

BH70 DUMP TRUCK

SALIENT FEATURES

- **Performance :** High power BEML BSA6D170A-1 engine, Rugged BEML transmission with electronic shift control, lock-up clutch, heavy-duty planetary axle provide optimum combination of speed and tractive effort.
- **Productivity :** High power to weight ratio gives ample reserve power for faster cycle time.
- **Reliability :** Adjustment-free wet multiple disc brakes for rear and dry caliper disc brakes for front axle offer longer life.
- **Serviceability :** low maintainability and repairability index, evaluated through SAE J 817A, compared to any other dumper in its class.
- **Manoeuvrability :** Orbitrol Power steering with a good combination of steering angle, turning circle, tread and wheel base provide high degree of manoeuvrability.
- **Comfort :** Ideally located spacious cabin with ergonomically designed operator seat and control offer maximum comfort and operational ease.
- **Safety :** Features include Integral ROPS cabin, emergency steering, dual brake system to meet relevant safety standards.

Max. payload : 63,600 kg







Capacity(heaped) SAE / ISO 2:1 : 42 m³

Flywheel power (net) : 533 kW(715 hp) @ 2100 r/min



BH70 REAR DUMP TRUCK SPECIFICATIONS



 Engine		 Steering System	
Make	BEML		
Model	BSA6D170A-1	Type	Orbit, fulltimepower steering
Type	IC-diesel, 4-stroke, turbocharged, after cooled, direct injection, water cooled.	Cylinder	
Flywheel power	533 kW (715 hp) @ 2100 rpm	Type	Double acting, piston type
Maxmium torque	3011 N-m (306 kgm) @ 1400 rpm	Quantity	Two
No. of Cylinders	6 inline	Bore X stroke	100 X 353 mm
Bore & Stroke (mm)	170 x 170	Relief pressure	14.2 MPa (145 kg/cm2)
Displacement	23.15 ltrs (23150 cm3).	Emergency steering	Electrically driven hydraulic pump & motor
Electricals		Performance	
Alternator	24 V DC, 50A	Turning Radius	39 Degree
Starting motor	2 X 24 DC 7.5kW	Turning circle diameter	19.6 m
Battery	2 x 12V, 200Ah		
 Transmission		Hydraulic system	
Model	BEML	Hydraulic pump	
Type	Powershift with automatic electronic shift control(CTC) and lock up clutch.	Hoist & steering	
Drive Axle	Full floating	Type	Tandem gear pump
Differential		Flow	281 + 205 ltr/min @ 2100 rpm
Type	Planetary reduction	Brake cooling	709 ltr/min @ 2185 rpm
Ratio	3.07:1	Hopist	Single gear pump
 FINAL DRIVE		Flow	205 ltr/min @ 2100 rpm
Type	Planetary reduction	Relief pressure	
Ratio	5.33:1	Hoist	17.2 MPa (175 kg/cm2)
Total reduction	16.38:1	Brake oil cooler	1.0 MPa (10 kg/cm2)
Travel speed (km/h)		Hoist cylinder	Two. 3 stage double acting, telescopic type
Range	1st 2nd 3rd 4th 5th 6th 7th	Body hoist time	12 + 2 sec
Forward	10 14 19 26 35 48 65	 CABIN	
Reverse	12.0	Type	Integral ROPS cabin provided with safety glass & electronic display dashboard (meet ROPS performance criteria as per SAE j 1040 & ISO 3471
 FRAME			
Type	Box section construction made of high tensile strength steel.		

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BRAKING SYSTEM	
Front :	All over-hydraulically, dry caliper disc.
Rear	All over-hydraulically, wet caliper disc.
Emergency brakes	All over-hydraulically, automatic application through relay emergency valves
Parking brake	Air-operated, disc type parking brake
Retarder brake	Rear brake serves as retarder brake
Meets the SAE J 1473 and ISO 3450 performance	

SYSTEM REFILL CAPACITIES	
System	Capacity (ltrs)
Cooling systems	159
Fuel tank	780
Engine lube oil	60
Transmission & torque converter	110
Final drive (each side)	35
Differential	100
Hydraulic tank	310
Air tank	175

