

**VOLVO BM**

**4600 B**

**SPECIFICATION VOLVO BM 4600 B COMPACTOR**



**The high-capacity compactor**

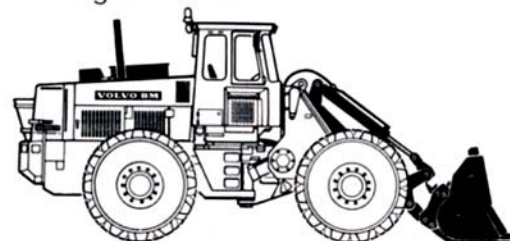
The Volvo BM 4600B Compactor is designed to compact and level the high volumes of refuse and waste generated daily in large urban areas.

The 4600B is extremely versatile — it will doze, carry, break up and compact the waste and when infill is complete; dig, carry and

spread cover material for site reinstatement. It has large, effective compactor wheels, plus underbody and side protection plates to guard against damage to vulnerable points.

The machine is both stable and highly manoeuvrable due to uniform weight distribution and has a loader unit combining large lifting and breakout forces with long reach.

The comfortable cab is safe and quiet with a high-capacity heating and ventilation system providing filtered air to create a superb working environment.







## ENGINE

Volvo TD 101G, a 6-cylinder, in-line, direct-injected, turbocharged, 4-stroke diesel engine with wet, replaceable cylinder linings.

Flywheel rating

185 kW at 36.7 rps DIN 70020  
(252 hp at 2200 rpm DIN)

Gross rating

194 kW at 36.7 rps SAE J 1349 Dec 80  
(264 hp at 2200 rpm SAE)

Max. torque

962 Nm at 23.3 rps DIN 70020  
(709 lbf ft at 1400 rpm DIN)  
980 Nm at 23.3 rps SAE J 1349 Dec 80  
(723 lbf ft at 1400 rpm SAE)

No. of cylinders

6

Bore

120.65 mm (4.75 in)

Stroke

140 mm (5.5 in)

Displacement

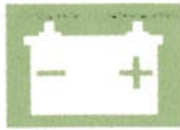
9.6 litres (586 in<sup>3</sup>)

Compression ratio

15:1

Air cleaning in three stages

1. Cyclone precleaner with exhaust ejector
2. Paper filter
3. Catch-all safety filter



## ELECTRICAL SYSTEM

Batteries

2 x 12 V (connected in series)

Voltage

24 V

Battery capacity

135 Ah

Alternator

1540 W (55 A)

Starter motor

6.6 kW (9 hp)

Central warning lamp for the following functions:

*(For certain markets only)*

Engine oil pressure. Brake pressure. Parking brake. Engine temperature. Transmission fluid temperature



## TORQUE CONVERTER

Type Single-stage  
Torque multiplication ratio 2.69:1



## TRANSMISSION

Type: Power-shift

Designation: Volvo BM HT 200

Number of gears forward/reverse 3/3



## AXLES

Fully floating axle shafts with planetary hub reductions.

Front axle:	Designation	Volvo BM AH 70A
	Differential lock	100 % lock-up (dog clutch)
Rear axle:	Designation	Volvo BM AH 70 D
	Oscillation	± 15° (500 mm)



## BRAKE SYSTEM

Service brakes: Air-over-hydraulic-operated disc brakes, dual circuit system.

Brake area:	Front	792 cm <sup>2</sup> (123 in <sup>2</sup> )/wheel
	Rear	792 cm <sup>2</sup> (123 in <sup>2</sup> )/wheel
Air reservoir volume		2 x 20 litres + 1 x 10 litres (2 x 4.4 UK gal + 1 x 2.2 UK gal)
Parking brake		Encapsulated wet multiple-disc brake incorporated in transmission
Parking brake area:		1547 cm <sup>2</sup> (240 in <sup>2</sup> )



## WHEELS

Type:

Trapezoidal pads  
mm (ft in) Knife wheels  
mm (ft in)

Drum width

750 (2'6") 750 (2'6")

Drum diameter

1400 (4'7") 1400 (4'7")

Pad height

135 (5.3") 168 (6.6")



