

BH35

REAR DUMP TRUCK



Salient Features

Performance :

- High power Cummins India engine, AVTEC shift transmission, double reduction final drive with 'Traction Sensing' differential for optimum combination of speed and tractive effort.

Productivity :

- High power to weight ratio gives ample reserve power for higher gradability. Increased pay load, wide target area, large volumetric capacity (of body) and low loading height ensure high productivity.

Reliability :

- AVTEC CLBT 754 automatic transmission for ease of operation. The torque converter assures steady engine RPM in response to variation of load, eliminates lugging and stalling of engine.

Serviceability :

- Low maintainability and reparability indices compared to any other dumper in its class and hence easier to maintain and repair.

Manoeuvrability :

- Orbitrol full time power steering and smaller turning radius provide high manoeuvrability.

Comfort :

- Ideally located, spacious cabin with ergonomically designed operator controls offer maximum comfort and operational ease.

Safety :

- Features emergency steering, dual brake system, neutral start switch meet relevant safety standards.



Max. payload : 32,000 kg

Capacity (heaped) (SAE) (2:1) : 22.5 m³

Flywheel power (net) : 272 kW (365 hp) @ 2100 rpm

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Technical Specifications



Engine

Make	Cummins (India)
Model	NTA-855-C-BC III-380
Type	Diesel water cooled, 4 cycle, turbo charged and after cooled
Net power (FHP)	272 kW (365 hp) @ 2100 rpm
Maximum net torque	1450 N-m (148 kgm) @ 1350 rpm
No. of Cylinders	6, inline
Bore & Stroke	ϕ 140 x 152 mm
Displacement	14,010 cc
Electricals	
Alternator	24 V, 30 A
Starting motor	24 V, 7.5 kW
Battery	2 x 12 V x 200 Ah



Power train

Torque convertor		
Model	TC 497	
Stall ratio	2.7 : 1	
Transmission		
Model	AVTEC CLBT 754	
Type	Powershift with lock-up clutch	
Final drive		
Type	Double reduction	
Differential	Traction sensing automatic	
Ratio		
Bevel set	2.92 : 1	
Final set	5.5 : 1	
Total reduction	16.06 : 1	
Travel speeds (km/h)		
Range	Forward	
1st	7.72	
2nd	12.34	
3rd	19.42	
4th	28.47	
5th	39.97	
Reverse	4.11	

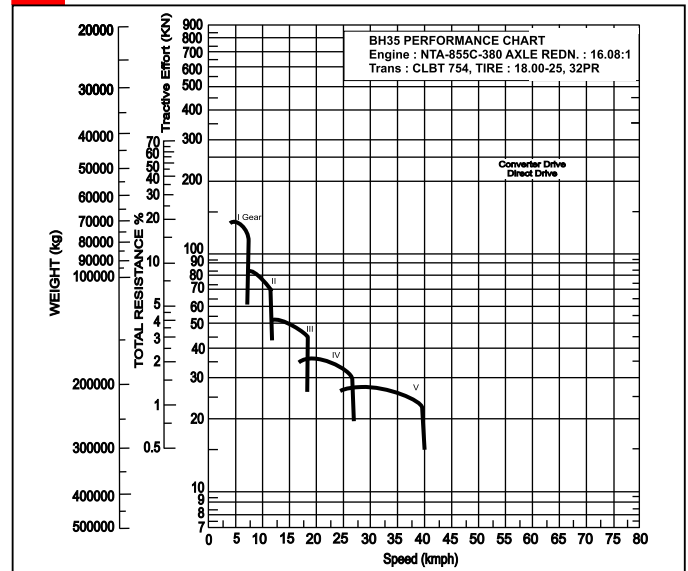


Steering System

Type	Orbitrol, full time power steering
Cylinder	
Type	Double acting piston type
Quantity	One
Bore x stroke	ϕ 114.4 x 434.6 mm
Relief pressure	12.3 MPa (125 kg/cm ²)
Turning angle	45°
Turning circle dia	14.32 m
Emergency steering	Electrically driven hydraulic pump & motor



Performance



How to use the 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. Project horizontally from required tractive effort to intersect appropriate curve. Project down to speed scale.
5. Read vehicle speed for given weight and total resistance.



Brake System

Service brakes	Dual shoe type, air-over-hydraulic, Front and rear wedge actuated
Dump brake	Service brake also acts as dump brake, actuated through hand control lever on dash board.
Parking brake	Internal expanding shoe type



Tyres and Rims

Size	18.00 - 25, 32 PR (E - 3) tubeless, Rock grip
Optional	18.00 - 25, 32 PR (E - 4) tubeless, Rock grip
Rim size	13.00 x 25



Frame

Type	Box section frame made of high tensile strength alloy steel.
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Hydraulic System

Hydraulic pump	
Type	Gear pump
Capacity	232 l/min @ 2100 rpm
Relief pressure - Hoist	175 kg/cm ² (17.22 MPa)
Hoist cylinders	3 - stage, double acting, telescopic



Suspension

Type	Wheel mounted, hydro-pneumatic, integral rebound control	
Front	Wheel mounted, hydro-pneumatic, integral rebound control	
Rear	Axle mounted, hydropneumatic	
Cylinder	Front	Rear
Quantity	2	2
Bore x stroke	ϕ 216 x 365.3 mm ϕ 216x265.2 mm	



Body

Plate thickness

Bottom plate	
- Standard	16 mm
- Optional	20 mm
Side plate	8 mm
Front plate	12 mm
Target area (length x width)	4550 mm x 3350 mm
Depth	1840 mm

Volumetric capacity

Struck	18.12 m ³
Heaped SAE / ISO (2:1)	22.50 m ³
Heaped SAE / ISO (3:1)	21.00 m ³

System refill capacities

System	Capacity (ltrs)
Cooling systems	83
Engine Oil	40
Transmission & torque convertor	32
Final drive	40
Fuel tank	397
Hydraulic system	185
Air chambers, main and auxillary tank	125
Suspensions	
Front	17
Rear	8.8



Cabin

Standard heavy duty all steel sound suppressed and heat insulated "ROPS CABIN" engineered to provide superb working comfort and excellent visibility for maximum production efficiency.

