

B50D 6x6

ARTICULATED
DUMP TRUCK



key features

- **Gross Power** 380 kW (510 hp)
- **Gross Torque** 2 200 Nm (1,622 lbft)
- **Rated Payload** 45 400 kg (100 090 lbs)



D SERIES

B50D6x6

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	380 kW (510 hp) @ 1 800 rpm SAE J1349
Net power	372 kW (506 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 (972 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 Constant meshing planetary gears, clutch operated
Gears	6 Forward, 1 Reverse
Clutch type	Hydraulically operated multi-disc
Control type	Electronic
Torque converter layout	Hydrodynamic, with lock-up in all gears
Vehicle speeds	1st 2nd 3rd 4th 5th 6th R
Low range	5,5 11,7 16,9 25,8 33,8 38,4 4,7 km/h 3,4 7,3 10,5 16,0 21,0 23,9 2,9 mph
High range	1st 2nd 3rd 4th 5th 6th 7,5 15,9 23,0 35,2 46,0 52,3 4,7 9,9 14,3 21,9 28,6 32,5

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 planetary on all axles
Housing type	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
Maximum ground pressure (laden at 15% sinkage of unloaded radius)	161 kPa (23 psi)

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

Pump Type	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
Application	Variable displacement, loadsensing piston
Flow	Steering, tipping, hydraulic brake charging, suspension and cooling fan drive
Pressure	350 l/min (92.5 US gal/min)
Filter	25 MPa (3,626 psi)
	5 micron

PNEUMATIC SYSTEM

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

Angle	Hydrostatically actuated by two double acting cylinders, with ground-driven emergency steering pump.
Lock to lock turns	+ - 42° 4,2

BODY

Capacity:	Struck	21,4 m ³ (28,0 yd ³)
Heaped	SAE 2:1	28,2 m ³ (36,9 yd ³)
Rated payload		45 400 kg (100,090 lbs)
Raise time		11,2 s (60° tip angle)
Power down time		9,9 s (60° tip angle)
Tipping angle		70° standard, or any lower angle programmable

OPERATING WEIGHTS

Empty:	Front	17 710 kg (39,044 lbs)
	Middle	9 433 kg (20,796 lbs)
	Rear	9 010 kg (19,864 lbs)
	Total	36 153 kg (79,704 lbs)
Laden:	Front	23 954 kg (52,809 lbs)
	Middle	29 011 kg (63,985 lbs)
	Rear	28 588 kg (62,026 lbs)
	Total	81 553 kg (179,793 lbs)

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

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STANDARD EQUIPMENT

continued...

- 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

STANDARD EQUIPMENT

continued...

Provision for:

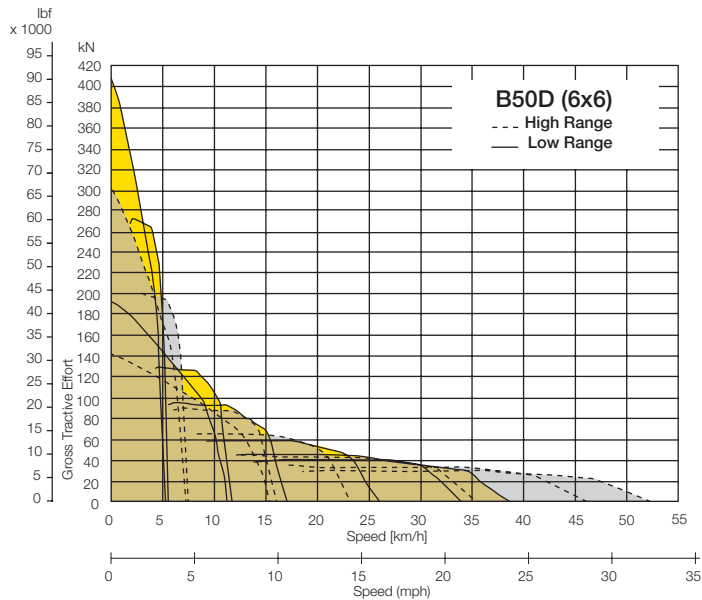
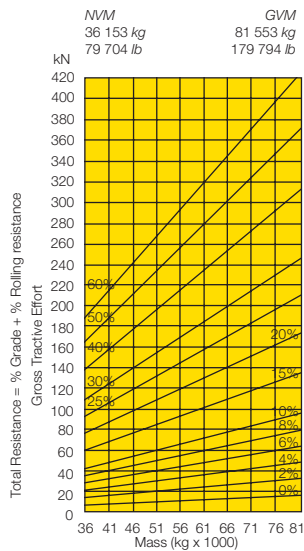
- Reverse camera and alarm
- Wiggins quick fuelling system

