



- Efficient Hydraulic System
- Powerful Economical Engine
- Effort-free Operation
- Maximum working performance
- Easy maintenance
- Operator Comfort



Operating Mass : 30,800 kg

Flywheel Horse Power (Net): 147 kW (197 HP) @ 1550 rpm

Bucket Capacity : 0.5m³- 2.0m³ (SAE Heaped)

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BESOOLC HYDRAULIC EXCAVATOR

Salient Features:

Efficient Hydraulic System

Positive control double pump hydraulic system with advanced optimum hydraulic control system assures both independent and simultaneous compound functions make easy and also yield maximum control and smoothness of all hydraulic functions. The horse power (hp) summation system makes full use of engine power output for maximum productivity with faster cycle time. The positive control pump and boom and arm functions regeneration featured tandem parallel circuit, advanced control valve with load sensing features reduces the hydraulic loss during idle and increases oil flow in direct proportion to joystick movement for precise control

Powerful economic engine

BEML diesel engine delivers 147 kW (197 FHP). A direct injection system for reduced fuel consumption and assures high operational economy. The turbo charger allows engine to attain high performance even on high altitude job sites.

Effort free operation

Work equipment controls are simple and feather touch due to the hydraulically assisted control system.

Maximum working performance

Mode selection switch provided in the operators cabin can be used for high excavating efficiency. Depending on the operations like general digging and loading, light material lifting, slope finishing etc., The mode can be selected for a particular application.

Easy maintenance

Centralized monitoring system within the operator's cab allows fast daily checks and also keeps the operator constantly informed of any abnormality during operation.

Operator Comfort

Aesthetically improved cabin provides plenty of work space and excellent visibility.





Make / Model	BEML BS6D125
Туре	Diesel, 4 stroke, Water Cooled. turbo charged, direct injection
Fly Wheel Power	147 kW (197 HP) @ 1550 rpm
Max. Torque	1030 Nm (105 kgm) @ 1200 rpm
No. of cylinders	6, In-line
Bore & Stroke	Ø 125 mm x 150 mm
Total displacement	11.051½ (11050 cc)
Electricals	
Alternator	24 V, 45A
Starting Motor	24V, 7.5 kW
Battery	2 x 12 V, 150 Ah



Drive Type	Fully Hydrostatic, two stage planetary						
	reduction						
Max. Drawbar pull	210.84 kN (21500 kg)						
Max. travel speed	0.89 m/s. (3.2 kmph)						



Track frame type	Sturdy H-bar type centre frame is bolted on the track frame for easy serviceability
Shoe width	610mm
No. of shoes	51 each side
Grouser height	31 mm
No. of carrier rollers	2 each Side
No. of track rollers	9 each side
Ground Pressure	55.39 k Pa (0.57 kg/cm²)
Ground contact area	53777 cm ²



SWING SYSTEM

Туре	Spur & Planetary gear reduction, with mechanical pin-lock type for swing lock
Swing speed	9.4 rpm
Swing circle	Internal gear & pinion, immersed in grease bath
Min. Swing Radius	
(Work equipment	4245 mm
fully retracted)	
Tail swing radius	3225 mm



Work attachment	Hand operated joy-stick pilot pressure Controls with in-built accumulator system
	for work attachments
Travel	Actuated with either hand levers or foot
	pedals operated pilot pressure control
	valve for forward and reverse travel.



BRAKES

Traveling / Steering Type	Hydraulic Lock
Parking Type	Spring applied and hydraulically released oil disc brakes in the final drive. Travel motors equipped with counter-balance valve which regulates speed when making descents.

STANDARD EQUIPMENT

One piece Boom (6.47 m), Arm (3.13m) Backhoe bucket (1.57 m³ SAE heaped)

Starting motor alternator, dry type air cleaner, PPC hydraulic control, OLSS system, 610mm triple grouser shoes, Grease type adjuster, fully hydrostatic drive, suction fan, batteries, front light, bolt on sprocket, 4790 kg counter weight, all weather steel cab (with safety glass window, lockable door, window wiper, electric horn, room lamp and adjustable seat with reclining device) monitor system, tool kit, Rear view mirror, portable fire extinguisher.



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Hydraulic Pump	os				
Main	Туре	Variable displacement piston type double pump			
l	Maximum oil flow	2 x 244 1/min @ 1550 rpm			
Pilot	Туре	Gear Pump			
{	Maximum oil flow	1 x 35 //min @ 1550 rpm			
Hydraulic Motor	rs				
Travel	2 Nos. axial piston	2 Nos. axial piston motor with counter balance valve			
Swing	1 No. axial piston r	1 No. axial piston motor			
Control valve					
Туре	7 spool tandem processes to control valve.	7 spool tandem parallel boom & arm regenerative control valve.			
Relief valve sett	ings				
	Implement circuits (Boom, arm & but	` ,			
	Swing circuit	26.85 MPa (275 kg/cm²) (for better acceleration and deceleration)			
	Travel circuit	31.4 MPa (320 kg/cm²)			

Hydraulic Cylinders

Туре		Double acting piston
Cylinders	Numbers	Bore x Stroke
Boom	2	φ 140 mm x 1480 mm
Arm	1	φ 160 mm x 1645 mm
Bucket	1	φ 140 mm x 1290 mm

2.94 MPa (30 kg/cm²)

33.3 MPa (340 kg/cm²)

(for safety of hyd. System)



FILTER SYSTEM

Pilot circuit

Port Relief with

Anti cavitation

(Boom /Arm/Bucket)

Engine	Two stage fuel filter with water separator
Air-intake	Dry type, two stage air cleaner with dust evacuator
Hydraulic	One suction filter, one line filter for pilot & one return oil full flow fine filter



COOLANT & LUBRICANT CAPACITY (Refill)

510 ℓ
45 ℓ
28 l
10.5 l
11.5 l
225 ℓ



ATTACHMENTS

BUCKET:

Backhoe bucket: Backhoe buckets of different capacities are available for selection, on the basis of specific job requirement.

Trapezoidal bucket: Ideal for digging ditches and for drainage works. 0.90 m3 capacity.

Slope finishing bucket: For scraping slopes or banks 0.35 cu.m capacity 2200 mm width.

Ripper bucket: For hard, rocky ground 0.90 m3 capacity 950 mm width.

Clamshell bucket: is recommended for vertical digging. Two types

available, digging and loading types

Ripper: Choice of single shank or three shank ripper. For rock digging and crushing hard soil digging, pavement removal work, etc Hydraulic breaker with impact energy of 400-700 blows/min

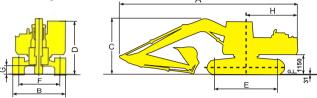
Custom built equipment available for granite application. Also available: Light duty bucket, narrow bucket.



Fuel gauge, hydraulic oil level sight gauge, engine cooling water



A - Overall length	10860 mm
B - Overall width	3190 mm
C - Overall height (Top of boom)	3320 mm
D - Overall height (Top of cab)	3150 mm
E - Track length on ground	4045 mm
F - Track gauge	2580 mm
G - Minimum ground clearance	648 mm
H - Tail swing radius	_A 3225 mm
4	





Travel and Steering

Forward and reverse travel, Steering actuated with either levers or foot pedals. Independent drive to each track enables machine to make a pivot turn in either direction



BACKHOE BUCKETS

Bucket type	Narrow		Std. Bucket	Heavy Duty	Light Duty	
Bucket capacity m ³				_		
SAE heaped	0.50	1.10	1.57	1.32	1.80	2.00
Struck	0.38	0.79	1.10	1.00	1.25	1.46
Bucket width mm						
Without side cutters	610	1105	1475	1290	1660	1831
With side cutters	740	1235	1605	1420		
Bucket mass : kg (with teeth)						
Without side cutters	609	815	1200	1067	1056	1310
With side cutters	652	858	1263	1110		
No. of Bucket teeth	3	4	6	5	6	6



OPERATING MASS (Approximate)

30800 kg

(Including one piece 6.47m Boom, 3.13m Arm, 1.57 m³ (SAE heaped) backhoe bucket, operator, lubricant, coolant, hydraulic oil, full fuel)



WORKING RANGE (Fig A)

Arm length	2.20 m	2.55 m	3.13 m	4.02 m
A. Max. digging height	9.58 m	9.95 m	10.15 m	10.54 m
B. Max. dumping height	6.58 m	6.86 m	7.10 m	7.46 m
C. Max. digging depth	6.38 m	6.73 m	7.32 m	8.20 m
D. Max. vertical wall digging depth	5.12 m	5.77 m	6.22 m	7.16 m
E. Max. digging depth of cut for 2440 mm level bottom	6.16 m	6.55 m	7.14 m	8.07 m
F. Max. digging reach at ground level	9.96 m	10.55 m	10.92 m	11.90 m
Bucket digging force kN(kg)	169(17200)	169(17200)	169(17200)	169(17200)
Arm Crowd force kN(kg)	171(17400)	149(15200)	128(13000)	105(11000)

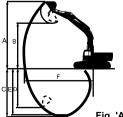


Fig. 'A'

Material and specifications are subject to change without notice, Illustrations may include optional equipment & accessories

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