## STEERING

Orbitrol steering with flow amplification

Steering angle

± 37°

Lock-to-lock turns of wheel

4.3

Steering cylinder, bore/stroke

110/423 mm (4.3/16.7 in)

Piston rod diameter

50 mm (2.0 in)

Oil pump, type

Vane pump

Output at 10 MPa (1450 psi) and 36.7

rps (2200 rpm)

190 l/min (41.8 UK gal/min)

Relief pressure

14 MPa (2030 psi)



## HYDRAULIC SYSTEM

Pump, type (working hydraulics): Vane pump

Output at 10 MPa (1450 psi)  
and 36.7 rps (2200 rpm)

380 l/min (83.6 UK gal/min)

Relief pressure

17 MPa (2465 psi)

Oil filter: Full-flow filtration through filter cartridge with magnetic core.

### Hydraulic cylinders:

Lift — bore/stroke

170/892 mm (6.7/35.1 in)

Piston rod diameter

80 mm (3.1 in)

Tilt — bore/stroke

140/983 mm (5.3/38.7 in)

Piston rod diameter

70 mm (2.8 in)

### Loader unit:

Control valve: Double-acting 3-spool valve. Lift function has hold for lift and float position. Bucket positioner and boom kick-out (disconnectable). The control valve is servo-assisted.

Raise with SAE workload

7.8 s

Lower, without load

3 s

Dump

4 s



## SERVICE REFILL CAPACITIES

	Litres	UK gal	US gal
Crankcase	31	6.8	8.2
Fuel tank	360	79.2	95.1
Cooling system	50	11	13.2
Hydraulic system, total	300	66	79.3
Hydraulic tank	230	50.6	60.8
Transmission and torque converter, total	45	9.9	11.9
Front axle differential and hubs	45	9.9	11.9
Rear axle differential and hubs	56	12.3	14.8



## CAB

Tested and approved as a safety cab in accordance with Article 3 Section 8 of the Swedish Environment Protection Act and meets ISO 3471-1980, ROPS (SS783), ISO 3449-1980

FOPS (SS782) and SS/ISO 6055 "Overhead guards for forklift trucks". The cab is mounted on 4 rubber pads and is well insulated and weathertight. All windows have bronze-tinted glass. The windshield is of laminated safety glass, all other windows have tempered glass.

Heater and defroster: Heating element with filtered fresh air and 3-speed fan plus defroster for front, rear and side windows.

