



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



S1C(07/09/08 - P100 (MkVI)) A01 - 109

## 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. 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**



- Gauges**
  - Engine coolant temperature
  - Engine oil pressure
  - Transmission oil temperature
  - Fuel
  - Tachometer
  - Battery voltage
  - Hourmeter
  - Odometer
  - System air pressure
- Vehicle**
  - Groeneveld auto greasing system
  - Ground driven emergency steering
  - Bin safety prop
  - Articulation lock
  - