

B50D 6x6

**ARTICULATED
DUMP TRUCK
Mk VI**



DSERIES

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

BELL

B50D ARTICULATED 6x6 DUMP TRUCK

ENGINE	Mercedes Benz OM502LA
Configuration	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)
Auxiliary Brake	Automatic exhaust brake Engine Valve Brake (EVB)
Certification	
Non Regulated	OM 502 LA.E2/1-00 meets Europe (EU) step2;
Regulated	OM 502 LA.E3A/1 meets Europe (EU) step 3

TRANSMISSION	Full automatic planetary transmission with integral retarder
Layout	Engine mounted with rear output
Gear layout	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

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

WHEELS	
Tyre size	875/65 R29
Type	Radial Earthmover

AXLES	High strength steel fabricated with spiral bevel type gears on the Controlled Traction differential and heavy duty outboard planetary gears.
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Final drive type	Outboard heavy duty planetary on all axles
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Housing type	Steel fabricated
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BRAKING SYSTEM	Dual circuit, full hydraulic oil immersed wet multi-disc brakes on all three axles
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SERVICE BRAKE	399 kN (89,699 lbf)
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Maximum brake force	Spring applied, air released driveline mounted disc.
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PARK & EMERGENCY	440 kN (98,920 lbf)-Static
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Maximum brake force	105 kN (23,605 lbf)-Dynamic
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RETARDATION SYSTEM	Automatic exhaust brake and Engine Valve Brake (EVB)
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Maximum retardation power	340 kW (456 hp)
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TRANSMISSION RETARDER	Integral hydrodynamic, output speed dependant, six selectable levels of retardation
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Total retardation power (excl. service brakes)	550 kW (737 hp)
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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	Variable displacement with 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
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Pump Type	Variable displacement, load sensing piston
Application	Steering, tipping, hydraulic brake charging, suspension and cooling fan drive
Flow	350 l/min (92.5 US gal/min)
Pressure	25 MPa (3,626 psi)
Filter	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	+/- 42°
Lock to lock turns	4,2

DUMPING SYSTEM	Two double-acting, single stage, dump cylinders
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

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



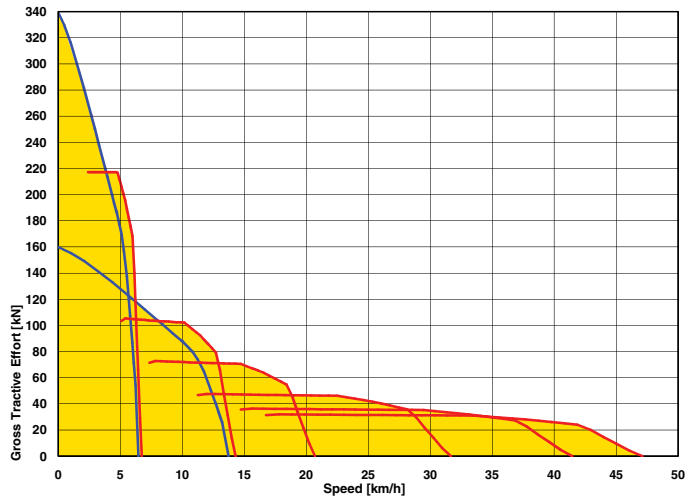
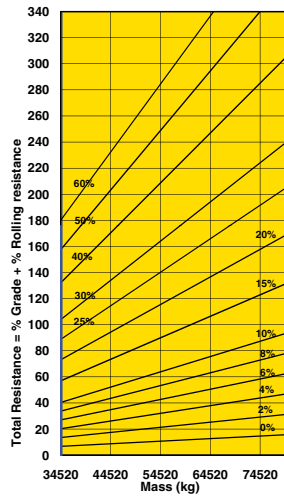
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LOAD CAPACITY & GROUND PRESSURE

WEIGHTS			GROUND PRESSURE			LOAD CAPACITY		
UNLADEN	kg	lbs	UNLADEN	kPa	psi	BODY	m ³	cu.yd
Front	17,550	38,691	Front	100	14.6	Struck Capacity	21,6	28.3
Middle	8,500	18,739	Middle	53	7.7	SAE 2:1 Capacity	27,5	36.1
Rear	8,470	18,673	Rear	49	7.1	SAE 1:1 Capacity	34,5	45.12
Total	34,520	76,104	Total			SAE 2:1 Capacity with Autogate	28,7	37.5
LADEN			LADEN					
Front	23,440	51,676	Front	314	45	Rated Payload	45 400 kg	100,090 lbs
Middle	28,255	62,292	Middle	365	53			
Rear	28,225	62,225	Rear	365	53			
Total	79,920	176,193						

