BOMAG

FAYAT GROUP

Service Manual

BC 672 RB-4 / BC 772 RB-4 / BC 772 RS-4 / BC 772 EB-4



S-570-0050

S/N 101 570 04 1001> / S/N 101 570 02 1001> / S/N 101 570 03 1001> / S/N 101 570 94 1001>

Refuse compactor

Soil compactor

008 925 84

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1.1 Introduction

General

This manual:

- addresses the BOMAG Customer Service and professionally trained personnel.
- provides support for repair work or maintenance procedures on the machine.

This manual described the deinstallation, dismantling , assembly, installation as well as the repair of components and assembly groups as far as this makes sense with respect to tools and spare parts supply.

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2.1 BC 672 RB-4

2.1.1 Technical data

Dimensions

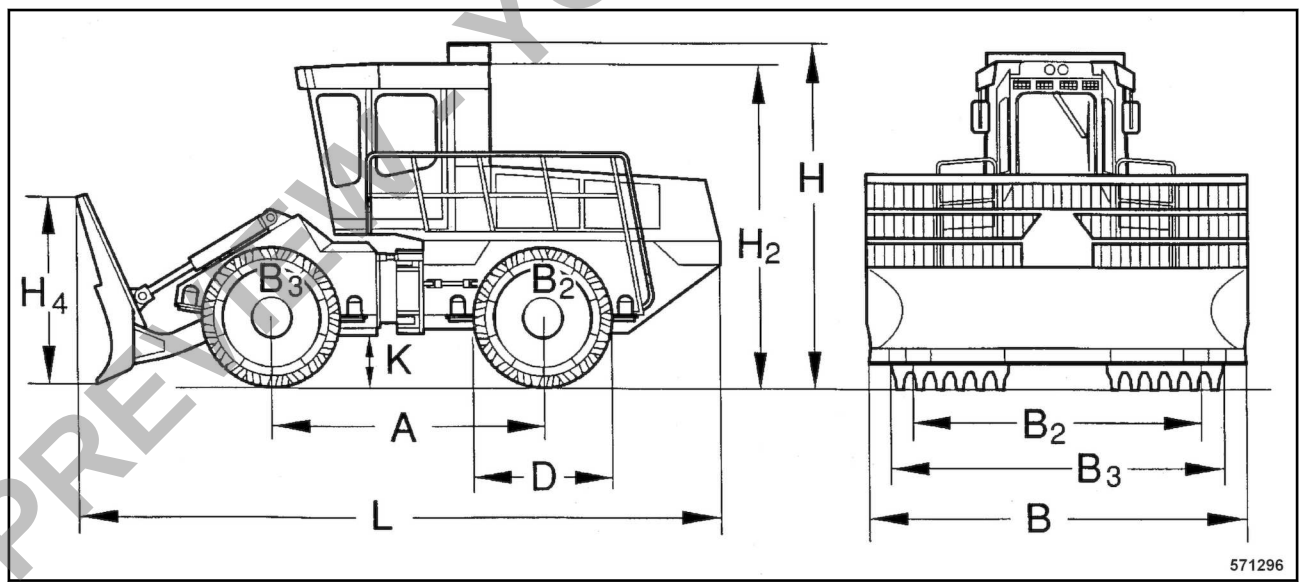


Fig. 52

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3.1 Refuse compactor



Fig. 57

Areas of application:

The refuse compactor is designed for use on medium and large scale landfills of all sizes regardless of whether it is for industrial-, household- and bulky waste or building rubble.

The low centre of gravity of the machine, combined with its excellent tractive characteristics, make the refuse compactor also suitable for use on slopes.

