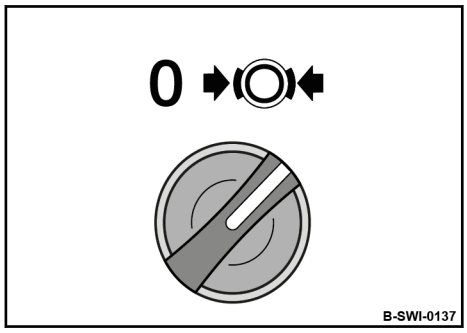


Fig. 519

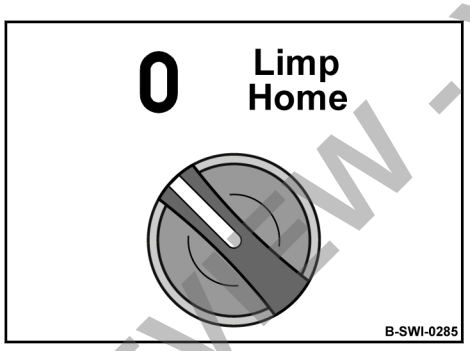


Fig. 520

3.

DANGER!

Danger to life caused by machine movements!

– Make sure that no persons are in the danger area.

Turn the travel direction switch to the desired travel direction.

⇨ The machine starts immediately.

4. Carefully move the machine out of the danger zone onto flat and solid soil.

5. Turn the travel direction switch to position “N”.

⇨ The neutral position control light lights up. The machine will brake.

6. Turn the rotary switch for the parking brake to position “Right”.

⇨ The parking brake warning light lights up.

7. Shut down the engine, pull off the ignition key.

8. Turn the rotary switch for engine emergency mode to position "Left".

7.4.4 Deutz DTC fault code list, EMR3

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

A.2 Hydraulic diagram 571 908 27

PREVIEW - YOUFIXTHIS.COM

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

Download full manual at youfixthis.com

A Circuit diagrams

A.1 Circuit diagram 382 683
A.2 Hydraulic diagram 571 908 27 758

PREVIEW - YOUFIXTHIS.COM

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

Download full manual at youfixthis.com

Table of contents

1 General ... **9**
1.1 Introduction ... **10**
1.2 Concerning your safety ... **12**
1.2.1 Basic prerequisites ... 12
1.2.2 Definition of responsible persons ... 15
1.2.3 Fundamentals for safe operation ... 16
1.2.4 Handling fuels and lubricants ... 18
1.2.5 Loading / transporting the machine ... 24
1.2.6 Start up procedure ... 25
1.2.7 Driving the machine; working operation ... 26
1.2.8 Refuelling ... 28
1.2.9 Emergency procedures ... 28
1.2.10 Maintenance work ... 29
1.2.11 Repair ... 31
1.2.12 Signage ... 31
1.3 Maintenance and repair ... **42**
1.3.1 Notes on repair ... 42
1.3.2 Preliminary remarks and safety notes ... 58
1.3.3 Preparations / concluding work ... 59
1.3.4 Parking the machine in secured condition ... 64
2 Technical data ... **67**
2.1 Technical data, BC 463 RB -3 ... **68**
2.1.1 Technical data ... 68
2.2 Technical data, BC 473 RB -3 ... **72**
2.2.1 Technical data ... 72
2.3 Technical data, BC 473 RS -3 ... **76**
2.3.1 Technical data ... 76
2.4 Technical data, BC 473 EB -3 ... **80**
2.4.1 Technical data ... 80
2.5 Additional technical data ... **84**
2.6 Terms and basis of calculation ... **87**
2.7 Fuels and lubricants ... **88**
2.7.1 Engine oil ... 88
2.7.2 Fuel ... 89
2.7.3 Coolant ... 90
2.7.4 Hydraulic oil ... 93
2.7.5 Gear oil SAE 80W-140 ... 93
2.7.6 Lubrication grease ... 94
2.8 List of fuels and lubricants ... **95**
3 Overview of machine ... **97**
3.1 General information ... **98**
3.2 Electric systems ... **103**
3.3 Hydraulic system ... **105**
3.4 Machine assemblies ... **109**

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Table of contents

3.4.1 Diesel engine ... 109
3.4.2 Air conditioning ... 111
3.4.3 Central lubrication system ... 112
3.4.4 Overview of maintenance flaps and doors ... 115

4 Electric systems ... 117
4.1 Basic principles ... 119
4.1.1 Measuring method ... 119
4.1.2 Understanding circuit diagrams ... 124
4.1.3 Telemecanique switch ... 135
4.1.4 Deutsch plug, series DT and DTM ... 137
4.1.5 Magnetic coil plug ... 141
4.1.6 Clip-on technology ... 143
4.2 Overview of electric system ... 147
4.2.1 Operator's stand ... 149
4.2.2 Wiring ... 151
4.2.3 CAN BUS overview ... 157
4.2.4 Table of fuels and lubricants ... 158
4.3 Starting the engine with jump leads ... 168
4.4 Installation locations of control units ... 169
4.5 Fuse assignment ... 174
4.5.1 Notes on safety ... 174
4.5.2 Central electrics ... 174
4.5.3 Main fuses ... 175
4.5.4 Control console cabin ... 176
4.6 Description of electrical components ... 177
4.6.1 Control console cabin ... 183
4.6.2 Control unit for air conditioning, A72 ... 185
4.7 Training of electric system ... 188
4.8 Inspection and maintenance work ... 246
4.8.1 Maintenance Table ... 246
4.8.2 Every 500 operating hours ... 246
4.8.3 As required ... 247

5 Hydraulic system ... 249
5.1 Basic principles ... 251
5.1.1 Open and closed hydraulic circuit ... 251
5.1.2 Swash plate principle, pump ... 253
5.1.3 Swash plate principle, motor ... 254
5.1.4 External gear pumps ... 256
5.2 Overview of hydraulics ... 258
5.3 Description of hydraulic components ... 262
5.3.1 Travel pump, A4VG110 DA ... 262
5.3.2 Fan pump, A4VG56 EF-EP ... 269
5.3.3 Steering and working pump, A10VO/VSO ... 275
5.3.4 Travel motor, A6VM HA2T ... 280
5.3.5 Fan motor ... 284
5.4 Description of hydraulic circuits ... 286

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Taking into operation

- Bleed the hydraulic circuits.
- Start up the hydraulic system without load.
- Check the hydraulic oil level in the tank, if necessary top up with hydraulic oil as specified in the operating and maintenance instructions or drain oil off into a suitable container.

