

# 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)<br>@ 2100 rpm   | Quantity  | Two  |
| Maxmium torque      | 2750 N-m (280 kgm)<br>@ 1400 rpm  | Bore X stroke                                     | 100 X 353 mm   |
| No. of Cylinders    | 6 inline  | Relief pressure                                   | 13.7 MPa (140 kg/cm <sup>2</sup> )   |
| Bore & Stroke (mm)  | 170 x 170   | Emergency steering                                | Electrically driven hydraulic pump & motor   |
| Displacement        | 23.15 ltrs (23150 cm <sup>3</sup> ).  | 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/cm <sup>2</sup> )   |
| <b>FINAL DRIVE</b>  |   | Brake oil cooler                                  | 1.0 MPa (kg/cm <sup>2</sup> )  |
| Type                | Planetary reduction   | Hoist cylinder                                    | Two. 3 stage double acting, telescopic type  |
| Ratio               | 5.33:1  | Body hoist time                                   |  |
| Total reduction     | 20.52:1   | 12 + 2 sec  |  |
| Travel speed (km/h) |   | <b>CABIN</b>                                      |  |
| Range               | 1st 2nd 3rd 4th 5th 6th 7th   | Type  | Integral ROPS cabin provided with safety glass & electronic display dashboard<br>(meet ROPS performance criteria as per SAE j 1040 & ISO 3471) |
| 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<br>(20.6 kg/cm <sup>2</sup> )                             | 1.5 MPa<br>(15.35 kg/cm <sup>2</sup> ) |

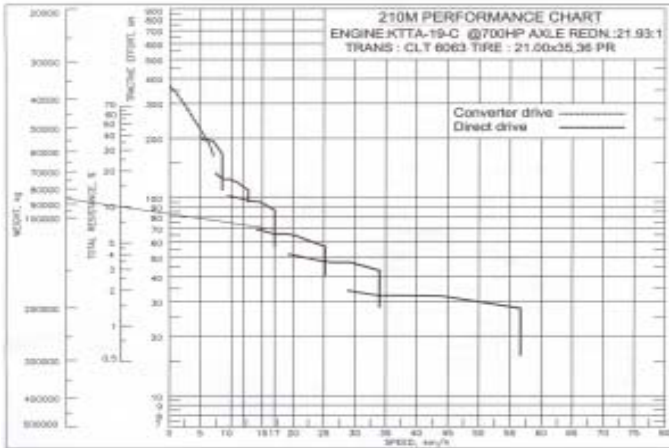
|  BODY |                    |
|---|--------------------|
| Plate thickness   |                    |
| Bottom plate  | 20mm               |
| side plate  | 10mm               |
| Front plate   | 12mm               |
| Target area (length x Width)  | 6230 X 3850 mm     |
| Depth   | 1643mm             |
| 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<br>24.00 R35, Raq dial - 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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## PERFORMANCE



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)

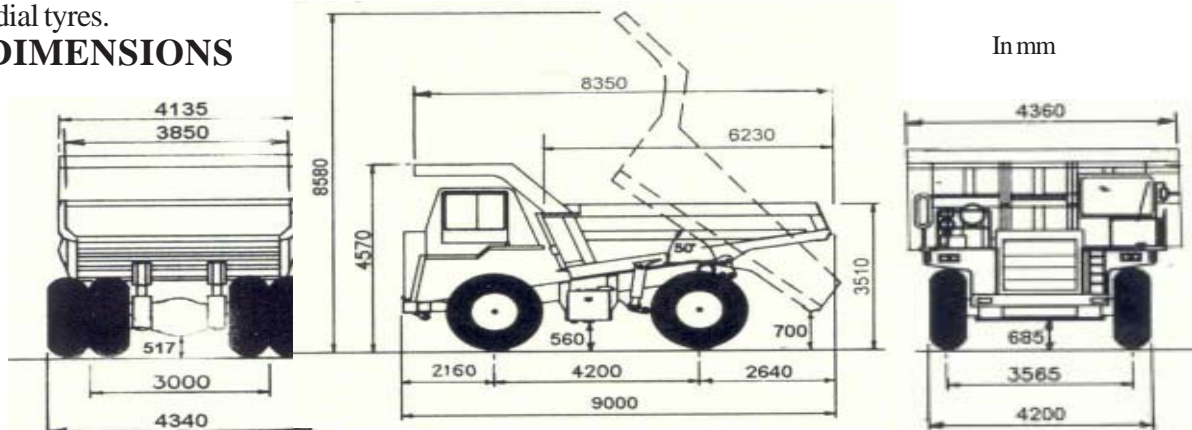
**Indicators:-** Hi-beam, reverse, turn signal, body-up, lube oil pressure, water temperature, parking brake and emergency steering "ON", alternator warning, transmission oil temperature & pressure, fuel level, air pressure & hydraulic oil temperature

**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.