OPTIONAL EQUIPMENT

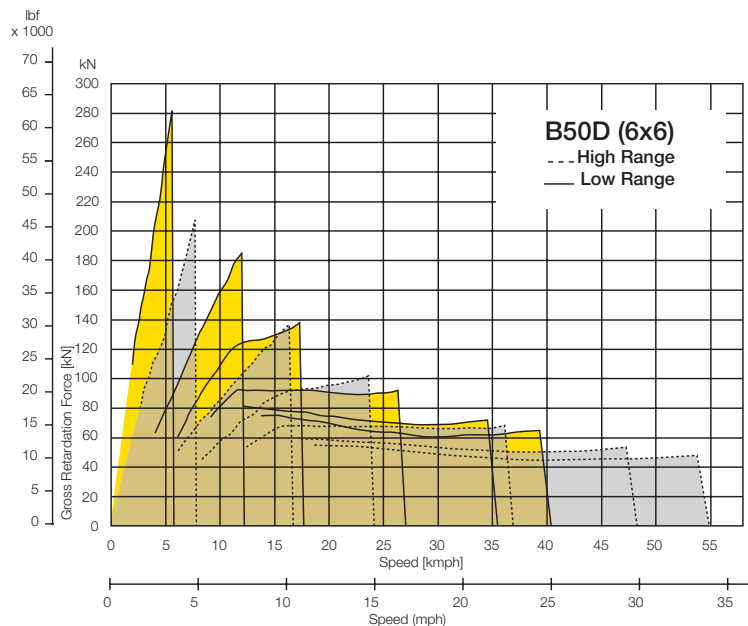
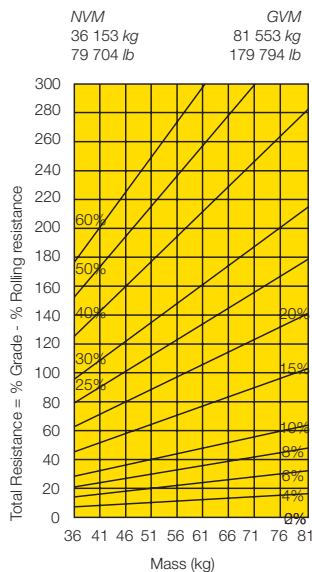
(Factory and field installed)

- 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

GRADEABILITY/RIMPULL

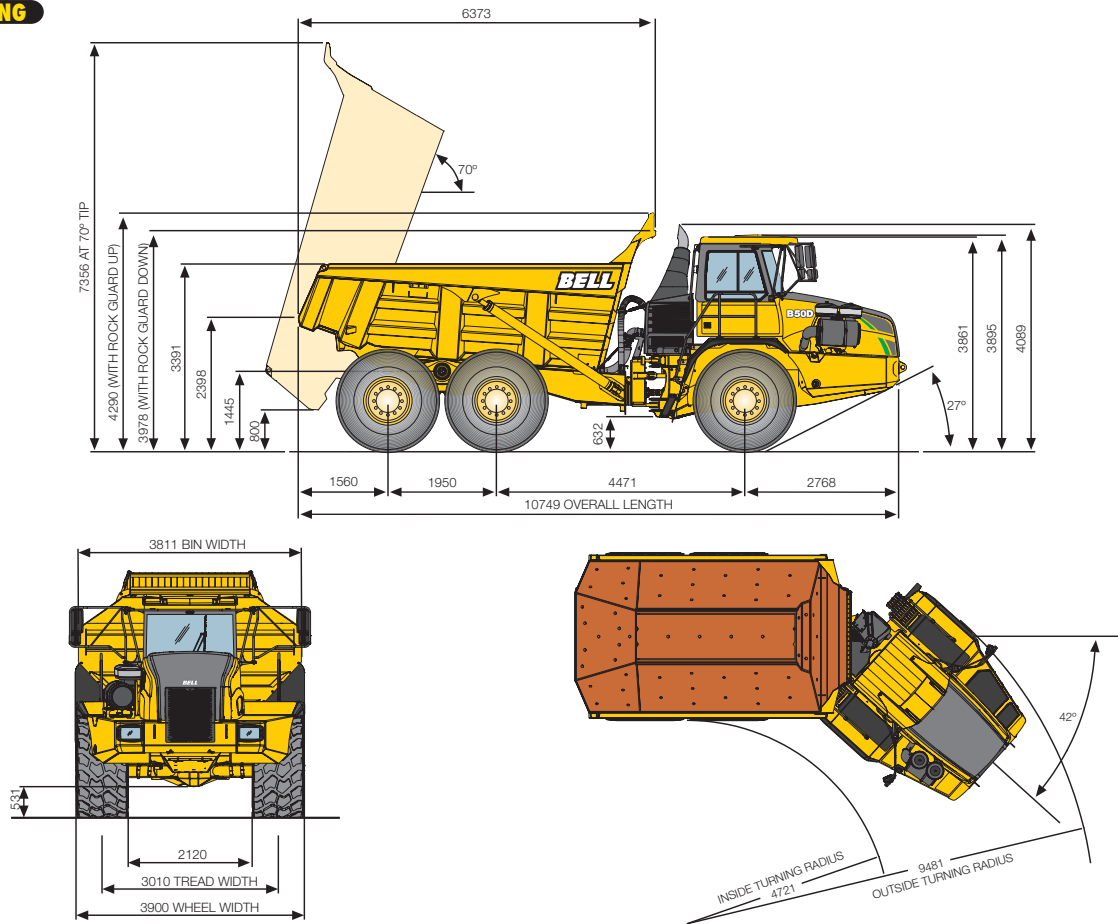


RETARDATION



B50D_{6x6} ARTICULATED DUMP TRUCK

LINE DRAWING



Features of the B50D

The B50D delivers the following Artic Truck benefits (not available to rigid haul trucks)

- **Lower capital investment**
- **Better fuel economy**
- **Reduced service time costs and maintenance**
- **Superior gradeability**
- **Higher flotation**
- **All-weather working capacity**
- **Valuable versatility over rigid trucks.....the B50D is equally at home in mining applications or construction type earthmoving - "Versatile to go where the work is."**

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All dimensions are shown in millimetres, unless otherwise stated between brackets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. Photographs featured in this brochure may include optional equipment.

**Strong Reliable Machines
 Strong Reliable Support**

