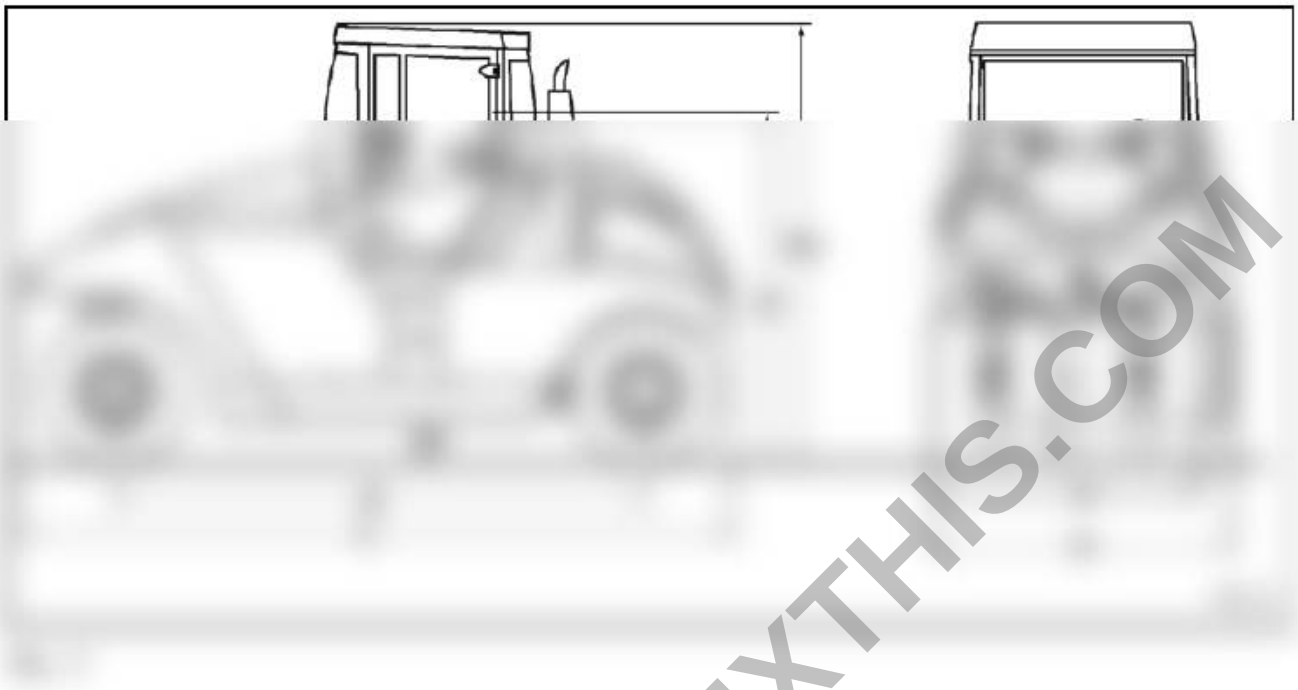
Technical Data



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

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

1 Travel lever
2 Steering wheel
3 Rotary switch for cabin heater
4 Tire pressure gauge
5 Emergency stop push button
6 Rotary switch for hazard light system
7 Instrument cluster
8 Speedometer[1]
9 Rotary switch for air conditioning[1]
10 Rotary switch for cabin fan
11 Warning light and diagnostic push button for engine control
12 Rotary switch for travel ranges
13 Rotary switch, dashboard illumination
14 Rotary switch for pressure sprinkler system
15 Rotary switch for parking brake
16 Push button for warning horn
17 Rotary switch for direction indicators
18 Rotary switch for lighting
19 Rotary switch for working lights
20 Throttle pedal
21 Brake pedal
22 Start switch
23 Rotary switch tire inflation system[1]
24 Rotary switch to relieve tire pressure[1]
25 12-V-socket

1 - Optional equipment

4.1 General notes

If you are not yet familiar with the control and display elements on this machine you should read this section thoroughly before starting any operation on the machine. Here all functions are described in detail.

The section "Operation" contains only brief descriptions of the individual control steps.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

5.1 General

If you are not yet acquainted with the controls and indicating elements on this machine you should thoroughly read chapter "Indicators and control elements" before starting work.

All indicators and control elements are described in detail in this chapter.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

6.1 General notes on maintenance

Always comply with the appropriate safety regulations when performing maintenance work.

Thorough maintenance of the machine guarantees far longer safe functioning of the machine and prolongs the lifetime of important components. The effort needed for this work is only little compared with the problems that may arise when not observing this rule.

The terms right/left correspond with travel direction forward.

Do not touch hot engine parts.

Always clean machine and engine thoroughly before starting maintenance work.

For maintenance work stand the machine on level ground.

Always remove the main battery switch for all maintenance work.

Perform maintenance work only with the engine shut down.