After taking into operation

- Check fittings and flanges for leaks.
- After each repair check all adjustment data, system pressures, rotational speeds and nominal values in the hydraulic system, adjust if necessary.
- Do not adjust pressure relief valves and control valves to values above their specified values.

1.3.1.1.3 Repair notes for Common Rail engines

Special requirements with respect to cleanliness in the fuel system do apply for commissioning, maintenance and repair work, particularly for engines with the Common Rail System. Contamination like dirt, welding residues or similar can lead to the failure of individual components and adversely affect engine operation.



Fig. 29: Example

Spare parts should be left in their original packaging as long as possible and should only be unpacked just before use.

When parts are unpacked any connections must be closed with suitable plugs or caps, in order to prevent contamination of hose connections. If e.g. fuel hoses are connected to one side, while the second side cannot yet be connected, there is a danger of dirt entering into the system. The free connection must in this case also be appropriately closed.

Notes and measures to be applied before starting work in the fuel system

- The fuel system must be closed. Visual examination for leaks / damage in the fuel system.
- Before starting work in the fuel system clean the complete engine and the engine compartment with the system still closed.
- The engine should be dry before work is started in the fuel system.
- Blow drying with compressed air is only permitted while the fuel system is still closed.

PREVIEW YOUFIXTHIS.COM
Download full manual at youfixthis.com

2.6 Terms and basis of calculation

The following terms and basis of calculation serve as a quick guide to help you understand the technical data provided:

Seq. no.	Term	Units	EXPLANATION
1	Dimensions	mm	■ All dimensions given in mm
2	Axle load	kg	■ Specification of the static weight in (kg) affecting each axle
3	Drive system	-	■ Mechanically from the diesel/petrol engine via V-belt, toothed belt or chain, gears, or cardan shaft ■ Hydrostatically from the diesel/petrol engine via hydraulic pump and hydraulic motor(s)
4	Working speed	m/min	■ Path covered by the machine in metres (m) in a minute (min)
5	Operating weight CECE	kg	■ Static weight of the machine, including - fuels and lubricants - 50% fuel tank content x 0.84 specific weight - 50% water tank content - 75 kg for the driver (only in the case of sit-on machines)
6	Rated speed	min^{-1}	■ Number of revolutions per minute of the diesel/petrol engine
7	Basic weight	kg	■ Static weight of the machine without fuels and lubricants
8	Travel speed	km/h	■ Path covered by the machine in kilometres (km) in an hour (h)
9	Fuel consumption	l/h	■ Average engine fuel consumption at 70% capacity utilisation
10	Rated power SAE J 1349/ISO 3046	kW	■ Effective output at the engine flywheel in kilowatts (kW) at the set nominal speed
11	Track radius	mm	■ Radius in mm which the machine achieves at full steering angle; measured from the theoretical circle midpoint to the inner edge of the drums/wheel

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Device tag list
Betriebsmittelliste

Device tag BMK	Page Path Blatt Pfad	Mounting location Einbauort	Higher-level function Anlage	Function text	Funktionstext	characteristics Techn.-Kenngrößen
A02	41 8	+EBOX		Flasher unit	Blinkgeber	
A12	51 4	+CAB		Radio	Radio	
A15	15 2	+ARC		Monitoring module	Überwachungsmodul	
A16	51 0	+CAB		Electronic system, tachograph	Elektronik Tachograph	
A34	12 3	+EBOX		Driving Controller	Fahrsteuerung	----> Pin Overview
A48	22 0	+EBOX		Engine-controller EMR4 (EDC 17-CV52)	Motorsteuergerät EMR4 (EDC 17-CV52)	
A67	42 5	+DPL		Keyboard	Tastatur	
A83	13 3	+EBOX		Measurement controller	Messtechnik Steuerung	
A87	52 2	+CAB		USB-CAN Interface BCM	USB-CAN Schnittstelle BCM	
A93	52 7	+CAB		GPS receiver	GPS Receiver	
A108	45 2	+CAB		Heating climatic unit	Heiz-Klima-Einheit	
A124	43 3	+EBOX		Electronic system, BOMAG Telematics	Elektronik BOMAG Telematik	
A138	43 5	+ARC		Antenna, BOMAG Telematics	Antenne BOMAG Telematik	
B03	28 4	+MOT		Maintenance switch, air cleaner	Wartungsschalter Luftfilter	
B11.1	32 1	+REFR		Warning horn	Signalhorn	max. 3,5A
B11.2	32 2	+REFR		- " -	- " -	min. 3,5A
B21	28 5	+REFR		Differential pressure switch, hydraulic oil filter	Differenzdruckschalter Hydrauliköl-filter	
B51.L	51 4	+CAB		Speaker radio	Lautsprecher Radio	
B51.R	51 5	+CAB		- " -	- " -	
B55	28 2	+MOT		Floating switch, coolant expansion tank	Schwimmerschalter Kühlmittelausgleichsbehälter	
B57	29 1	+EBOX		Slope sensor, speed range selection	Neigungssensor Stufenumschaltung	0,5-4,5V
B59	29 7	+DRUM		Speed sensor, drum	Drehzahlsensor Bandagengeschwindigkeit	
B60	29 4	+REFR		Speed sensor, axle	Drehzahlsensor Achsgeschwindigkeit	
B62	39 1	+DRUM		Transducer, acceleration	Aufnehmer Beschleunigung	
B88	24 4	+MOT		EMR engine oil pressure	EMR Motoröldruck	
B93	23 6	+MOT		EMR Fuel pressure rail	EMR Kraftstoffdruck Rail	
B97	35 4	+DRUM		Sensor, adjustable motor	Sensor Verstellmotor	
B104	45 1	+REFR		Pressure switch, air conditioning	Druckschalter Klimaanlage	
B113	24 2	+MOT		EMR Temperature sensor, coolant	EMR Temperatursensor Kühlmittel	
B114	23 4	+MOT		EMR Sensor, engine speed 1	EMR Motordrehzahlsensor 1	
B124	22 1	+MOT		Sensor, water trap fuel	Sensor Wasserabscheider Kraftstoff	
B130	23 5	+MOT		EMR Sensor, engine speed 2	EMR Motordrehzahlsensor 2	
B133	24 3	+MOT		EMR Sensor, charging air pressure / -temperature	EMR Sensor Ladeluftdruck / -temperatur	
B145	24 5	+MOT		EMR Low pressure Fuel	EMR Niederdruck Kraftstoff	
B171	39 3	+DRUM		Transducer, acceleration	Aufnehmer Beschleunigung	
B208	24 8	+MOT		EMR Sensor, delta p venturi	EMR Sensor Delta p Venturi	
B209	24 8	+MOT		EMR Sensor, temperature EGR behind venturi	EMR Sensor Temperatur EGR nach Venturi	

