

# **BOMAG**

## **Service Training**

### **Refuse compactor BC 771 RB**

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## Foreword

This training manual has been written for the refuse compactors BC 571/671/771 RB, a new development based on the well established refuse compactors BC 570/670 RB and for the new BC 671/771 RS, which are mainly based on the previous BC 670 RS.

Between 1995 and 1998 approx. 100 machines BC 670 RB were built per year with various engine variants.

In the development of the BC 571/671/771 RB most information from the field was taken into account, leading to the improvement of many details of the machine (e.g. cabin, steering, electrics, high comfort level, etc.).

The new bucket version BC 671/771 RS is also based on the design principle of the BC 670, but shows considerable differences with respect to e.g. electrics, front frame and dozer blade.

We would obviously like to continue to increase the customer benefit in the future and ask you therefore to inform us about your ideas and suggestions.

These training documents are not subjected to a permanent updating service. In case of a revision all major changes to the machine will be included.

The chapter "Documentation" contains information about further documents, which are available for this machine. The up-to-date operating instructions as well as the latest wiring and hydraulic diagrams are contained in this training manual.

## Documentation

The following documents are available for the refuse compactor BC 571/671/771 RB/RS:

### 1. Operating and maintenance instructions

<b>Catalogue-No.:</b>	<b>from serial-no.</b>	<b>to serial-no.</b>
in prep. *	101 570 62 1001 (571 RB Deutz)	
008 163 10 *	101 570 72 1001 (571 RB Cummins)	
008 163 50 *	101 570 32 1001 (671 RB Deutz)	
008 163 50 *	101 570 35 1001 (671 RS Deutz)	
008 163 50 *	101 570 42 1001 (671 RB Cummins)	
008 163 50 *	101 570 45 1001 (671 RS Cummins)	
008 163 50 *	101 570 52 1001 (771 RB)	
008 163 50 *	101 570 55 1001 (771 RS)	

### 2. Spare parts catalogue

<b>Catalogue-No.:</b>	<b>from serial-no.</b>	<b>to serial-no.</b>
008 160 33 *	101 570 62 1001 (571 RB Deutz)	101 570 62 1032
008 172 03 *	101 570 62 1033 (571 RB Deutz)	
008 160 22 *	101 570 72 1001 (571 RB Cummins)	101 570 72 1025
008 160 08 *	101 570 32 1001 (671 RB Deutz)	101 570 32 1079
008 171 60 *	101 570 32 1080 (671 RB Deutz)	
008 160 04 *	101 570 35 1001 (671 RS Deutz)	101 570 35 1017
008 172 00 *	101 570 35 1018 (671 RS Deutz)	
008 160 14 *	101 570 42 1001 (671 RB Cummins)	101 570 42 1058
008 163 05 *	101 570 45 1001 (671 RS Cummins)	101 570 45 1002
008 160 25 *	101 570 52 1001 (771 RB)	101 570 52 1108
008 172 01 *	101 570 52 1109 (771 RB)	
008 163 07 *	101 570 55 1001 (771 RS )	101 570 55 1015
008 172 02 *	101 570 55 1016 (771 RS)	

### 3. Wiring diagram

<b>Drawing-No.:</b>	<b>from serial-no.</b>	<b>to serial-no.</b>
570 700 17 *	RB-machines to 10/99	
570 700 20 *	RB-machines from 10/99 to 9/00	
570 700 22 *	RB-machines from Bj. 9/00	
570 700 18.*	RS-machines to 10/99)	
570 700 19 *	RS-machines from 10/99 to 9/00	
570 700 21 *	RS-machines from Bj. 9/00	

### 4. Hydraulic diagram

<b>Drawing-No.:</b>	<b>from serial-no.</b>	<b>to serial-no.</b>
571 908 12 *	RB-machines	
571 908 13 *	RS-machines	

### 5. Repair instructions

<b>Catalogue-No.:</b>	<b>Component</b>	<b>Part-no.:</b>
008 195 27	Travel gear GFT102	059 013 02
008 200 00		
008 912 19	Deutz BF6M 1015	
008 914 02	Cummins M11	

### 6. Service Information

**Remark:**

**\* These documents are part of the training manual**

## General

The new BOMAG refuse compactors BC 571/671/771 RB/RS are mainly based on the design characteristics of their predecessors, the refuse compactor models BC 570/670 RB.

These refuse compactors were specially developed and designed for the extremely hard applications on sanitary landfill sites. High pushing and compaction power as well as extremely high traction are the most important criteria a refuse compactor must fulfill. This is why the BOMAG refuse compactors were solely designed for this type of application and not developed from a wheel loader.