Relieve hydraulic pressures before working on hydraulic lines.

Before working on electric parts of the machine disconnect the battery and cover it with insulation material.



ENVIRONMENT!

During maintenance work catch all oils and fuels and do not let them seep into the ground or into the sewage system. Dispose of oils and fuels environmentally.

Keep used filters in a separate waste container and dispose of environmentally.

Catch biodegradable oils separately.

Notes on the fuel system

The lifetime of the diesel engine depends to a great extent on the cleanliness of the fuel.

Keep fuel free of contaminants and water, since this will damage the injection elements of the engine.

Drums with inside zinc lining are not suitable to store fuel.

When choosing the storage place for fuel make sure that spilled fuel will not harm the environment.

Do not let the hose stir up the slurry at the bottom of the drum.

The fuel drum must rest for a longer period of time before drawing off fuel.

The rest in the drum is not suitable for the engine and should only be used for cleaning purposes.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

7.1 General notes

Please observe strictly the safety regulations in the corresponding section of these operating and maintenance instructions.

Malfunctions are frequently caused by incorrect operation of the machine or insufficient maintenance. Whenever a fault occurs you should therefore thoroughly read these instruction on correct operation and maintenance.

If you cannot locate the cause of a fault or rectify it yourself by following the trouble shooting chart, you should contact our customer service department.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Table of contents

1 Foreword **7**

2 Technical Data **11**

3 Safety regulations **15**

4 Indicators and Controls **29**

4.1 General notes **31**

4.2 Description of indicators and control elements **32**

5 Operation **45**

5.1 General **46**

5.2 Tests before taking into operation **47**

5.3 Operating the driver's seat **48**

5.4 Electronic immobilizer[Optional equipment] **49**

5.5 Starting the engine **50**

5.6 Driving the machine / braking the machine **52**

5.7 Stopping the machine, operating the parking brake **56**

5.8 Shutting the engine down, parking the machine **57**

5.9 Actuating the emergency stop switch **59**

5.10 Operating the pressure sprinkler system **60**

5.11 Operating the tire inflation system[Optional equipment] **61**

5.12 Operating the hood **62**

5.13 Operating the heating/air conditioning system[Optional equipment] **63**

5.14 Ballasting of machine[Optional equipment] **65**

5.15 Towing in case of an engine failure **66**

5.16 Loading/transport **68**

6 Maintenance **71**

6.1 General notes on maintenance **72**

6.2 Fuels and lubricants **74**

6.3 Table of fuels and lubricants **80**

6.4 Running-in instructions **81**

6.5 Maintenance table **82**

6.6 Every 10 operating hours **84**

6.6.1 Check the engine oil level 84

6.6.2 Checking the fuel level 84

6.6.3 Checking the coolant level 86

6.6.4 Check the hydraulic oil level 87

6.6.5 Checking the water level 88

6.6.6 Checking the scrapers 88

6.6.7 Multi-disc brake, function test 89

6.6.8 Draining the air pressure vessel 89

6.7 Every 250 operating hours **91**

6.7.1 Clean the cooling fins on engine and hydraulic oil cooler 91

6.7.2 Check the oil level in the drive gear/wheel hub 92

6.8 Every 500 operating hours **93**

6.8.1 Changing engine oil and oil filter cartridge 93

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Safety regulations

General

This BOMAG machine has been built in compliance with the latest technical standard and complies with the applicable regulations and technical rules. However, dangers for persons and property may arise from this machine, if:

- it is used for purposes other than the ones it is intended for,
- it is operated by untrained personnel,
- it is changed or converted in an unprofessional way,
- the safety instructions are not observed.

Each person involved in the operation, maintenance and repair of the machine must therefore read and comply with these safety regulations. If necessary, this must be confirmed by obtaining the signature of the customer.

Furthermore, the following obviously also applies:

- applicable accident prevention instructions,
- generally accepted safety and road traffic regulations,
- country specific safety regulations. It is the duty of the operator to be acquainted with these instructions and to apply these accordingly. This applies also for local regulations concerning different types of handling work. Should the recommendations in these instructions be different from the regulations valid in your country, you must comply with the safety regulations valid in your country.

Intended use

This machine must only be used for:

- Compaction of bituminous material, e.g. road surface layers,
- Light compaction work in earth construction (road sub-bases).

Unintended use

Danger may arise from the machine if it is used for purposes other than the one it is intended for.

Any danger caused by intended use is the sole responsibility of the customer or driver/operator, the manufacturer cannot be made liable.

Examples for unintended use are:

- Fast driving downhill in a high gear
- Overloading the machine with ballast
- Inappropriate draining of the ballast tank
- Using the machine for towing
- driving on unstable subbases or insufficient grip or too small contact area (danger of tipping over)
- unauthorized use of public roads

Transporting persons, except the machine driver, is prohibited.

Starting and operation of the machine in explosive environments and in underground mining is prohibited.

Remaining dangers, remaining risks

Despite careful work and compliance with standards and regulations it cannot be ruled out that further dangers may arise when working with and handling the machine.

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

Table of contents

6.8.2 Check, clean the water separator ... 94
6.8.3 Check the anti-freeze concentration and the condition of the coolant ... 95
6.8.4 Drain the fuel tank sludge ... 96
6.8.5 Battery service, checking the main battery switch ... 97
6.8.6 Checking, replacing the refrigerant compressor V-belt Optional equipment ... 99
6.8.7 Service the air conditioning Optional equipment ... 100
6.8.8 Cleaning the circulation air filter for the heating Optional equipment ... 103
6.8.9 Check hydraulic, pneumatic hoses and electric cables ... 104
6.8.10 Check steering for wear ... 104
6.8.11 Replacing the bypass filter *(optional equipment)* ... 104
6.9 Every 1000 operating hours ... **106**
6.9.1 Replacing the fuel filter cartridge ... 106
6.9.2 Change the fuel filter, bleed the fuel system ... 107
6.9.3 Checking condition and tension of ribbed V-belt ... 108
6.9.4 Check the engine mounts ... 109
6.9.5 Retighten the wheel studs ... 109
6.9.6 Checking the Roll Over Protective Structure (ROPS/FOPS) ... 110
6.9.7 Changing the air drier for the brake system ... 110
6.9.8 Check the travel control ... 111
6.10 Every 2000 operating hours ... **112**
6.10.1 Adjust the valve clearance ... 112
6.10.2 Changing the oil in travel gears/wheel hubs ... 113
6.10.3 Changing hydraulic oil and breather filter ... 115
6.10.4 Replacing the hydraulic oil filter ... 117
6.10.5 Changing the coolant ... 119
6.10.6 Check the supply lines for the compressor ... 121
6.11 Every 3000 operating hours ... **123**
6.11.1 Replacing ribbed V-belt and idler pulley ... 123
6.12 Every 6000 operating hours ... **124**
6.12.1 Replace the injection valves ... 124
6.12.2 Replace crankcase ventilation valve ... 124
6.13 As required ... **125**
6.13.1 Air filter maintenance ... 125
6.13.2 Service the water sprinkling system ... 128
6.13.3 Maintenance in case of frost ... 129
6.13.4 Filling the windscreen washer system ... 130
6.13.5 Change the tires ... 130
6.13.6 Clean the machine ... 131
6.13.7 Check bolted connections for tight fit ... 132
6.13.8 Temporary taking out of service ... 133
7 Trouble shooting ... **135**
7.1 General notes ... **136**
7.2 Reading out fault codes of the electronic engine control (EMR) ... **137**
7.3 Starting with jump wires ... **138**
7.4 Engine problems ... **139**
8 Tire compaction values ... **143**

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

4.2 Description of indicators and control elements

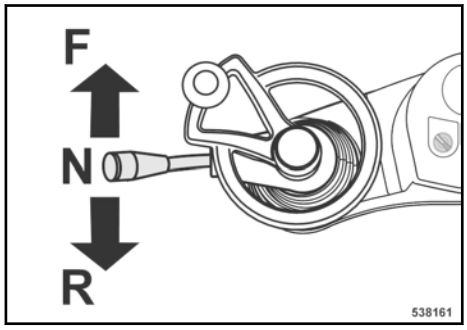


Fig. 8

- Travel lever

The travel lever is used to pre-select the travel direction.

Position "N"	Neutral position, engine can be started
Position "F"	Forward travel
Position "R"	Reverse travel

To change the seat position both travel levers must be in “Neutral”-position. Only then can the other travel lever be used for travelling.

If both travel levers are actuated at the same time, the machine will be stopped or braked

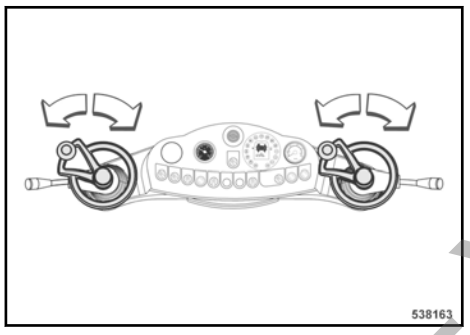


Fig. 9

- Steering wheels

Steer the machine with the left or right steering wheel ↳ Fig. 9 .

The two steering wheels are joined by means of a chain

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

5.10 Operating the pressure sprinkler system

NOTICE!

Before driving with the wheels on fresh bituminous layers to be compacted, the wheels must be completely wetted.

Spray the rubber tires with a suitable anti-sticking agent.

For normal travel and compaction work in earth construction lift the scraper brushes off and lock them.Optional equipment

Check the water level, fill up if necessary.

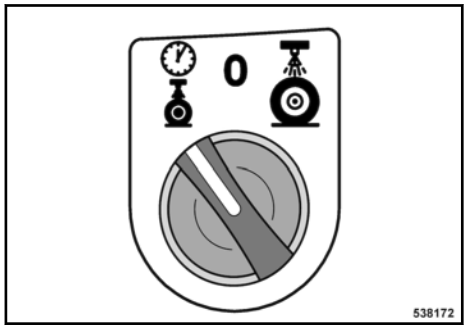


Fig. 63

Turn the rotary switch/button for pressure sprinkling system ↳ Fig. 63 to position "Left" to switch on the sprinkling intervals.

For short sprinkling actuate the rotary switch/button to the right. Sprinkling will be switched on for approx. 6 seconds.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

6.6.5 Checking the water level

NOTICE!

Risk of damage!

Do not step on the water tank and do not place any heavy objects on it.

If there is a risk of frost observe the special service instructions in chapter "water sprinkler system, maintenance in case of frost".

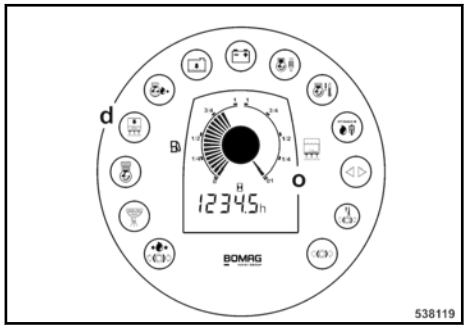


Fig. 82

The level gauge (o) for the water tank in instrument cluster ↳ Fig. 82 shows the current filling level.

When the water tank is empty the warning light for the water tank filling level (d) in the instrument cluster will light up and the warning buzzer will sound.

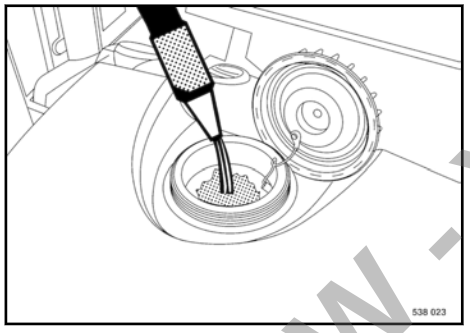


Fig. 83

Unscrew cap ↳ Fig. 83 from water tank and replace water supply with clean water.

Screw the cap back on again.

NOTICE!

Make sure that the ventilation bore in the filler cap is free.

6.6.6 Checking the scrapers

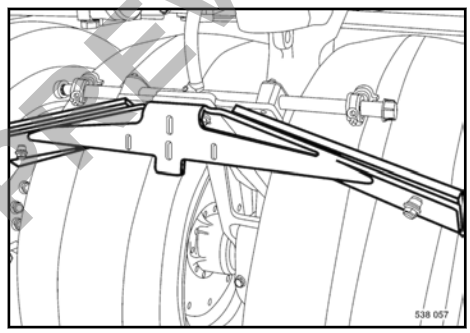


Fig. 84

Check the condition of scrapers ↳ Fig. 84 or coconut mats, if necessary adjust clearance or replace.[Optional equipment]

Distance tyres - scraper: approx. 10 mm (0.4 inches)

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

NOTICE!

The hydraulic oil must also be changed after major repairs in the hydraulic system.

Perform the oil change when the hydraulic oil is warm.

Replace the hydraulic oil filter elements with every hydraulic oil change.

Change the filter only after the hydraulic oil change and after the test run.

Clean the area round hydraulic oil tank, filler opening and breather filter.

Do not start the engine after draining the hydraulic oil.

Do not use any detergents to clean the system.

Use only lint-free cleaning cloths.

For quality and quantity of oil refer to the "table of fuels and lubricants".

When changing from mineral oil based hydraulic oil to an ester based biologically degradable oil, you should consult the lubrication oil service of the oil manufacturer for details.

ENVIRONMENT!

Catch running out hydraulic oil and dispose of environmentally.

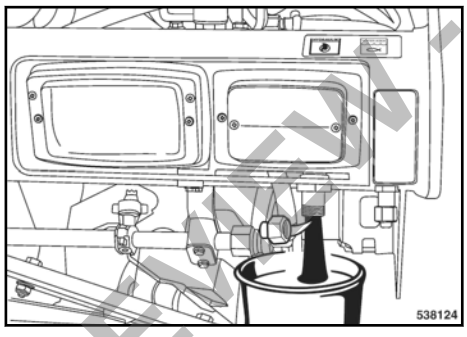


Fig. 129

Unscrew plug ↳ Fig. 129 . Drain and collect hydraulic oil.

Turn the plug tightly back in.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 12 of 148 pages

The full manual includes:

- All 148 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Bomag BW 27 RH Operator Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual