

VOLVO BM

861 UNDERGROUND VERSION



Cab ventilator and oil bath air cleaner is extra equipment.

Power

Low-emission Volvo TD 60B engine, 149 hp DIN/flywheel (158 hp SAE) at 2500 rev/min. Meets most emission requirements. Exhaust gas treatment system cools and washes the exhaust gases.

Gradeability

The maximum gradient it can handle is 30 % (1:3.3).

Space requirements

Because it is articulated, the machine is easy to manoeuvre in extremely tight spaces. It can turn within a space less than 12 metres (39 ft) wide! Four reverse gears permit haulage in the reverse direction, even over long distances.

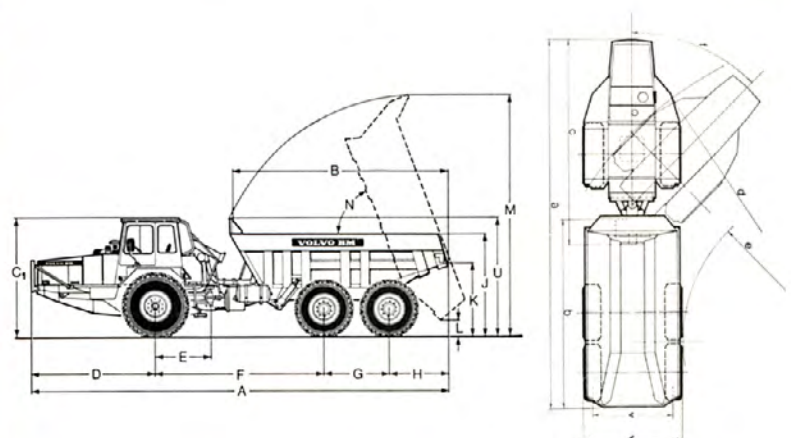
Comfort and safety

The 861 is equipped with Volvo BM's renowned safety cab. Unusually good visibility and lighting. This contributes to a good working environment for the operator and thereby high capacity.

Economy

The Volvo BM 861 is a converted surface machine, thanks to which we have been able to keep its price remarkably low compared to more specialized underground machines. The large tyres have long lives for high overall tyre economy.

The functional design and features of the machine make it a realistic and economical alternative to permanent underground transport or conveyor systems.



Dimensions

A	=	10180	33	5	L	=	380	1	3	a	=	9522	31	2
B	=	5155	16	11	M	=	5775	19		b	=	5160	17	
C	=	2850	9	4	N	=	64°			c	=	4900	16	1
D	=	2923	9	8						d	=	7500	24	7
E	=	1280	4	2						e	=	4100	13	5
F	=	4050	13	3						f	=	45°		
G	=	1540	5	1						v	=	2100	6	10
H	=	1510	4	11						w	=	2480	8	1
I	=	1090	3	5										
J	=	2495	8	1						Front tyres		18.00	×	25
K	=	1585	5	2						Rear tyres		20.5	×	25

SPECIFICATION VOLVO BM 861 UNDERGROUND VERSION

Engine

	Volvo TD 60B
	Charge-air-cooled
	6-cyl. in-line, direct injection,
	4-stroke cycle. Turbocharge
Output	106 kW DIN/flywheel at 41.7 rev/s
	149 Hp DIN/flywheel at 2500 rev/min
	116 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 (3.9 x 4.7)
Displacement	5.48 litres (334 in ³)
Specific fuel consumption	170 g/hp DIN at 1800 rev/min

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 converter	Single stage with freewheeling stator and automatic lock-up clutch (DIRECT-DRIVE)
Stall ratio	2.3:1
Gear box	Full power shift with 4 forward, 4 revers gears
Axles	Front; integral reduction and differential lock Rear; hub reduction and differential lock 4 wheel drive engaged and disengaged by pneumatic control

Brakes

Type:	Dual-circuit brake system
Driving brakes:	Front Air-hydraulic Rear Air-mechanical
Parking brake	Spring-actuated brake on bogie axles
Exhaust brake standard	

Tyres

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

Steering

Full hydraulic articulated steering with mechanical follow up.	
Steering angle (each direction)	45°
Nos of. steering wheel turns from lock to lock	3.5
Pump capacity	140 l/min (30.8 UK. gal)
Max. working pressure	12.0 MPa (1740 psi)

Operating specifications

Unloaded machine				
weight kg/lb		14 250/31 400		
Payload kg/lb		18 500 (40 785)		
Body volume				
struck	9.0 m ³	(11.8 yd ³)		
heaped	11.5 m ³	(15.0 yd ³)		
With extension				
	12.5 m ³	(16.4 yd ³)		
Overall				
width	2 480 mm	8 ft 2 in		
height	2 850 mm	9 ft 4 in		
length	10 180 mm	33 ft 5 in		
Ground clearance				
Front	440 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		64°		

Tipping controls

Single lever with 3 positions LOWER — HOLD — DUMP	
Automatic kick-out at pre-determined dump angle 64°	
Pump capacity	140 l/min (30.8 UK. gal)
Max. working pressure	12.0 MPa (1740 psi)
6 stage tipping cylinders	

Service capacities:

	dm ³ (l)	UK gal
Coolant	30	6.6
Engine oil	17	3.7
Fuel tank	225	49.5
Transmission oil	22	4.8
Hydraulic oil	135	29.7
Water tanks	450	99.0

Standard equipment

Impact tested steel safety cab
Cab heater with fresh-air intake and defroster
Adjustable spring-cushioned, shock absorbing seat
Windscreen washer/wiper
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 temperature
battery charging
main beam
parking brake
direction indicators

Sun visor
Mountings for safety belts
Door retainers in open position
Cigarette lighter and ashtray
Horn
Main headlights, bright/dim
Reversing light
Direction indicators and hazard warning system

Interior cab light
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
Extended dumper body with wear plates

Extra equipment

Oil bath air cleaner
Extra fuel filter
Engine heater, gas or electric
Rotating flashing beacon
Wear plates for standard body
Rear extension to body
Wear plates to the rear extension
Towing hitch
Safety belt
Side-mounted cab ventilator
Speedometer
Dumpruck body with wear plates
Underhung tailboard

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

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ENGELSKA

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