

VOLVO BM 4400 C



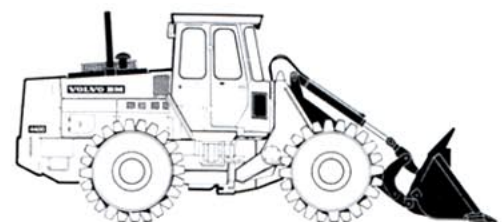
Volvo BM 4400 Compactor

Efficient, reliable and economical

The Volvo BM 4400 compactor is a hard-working machine with a thirst for tough jobs. With a 105 kW SAE (143 hp) rugged and fuel-thrifty engine and excellent match between the engine, transmission and working hydraulics, the machine achieves high productivity and good operating economy. The 4400 levels and compacts refuse and waste. It is widely versatile — it breaks up, moves and compacts the waste and then carries out and spreads the cover material. Heavy-duty cover plates on the bottom and sides of the machine protect it

during work with hard, heavy material. The ROPS and ASS tested cab gives the operator a safe and ergonomically designed workplace. All air to the cab's efficient climate control system is filtered, which is especially important on dusty worksites. Air conditioning is standard.

The 4400 compactor is manoeuvrable, thanks to articulated steering. The Volvo BM 4400 compactor: a modern machine that meets high demands on efficient and economical waste handling.





ENGINE

Volvo TD 60 B: 6-cylinder, 4-stroke, in-line, direct-injected, turbocharged diesel engine.

Flywheel rating

94 kW at 35 rps DIN 70020
(128 hp at 2100 rpm DIN)

Gross rating

105 kW at 35 rps SAE J 270
(143 hp at 2100 rpm SAE)

Max. torque

464 Nm at 26.7 rps DIN 70020
(342 lbf ft at 1600 rpm DIN)

510 Nm at 26.7 rps SAE J 270
(376 lbf ft at 1600 rpm SAE)

No. of cylinders

6

Bore

98.43 mm (3.875 in)

Stroke

120 mm (4.724 in)

Total displacement

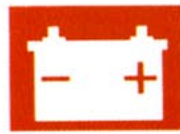
5.48 litres (334 in³)

Compression ratio

16:1

Air cleaner

1. Cyclone precleaner with automatic dust ejection through the exhaust
2. Large replaceable paper filter with cab-mounted indicator
3. Replaceable catch-all filter



ELECTRICAL SYSTEM

Batteries 2 x 12 V
(connected in series)

Voltage 24 V

Battery capacity 96 Ah

Alternator 1260 W (45 A)

Starter motor 4.5 kW (6 hp)

Central warning lamp for the following functions: Engine oil pressure, brake pressure, parking brake, engine temperature, transmission temperature.



TORQUE CONVERTER

Type Single-stage

Torque conversion ratio 3.01:1



GEARBOX

Type: Full power shift transmission with torque converter.

Make Volvo BM

Designation HT 100

Gear-changing Power shift

No. of gears forward/reverse 4/4



AXLES

Fully floating drive shafts with planetary hub reduction.

Front axle:

Make

Volvo BM

Designation

AH 50 B

Differential lock

100 % lock-up (dog clutch)

Rear axle:

Make

Volvo BM

Designation

AH 44 A

Oscillation

± 15°



BRAKE SYSTEM

Driving brake: Air hydraulically operated disc brakes, dual circuit system.

Brake area: Front
Rear

396 cm²/wheel (61 in²/wheel)

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Compressed air tank volume 3 x 10 litres (3 x 2.6 US gal, 3 x 2.2 imp gal)

Parking brake

Mechanically operated drum brake on output shaft to front axle

Parking brake, brake area:

266 cm² (41 in²)



TYRES

Type: Trapezoidal pads

Drum width

500 mm (20 in)

Drum diameter

1200 mm (47 in)

Foot height (pads)

130 mm (5 in)



STEERING SYSTEM

Articulated steering with hydrostatic operation of two double-acting hydraulic cylinders.