0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9

Created Erstellt | Checked Geprüft | BOMAG | Device tag list Betriebsmittelliste | S-ELE-0030 | Page Seite 54 From 86 | DTLE | EPE / 000 / 00

Fig. 97: List of components

An electric component is a part, assembly or device in an electrical installation.

- Components are marked with a combination of letters and numbers. The identification with letters follows the standard DIN - EN 61346 T1-T2. A component identification (BMK) e.g.: “S04” always describes the same component. In this context the term “component” is always considered a function specific assignment and does not represent a parts- or article number. This ensures that the component with the designation “S04” always refers to the “Brake switch”, irrespective of whether the abbreviation is used in a circuit diagram for a single drum roller, a tandem roller, a paver or a planer.
- The component identifications are alphabetically sorted in the list of components. Each component has the corresponding cross-references assigned, identifying where it can be found in the circuit diagram, which installation location it is assigned to and to which part of the system it belongs to. Moreover, the functions (function text) and the technical characteristics are also described.

Component identifications are used in both the electrical and the hydraulic documentation and are identical.

Overview of terminal strips

The overview of terminal strips contains all terminal strips used in the machine. Each terminal strip starts on a new page and can be localized via the cross-reference in the circuit diagram.

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

U00 Voltage transformer for dashboard socket (24/12V)
U01 Voltage transformer for cabin socket (24/12V)
U02 Voltage transformer for radio (24/12V)
U04 Voltage transformer for tachograph (24/12V)

ESX machine control



Fig. 147

The freely programmable control unit ESX is an independently-working measuring- and control device for managing the sensors and actuators. It can process multiple independent or connected tasks in real time.

All inputs and outputs are protected against overvoltage and short circuits and are diagnosable.

Proportional valves can be controlled directly without additional amplifier- and controller cards, either by means of the PWM outputs (pulse width modulated outputs) with internal current measurement or by means of outputs for proportional valves with integrated pre-control electronics (PVG).

A sturdy aluminium die cast housing (protection class IP 65, opt. IP 67, with a GORE-TEX ® membrane for pressure compensation) ensures not only a high protection against electromagnetic interferences, but also provides a reliable protection against mechanical stress.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

6.3 Signals of the display unit

Bauser 814.7, 814.9, 814.12, 250kb (Bomag part-number 057 505 05, 057 515 52, 057 514 65)

DIOS terminal	Signal description	Nominal values (voltage / current)
X33:1	Input **hydraulic oil temperature sensor** Analogue input	Hydraulic temperature 40 °C ☞ 291 Ohm Hydraulic temperature 60 °C ☞ 134 Ohm Hydraulic temperature 70 °C ☞ 97 Ohm Hydraulic temperature 80 °C ☞ 70 Ohm
X33:2	Input **fuel tank sensor** Analogue input	Tank empty ☞ 95 Ohm Tank full ☞ 0 Ohm
X33:3 - X33:9	not used	
X33:10	Input **monitoring the cabin ventilation** Digital input high active	Fault fan module ☞ 24 V No fault ☞ 0 V
X33:11 - X33:17	not used	
X33:18	Input **water separator** Digital input active low	No water ☞ 20 V Water detected ☞ 0 V
X33:19	Input **pressure switch brake** Digital input active low	Pressure > 15 bar. Brake released. ☞ 20 V No pressure. Brake closed ☞ 0 V
X33:20	Input **Pressure differential switch filter intermediate gear** Digital input active low	Filter ok. ☞ 20 V Filter soiled. ☞ 0 V
X33:21	Interface CAN-Bus Wire +, is used to communicate with the ESX-control.	Measurement not possible!
X33:22	Interface CAN-Bus Wire -, is used to communicate with the ESX-control.	Measurement not possible!
X33:23	Input **pressure switch intermediate gear** Digital input active low	Type: Normally open Pressure present → ok. ☞ 20 V Type: Normally open No pressure present ☞ 0 V Type: Normally closed Pressure present → ok. ☞ 0 V Type: Normally closed No pressure present ☞ 20 V
X33:24	not used	
X33:25	Ground connection	0 V measured against ground
X33:26	Voltage supply for electronics	Ignition ON: ☞ 24 V Ignition OFF: ☞ 0 V