GRADEABILITY / RIMPULL

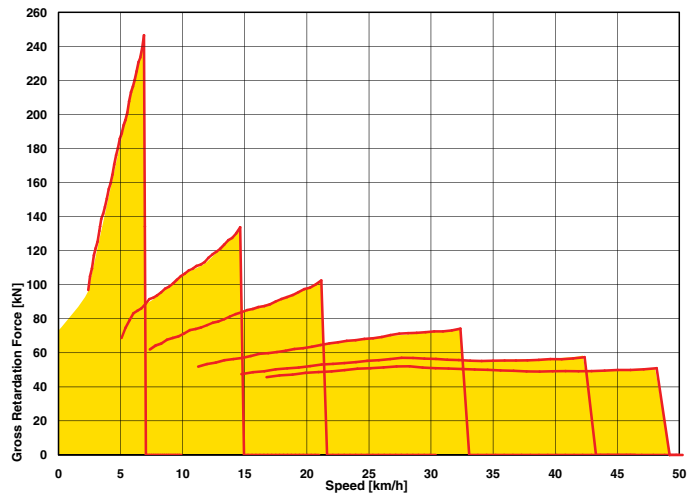
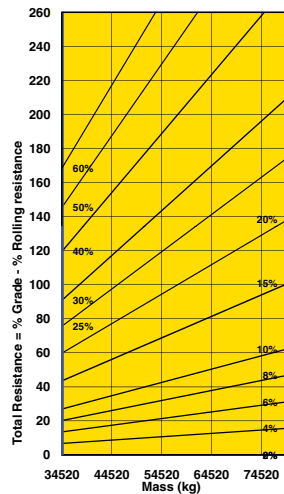
NVM 34520 kg / 76104 lb
GVM 79920 kg / 176193 lb



Differential Ratio 4.11 Rolling Radius 890 mm
Hub Ratio 5.8 Driveline Efficiency 86%
Drop Box Ratio 1.00 Rolling Resistance 2%

RETARDATION

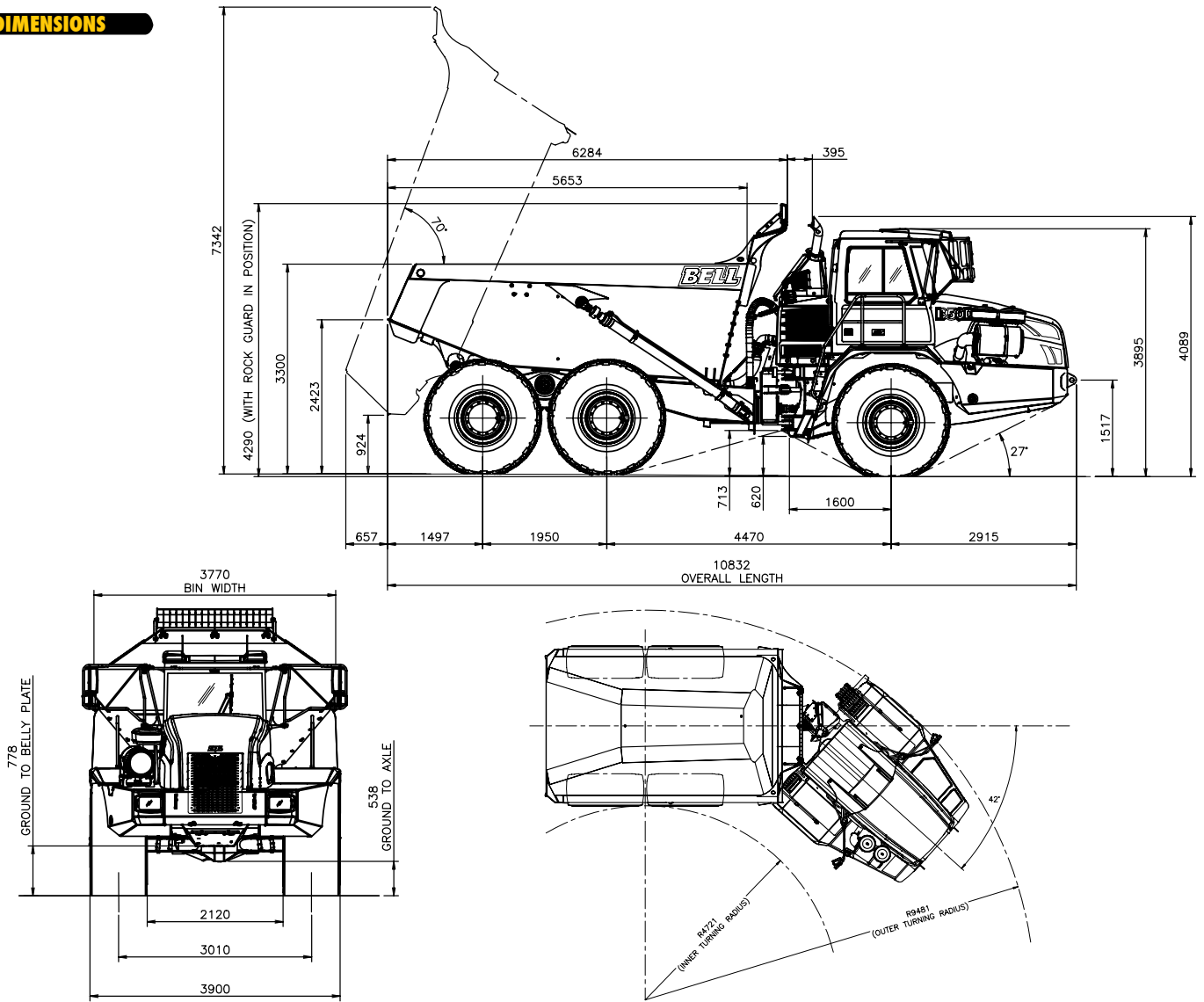
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DIMENSIONS



