

VOLVO BM

1641 UNDERGROUND VERSION



Power

Low-emission Volvo TD 100 engine, 205 hp DIN/flywheel (240 hp SAE) at 2200 rev/min. Meets most European emission requirements. Exhaust gas treatment system cools the exhaust gases by water injection.

Capacity

Nimble articulated steering, good visibility, heavy-duty loader unit.

Stability

Well-suited for load-and-carry operations, long wheel-base, large rear axle oscillation.

Economy

The machine is composed of standard well proven components. For high mechanical availability and service maintenance is identical to the standard 1641 wheel loader. Low fuel consumption contributes to good overall economy.

Comfort

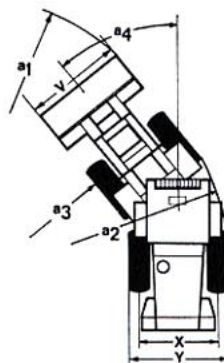
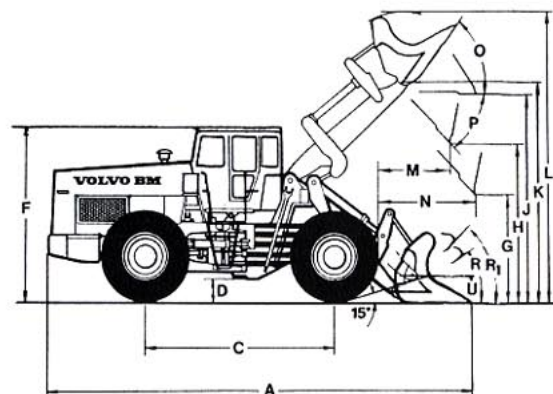
Ventilated, well-lit and roomy cab. Good working lights. Comfort seat.

Safety

Pneumatic parking brake acts on front wheels. Dual-circuit system.

Different versions

- 1 Standard cab (ROPS)
- 2 Low profile cab
- 3 Low-profile cab with dual controls



A	315 in (7990 mm)	N	71 in (1800 mm)
C	137 in (3470 mm)	O	55°
D	16 in (400 mm)	P	52°
F	118 in (3000 mm)	R	36°
G	79 in (2000 mm)	R ₁	48°
H	112 in (2840 mm)	U	20 in (480 mm)
J	148 in (3760 mm)	V	122 in (3100 mm)
K	157 in (4000 mm)	X	91 in (2310 mm)
L	205 in (5200 mm)	Y	116 in (2950 mm)
M	50 in (1270 mm)		

a ¹	outer radius	280 in (7100 mm)
a ²	turning radius	261 in (6630 mm)
a ³	inner radius	145 in (3680 mm)
a ⁴	steering angle	37,5°

Specifications based on machine equipped with 3,0 m³ bucket and 23,5–25 rock tyres.

SPECIFICATION VOLVO BM LOADER 1641 UNDERGROUND VERSION

Engine

Type	Volvo TD 100 6-cyl., in-line direct injection. 4-stroke turbo charged diesel engine with charge-air-cooling.
Output	151 kW DIN/flywheel at 36.7 rev/s 205 hp DIN/flywheel at 2200 rev/min 176 kW SAE at 36.7 rev/s 240 hp SAE at 2200 rev/min
Torque	774 Nm DIN/flywheel at 23.5 rev/s 78.9 kpm DIN/flywheel at 1400 rev/min 860 Nm SAE at 23.5 rev/s 87.7 kpm SAE at 1400 rev/min
Specific fuel consumption	165 g/hph DIN at 1400
Bore × stroke	120.65×140 mm (4 ⁷ / ₁₆ ×5 ¹ / ₂ in)
Displacement	9.6 litres (586 in ³)

Exhaust gas cooling

by addition of water max. exhaust gas temp.	80°C (176°F)
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Electrical system

Voltage	24 Volt
Alternator	1280 watt
Starter	6 hp
Battery capacity	135 Ah

Torque converter

Type	Single stage
Stall ratio	2.8:1

Transmission

Type	Full power shift
Speeds	4 forward 4 reverse

Axles

2 or 4 wheel drive
Planetary hub reduction
Fully floating drive shafts
Rear axle oscillation 34°

Brakes

Air operated dual-circuit safety system
Air-operated parking brake
Transmission neutralizer

Tyres

Type	23.5—25/16 rock tyres
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Air filters

Dry filter plus pre-filter of foam plastic type for
operation in mines and tunnels

Steering

Full hydraulic steering with mechanical follow up Articulated frame Steering angle (each direction)	37.5°
Turning radius (over tyres)	20 ft 6 in (6630 mm)
Pump capacity	35 Imp.gal/min (160 litres/min)
Relief valve pressure	1422 lbf/in ² (100 kp/cm ²)

Operating specifications

Operating weight	41200 lb (18900 kg)
Static tipping load, straight	27100 lb (12300 kg)
Static tipping load, full turn	25000 lb (11300 kg)
Overall width over bucket	122 in (3100 mm)
Overall width over tyres	116 in (2950 mm)
Height to hinge pin (K)	158 in (4000 mm)
Dump height 45° (H)	112 in (2840 mm)
Reach at 2 m height (N)	71 in (1800 mm)
Ground clearance (D)	16 in (400 mm)
Speed ranges	I 0—3.6 miles/h (6 km/h) II 0—7.5 miles/h (14 km/h) III 0—16.2 miles/h (30 km/h) IV 0—26.0 miles/h (42 km/h)
Break-out force	2800 lbf (11500 kgf)

Bucket controls

Single lever — fingertip control
Lift circuit — positions: Raise, hold, lower and
float — Automatic kick-out
Tilt circuit — positions: Roll back, hold and
dump — Automatic bucket controls

Bucket hydraulic system

Pump	Gear type
Capacity	80 Imp.gal/min (360 litres/min)
Relief valve pressure	2000 lbf/in ² (140 kp/cm ²)

Cylinders

Lift: bore and stroke	7 ¹ / ₁₆ ×35 ¹ / ₄ in (180×895 mm)
Tilt: bore and stroke	5 ⁹ / ₁₆ ×33 ¹ / ₄ in (150×845 mm)

Service capacities

Cooling system	60 l (13.2 UK gal)
Lubricating oil, engine	31 l (6.8 UK gal)
Fuel tank	245 l (54 UK gal)
Hydraulic oil tank	230 l (51 UK gal)
Water tanks	300 l (67 UK gal)

STANDARD EQUIPMENT

Working lights
front
rear
Ashtray
Dual-circuit braking system
Rear-view mirrors
Fuel gauge
Main switch
Cab
Cab heater
Interior lighting
Instrument panels with symbols
Indicator lamp/warning lamp for
air brakes
rear working lights
bright lights
battery charging
parking brake
engine water temp.
Air filter
Air filter indicator
Control valve, servo-assisted via a
single lever
Parking lights
Tire pumping equipment
Horn
Seat springs
Automatic bucket operation
Lamp cord outlet

Reverse warning light
Thermometer
transmission oil temp.
engine water temp.
Hour counter
Three-way main valve
Pressure gauge for oil pressure
in engine
in transmission
in air brakes
Tool kit
Windscreen washers
front windscreen
rear window
Windscreen wipers
front windscreen
rear window
Alternator

OPTIONAL EQUIPMENT

Cab heater:
1. With standard cab
2. With lowered cab
Safety belt
Coolant filter
Extra fuel filter
Radio

We reserve the right to change specifications and design without notice

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