Ventilation

Max. 5 air changes/min

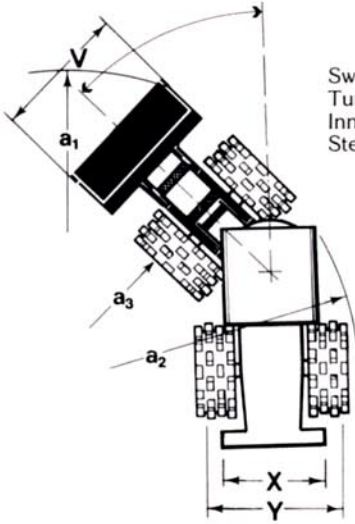
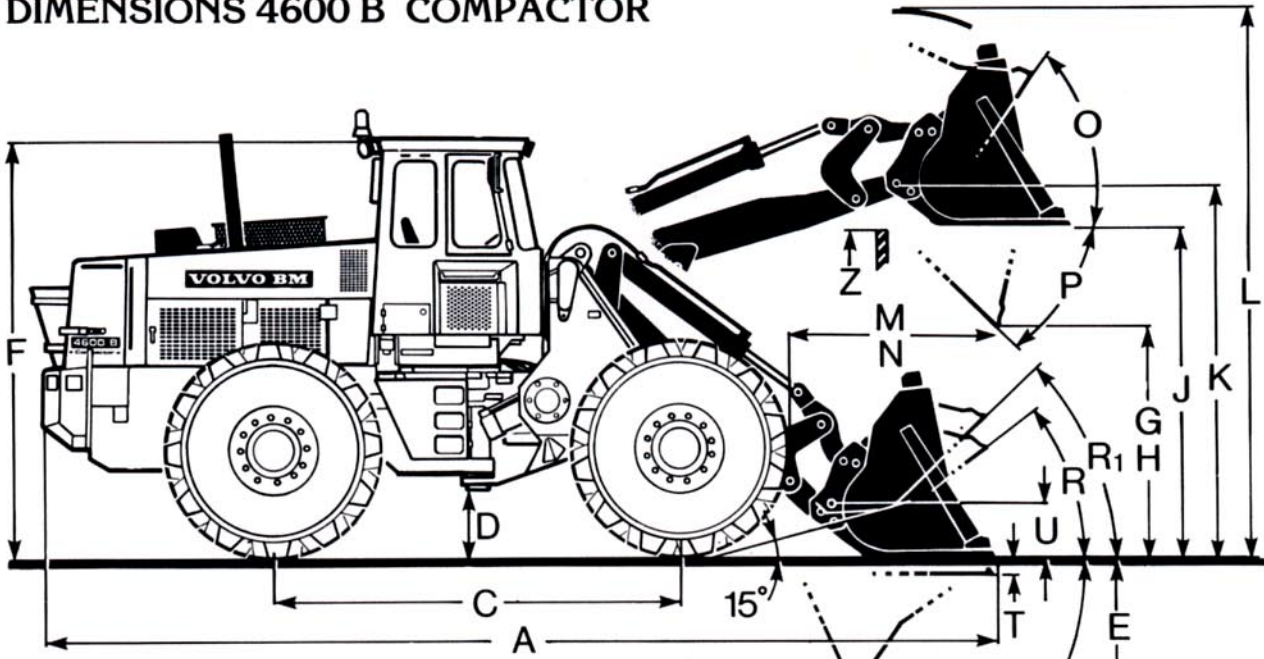
Operator's seat

ISRI GI 6000/575

Seat belt

Standard

# DIMENSIONS 4600 B COMPACTOR



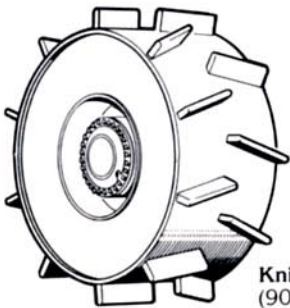
Swept radius  $a_1 = 7530 \text{ mm (24'8")}$   
 Turning radius  $a_2 = 6900 \text{ mm (22'7")}$   
 Inner radius  $a_3 = 3810 \text{ mm (12'6")}$   
 Steering angle  $a_4 = \pm 37^\circ$

A = 8280 mm (27')	K = 3200 mm (10'6")	S = 66°
C = 3550 mm (11'8")	L = 4600 mm (15'1")	T = 50 mm (2")
D = 520 mm (1'8")	M = 1880 mm (6'2")	U = 415 mm (1'5")
E = 1170 mm (3'10")	N = 1880 mm (6'2")	V = 3200 mm (10'6")
F = 3550 mm (11'8")	O = 55°	X = 2310 mm (7'7")
G = 2000 mm (6'7")	P = 45°	Y = 3060 mm (10')
H = 2000 mm (6'7")	R = 38°	Z = 2800 mm (9'2")
J = 2900 mm (9'6")	R <sub>1</sub> = 44° carry position	

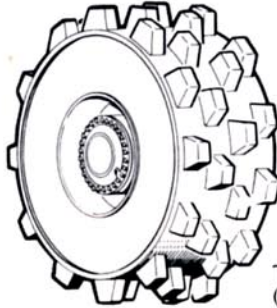
Ground pressure. At a slump of 100 mm (4.0 in), the contact area between the wheels and the ground is 5400 cm<sup>2</sup> (837 in<sup>2</sup>), which gives a ground pressure of:  
 — Front wheel 1.13 kg/cm<sup>2</sup> (16.1 psi)  
 — Rear wheel 1.31 kg/cm<sup>2</sup> (18.6 psi)

Wherever applicable, specifications are in accordance with SAE Standard J 732 c and J 742 b and J 818 b. Specifications are based on a machine equipped with a 3.8 m<sup>3</sup> (5 yd<sup>3</sup>) pin-on straight-lip bucket without teeth and compactor wheels with trapezoidal pads and cleaners.