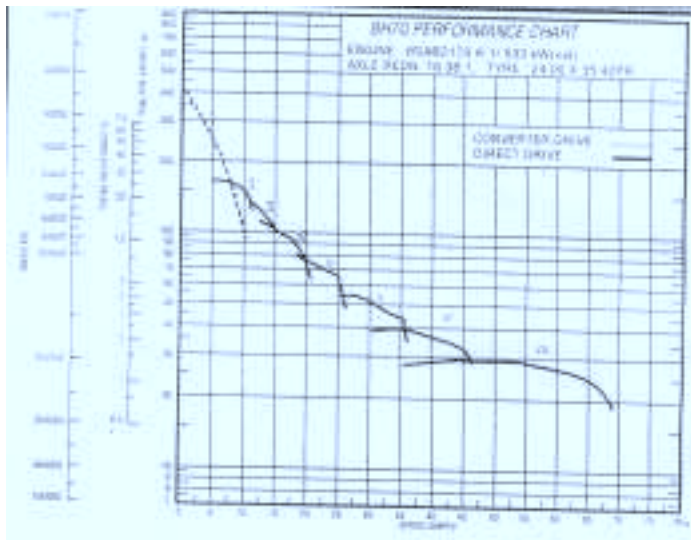
SUSPENSION		
Type		
Front	Wheel mounted, hydropneumatic, integral rebound control.	
Rear	Axle mounted, inverted, hydropneumatic, integral rebound control.	
Cylinders	Front	Rear
Quantity	2 Nos	2 Nos.
Bore X stroke	250 X 376	250 X 190mm
Charging Pressure	2.0 MPa (20.6 kg/cm ²)	1.5 MPa (15.35 kg/cm ²)

BODY	
Plate thickness	
Bottom plate	20mm
side plate	10mm
Front plate	12mm
Target area (length x Width)	6270 X 4200 mm
Depth	1753mm
Volumetric Capacity	
Struck	31 m ³
Heaped - SAE/ISO(2:1)	42 m ³

MASSES		
Net vehicle mass	45,600 kg	
Rated payload	63,600 kg	
Gross vehicle mass	1,09,200 kg	
Mass distribution	Empty (kg)	Loaded (kg)
Front axle	21,432(47%)	36,036(33%)
Rear axle	24,168(53%)	73,164(67%)

TYRES AND RIMS	
Size	24.00 - 35, 42 PR(E-4), tubeless- Standard 24.00 R35, Radial - Optional
Rim	17.00-35.
BEML recommends the user to evaluate all job conditions and consult the tyre manufacture to make proper tyre selection.	

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How to use this chart :

1. Enter chart at weight (gross vehicle weight)
2. Determine total resistance (grade plus rolling resistance)
3. Connect point on weight scale with point on total resistance scale and project it to tractive effort scale. Read required tractive effort.
4. Read horizontally from required tractive effort to intersect to appropriate curve. Project down to speed scale
5. Read vehicle speed for given weight and total resistance.

STANDARD ACCESSORIES

GENERAL:- Integral ROPS cabin, electronic dashboard systems, vandalism protection cap (Fuel tank), head and tail lights, horn, turn signal lights, alternator, electric starter, key switch, wiper motor, emergency steering motor, wind-shield washer, dump brake, right & left hand mirror, portable fire extinguisher, tool kit, parking brake valve, tilt steering wheel and column, central warning lamp & buzzer, battery cut-off switch, backup alarm, catwalk, mudflaps, body lock pins, and ejectors, cabin floor mat, safety seat belt, co-operator seat, front brake cut off switch and emergency brake, centralised lubrication system.

Gauges:- Ammeter, voltmeter, air pressure, engine oil pressure, water temperature, transmission oil temperature & pressure, brake oil temperature, air cleaner restriction, speedometer, tachometer, electrical hour meter & fuel level.

Guards:- Engine belly guard, cab spill guard, drive line protector, rock guard and hand rail

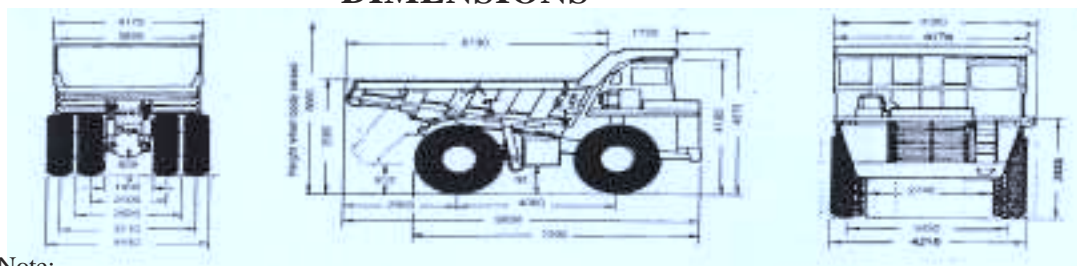
Indicators:- Hi-beam, reverse, turn signal, body-up, lube oil pressure, water temperature, parking brake and emergency steering "ON", alternator warning, transmission oil temperature & pressure, fuel level, air pressure & hydraulic oil temperature

Alarms:- Air pressure, water temperature, transmission oil temperature, lube oil pressure, hydraulic oil temperature, transmission filter clogging, body - up and parking brake "ON"

Optional Accessories:-

Tyre Inflation kit, tachograph, suspension charging kit, auto emergency steering, air conditioner and heater unit, wiper & washer for cab glass, fast fill system for fuel.

DIMENSIONS



Note:

- 1) Materials & specifications are subject to change without notice.
- 2) Illustrations may include optional equipment and accessories and may not include all standard accessories.
- 3) All the specifications meet relevant ISO standard.