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4.1 Basic principles

4.1.1 Measuring method

Test lamp

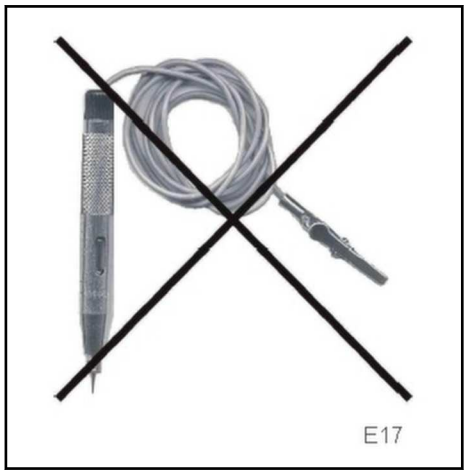


Fig. 74: Test lamp

NOTICE!

This type of tester must not be used for testing on electronic components. The high power consumption of the test lamp may destroy electronic components in the control units.

Diode test lamp



Fig. 75: Diode test lamp

This instrument is used for simple voltage measurements. The test lamp consists of two test points. The negative measuring cable is connected to ground and the positive measuring cable to the corresponding measuring location.

If voltage is present, the corresponding light emitting diode will light up.

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Closed circuit

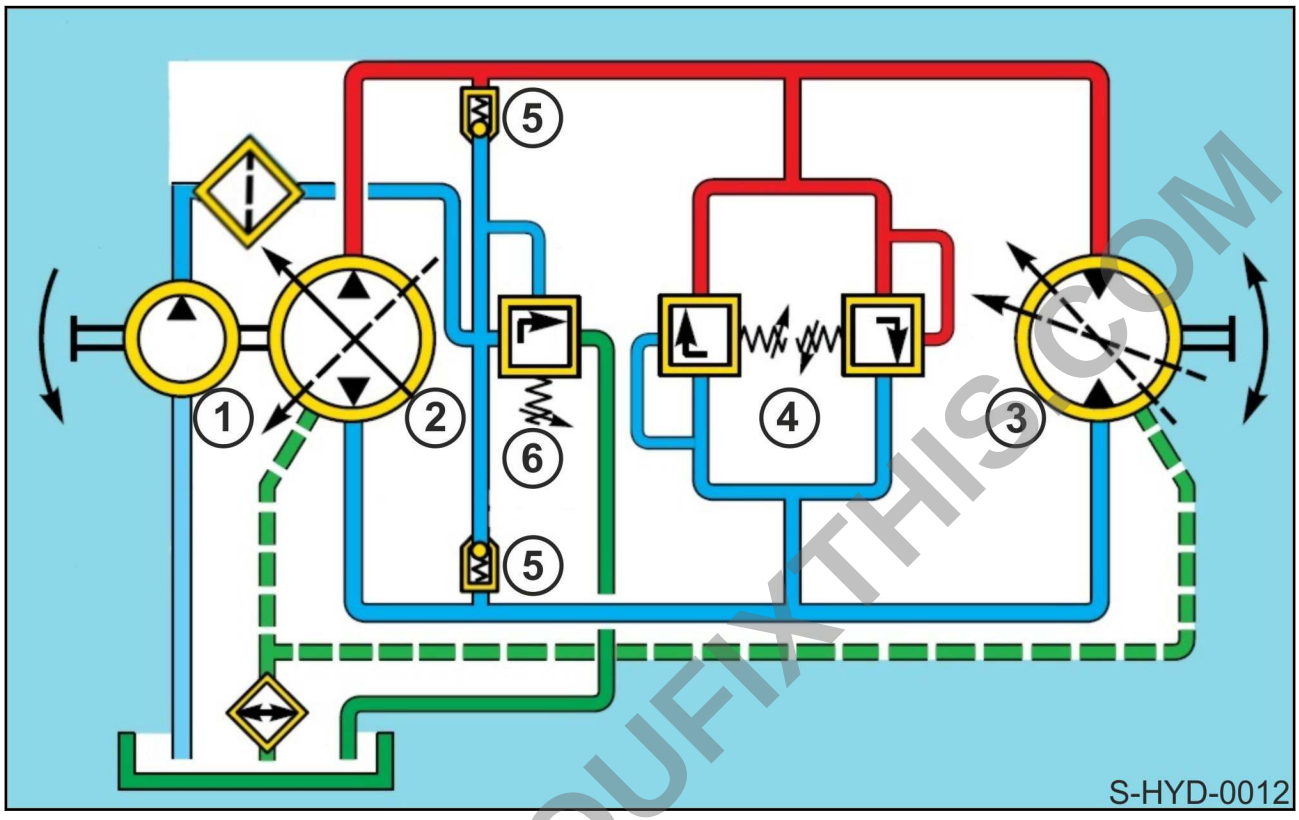


Fig. 191: Closed circuit

One talks about a closed hydraulic system, when the hydraulic oil flows from the consumer (3) directly back to the pump (2).

The closed circuit consists of a high and a low pressure side, depending on the load direction (take-off moment on the consumer).

The high pressure side is protected by high pressure relief valves (4), which release oil into the low pressure side. The medium remains in the circuit.

Only the leakage on pump and motor needs to be replenished. This is accomplished by a charge pump (1) which permanently draws a sufficient amount of hydraulic fluid (charge capacity) from the tank and feeds it through a check valves (5) into the low pressure side of the closed circuit. The excess quantity delivered by the charge pump flows through a charge pressure relief valve (6) back into the tank. Charging the low pressure side enables the pump (2) to work with higher operating data.

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7.2 Emergency procedures

7.2.1 Actuating the emergency stop switch

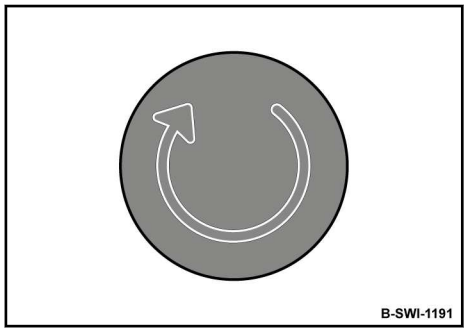


Fig. 506

1. In events of emergency and in case of danger actuate the emergency stop switch immediately.

   ⇨ The engine is shut down and the parking brake is closed.

7.2.2 Emergency exit

If a machine has turned over and the cabin door is jammed, all cabin windows can be used as emergency exits.

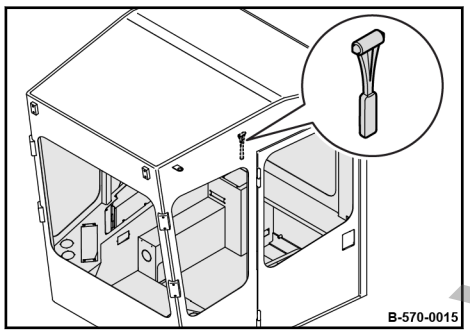


Fig. 507

1. Take the emergency hammer out of its bracket and smash the window you need to escape.

7.2.3 Disconnecting the battery

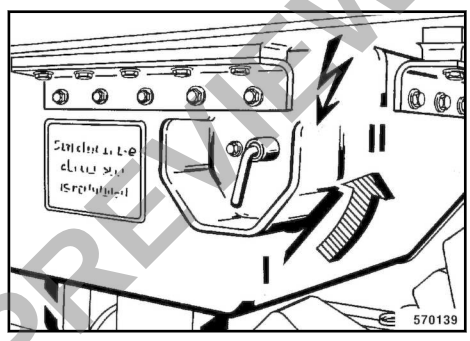


Fig. 508

1. In events of emergency, e.g. in case of a cable fire, disconnect the battery from the vehicle network. For this purpose turn the main battery switch anti-clockwise and pull it out or pull the battery terminal off the battery.

7.2.4 Towing the machine

Tow the machine only in a case of emergency or to avoid an accident.

You should generally use a tow bar.

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8.1 Special tools, electrics

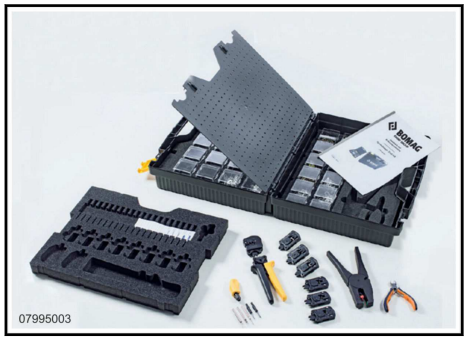


Fig. 580: Special pliers

Special pliers tool kit

The contacts are not included in the kit. Depending on the contact to be crimped, the matching tool head must be attached to the handle.

BOMAG part-no.: 079 950 03

- Comprising:
  - Different tool heads
  - Unlocking tools
  - Manual
  - Operating manual and plastic boxes for storing different contacts

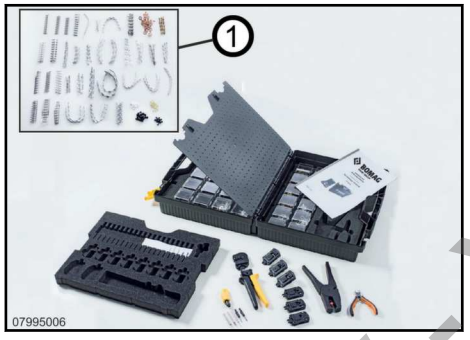


Fig. 581: Equipment kit (1)

Equipment kit for special pliers tool kit

BOMAG part-no.: 079 950 06

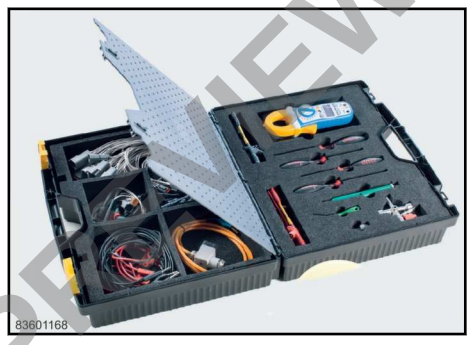


Fig. 582: Measuring set

Measuring set

BOMAG part-no.: 836 011 68

- Comprising:
  - Clamp multimeter
  - Measuring adapter
  - Measurement lines
  - Screwdriver
  - Other accessories

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9.1 Measures before shutting down

If the machine is shut down for a longer period of time, e.g. winter season, the following work must be carried out:

1. Clean the machine thoroughly.
2. Clean the water separator.
3. Fill the fuel tank with diesel fuel, to prevent the formation of condensation water in the tank.
4. Change engine oil and oil filter if the oil has been changed more than 300 hours ago, or if the oil is older than 12 months.
5. After shutting down store the machine under cover in a dry and well ventilated room. The room temperature should thereby not drop below -10 °C (14 °F), to prevent freezing of the AdBlue®/DEF.
6. Check the anti-freeze concentration and the coolant level.
7. Completely fill the AdBlue®/DEF tank, to avoid crystallizing of AdBlue®/DEF.
8. Disconnect the ground strap from the battery (this avoids self-discharge caused by closed-circuit consuming devices).

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A.1 Circuit diagram 247

Validity of circuit diagrams

Circuit diagram 247:

– *BC 772 RB-4*
101 570 02 1001 ⇒ 101 570 02 1007
– *BC 772 RS-4*
101 570 03 1001 ⇒ 101 570 03 1004
– *BC 672 RB-4*
101 570 04 1001 ⇒ 101 570 04 1004

Circuit diagram 274:

– *BC 672/772-4 will have a new wiring loom installed in the left side of the frame; there will therefore be a new circuit diagram.*
– *BC 772 RB-4*
101 570 02 1008 ⇒ 101 570 02 1013
– *BC 672 RB-4*
101 570 04 1005 ⇒ 101 570 04 1011
– *BC 772 EB-4*
101 570 94 1001 ⇒ 101 570 94 1001

Circuit diagram 279:

– *BC 972/1172-4 will be added.*
– *BC 772 RB-4*
101 570 02 1014 ⇒ 101 570 02 1017
– *BC 672 RB-4*
101 570 04 1012 ⇒ 101 570 04 1017
– *BC 972 RB-4*
101 570 21 1001 ⇒ 101 570 21 1001
– *BC 1172 RB-4*
101 570 22 1001 ⇒ 101 570 22 1004
– *BC 772 EB-4*
101 570 94 1002 ⇒ 101 570 94 1002

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A.2 Circuit diagram 274

Validity of circuit diagrams

Circuit diagram 247:





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A.3 Circuit diagram 279

Validity of circuit diagrams

Circuit diagram 247:









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A.4 Circuit diagram 332

Validity of circuit diagrams

Circuit diagram 247:

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A.5 Circuit diagram 402

Validity of circuit diagrams

Circuit diagram 247:

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A.6 Circuit diagram 402

Validity of circuit diagrams

Circuit diagram 247:

– *BC 772 RB-4*
101 570 02 1001 ⇒ 101 570 02 1007
– *BC 772 RS-4*
101 570 03 1001 ⇒ 101 570 03 1004
– *BC 672 RB-4*
101 570 04 1001 ⇒ 101 570 04 1004

Circuit diagram 274:

– *BC 672/772-4 will have a new wiring loom installed in the left side of the frame; there will therefore be a new circuit diagram.*
– *BC 772 RB-4*
101 570 02 1008 ⇒ 101 570 02 1013
– *BC 672 RB-4*
101 570 04 1005 ⇒ 101 570 04 1011
– *BC 772 EB-4*
101 570 94 1001 ⇒ 101 570 94 1001

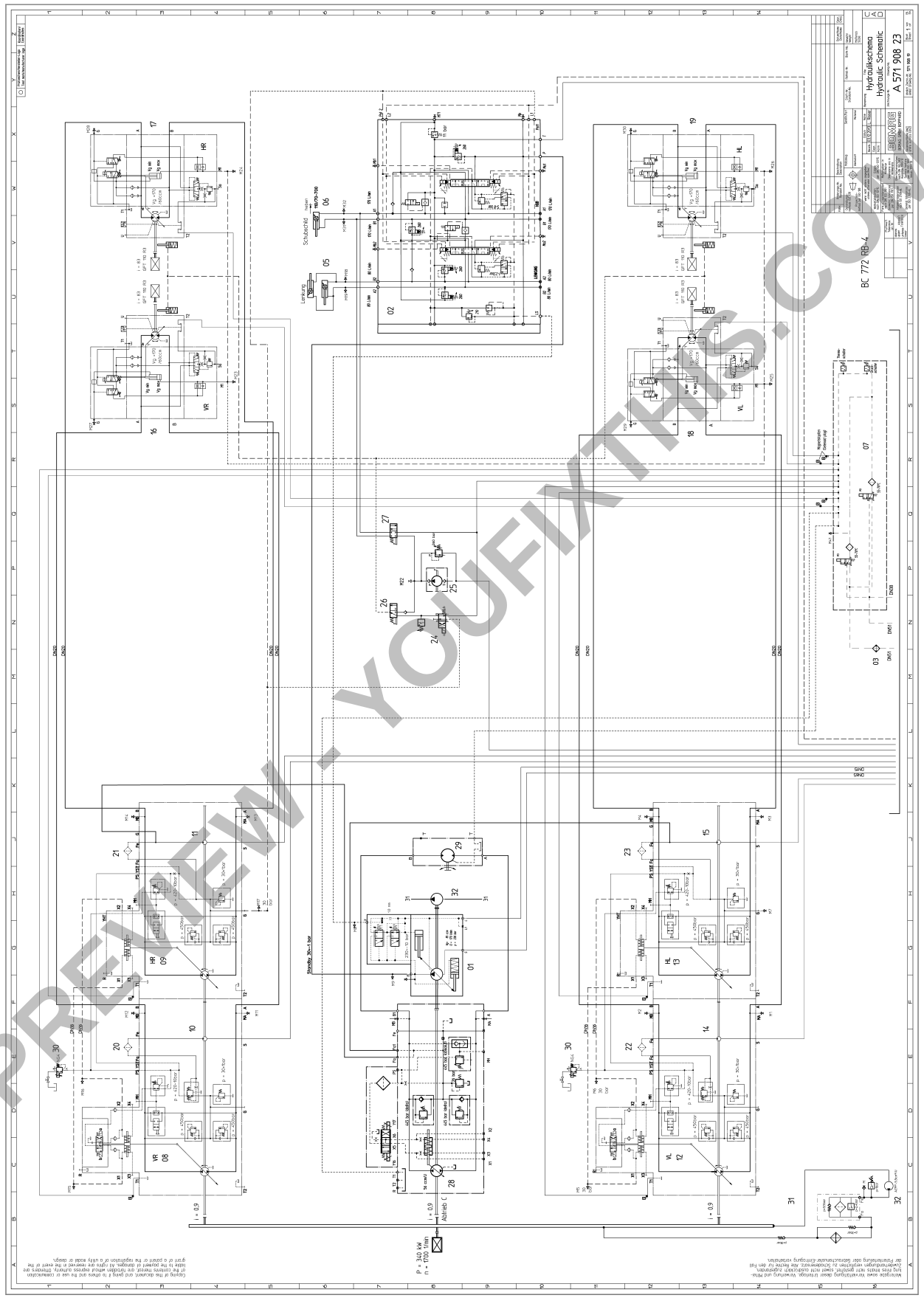
Circuit diagram 279:

– *BC 972/1172-4 will be added.*
– *BC 772 RB-4*
101 570 02 1014 ⇒ 101 570 02 1017
– *BC 672 RB-4*
101 570 04 1012 ⇒ 101 570 04 1017
– *BC 972 RB-4*
101 570 21 1001 ⇒ 101 570 21 1001
– *BC 1172 RB-4*
101 570 22 1001 ⇒ 101 570 22 1004
– *BC 772 EB-4*
101 570 94 1002 ⇒ 101 570 94 1002

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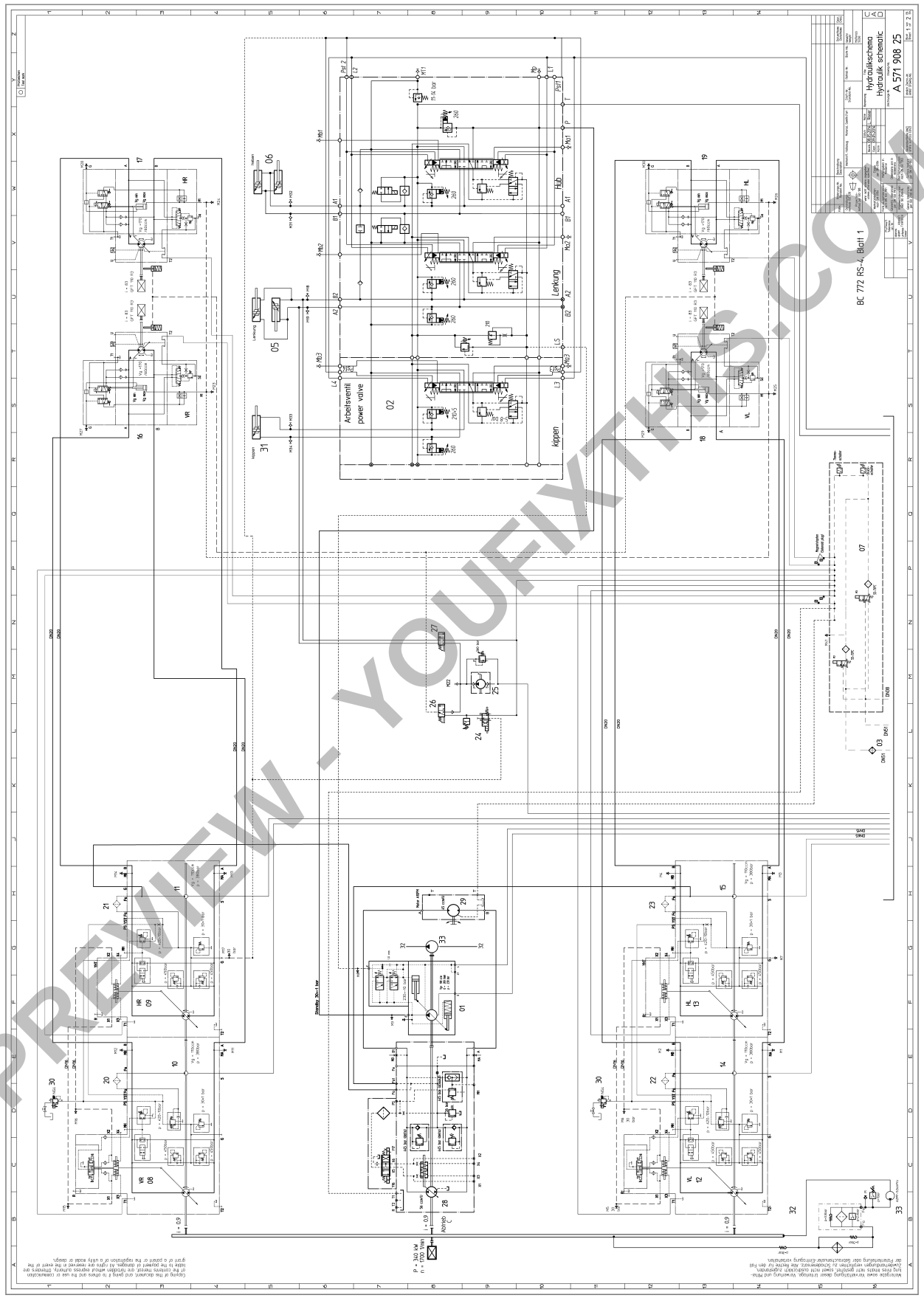
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Circuit diagrams



