VOLVO BM

860 UNDERGROUND VERSION

Power

Low-emission Volvo TD 60 engine, 136 hp DIN/flywheel (162 hp SAE) at 2400 rev/min. Meets most European emission requirements. Exhaust gas treatment system cools and washes the exhaust gases.

Gradeability

The Volvo BM 860 can work efficiently on gradients up to 17 % (1:6). The maximum gradient it can handle is 30 % (1:3.5).

Space requirements

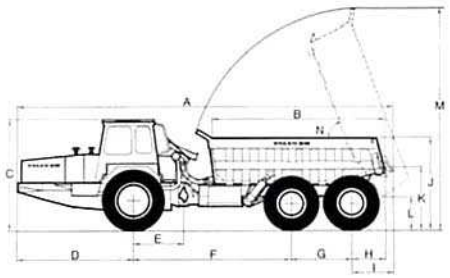
Because it is articulated, the machine is easy to manoeuvre in extremely tight spaces. It can turn within a space less than 11 metres (36 ft) wide! Four reverse gears permit haulage in the reverse direction, even over long distances.

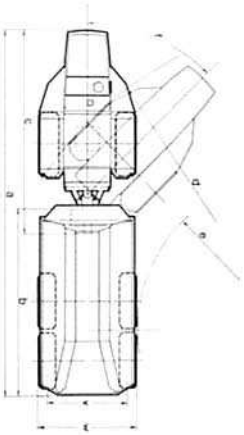
Comfort and safety

The 860 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 860 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 low 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

		mm	ft	in.
A	=	9492	31	2
B	=	4480	14	8
C	=	2850	9	4
D	=	2923	9	8
E	=	1280	4	2
F	=	4050	13	3
G	=	1540	5	1
H	=	850	2	9
I	=	980	3	2
J	=	2300	7	6
K	=	1550	5	1

		mm	ft	in.
L	=	800	2	7
M	=	5850	19	2
N	=	70°		

Specifications based on dumper with 11 m³ (14.4 yd³) body.

		mm	ft	in.
a	=	9362	30	9
b	=	5000	16	5
c	=	4900	16	1
d	=	7500	24	7
e	=	4100	13	5
f	=		45°	
v	=	2100	6	10
w	=	2480	8	1

Front tyres 18.00×25
Rear tyres 20.5×25

SPECIFICATION VOLVO BM 860 UNDERGROUND VERSION

Engine

Type	Charge-air-cooled 6-cyl, in-line, direct injection, 4-stroke cycle. Turbocharge
Output	Volvo TD 60 100 kW DIN/flywheel at 40.0 rev/s 136 Hp DIN/flywheel at 2400 rev/min 119 kW SAE at 40.0 rev/s 162.0 Hp SAE at 2400 rev/min
Torque	465 Nm DIN/flywheel at 30.0 rev/s 47.4 kpm DIN/flywheel at 1800 rev/min 524 Nm SAE at 30.0 rev/s 53.4 kpm SAE at 1800 rev/min
Bore × stroke	98.43×120 mm (3⁷/₈×4³/₄ in)
Displacement	5.48 litres (334 in³)
Specific fuel consumption	170 g/hph 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 whith 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

Air operated 6 wheel braking system
Mechanical parking brake on 4 wheels
Loading brake incorporated in gear lever
Automatic Emergency braking system
Total braking area: 6485 cm² (1005 in.²)
Air pressure: 6.2—7 kp/cm² (88—100 lbf/in.²)
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 (31 gall./min)
Max. working pressure	120 kp/cm² (1700 lbf/in²)
Steering cylinders	
Bore × stroke	100×500 mm

Operating specifications

Weight distribution Unloaded machine weight kg/lb	Front axle	Tandem axle	Total weight
	7.300/16.100	6.100/13.600	13.400/29.800

Body volume	struck	8.3 m³	(10.8 yd³)
	heaped	11 m³	(14.4 yd³)
With extension		11.4 m³	(14.9 yd³)

Overall width	2.480 mm	8 ft 2 in
height	2.850 mm	9 ft 4 in
length	9.490 mm	31 ft 2 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	70°

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/cm² (1700 lbf/in²)
6 stage tipping cylinders	
Largest bore	140 mm (5½ in)

Service capacities:	l	imp. galls
Coolant	30 l	(6½ galls)
Engine oil	17 l	(3¾ galls)
Fuel tank	225 l	(50 galls)
Transmission oil	22 l	(4¾ galls)
Hydraulic oil	135 l	(29¾ galls)
Compressed air tanks, front:	26 l	(5¼ galls)
tanks, rear:	40 l	(8¾ galls)
Water tanks	300 l	(67 galls)

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 pressure
battery charging
main beam
parking brake
direction indicators
Sun visor
Mountings for safety belts
Door retainers in open position
Cigarette lighter and ashtray
Horn
Parking/Working lights. Headlight dimmer
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
Rock version body

Extra equipment

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
Front wheels 18.00×25 XRB
Rear wheels 20.5 ×25 XRB
Fire extinguisher
Safety belt
Radio
Side-mounted cab ventilator
Speedometer

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

VOLVO BM

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