

B50D 6x6

ARTICULATED
DUMP TRUCK



key features

- **Gross Power** 390 kW (523 hp)
- **Gross Torque** 2 200 Nm (1,622 lbft)
- **Rated Payload** 45 400 kg (100 090 lbs)



DSERIES

B50D_{6x6} ARTICULATED DUMP TRUCK

ENGINE

| | |
|--------------------|--|
| Configuration | Mercedes Benz OM502LA V-8 |
| Aspiration | Turbocharged and intercooled |
| Cooling system | Liquid cooled with single pass radiator as well as charge air cooler |
| Gross power | 390 kW (523 hp) @ 1 800 rpm SAE J1349 |
| Net power | 382 kW (512 hp) @ 1 800 rpm |
| Gross torque | 2 200 Nm (1,622 lbf) @ 1 200 rpm SAE J1349 |
| Net torque | 2 147 Nm (1,584 lbf) @ 1 200 rpm |
| Displacement | 15,93 litres (730 cu.in) |
| Fuel tank capacity | 640 litres (169 US gal) |

TRANSMISSION

| | |
|-------------------------|--|
| Layout | Full automatic planetary transmission with integral retarder |
| Gear layout | Engine mounted with rear output |
| Gears | Constant meshing planetary gears, clutch operated |
| Clutch type | 6 Forward, 1 Reverse |
| Control type | Hydraulically operated multi-disc |
| Torque converter layout | Electronic |
| Vehicle speeds | Hydrodynamic, with lock-up in all gears |

| | |
|-----------------|------------------------|
| 1 st | 6,9 km/h (4,3125 mph) |
| 2 nd | 14,6 km/h (9,125 mph) |
| 3 rd | 21,2 km/h (13,25 mph) |
| 4 th | 32,4 km/h (20,25 mph) |
| 5 th | 42,4 km/h (26,5 mph) |
| 6 th | 48,2 km/h (30,125 mph) |
| Reverse | 5,7 km/h (3,7 mph) |

TRANSFER CASE

| | |
|---------------------|--|
| Layout | AGR 17100 |
| Output differential | Three in-line helical gears Interaxle 33/67 proportional differential, pneumatically/spring lockable whilst stationary or on the move. |

AXLES

| | |
|-------------------|-----------------------------|
| Differential type | Two-speed spiral bevel type |
| Final drive type | Outboard heavy duty |

Housing type

planetary on all axles
Steel fabricated

BRAKING SYSTEM

SERVICE BRAKE Dual circuit, full hydraulic oil immersed wet multi-disc brakes on all three axles

Maximum brake force 399 kN (89,699 lbf)

PARK & EMERGENCY Spring applied, air released driveline mounted disc.

Maximum brake force 440 kN (98,920 lbf)-Static

Maximum brake force 105 kN (23,605 lbf)-Dynamic

RETARDATION SYSTEM

ENGINE BRAKE Automatic exhaust brake and Engine Valve Brake (EVB)

Maximum retardation power 340 kW (456 hp)

TRANSMISSION RETARDER Integral hydrodynamic, output speed dependant, six selectable levels of retardation

Total retardation power (excl. service brakes) 550 kW (737 hp)

WHEELS

Tyre size 875/65 R29

Type Radial Earthmover

SUSPENSION

Front type Semi-independent leading A-frame supported by nitrogen/oil struts

Rear type Pivoting walking beams equalize the load on each axle with laminated suspension blocks. Each axle is coupled to the chassis by a Tri-Link system of three rubber-bushed links for ideal vertical movement and a transverse link for lateral restraint

HYDRAULIC SYSTEM

Full load sensing system serving the prioritized steering, body tipping, suspension and brake functions. A ground-driven, load sensing emergency steering pump is integrated into the main system

Pump Type Variable displacement, loadsensing piston

Application Steering, tipping, hydraulic brake charging, suspension and cooling fan drive

Flow Pressure Filter 350 l/min (92.5 US gal/min) 25 MPa (3,626 psi) 5 micron

PNEUMATIC SYSTEM

Air drier with heater and integral unloader valve, serving park brake and auxiliary functions

System pressure 750 kPa (109 psi)

ELECTRICAL SYSTEM

Voltage 24 V

Battery type Two maintenance free permanently sealed

Battery capacity 2 x 105 Ah (optional 2 extra batteries)

Alternator rating 28 V 100 A

STEERING SYSTEM

Hydrostatically actuated by two double acting cylinders, with ground-driven emergency steering pump.

