

# BH60 DUMP TRUCK

## SALIENT FEATURES

- **Performance :** High power BEML BSA6D170A-1 engine, Rugged CL(B)T 6063 transmission with automatic lock-up clutch and 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.
- **Control :** 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 : 55,340 kg

Capacity(heaped) SAE / ISO 2:1 : 36.5 m<sup>3</sup>

Flywheel power (net) : 504 kW(675 hp) @ 2100 r/min



## BH60 REAR DUMP TRUCK SPECIFICATIONS

 <b>Engine</b>		 <b>Steering System</b>	
Make	BEML	Type	Orbit, fulltimepower steering
Model	BSA6D170A-1	Cylinder	
Type	Diesel, 4-stroke, twin turbocharged and after cooled, direct injection, water cooled.	Type	Double acting, piston type
Flywheel power	504 kW (675 hp) @ 2100 rpm	Quantity	Two
Maxmium torque	2750 N-m (280 kgm) @ 1400 rpm	Bore X stroke	100 X 353 mm
No. of Cylinders	6 inline	Relief pressure	13.7 MPa (140 kg/cm2)
Bore & Stroke (mm)	170 x 170	Emergency steering	Electrically driven hydraulic pump & motor
Displacement	23.15 ltrs (23150 cm3).	Meets the SAE J53 & 5010 performance requirements	
<b>Electricals</b>		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		
 <b>Transmission</b>		<b>Hydraulic system</b>	
Model	Allison CL(B)T 6063	Hydraulic pump	
Type	Powershift with automatic lock up clutch.(with ATEC)	Type	Triple gear pump for hoist, steering, brake oil cooling
Drive Axle	Full floating	Flow to hoist & steering system	491 ltr/min @ 2185 rpm
Differential		Flow to brake cooling	709 ltr/min @2185 rpm
Type	Traction sensing, Automatic	Relief pressure	
Ratio	3.85:1	Hoist	17.2 MPa (175 kg/cm2)
 <b>FINAL DRIVE</b>		Brake oil cooler	1.0 MPa (kg/cm2)
Type	Planetary reduction	Hoist cylinder	Two. 3 stage double acting, telescopic type
Ratio	5.33:1	Body hoist time	12 + 2 sec
Total reduction	20.52:1	 <b>CABIN</b>	
Travel speed (km/h)		Type	Integral ROPS cabin provided with safety glass & electronic display dashboard (meet ROPS performance criteria as per SAE j 1040 & ISO 3471
Range	1st 2nd 3rd 4th 5th 6th 7th		
Forward	10 14 19 26 35 48 65		
Reverse	7.0 2.0		
 <b>FRAME</b>			
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	201
Fuel tank	780
Engine lube oil	60
Transmission & torque converter	61
Final drive (each side)	35
Differential	100
Hydraulic tank	310
Air tank	175

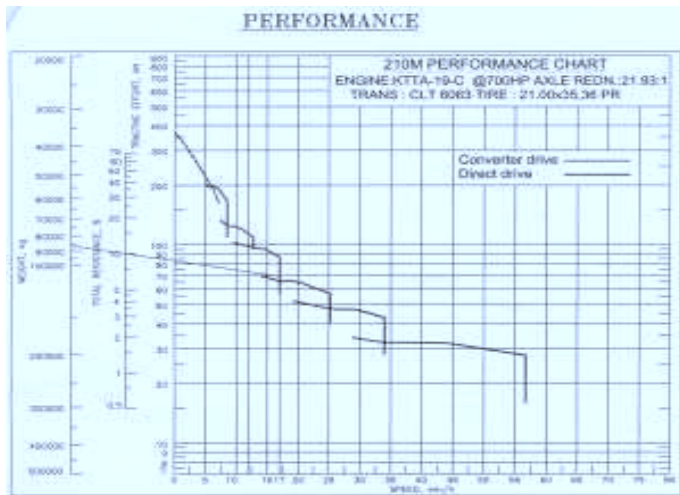
SUSPENSION		
Type		
Front	Wheel mounted, hydropneumatic, integral rebound control.	
Rear	Axle mounted, inverted, hydropneumatic, integral rebound control.	
Cylinders	Front	Rear
Quantity	2 Nos	2 Nos.
Bore X stroke	250 X 376	250 X 190mm
Charging Pressure	2.0 MPa (20.6 kg/cm <sup>2</sup> )	1.5 MPa (15.35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

BODY	
Plate thickness	
Bottom plate	20mm
side plate	10mm
Front plate	12mm
Target area (length x Width)	6230 X 3850 mm
Depth	1643mm
Volumetric Capacity	
Struck	26.5m <sup>3</sup>
Heaped - SAE/ISO(2:1)	36.6m <sup>3</sup>

MASSES		
Net vehicle mass	42,500 kg	
Rated payload	55,340 kg	
Gross vehicle mass	97840 kg	
Mass distribution	Empty (kg)	Loaded (kg)
Front axle	19975(47%)	32287(33%)
Rear axle	22525(53%)	65553(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.	

## BH60 REAR DUMP TRUCK SPECIFICATIONS



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, engine shut-off switch, manual emergency steering, wind-shield washer, 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, dump brake, backup alarm, catwalk, mudflaps, body lock rope and ejectors, cabin floor mat, safety seat belt, co-operator seat, front brake cut off switch and emergency brake, centralised lubrication system, exhaust heated body, twin fresh air fan.

**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, radiator fan guard and hand (meets ISO 3457 requirements)

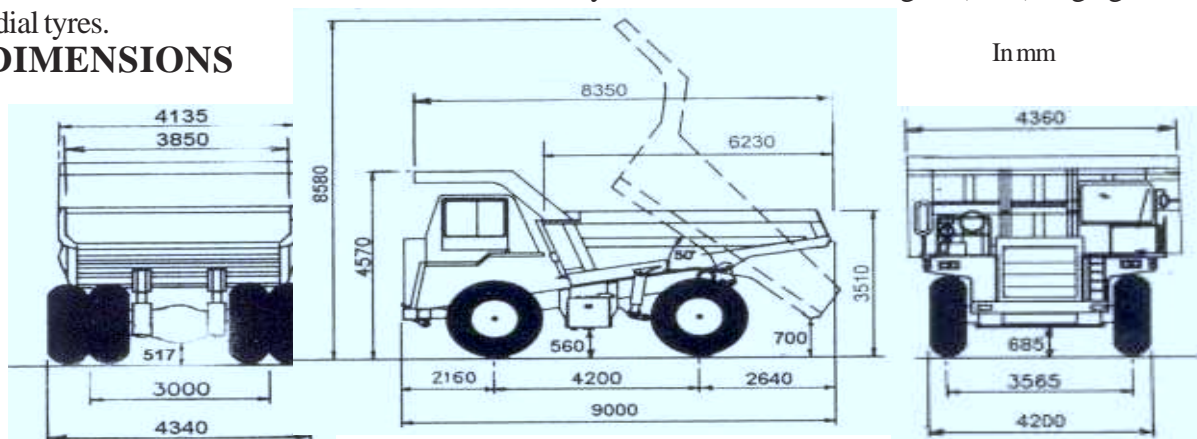
**Indicators:-** Hi-beam, reverse, turn signal, body-up, lube oil pressure, water temperature, parking brake and emergency steering "ON", alternator warning, transmission oil temperature & pressure, fuel level, air pressure & hydraulic oil temperature

**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, exhaust muffler, fast fill system for fuel, cold starting kit (APS), fog lights & radial tyres.

### DIMENSIONS



- 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.