Steering angle

± 40°

No. of turns of wheel, lock to lock

5.25

Steering possible when engine idle

Yes

Steering cylinder, bore/stroke

75/410 mm (3/16 in)

Piston rod diameter

36 mm (1.42 in)

Oil pump, type

Vane pump

Output at 10 MPa (1450 psi) and

74 l/min (19.5 US gal/min),

2100 rpm (35 rps)

16.3 imp gal/min)

Working pressure

14 MPa (2030 psi)



HYDRAULIC SYSTEM

Pump, type (working hydraulics):

Vane pump

Output at 10 MPa (1450 psi) and
2100 rpm (35 rps)

185 l/min (48.7 US gal/min,
40.7 imp gal/min)

Working pressure

15 MPa (2175 psi)

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

Hydraulic cylinders:

Type

Double-acting

Lift cylinder, bore/stroke

125/830 mm (4.9/32.7 in)

Piston rod diameter

60 mm (2.4 in)

Tilt cylinder, bore/stroke

110/830 mm (4.3/32.7 in)

Piston rod diameter

60 mm (2.4 in)

Loader unit:

Control valve: Double-acting, three-section valve, lifting function has hold for lift and float positions.

Lever force, lifting function

60 N (13 lbf)

" " " tilt function

50 N (11 lbf)

" " " third function

50 N (11 lbf)

Lifting time, with SAE working load

6.0 s

Lowering time, without load

3.8 s

Lowering time, without load, float position

3.2 s

Forward tilt high/low

4.5 s



VOLUMES

Engine

Oil volume, incl. filter

Litres

US gal

Imp gal

15

4.0

3.3

Oil volume at change

15

4.0

3.3

Fuel tank

195

51.5

42.8

Cooling system

29

7.7

6.4

Hydraulic system, total

150

39.6

33.0

Hydraulic system at change

105

27.7

23.1

Hydraulic tank

105

27.7

23.1

Transmission and torque converter total

27

7.1

5.9

Transmission and torque converter

at change

24

6.3

5.3

Front axle differential

23

6.1

1.1

hub reduction/each

4.8

1.3

1.1

Rear axle differential

20

5.3

4.4

hub reduction/each

3.2

0.8

0.7

Dropbox

4.3

1.1

0.9



CAB

The cab is mounted on rubber pads, insulated and weather-tight and has a flat floor with a rubber mat. Tested and approved as a safety cab in accordance with § 45 of the Swedish Workers' Protection Act and standard as per ROPS, ISO 347 and SS 783.

Air conditioning as standard.

Heater and defroster: Fresh-air heater with three-speed fan and defroster for front and side windows.

Ventilation

2 air changes per minute

Operator's seat, designation

ISRI GI 5000/385

Adjustment, vertical (quick-adj.)

65 mm (2.6 in)

" (block)

30 mm (1.2 in)

horizontal

160 mm (6.3 in)

for operator weight

60–130 kg (132–287 lb)

backrest angle, variable

44°

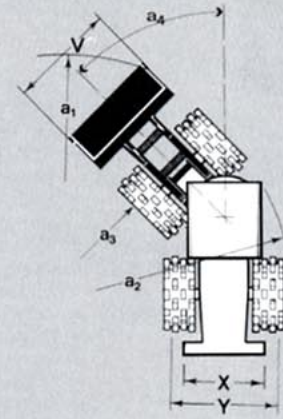
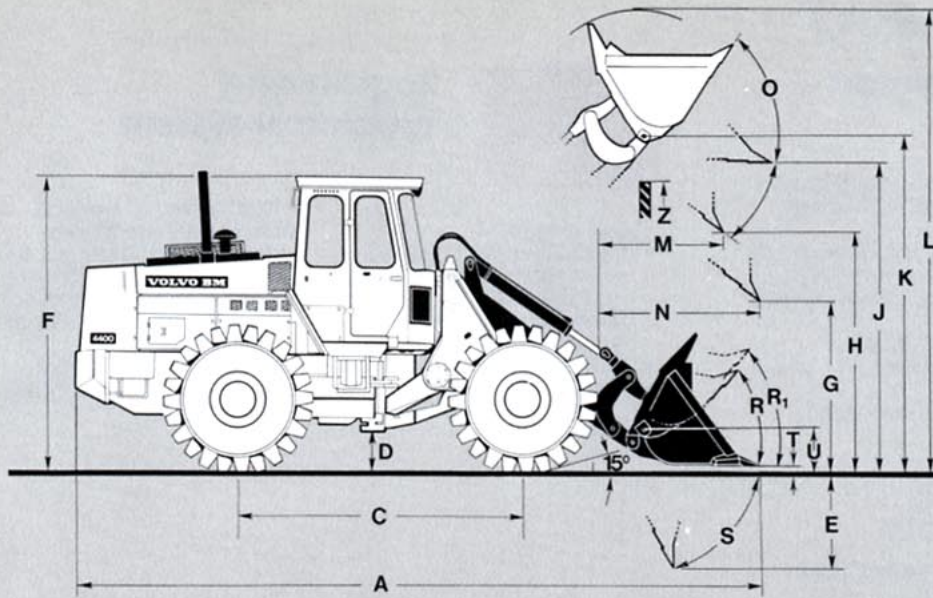
Upholstery

