

GEOSOURCE VF-1



GEOSOURCE®

*50,000 lb HOLD DOWN
A LEAP INTO THE FUTURE*



5350 B



**VOLVO BM
MICHIGAN
EUCLID**



GEORGE E. FAILING
COMPANY





ENGINE

Volvo TD 70 G: 6-cylinder in-line direct-injected turbocharged 4-cycle diesel engine with overhead valves and wet, replaceable cylinder linings.

Gross rating: 157 kW at 40 rps SAE J 270 (213 hp at 2400 rpm SAE)

Flywheel rating: 140 kW at 40 rps DIN 70020 (190 hp at 2400 rpm DIN)*

* With radiator fan working at 40 rpm (2400 rpm). Normally, the fan operates at 20 rps (1200 rpm), which gives 155 kW (210 hp).

Max. torque 705 Nm at 26.7 rps SAE J 270 (520 lbf ft at 1600 rpm SAE)
633 Nm at 26.7 rps DIN 70020 (467 lbf ft at 1600 rpm DIN)

No. of cylinders 6
Cylinder diameter 104.77 mm (4.125 in)
Stroke 130 mm (5.12 in)
Displacement 6.73 l (411 in³)

Compression ratio 14.5:1

Automatic cold start Richer fuel mixture and preheater
Air filter Dry air cleaner

Radiator fan: Mounted on right-hand side
Type Hydrostatic drive. Variable speed control, dependent on coolant temperature



ELECTRICAL SYSTEM

Voltage 24 V
Battery 135 Ah
Alternator 1260 W
Starter motor 5 kW (6.8 hp)



TRANSMISSION

Torque converter, type: Single-stage with free-wheeling stator and automatic lock-up
Conversion ratio 1.86:1

Gearbox

The machine has an automatic/manual gearbox with 10 forward gears and 2 reverse gears, divided between a high and a low range with 5 forward and 1 reverse gear in each.

The high/low gear and 1st gear are manual gears.

Speed (max.)	Low	High
1st	5 km/h (3.1 mph)	6 km/h (3.7 mph)
2nd	9 km/h (5.6 mph)	14 km/h (8.7 mph)
3rd	12 km/h (7.4 mph)	20 km/h (12.4 mph)
4th	21 km/h (13 mph)	37 km/h (23.0 mph)
5th	31 km/h (18.6 mph)	51 km/h (31.1 mph)
Reverse	6 km/h (3.7 mph)	9 km/h (5.6 mph)

Dropbox

Designation Volvo BM FL 652
Type Dropbox of 2-stage design with differential and power take-off

Differential lock 100 % lock-up (dog clutch)

6×6 Drive Continuous drive on all axles and longitudinal differential lock engaged the third axle can be disengaged



WHEELS

Rim 17.00–25
Tyres 20.5 R 25**
Rim 19.5–25
Tyres 25/65 R 25**
Rim 19.5–25
Tyres 23.5 R 25**
Ground pressure: see special table.



BRAKE SYSTEM

Driving brakes: Air-hydraulic disc brakes on all axles, dual-circuit system.

Circuit division: One circuit, front axle
One circuit, bogie
Parking brake: Spring-actuated brake on propeller shaft



AXLES

Fully floating drive axles with planetary gear type hub reduction.

Front axle
Designation Volvo BM AH 54 E
Differential lock 100 % lock-up (dog clutch)
Leading bogie axle
Designation Volvo BM AH 54 C
Differential lock 100 % lock-up (dog clutch)
Trailing axle
Designation Volvo BM AH 54 D
Differential lock 100 % lock-up (dog clutch)



STEERING SYSTEM

Make Volvo BM
Type Hydromechanical articulated steering with emergency steering function

Steering gear Rack and pinion
Lock-to-lock turns 3.4
Steering angle from centreline 45°

Steering cylinders 2 double-acting
Hydraulic pumps See Hydraulic system



HYDRAULIC SYSTEM

Hydraulic pumps, engine-dependent

Type Variable piston pump
 Number 3
 Capacity 100 l/min (26 US gal/min,
 22 UK gal/min) at 2400 rpm

Working pressure 18.5 MPa (2680 psi)

Drive system:

Type Flywheel power take-off
 Make Volvo BM
 Number of pump take-offs 4 (3 are utilized)

Hydraulic pump, ground-dependent (for emergency steering)
 Type Variable piston pump

Number 1
 Capacity 118 l/min (31 US gal/min,
 26 UK gal/min) at 2400 rpm
 Working pressure 18.5 MPa (2680 psi)

Location Dropbox
 Filters 2 paper and magnet filters



VOLVO BM ON- AND OFF-ROAD SUSPENSION

Front axle

Two rubber springs with bottoming absorption on either side. Stabilizer. Two shock absorbers on either side.



SERVICE REFILL CAPACITIES

	litres	US gal	UK gal
Engine oil, incl. filter, total at change	18.5	4.9	4.1
Cooling system	16	4.2	3.5
Fuel tank	30	8.0	6.6
Gearbox, total	280	74	62
Dropbox	23	6.1	5.1
Front axle	6	1.6	1.3
Leading bogie axle	35	9.2	7.7
Trailing bogie axle	38	10.0	8.4
Hydraulic system	35	9.2	7.7
Brake fluid tank	160	42	35
	3×0.5	3×0.13	3×0.10



PNEUMATIC SYSTEM

Compressor:
 Capacity 425 l/min (15 ft³/min)
 at 2060 rpm

Drive Gear drive
 Outlet for tyre inflation
 Automatic antifreeze pump

Pressure regulator:
 Relief pressure 730–800 kPa (106–116 psi)
 Compressed air reservoir:
 Volume 6+30+30 litres = 66 litres
 (17.4 US gal, 14.5 UK gal)

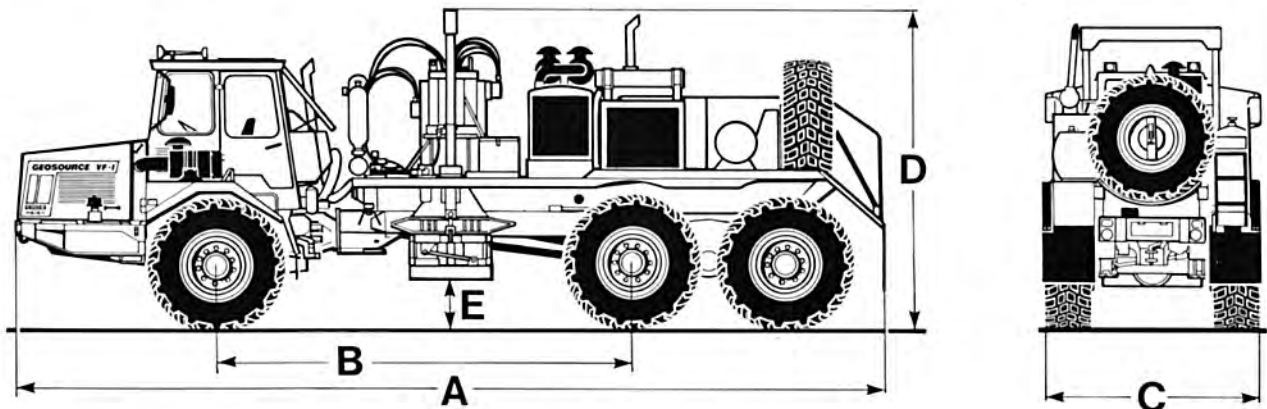


CAB

Volvo BM safety cab, tested and approved in accordance with ROPS and the impact test method. Meets requirements for trucks, tractors and construction machines. The cab is mounted on rubber pads, which contributes towards low vibration sensations. Filtered air and pressurized cab.

Number of exits: 3
 Driver's seat Flameproof upholstery
 Extra seat For rider
 Internal noise level 77 dB(A)

DIMENSIONS 5350 B



A = 405 in C = 110 in E = 18,9 in
 B = 205 in D = 149 in

The Servo-Hydraulic Vibrator mounted on a conventional off-highway type vehicle, is designed for use with the vibroseis method of exploration. It is operated by your personnel in conjunction with recording equipment to obtain information for mapping subsurface strata.

Based on the concept of sending hydraulically actuated, electronically controlled vibrations into the earth, and recording and correlating the resulting reflections, the vibroseis

method of exploration is being used in many parts of the world.

The electronics unit, located in the carrier cab, controls the hydraulic system to operate the vibrator. It is packaged in removable modules, simplifying maintenance.

With the vibroseis method there is no shooting, no coring, and exploration costs are reduced substantially over the other methods.

Y-2400-Specifications

Model	5350 B
Vehicle Mounting	3 Axle
Rated Output	24 tons
Wheel Base	205 in.
Vehicle Drive	Automatic Mechanical
Road Speed	35 mph
• Front Axle Weight	28,500 lbs.
• Rear Axle Weight	31,000 lbs.
• Total Weight	59,500 lbs.
• Baseplate Weight	50,000 lbs.
Baseplate Area	3,340 in. ²
Lift Stroke	32 in.
Lift Synchronization	Split Crossbeam
Hydraulic System	Open with Charge Pump
Isolation	Air Bag (4)
Piston Area	16,014 in. ²
Peak Force	48,044 lbs.
Stroke Peak to Peak	4 in.
Actuator Weight	6,700 lbs.
Frequency Range	10–235 Hz
Hydraulic Pump	Sundstrand 26
Pump GPM	90 • 1800 rpm
Engine	DD6-71N
• Weights will vary with optional vehicles and equipment.	

The manufacturers reserve the right to change specification or design without prior notice. Illustrations do not necessarily show the machine in its standard version.