Angle Lock to lock turns +- 42° 4,2

BODY

Capacity 21.4 m³ (28.0 yd³)

Struck 28.2 m³ (36.9 yd³)

Heaped SAE 2:1 45 400 kg (100,090 lbs)

Rated payload 11.2 s (60° tip angle)

Raise time 9.9 s (60° tip angle)

Power down time 70° standard, or any lower angle programmable

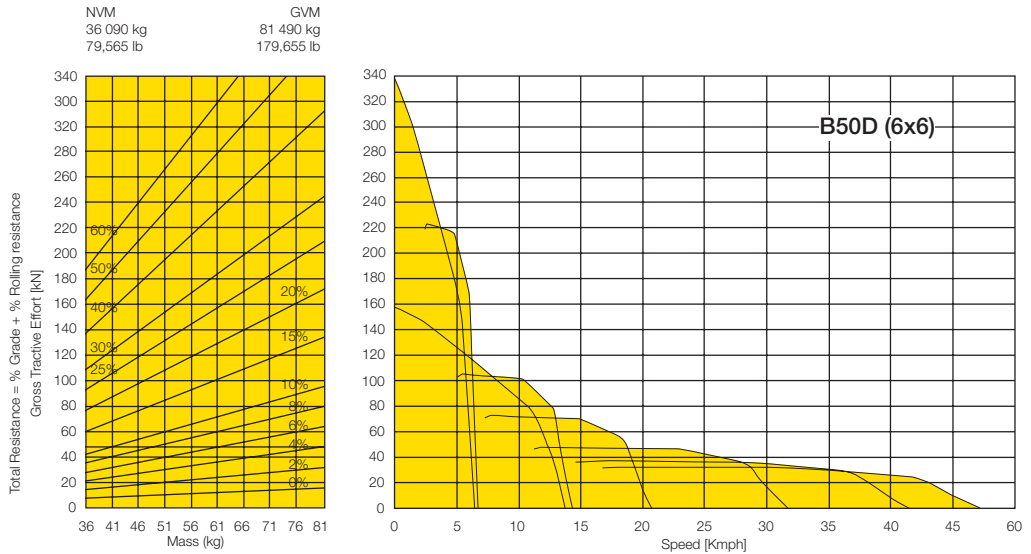


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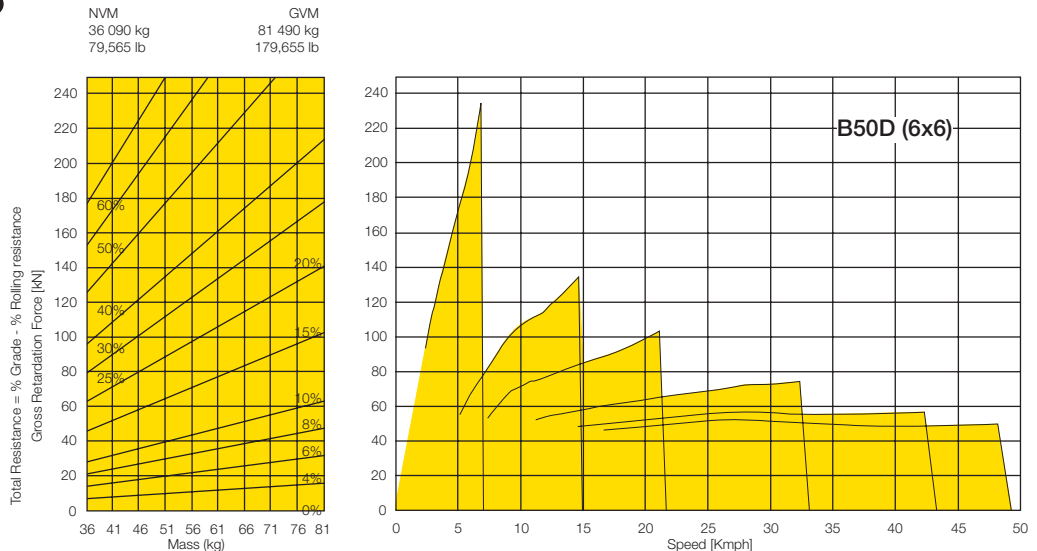
LOAD CAPACITY & GROUND PRESSURE