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Description of function

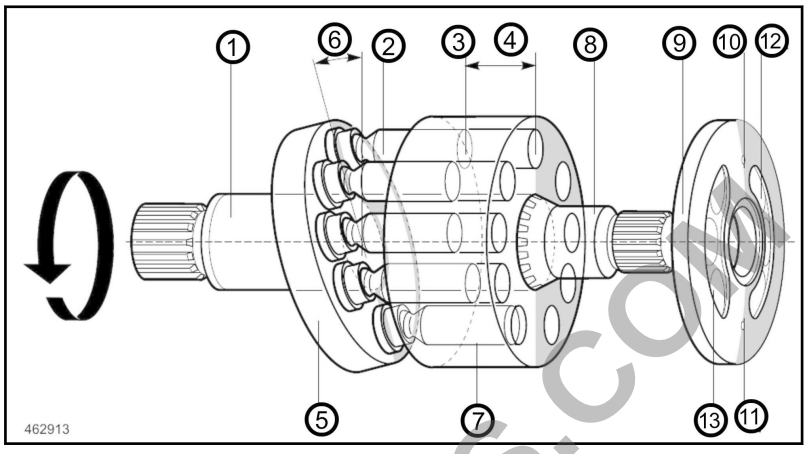


Fig. 176

1 Drive shaft
2 Piston
3 Piston area
4 Piston stroke
5 Slipping disc
6 Adjusting angle
7 Cylinder
8 Through drive
9 Valve plate
10 Top dead centre TDC
11 Bottom dead centre BTC
12 Control slots in suction side of swash plate (for sense of rotation shown)
13 Control slot on pressure side

The motor function is a reversal of the pump function. In this case the hydraulic fluid the hydraulic system directs the oil flow to the hydraulic motor. The medium flows through control slots in the valve plate to the cylinder bores. 4 or 5 cylinder bores are opposed to the kidney shaped control slots in the pressure side. The other control slot is in this case connected with the rest of the cylinder bores, which in turn are connected with the return flow side or are partly covered by the connecting web between the kidney shaped control slots. By loading the piston it slides down the slanted swash plate and drives the cylinder that guides it. The cylinder with the 9 pistons rotates with the drive shaft, whereby the piston perform a stroke-like movement. The hydraulic pressure generates the torque on the cylinder and thus the rotation of the drive shaft. The supplied fluid quantity determines the output speed.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Rear travel circuit

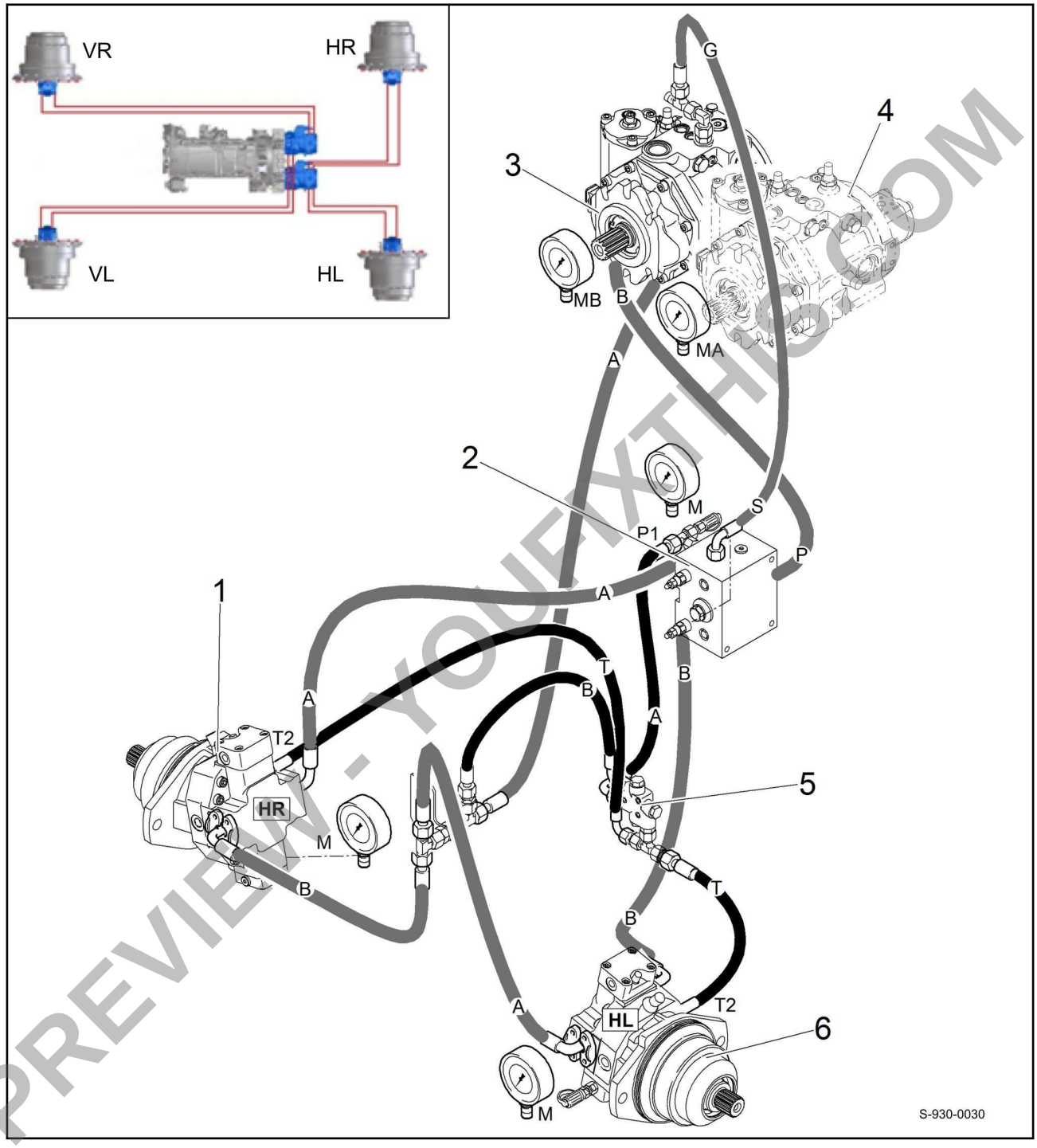


Fig. 217: Rear travel circuit

1 Travel motor, rear right
2 Traction module (flow divider)
3 Travel pump, travel circuit rear
4 Travel pump, travel circuit front
5 Flushing valve
6 Travel motor, rear left

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Rail

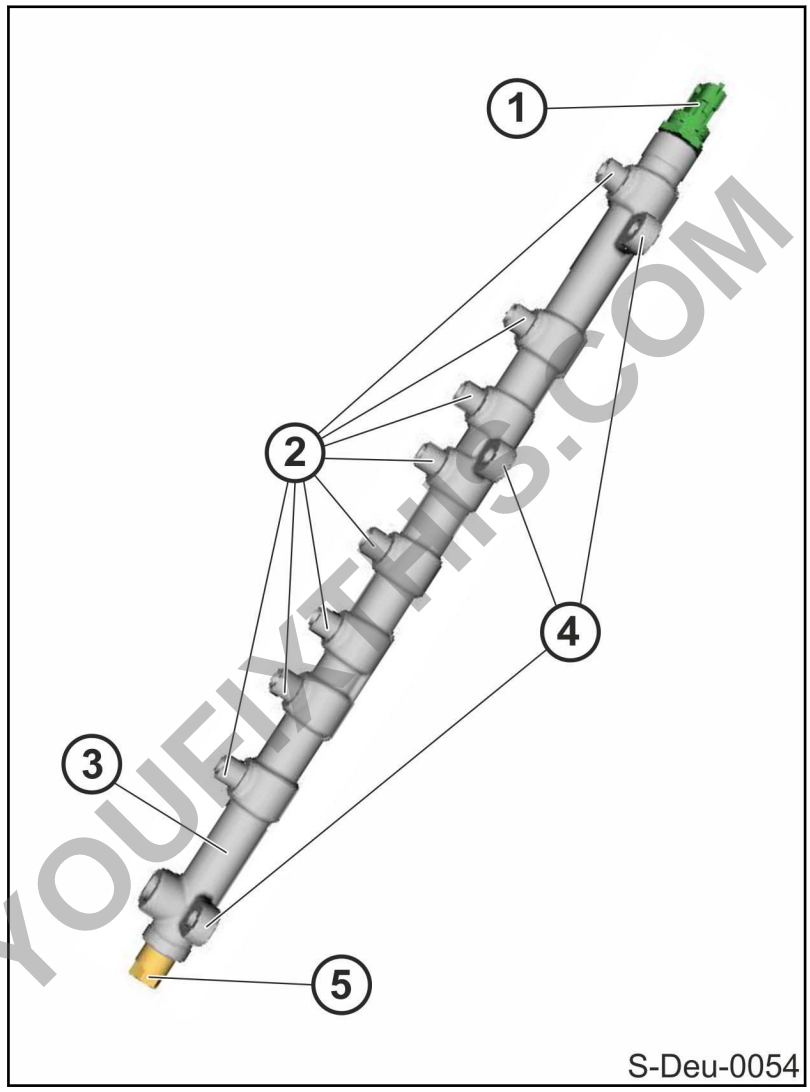


Fig. 258

1 Pressure limiting valve
2 Fuel line connections
3 Pipe
4 Bores to fasten the rail
5 Rail pressure sensor

The rail generally consists of a pipe (3) with different connections (2), which has the function of a pressure accumulator. The rail is bolted to the engine through the bores (4).

One side contains the pressure limiting valve (PLV) (1), which makes sure that the system pressure will not exceed the defined pressure of 1600 bar. Should the pressure rise above the value of 1750-1950 bar defined for the PLV, the PLV will open and release fuel through the return line to the tank.

On the other side there is the rail pressure sensor (5), which transmits a signal directly to the engine control unit.

The different connections (2) on the one hand serve as an inlet for the fuel delivered by the high pressure pumps. On the other hand they are also used to connect the lines to the injectors.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

6.1.2.15 Sensor, water in fuel, B124



Fig. 310

The sensor data are detected by the EMR control (A48) and passed on to the instrument cluster (A15) via the CAN-bus connection.

	Designation	Note
	Water in fuel warning light	Lights up when the water content in the fuel pre-filter reaches the sensor contacts. The warning buzzer sounds. Clean the water separator.

6.1.2.16 Air filter vacuum switch, B03

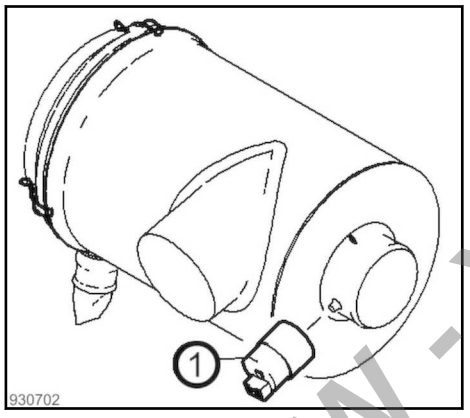


Fig. 311

At a vacuum of > 50 mbar the vacuum switch (1) will switch to ground.

Air filter warning light: The switching condition is detected by the ESX-control (A34) and forwarded to the instrument cluster (A15) via the CAN-bus connection.