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4.5.4 Fuses for cabin

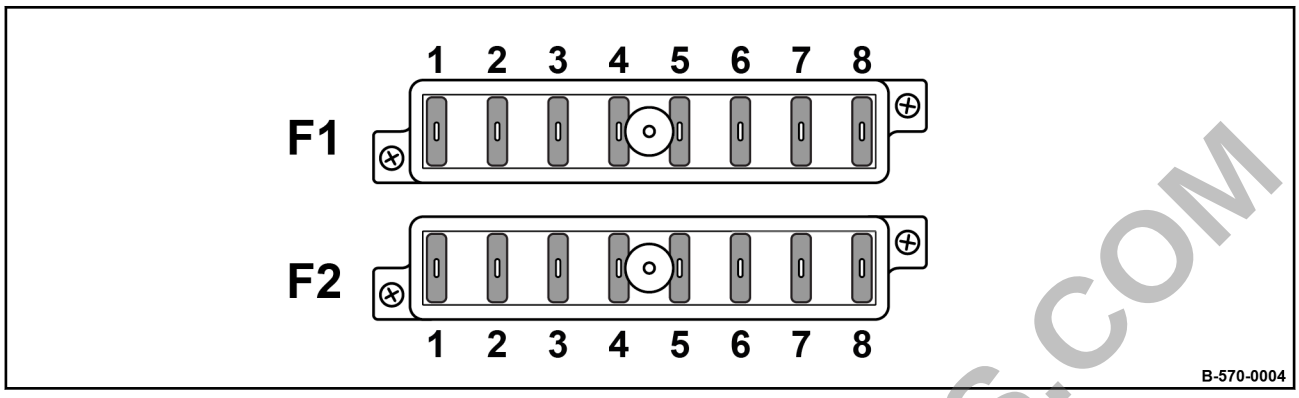


Fig. 154

Fuses F1

Pos.	Fuse	Amperage	Designation
1	F27	10 A	Front windscreen wiper/washer
2	F28	10 A	Rear windscreen wiper/washer
3			not used
4	F85	20 A	Working head lights, front
5	F86	15 A	Working head lights, rear
6	F02	10 A	Fresh air fan
7	F99	15 A	Engine compartment light
8	F66	15 A	Left/right working head lights