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MKV1

AVAILABLE EQUIPMENT

Cab

- ROPS/FOPS certification
- Protective rear window guard
- Tilt cab for service access
- Gas strut supported door
- Tinted safety glass
- Sliding windows
- Rear view mirrors- regular and wide angle
- Electrically adjustable rearview mirrors - one per side
- Sun visor
- Wiper/washer with intermittent control
- Tilt and telescoping steering wheel
- Adjustable, air suspension seat with retractable seat belt
- Fold-away trainer seat with retractable seat belt
- HVAC climate control system with filtered and ducted air
- Rotating beacon
- 12 V power outlet/12 V cigarette lighter
- Ash tray
- Drinks holder
- Cooled/heated lunch box
- I-Tip programmable bin tip
- Sound insulated to 76 dB(A) to ISO 6396
- Radio/CD/Tape
- Memory Module
- Air horn
- External windshield visor
- Forward working lights

MDU Features

- Operator / Site selected speed control
- Tipping counter
- Trip timer
- Trip distance
- On Board Weigh System (OBW)
- Transmission gear selection
- Fuel Consumption
- Diagnostics
- Intermittent wiper timing control

Gauges

- Speedo calibration for alternative tyre sizes
- Metric /Imperial unit selection
- Warning lights with audible buzzer

Vehicle

- Engine coolant temperature
- Engine oil pressure
- Transmission oil temperature
- Fuel
- Tachometer
- Battery voltage
- Hourmeter
- Odometer
- System air pressure

Other

- Groeneveld auto greasing system
 - Ground driven emergency steering
 - Bin safety prop
 - Articulation lock
 - Integral transmission output retarder with 6 settings
- (Factory or field installed)
- Retractable sun visor
 - Exhaust body heating
 - Autogate
 - Body liners
 - Fleetmatic Satellite Monitoring System
 - Driver ID and immobiliser
 - Artic reverse light
 - Fuel heater
 - Headlight protection grills
 - Rear window wiper
 - Antenna mounting bracket
 - Provision for reverse camera
 - Wiggins quick fuelling system
 - Full handrail kit
 - Tyre pressure monitoring

*standard specification for machines may vary according to region



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**
- **Comfort Ride option with adaptive front suspension and dual stage rear suspension**

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All dimensions are shown in millimetres, unless otherwise stated between brackets.
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**Strong Reliable Machines
Strong Reliable Support**

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