	Designation	Note
	Air filter warning light	Lights up if the air filter is blocked. Clean or replace the air filter.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

6.3.1.4.4 Welding on pad foot caps

This work shall only be performed by qualified specialists.

The caps should be replaced at the latest when the front faces collapse!

WARNING!

Danger of accident!

Perform all work only with the engine shut down and after actuating the emergency stop switch.

Wear goggles and proper working gloves during all work.

NOTICE!

When performing electric welding work on the refuse compactor, the plug connectors must be pulled off the control units as a measure to protect the electronics in engine control unit and ESX.

Perform welding work only at ambient temperatures above 18 °C.

Filler materials	
Inert-gas-shielded arc welding: alkaline flux-cored welding electrodes	
DIN EN 758	T 42 4 B M H5 (old)
EN 17632	T 42 4 B M H5 (new)
AWS/ASME SFA	E70T-5 H4
Electric manual welding: alkaline flux-cored welding electrodes	
DIN EN 499	E 42 6 B 42 H5
AWS/ASME SFA-5.1	E7018-1-H4

Important information

- Weld wire thickness 1.4 mm
- Welding rod thickness 4.0 mm
- Before welding heat up rod-shaped electrodes for 2 h at 300 °C
- Weld regions must be dry before and during welding
- Electrode welding: Weld buildup identical with inert gas shielded welding, number of layers approx. 60% more
- Weld wire must be dry and free of corrosion

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Thawing thermostat (1)

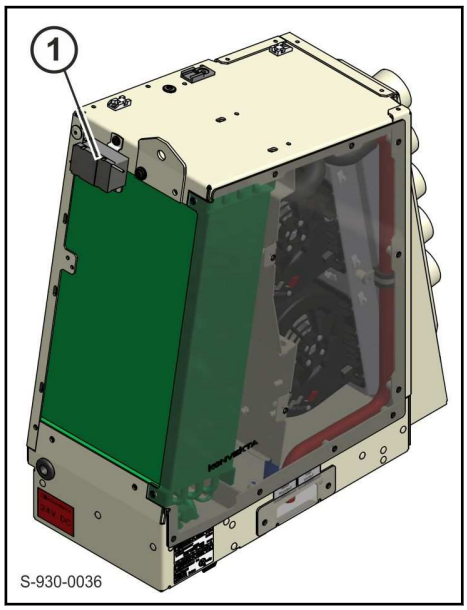


Fig. 454

The feeler of a defroster thermostat to switch off the magnetic clutch in case of icing up or to switch the clutch back on after defrosting, is mounted on the evaporator.

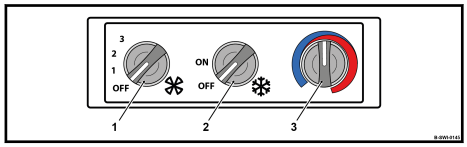


Fig. 455

1 Fan on/off
2 Air conditioning on/off
3 Regulate the cabin temperature

With the adjustable temperature regulator (3) the switching point can be changed so that the compressor is already shut down at higher temperatures. This enables regulation of the air temperature.

The adjusted temperature must be below the actual temperature inside the cabin, so that the compressor will be switched on.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Measuring fault

Whenever the electrical system of the vehicle behaves in an unexpected way, one should first consider that there may be a ground problem! The older the electrical system and the lower the voltage, the more likely this will be the cause.

As we all know, being able to utilize electric current requires the existence of a closed electric circuit, the electrons leaving the battery must be able to return to the battery. In vehicles numerous existing metal parts can be used for this purpose. The negative pole of the battery is connected with the metal of the frame. The current then flows through an insulated cable to e.g. a lamp should light, and instead of a return line, the socket of the lamp is also, in some way, connected to the frame, through which the current can flow back to the battery. However, should the connection between lamp and frame corrode causing a high electrical resistance at that point, the current will try to find a different way. If no other way can be found, the component will simply not work, even if the meter shows that voltage arrives. Very often the current finds a different way back to the battery, sometimes through other consumers.

Measuring sensors and actuators

Sensor signals are best checked where they are needed, i.e. on the control unit. If the correct signal is received you can be sure that not only the sensor, but also the wiring to the control unit is in good working order.

It is a common procedure to pick up the signals with a break-out-box, the Y-cable of which is fastened between control unit and control unit plug. If no break-out-box is available, the measurement takes place directly on the sensor, or one must try to gain access to the back of the plug.

Trouble shooting procedure:

- First check the corresponding actuator, in case of a faulty signal the output signal must be checked directly on the control unit.
- If the output signal is correct, check the wiring to the actuator.
- In case of an incorrect output signal, check the corresponding input signals after.
- In case of incorrect input signals check the signal on the sensor itself.
- If the sensor signal is correct, check the wiring to the control unit for continuity and against ground (short circuit).
- If the sensor delivers a correct signal, the sensor itself may be the cause of the problem, or the sensor may be affected by other incorrectly working components.
- However, the voltage supply and the ground connection of the control unit as well as the power supply for sensors and actuators must also be checked. Because an incorrect voltage value can distort the input and output signals.
- If the action steps described above do not deliver a result, the periphery is OK and the fault must be in the control unit, but be cautious, most faults are caused by poor contacts in the plug connections.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

83 / 975 / FanCD

Error description FAN ACTUATOR
Fan power stage: the current drain measured by ECU is out of the target range or the maximum permissible temperature of the ECU component for power supply of the actuator is exceeded

Error codes
DEUTZ-Errorcode: 83
BlinkCode (short-long-short): 2 - 3 - 8
SPN: 975
possible FMI:
3: Voltage to high or short circuit to +Ubatt
4: Voltage to low or short circuit to -Ubatt
5: current to low or broken wire
2: data stream is defective

Errordetection
Errorlamp shows permanent light. Entry in errormemory.