Flame-resistant

Attachments for seat belt

Yes

No. of exits: 4 (doors, roof hatch and rear window)



MACHINE DIMENSIONS

A = 6670 mm (263 in)	K = 3285 mm (129 in)	S = 59°
C = 2860 mm (113 in)	L = 4400 mm (173 in)	T = 25 mm (1.0 in)
D = 454 mm (17.9 in)	M = 1440 mm (56.7 in)	U = 395 mm (15.6 in)
E = 339 mm (13.3 in)	N = 1580 mm (62.2 in)	V = 2500 mm (98.4 in)
F = 3040 mm (120 in)	O = 53°	X = 1960 mm (77.2 in)
G = 2000 mm (78.7 in)	P = 45°	Y = 2420 mm (95.3 in)
H = 2350 mm (92.5 in)	R = 40°	Z = 3040 mm (120 in)
J = 3060 mm (120 in)	R ₁ = 46° Carrying position	

Swept radius $a_1 = 5620$ mm (221 in)
 Turning radius $a_2 = 5200$ mm (205 in)
 Inner radius $a_3 = 2650$ mm (104 in)
 Steering angle $\alpha_4 = \pm 40^\circ$

MACHINE CAPACITY

Tipping load, straight	kg (lb)	9250 (20400)
Tipping load, articulated 35°	kg (lb)	8400 (18520)
Tipping load, fully articulated	kg (lb)	8200 (18100)
Working load, fully articulated	kg (lb)	4100 (9040)
Breakout force	kg (lbf)	9000 (20000)
Machine weight	kg (lb)	12925 (28495)
Weight distribution:		
Front	kg (lb)	5740 (12655)
Rear	kg (lb)	7185 (15840)

Where applicable, specifications and dimensions conform to SAE Standards J 732 C and J 818. The data refer to a machine equipped with a 1.9 m³ (2.5 yd³) direct-mounted bucket without teeth and compactor wheels with trapezoidal pads.

STANDARD EQUIPMENT



Safety and comfort

- Ashtray
- Air conditioning
- Rear-view mirror, internal, one
- Lights:
 - Attachment, 1 halogen H3
 - Working beams, front (two) halogen
 - Working beams, rear (two) halogen
 - Brake lights
 - Taillights
 - Cab lighting
 - Instrument lighting
- Cigarette lighter
- Attachment for seat belt
- Utility box and glove compartment in cab
- Cab — impact-tested safety cab ROPS ISO 3471 and SS 783
- Cab heater with filtered fresh air intake and defroster
- Instrument panel with symbol markings
- Turn signal indicators
- Pressure gauge for air brake system
- Tyre inflation connection
- Horn
- Sun visor
- Safety start
- Roof hatch
- Hazard flashers
- Tool kit
- Windshield wipers, front and rear
- Lifting eyes for shipping



Engine and electrical system

- Fuel gauge
- Central warning: Brake pressure, engine oil pressure, parking brake, transmission temperature, engine temperature
- 24 V electrical outlet
- Spark-arresting muffler
- Master switch, electrical system
- Pilot lamps for: working beams, front and rear, charging, high beams, turn signals, engine oil pressure, parking brake, hazard flashers, cold start (heat flange), air cleaner
- Air cleaner with ejector
- Engine temperature gauge
- Hour counter
- Alternator



Power transmission

Differential lock, front axle
Pilot lamps for: hydraulic transmission oil pressure, differential lock
Temperature gauge, hydraulic transmission
Valve for disengagement of transmission during braking



Hydraulic system

Control valve (three sections) and tubing for 3rd hydraulic function up to mid-joint bearing

COMPACTOR EQUIPMENT

- Direct-mounted bucket with grate
- Underbody protection plates and side protection plates
- Protective grilles for taillights and rear working lights

OPTIONAL EQUIPMENT

- Working lights:
 - Rear 2 halogen H3
- Fuel filter
- Tow hitch
- Heated operator's seat
- Inspection lamp
- 3rd hydraulic function tubing
- 3rd and 4th hydraulic functions
- 1500 W electric engine block heater
- Attachment bracket: mechanical lock hydraulic lock
- Tyre inflation equipment
- 4th gear lock
- Seat belt
- Rotating beacon with collapsible mounting
- Windshield washers, front and rear

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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