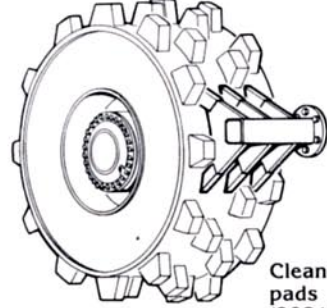
## WHEELS



Knife-shaped pads (90034)



Trapezoidal pads (90035)



Cleaners for trapezoidal pads (99319)

## MACHINE CAPACITY

Operating load at full turn	kg (lb)	6900 (15212)
Breakout force	kgf (lbf)	15800 (34832)
Machine weight	kg (lb)	26540 (58510)

Weight distribution:			
Front	kg (lb)	12440 (27425)	
Rear	kg (lb)	14100 (31085)	

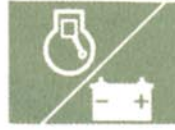


# STANDARD EQUIPMENT



## Safety & comfort

- Cab — ROPS and FOPS tested
- Cab heating with filtered fresh air intake and defroster
- Seat belt
- Safety glass, windshield
- Tinted glass
- Ergonomically designed and adjustable operator's seat
- Rear-view mirrors, external, 2
- Rear-view mirror, internal, 1
- Lights:
  - Headlights high/low/asym. halogen
  - Parking lights
  - Working lights forward (2) halogen
  - Working lights rear (2) halogen
  - Brake lights
  - Tail lights
  - Cab lighting
  - Instrument lighting
- Protective grilles for rear lights
- Utility box in cab
- Pressure gauge for air brake system
- Instrument panel with symbols
- Direction indicators
- Sun visor
- Safety start
- Hazard flashers
- Wipers, front and rear windows
- Horn
- Tyre inflation outlet
- Ashtray
- Cigarette lighter
- Lifting lugs



## Engine & electrical system

- Extraction fan
  - Fuel gauge
  - Temperature gauge, engine
  - Temperature gauge, hydraulic transmission
  - Hour counter
  - Electrical outlet 24 V
  - Battery disconnect switch
  - Alternator
  - Air cleaner with ejector discharge
  - Pilot lamps for:
    - Working lights front and rear,
    - battery charging, high beam,
    - direction indicators, engine oil pressure, transmission oil pressure, differential lock, parking brake, air brake pressure, hazard flashers, air cleaner
  - Warning buzzer when parking brake is applied
- For certain markets only:**
- Central warning lamp: Brake pressure, engine oil pressure, engine temperature, transmission temperature, parking brake

## Compactor equipment

- Underbody and side protection plates
- Compactor wheels



## Power transmission

- Full Power Shift transmission
- Differential lock (front axle)
- Transmission cut-out valve
- Single-lever gear control



## Hydraulic system

- Control valve (3-spool). Servo-assisted
- Bucket position indicator
- Bucket positioner and boom kick-out
- Vane pumps

# OPTIONAL EQUIPMENT

(Standard equipment on certain markets)

- Air conditioning
- Heated operator's seat
- Attachment lighting
- Rotating beacon with collapsible mount
- Tool kit
- Intermittent wipers
- Washers for front and rear windows
- Industrial hitch
- Dual brake pedals
- Electric engine heater, 1500 W
- Rain guard for exhaust pipe
- Hand lamp 24 V
- Electrical equipment, Norway
- Protective grilles for rear lights in grill
- Speedometer
- Vent window, left-hand side
- Third hydraulic control
- Fourth and fifth hydraulic controls
- Extra fuel filter
- Tyre inflation equipment
- Hydraulic attachment bracket
- ASS-94 equipment
- Tyre cleaners
- Preheating coil
- Lever lock
- Road-dependent emergency steering
- Oil-bath pre-cleaner
- Radio console without radio
- Tropical version
- Working lights, rear (halogen)

# VOLVO BM

VOLVO BM AB ESKILSTUNA SWEDEN

Under our policy of continuous product improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

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ENGELSKA

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