Possible reason for error
cable break or short circuit, sensor defective, connection cable demaged

Take actions for error repair
Check cabling, sensor defect, check sensor and if necessary replace it, check connection cable and if necessary repair or replace it

other error properties
System reaction: Warning, shutoff output
Behaviour error lamp: permanent light
Selfhealing: no
Signal Priority: 2
Measurement @ errortime: Sollwert

85 / 1639 / FanCDEval

Error description
Fan speed sensor: the current drain measured by ECU is out of the target range

Error codes
DEUTZ-Errorcode: 85
BlinkCode (short-long-short): 2 - 3 - 8
SPN: 1639
possible FMI:
3: Voltage to high or short circuit to +Ubatt
4: Voltage to low or short circuit to -Ubatt
12. Errormode not identifiable
12. Errormode not identifiable

Errordetection
Errorlamp shows permanent light. Entry in errormemory.

Possible reason for error
Sensor defective, connection cable demaged, fan speed outside the target range

Take actions for error repair
Check sensor and if necessary replace it, check connectionn cable and if necessary repair or replace it, check fan

other error properties
System reaction:
Behaviour error lamp: permanent light
Selfhealing: yes
Signal Priority: 2
Measurement @ errortime: actual value

86 / 523602 / FanCDSysReac

Error description FAN SPEED
Fan speed: the fan speed calculated by ECU is above the target range; the ECU activates a system reaction

Error codes
DEUTZ-Errorcode: 86
BlinkCode (short-long-short): 2 - 3 - 8
SPN: 523602
possible FMI:
2: data stream is defective
2: data stream is defective
12. Errormode not identifiable
12. Errormode not identifiable

Errordetection
Errorlamp shows permanent light. Entry in errormemory.

Possible reason for error
Above target range with system reaction

Take actions for error repair

other error properties
System reaction:
Behaviour error lamp: permanent light
Selfhealing: yes
Signal Priority: 3
Measurement @ errortime: actual value

PREVIEW YOUFIXTHIS.COM

Download full manual at youfixthis.com

253 / 523657 / FrmMngRapeOilIn

Error description RAPEOILSYSTEM
CAN messageRapeOilIn (Rape oil input): the message can not be received by ECU

Error codes
DEUTZ-Errorcode: 253
BlinkCode (short-long-short): 5 - 6 - 1
SPN: 523657
possible FMI:
12: Defective component
12. Errormode not identifiable
12: Defective component
12. Errormode not identifiable

Errordetection
Errorlamp shows permanent light. Entry in errormemory.

Possible reason for error
CAN bus wrong cabled, wiring is demaged, receiver (sender of the message) work inaccurately, parametering inaccurate

Take actions for error repair
Check CAN Bus cabling (Bus sheduling, polarity, short circuit, power interrupt), test protocol of receiver, check CAN functional range

other error properties
System reaction: Warning, substitute values
Behaviour error lamp: permanent light
Selfhealing: yes
Signal Priority: 3
Measurement @ errortime: default value

254 / 523658 / FrmMngRapeOilLvl

Error description RAPEOILSYSTEM
Status RapeOilLvl (Rape oil tank level): the voltage of the sensor measured by ECU is out of the target range

Error codes
DEUTZ-Errorcode: 254
BlinkCode (short-long-short): 5 - 6 - 2
SPN: 523658
possible FMI:
3: Voltage to high or short circuit to +Ubatt
4: Voltage to low or short circuit to -Ubatt
12. Errormode not identifiable
12. Errormode not identifiable

Errordetection
Errorlamp shows permanent light. Entry in errormemory.

Possible reason for error
Cable break or short circuit, lamp defective, connection cable demaged

Take actions for error repair
Check cabling, if sensor not working, check sensor and if necessary replace it, check connection cable and if necessary repair or replace it

other error properties
System reaction: Warning, substitute value
Behaviour error lamp: permanent light
Selfhealing: yes
Signal Priority: 3
Measurement @ errortime: default value

255 / 523659 / FrmMngRapeOilVlv1

Error description RAPEOILSYSTEM
Status RapeOilVlv1 (Valve 1): the current drain measured by ECU is out of the target range or the maximum permissible temperature of the ECU component is exceeded

Error codes
DEUTZ-Errorcode: 255
BlinkCode (short-long-short): 5 - 6 - 3
SPN: 523659
possible FMI:
12. Errormode not identifiable
12. Errormode not identifiable
12: Defective component
12. Errormode not identifiable

Errordetection
Errorlamp shows permanent light. Entry in errormemory.

Possible reason for error
Cable break or short circuit, valve defective, connection cable demaged

Take actions for error repair
Check cabling, if valve not working, check valve and if necessary replace it, check connection cable and if necessary repair or replace it

other error properties
System reaction: Warning and switchover to Diesel operation mode
Behaviour error lamp: permanent light
Selfhealing: yes
Signal Priority: 3
Measurement @ errortime: default value

PREVIEW YOUFIXTHIS.COM

Download full manual at youfixthis.com

After 6 motor revolutions the empty signal will be converted to a flashing signal with the above mentioned frequency.

In case of a malfunction the piston detector (initiator) is not able to detect a piston movement and therefore cannot switch the pump off.

With the help of the parallel running monitoring time the controls switch the pump off at the end of the monitoring time (5 minutes).

- This is followed by a fault signal
- The contact lamp flashes
- The pump does no longer start automatically.

F	**Acknowledged fault** (permanent light)

Short pressing of button (< 1 second) acknowledges the fault signal, i.e the flashing of the control lamp changes to a permanent light.

An acknowledged fault also remains stored after switching the drive switch or the machine contact off. When switching on again the control lamp flashes again, according to the respective fault.