Features include : Fully visible front toughened glass, fully adjustable operator's seat with safety seat belt and provided with rubberised floor mat.



Mass

Net vehicle mass	21,888 kg	
Rated payload	32,000 kg	
Gross vehicle mass	53,888 kg	
Mass distribution	Empty (kg)	Loaded (kg)
Front axle	11,382 (52%)	17,244 (32%)
Rear axle	10,506 (48%)	36,644 (68%)

Standard Accessories

General

Vandalism protection caps (Radiator and Fuel Tank),

Head and tail lights, Twin air horn, Alternator, Electric starter, Starter key switch, Emergency power steering, Road condition valve, Wind-shield wiper, Wind-shield washer, Wheel brake lock, RH and LH mirror, Sunvisor, Co-passenger's seat, Operator's seat belt, Portable fire extinguishers, Standard tool kit, Mud flaps (front and rear), Parking brake valve, Tilt steering wheel and column, Fuel tank provided with fuel gauge indicating, 1/4, 1/2, 3/4 and full level, LED type Rear / Brake lights, Circuit Breaker.

Gauges

Ammeter, Air pressure gauges, Engine coolant temperature and oil pressure gauges, Tachometer, Speedometer, Air cleaner restriction indicator, Transmission oil temperature and pressure gauges, Electrical hour meter.

Lighting

Head light hi-beam indicator, Back-up light, Turn signal lamp, Low lubrication oil pressure indicator, High water temperature indicator, Parking brake indicator, Emergency steering lamp, Filter clogging indicator.

Alarm

Low air pressure alarm, High water temperature alarm, Low lubrication oil pressure alarm, Back-up alarm.

Optional Equipment Attachments

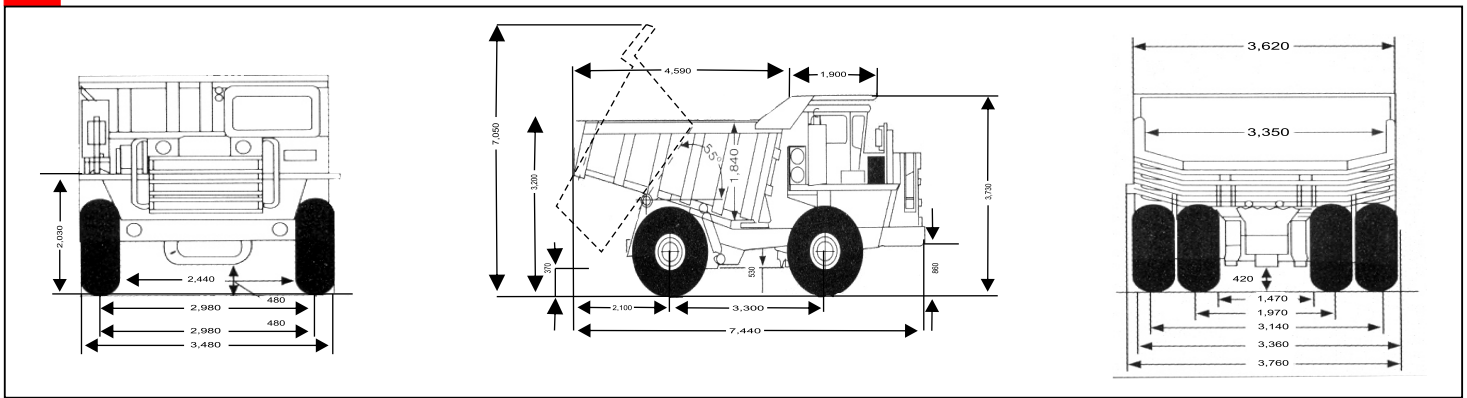
Suspension charging kit, Auto-emergency steering, Tyre inflation kit, Radiator coolant level indicator, Cold weather starting aid, Transmission oil temperature alarm, Transmission oil pressure alarm, Auto lube system, Auto fire suppression system, Air conditioner & CAB Heater, Heated, type body, 100AH zero maintenance battery

Coal body : (Capacity)

Struck	23.0 m ³
Heaped : (2:1)	- 29.0 m ³
(3:1)	- 27.0 m ³



Dimensions (Rear Dump Truck)



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



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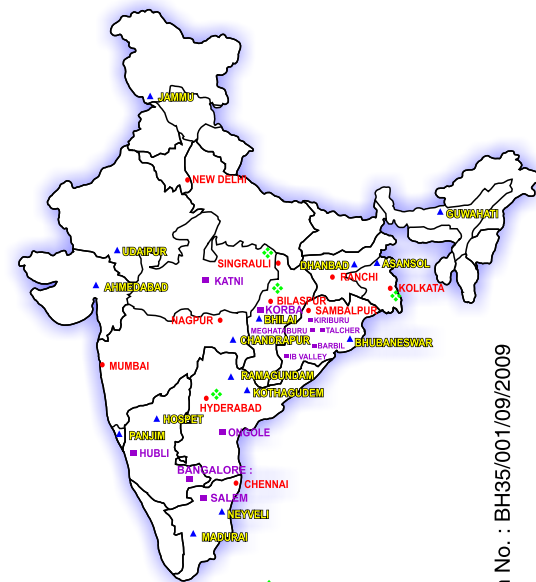
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Form No. : BH35/001/09/2009