Fuses F2

Pos.	Fuse	Amperage	Designation
1	F143	15 A	Rear windscreen heating
2	F125	10 A	Backup fuse for reversing camera
3	F98	10 A	Mirror heating
4	F41	10 A	Flashing beacon
5	F42	10 A	Cabin light
6	F90	5 A	Control
7	F40	10 A	Heating unit for auxiliary heating
8	F49	10 A	Voltage converter

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Drive

The travel system of the refuse compactor works with **four closed hydraulic circuits**. Each of these circuits consists of a travel pump and a travel motor. Two travel pumps are always joined together to a tandem pump unit. Both tandem pump units are driven by the diesel engine via a transfer case.

The travel pumps are designed in such a way, that one tandem pump unit is responsible for one side of the drive. Whereby the control (forward - neutral - reverse) acts on the front pump. The flanged-on second pump follows the first pump, due to the **control line connection** *Further information on page 371*. The automatically working volumetric flow control always provides optimal travel speed and pushing power in any working situation. Speed and travel direction changes are accomplished without interrupting the flow of power.

Each travel gear is driven by a bent axle motor with variable displacement from Bosch-Rexroth A6VM EP.

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NOTICE!

Liquid refrigerant in the suction side of the compressor should generally be avoided during filling and operation of the refrigeration system, since this could damage the compressor..

When filling the air conditioning system directly from the refrigerant bottle care must be taken not to overfill the system. As an additional control and for statistical purposes, e.g. for refilling, it is important to write down the weight of the filled in refrigerant.

With correct operation of the air conditioning the refrigerant container should be about 1/3 filled with liquid refrigerant, the evaporator should be maximally filled at the calculated evaporation temperature, i.e. the suction line should only be a few degrees warmer than the evaporation temperature indicated by the pressure gauge.

White frost on the suction line is no measure for assessing the filling.

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Circuit diagram 332:

- *BC 972/1172-4 will be fitted with a camera and a screen to protect the rear danger zone as standard equipment.*
- *BC 772 RB-4*
  101 570 02 1018 ⇒ 101 570 02 1054
- *BC 772 RS-4*
  101 570 03 1005 ⇒ 101 570 03 1005
- *BC 672 RB-4*
  101 570 04 1018 ⇒ 101 570 04 1029
- *BC 972 RB-4*
  101 570 21 1002 ⇒ 101 570 21 1010
- *BC 1172 RB-4*
  101 570 22 1005 ⇒ 101 570 22 1023

Circuit diagram 402:

- *A new fresh air fan will be added to the parts list. This will mean a change to the wiring loom and circuit diagram.*
- *BC 772 RB-4*
  101 570 02 1055 ⇒ 101 570 02 9999
- *BC 772 RS-4*
  101 570 03 1006 ⇒ 101 570 03 9999
- *BC 672 RB-4*
  101 570 04 1030 ⇒ 101 570 04 9999
- *BC 972 RB-4*
  101 570 21 1011 ⇒ 101 570 21 1017
- *BC 1172 RB-4*
  101 570 22 1024 ⇒ 101 570 22 1032
- *BC 772 EB-4*
  101 570 94 1003 ⇒ 101 570 94 9999

Circuit diagram 516:

- *Conversion of the shield lever to the shield lever of the BC 473 with integrated FNR switch*
- *BC 972 RB-4*
  101 570 21 1018 ⇒ 101 570 21 9999
- *BC 1172 RB-4*
  101 570 22 1033 ⇒ 101 570 22 9999
- *BC 972 RB-4L*
  101 570 23 1001 ⇒ 101 570 23 9999

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