| WEIGHTS | | | GROUND PRESSURE | | | LOAD CAPACITY | | |
|---------|--------|---------|---|-----|------|--------------------------------|----------------|-------------|
| | | | At 15% sinkage of unloaded radius and specified weights | | | | | |
| UNLADEN | kg | lbs | UNLADEN | kPa | psi | BODY (Ribbed reinforced) | m ³ | cu.yd |
| Front | 17 900 | 39,463 | Front | 100 | 14.6 | Struck Capacity | 21,4 | 27.99 |
| Middle | 9 115 | 20,095 | Middle | 53 | 7.7 | SAE 2:1 Capacity | 28,2 | 36.88 |
| Rear | 9 075 | 20,007 | Rear | 49 | 7.1 | SAE 1:1 Capacity | 34,5 | 45.12 |
| Total | 36 090 | 79,565 | | | | SAE 2:1 Capacity with Autogate | 30 | 39.23 |
| LADEN | | | LADEN | | | | | |
| Front | 24 430 | 53,859 | Front | 134 | 19 | | | |
| Middle | 28 550 | 62,942 | Middle | 163 | 24 | Rated Payload | 45 400 kg | 100,090 lbs |
| Rear | 28 510 | 62,854 | Rear | 160 | 23 | | | |
| Total | 81 490 | 179,655 | | | | | | |

GRADEABILITY/RIMPULL

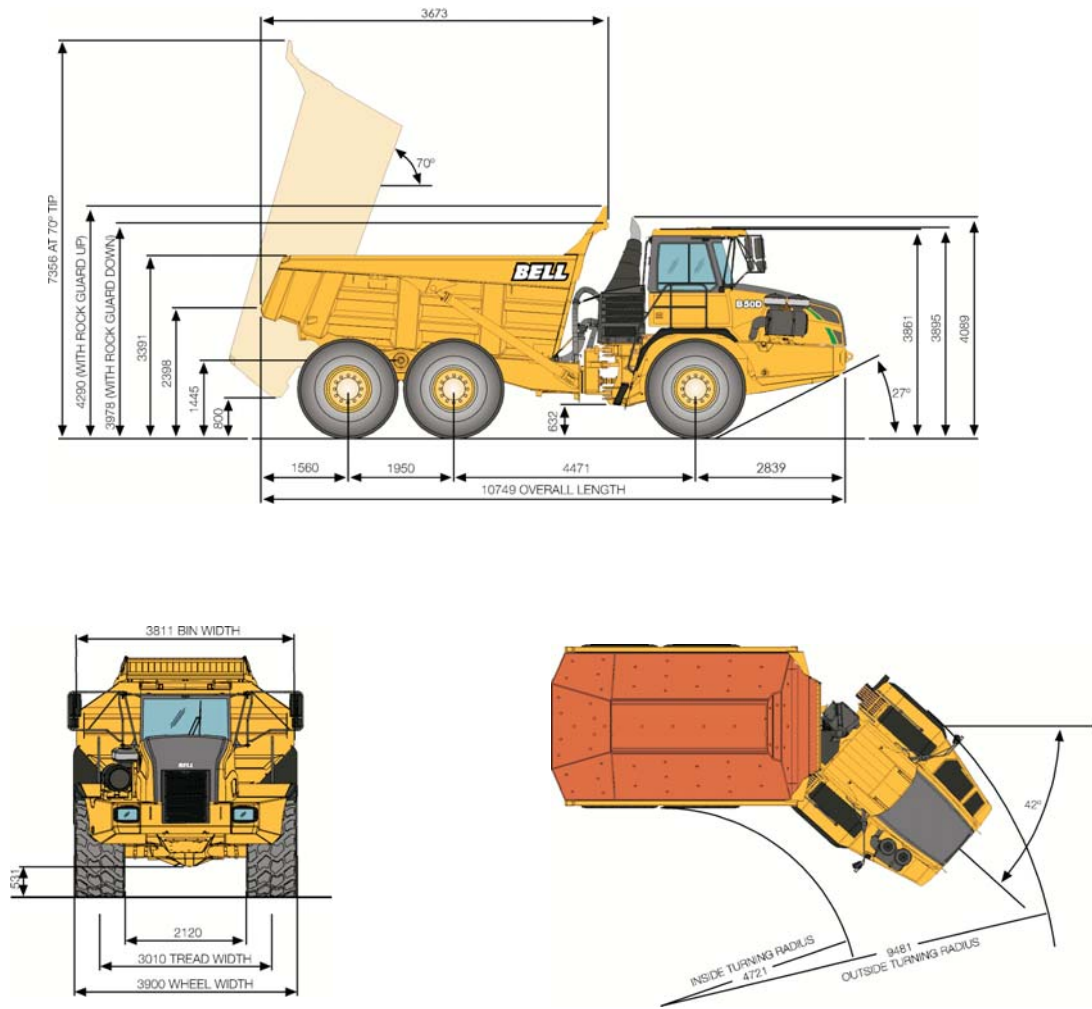


RETARDATION



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DIMENSIONS



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STANDARD

EQUIPMENT

Cab

- ROPS/FOPS certification
- 74dBA Sound Pressure
- Protective rear window guard
- Handrails on fenders
- Tilt cab for service access
- Gas strut supported door
- Tinted safety glass
- Sliding windows
- Rear view mirrors- regular and wide angle
- Electric adjust and heated mirrors (one per side)
- Wiper/washer with intermittent control
- Sand/dust deflector for windshield
- Tilt and telescoping steering wheel
- Adjustable air suspension seat with retractable seat belt, adjustable damper, fore/aft isolator & automatic height positioning system
- Operator and trainer grab handles
- Fold-away trainer seat with retractable seat belt
- HVAC climate control system with filtered and ducted air
- Air horn
- Overhead console for FM and
- 2-way radio, compartments for storage, electrical relays and circuit breakers and control & modules
- Toolbox
- Clothing hooks strap
- 12V power outlet/12V cigarette lighter
- Ashtrays
- Drinks holders
- Cooled/heated lunchbox
- Wheel spanner set
- Analogue Gauges

- Engine coolant temperature
- Engine oil pressure
- System air pressure
- Transmission oil temperature
- Fuel
- Speedometer
- LCD Display
- Transmission gear selection
- Tachometer
- Battery voltage
- Hourmeter
- Odometer

Brakes

- Spring applied air release park brake on rear driveshaft

Other

- Groeneveld central lubrication system
- Body liners
- Driver ID & Immobilizer
- Work lights
- Artic reverse light
- Electrical horn
- Flashing beacon

Provision for:

- Reverse camera and alarm
- Wiggins quick fuelling system

OPTIONAL

EQUIPMENT

- Factory and field installed)
- Exhaust body heating
- 2 extra batteries
- Fuel filter heating element
- Autogate
- Bin/body without liners for sand/mud
- application
- Bell Fleetm@tic hardware
- On board weigh system



Features of the B50D

The B50D delivers the following Artic Truck benefits to the 50 ton class

- **Lower capital investment**
- **Better fuel economy**
- **Reduced time costs and maintenance**
- **Superior gradeability**
- **More flotation**
- **Greater all weather working capacity**
- **And valuable versatility over rigid trucks**
- **The B50 is equally at home in mining applications or construction type earthmoving**

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**Strong Reliable Machines
Strong Reliable Support**