All components used in these machines are series products and are subjected to stringent quality inspections. This ensures a high level of reliability and safety.

As with many other products, BOMAG decided to equip these machines with the well established drive concept consisting of diesel engine (water cooled) and hydrostatic drives. The output power of the diesel engine is directly transferred to the compactor wheels via hydrostatic drives.

Each of the compactor wheels is driven by its own hydraulic motor with planetary drive. Each travel motor is supplied by an individual hydraulic pump. The travel system therefore works with four individual closed hydraulic circuits. This ensures that the wheels always have traction, even if one of the wheels should be without ground contact when driving on the rough terrain of a sanitary landfill site.

All refuse compactor models are equipped with a dozer blade (RB-versions) or a bucket (RS-versions) for distributing (dozer blade version) and loading or transporting (bucket version) of refuse.

BOMAG refuse compactors are equipped with polygonal disc wheels. The gaps between the polygonal discs are kept clean by scraper teeth. The specified penetration depth into the refuse is therefore always assured.

Together with the replaceable wheel caps the polygonal discs penetrate into the refuse and crush all bigger objects. This presses the refuse so that the spaces between the individual refuse components are reduced to a minimum. This increases the capacity of the sanitary landfill site and reduces the risk of fire and vermine.

During travel operation the polygonal disc wheels compact the refuse over a width of 1350 mm per wheel side. A compaction width of 5 m is therefore already achieved after 2 passes. A surface covering compaction with such a low number of passes saves time and increases the economy of the machine.

On a machine, which is solely used on sanitary landfill sites, the work place of the operator is of utmost importance. With this kind of environmental influences it is very important that the operator feels well during his work.

The new cabin of the refuse compactors BC 671 RB/RS is therefore very luxurious. The access to the cabin via the steps at the rear of the machine and the gangway along the engine compartment is perfectly designed and meets all safety standards. The cabin itself is very spacious and clearly arranged. The operator's seat is very comfortable and can be individually adjusted to each operator, even for his weight.



All control elements and gauges are arranged within the reach and the vision of the operator. The operator can use all control elements without having to take his hands off the steering wheel.

A monitoring board with light emitting diodes and clear pictograms informs the operator about any faults and malfunctions. He is therefore always informed about the present status of the machine.

The roof mounted air conditioning unit makes sure that the operator can always keep the cabin door closed, even during the hot summer period. The cabin temperature is very pleasant and there is a slight overpressure inside, which keeps unpleasant smells and dust out of the cabin.

The amply glazed cabin with windscreen wipers and washing system for front and rear windscreens provides good vision to all sides.

Driving on the uneven surface of a sanitary landfill site demands a high safety level. The machine is therefore equipped as follows:

- a strong ROPS/FOPS according to SAE standard
- wear free service brake in form of four independent hydrostatic travel circuits
- multi-disc brakes in the planetary drives as parking and emergency brakes
- high safety against tipping over due to a very low center of gravity and the use of an articulated joint
- operating safety due to the use of a monitoring board for all important machine data
- automatic engine shut-down at too high coolant temperature, too low hydraulic oil level (when the lowest level is reached, the engine will be shut down after 20 seconds) and too low engine oil pressure.

Refuse compactors BC 571/671/771 RB/RS are well designed down to the last detail, for the use on sanitary landfill sites.

## **Maintenance**

Sanitary landfill compactors are heavy-duty machines, specially designed for the extremely tough applications on sanitary landfill sites. To be able to meet these demands the machine must always be ready to be loaded up to its limits. Apart from that, all safety installations must always be fully functional when working under the partly very dangerous conditions of a landfill site.

Thorough maintenance of the machine is therefore mandatory. This not only guarantees a remarkably higher functional safety, but also prolongs the lifetime of the machine and of important components.

The time required for thorough maintenance is only minor when being compared with the malfunctions and faults that may occur if these instructions are not observed.

The maintenance intervals are given in operating hours. It is quite obvious that with each maintenance interval all the work for shorter preceding intervals must also be performed. During the 2000 hour interval you must also perform the maintenance work for the 500 and 1000 hour intervals.

It should also be clear, that with the 2500 hours interval only the work for the 10, 250 and 500 hour intervals must be performed.

During maintenance work you must only use the fuels and lubricants mentioned in the table of fuels and lubricants (oils, fuels, grease etc.).

These training documents include an operation and maintenance manual. Please refer to these instructions for the individual maintenance intervals and the description of the individual maintenance tasks.

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