





# SPECIFICATION VOLVO BM 861 UNDERGROUND VERSION

**Engine**

Type Charge-air-cooled  
6-cyl, in-line, direct injection,  
4-stroke cycle. Turbocharge  
Volvo TD 60B

Output 106.5 kW (DIN/flywheel at 41.7 rev/s  
140 Hp DIN/flywheel at 2500 rev/min  
116.5 kW SAE at 41.7 rev/s  
158 Hp SAE at 2500 rev/min

Torque 488 Nm DIN/flywheel at 30.0 rev/s  
49.7 kpm DIN/flywheel at 1800 rev/min  
505 Nm SAE at 30.0 rev/s  
51.5 kpm SAE at 1800 rev/min

Bore x stroke 98.43 x 120 mm (3<sup>7</sup>/<sub>8</sub> x 4<sup>3</sup>/<sub>4</sub> in)

Displacement 5.48 litres (334 in<sup>3</sup>)

**Exhaust gas cooling**  
by addition of water  
max. exhaust  
gas temp. 80°C (176°F)

**Electrical system**  
Voltage 12 V  
Alternator 750 W  
Starter 3 kW (4 hp)  
Battery capacity 152 Ah

**Power transmission**  
Torque Single stage with freewheeling  
converter stator and automatic lock-up  
clutch (DIRECT-DRIVE)

Stall ratio 2.3:1

Gear box Full power shift with 4 for-  
ward, 4 revers gears

Axles Front; integral reduction and  
differential lock  
Rear; hub reduction and dif-  
ferential lock  
4 wheel drive engaged and  
disengaged by pneumatic  
control

**Brakes**  
Air operated 6 wheel braking system  
Mechanical parking brake on 4 wheels  
Loading brake incorporated in gear lever  
Automatic Emergency braking system  
Air pressure: 6.2—7 kp/cm<sup>2</sup> (88—100 lbf/in.<sup>2</sup>)  
Exhaust brake standard

**Tyres**  
Front wheels 18.00—25/16 HRL  
Rear wheels 20.5—25 HRL

**Steering**  
Bi-directional, hydrostatic two columns steering  
system

Steering angle 45°

Pump capacity 140 l/min

Max working  
pressure 120 kp/cm<sup>2</sup>

Steering cylinders 2

Bore x stroke 100 x 500 mm

## Operating specifications

Unloaded machine weight kg/lb		13.400/29.800								
Body volume	struck	m <sup>3</sup>	yd <sup>3</sup>	m <sup>3</sup>	yd <sup>3</sup>	m <sup>3</sup>	yd <sup>3</sup>	m <sup>3</sup>	yd <sup>3</sup>	
	heaped	8.4	11.0	9.1	11.9	10.5	13.7	11.0	14.4	
Overall	width	mm	ft	in	mm	ft	in	mm	ft	
	height*	2500	8	2	2700	8	10	3000	9	
	length	2800	9	2	2800	9	2	2800	9	
Ground clearance	Front	mm	1 ft 5 in							
	Rear	410 mm	1 ft 4 in							
Outer turning radius		7.500 mm	24 ft 7 in							
Speed ranges		1	2	3	4					
		0—6 km/h	0—10 km/h	0—18 km/h	0—30 km/h					
		0—3.7 mph	0—6.2 mph	0—11.2 mph	0—18.6 mph					
Dump time		18 seconds								
Dump angle		70°								

\* without canopy 2450 mm

## Tipping controls

Single lever  
with 3 positions LOWER — HOLD — DUMP  
Automatic kick-out at pre-determined dump  
angle 70°

Pump capacity 140 l/min (31 gall./min)

Max. working  
pressure 120 kp/cm<sup>2</sup> (1700 lbf/in.<sup>2</sup>)

6 stage tipping  
cylinders

Largest bore 140 mm (5<sup>1</sup>/<sub>2</sub> in)

## Service capacities:

	l	imp.galls
Coolant	30 l	(6 <sup>3</sup> / <sub>4</sub> galls)
Engine oil	17 l	(3 <sup>3</sup> / <sub>4</sub> galls)
Fuel tank	225 l	(50 galls)
Transmission oil	22 l	(4 <sup>3</sup> / <sub>4</sub> galls)
Hydraulic oil	135 l	(29 <sup>3</sup> / <sub>4</sub> galls)
Water tanks	300 l	(67 galls)

## Standard equipment

Canopy  
Adjustable spring-cushioned, shock  
absorbing seat  
Rear view mirrors (2)  
Full instrumentation  
Gauges for engine rev. counter/hour counter  
engine coolant temperature  
fuel gauge  
compressed air (brakes)

Warning  
lights for engine oil pressure  
transmission oil temperature  
transmission oil pressure  
battery charging  
main beam  
parking brake  
direction indicators

Cigarette lighter and ashtray  
Horn  
Parking/Working lights. Headlight dimmer  
Reversing light  
Direction indicators and hazard warning  
system

Air cleaner indicator  
Tool kit/tyre pumping hose  
Front towing eyes  
Spill guard for rear window  
Exhaust gas treatment system for cooling and  
washing of exhaust gases  
Rock version body

## Extra equipment

Oil bath precleaner  
Extra fuel filter  
Engine heater, gas or electric  
Rotating flashing beacon  
Towing hitch  
Front wheels 18.00 x 25 XRB  
Rear wheels 20.5 x 25 XRB  
Rear wheels 14.00 x 24 HRL  
Fire extinguisher  
Safety belt  
Radio  
Speedometer

We reserve the right to change specifications and design without notice.

# VOLVO BM

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