Rectify the fault and release additional lubrication

- In the event of a fault check the central lubrication pump and the connected system for faults.

Rectify the cause of the fault

- Switch the pump on again by triggering an additional lubrication cycle. Keep the button slightly longer depressed (> 2 seconds). If the fault is eliminated, the control lamp will go out at the end of the lubrication process.

NOTICE!

In case of a malfunction the pump will not automatically start to run again after rectification of the fault. The pump must be switched on.

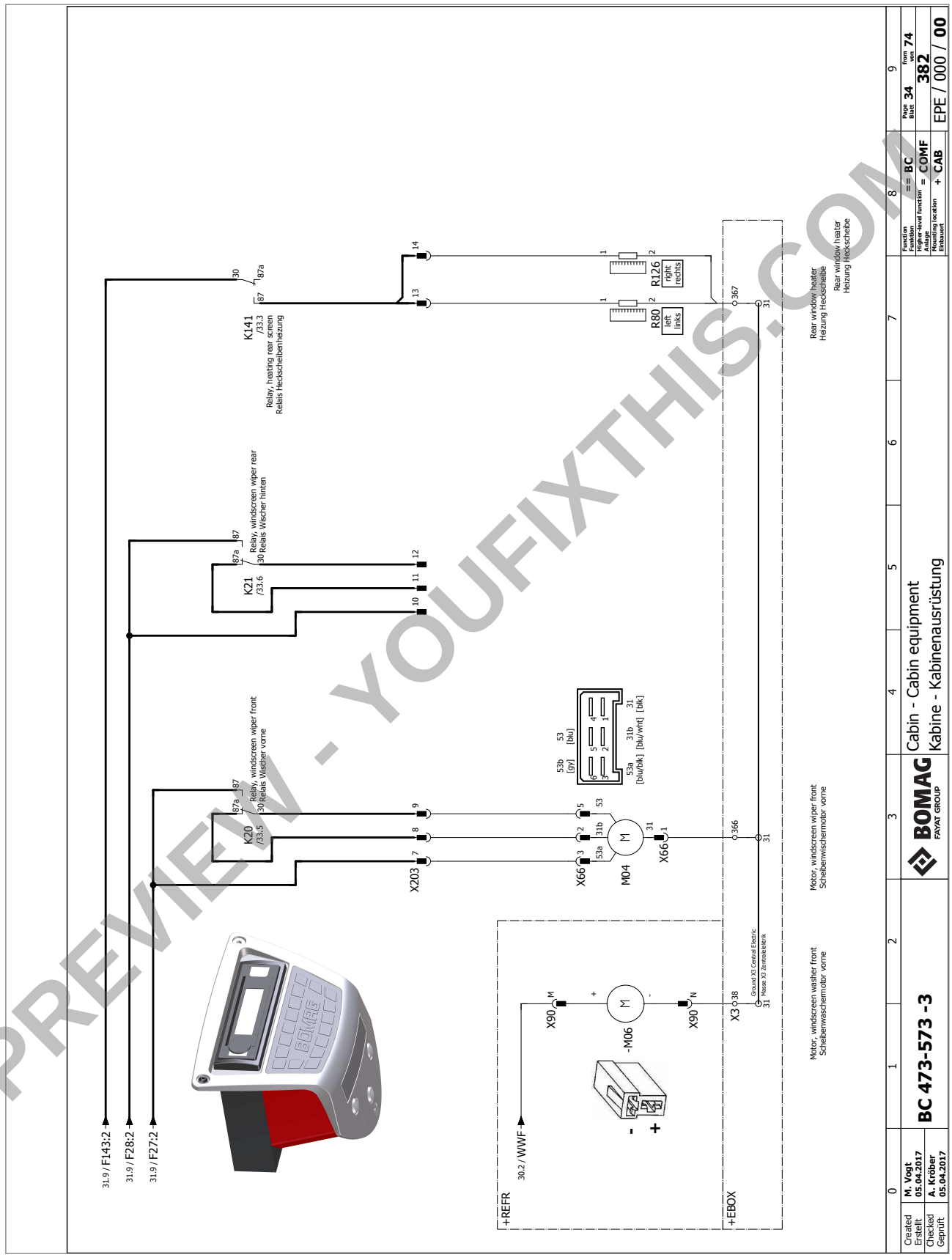
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

R34 163
R36 . . . . . 172, 348
R77 163
R80 164
R125 164
R126 164
R127 164
S00 . . . . . 149, 164, 354
S01 . . . . . 149, 164
S02 . . . . . 149, 164
S03 . . . . . 149, 164
S04 . . . . . 149, 164
S06 . . . . . 156, 164
S8 164
S25 . . . . . 149, 164
S27 . . . . . 149, 164
S29 164
S30 . . . . . 103, 151, 164
S31 . . . . . 149, 164
S44 . . . . . 149, 164, 185, 187, 450, 452
S64 164
S70 . . . . . 149, 156, 164
S71 . . . . . 149, 156, 164
S118 354
S119 . . . . . 103, 149, 164
S128 . . . . . 149, 164
S262 . . . . . 149, 164
S341 164
S432 . . . . . 164, 172, 348
U00 . . . . . 164, 170, 346
U01 . . . . . 164, 170, 346
U02 . . . . . 164, 170, 346
U04 . . . . . 164, 170, 346
V01 . . . . . 164, 172, 348
V02 . . . . . 164, 172, 348
V03 . . . . . 164, 172, 348
V04 . . . . . 164, 172, 348
V05 . . . . . 165, 172, 348
V06 . . . . . 165, 172, 348
V07 . . . . . 165, 172, 348
V08 . . . . . 165, 172, 348

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 25 of 762 pages

The full manual includes:

- All 762 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Bomag BC 463 RB-3, BC 473 RB-3, BC 473 RS-3, BC 473 EB-3 Service Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual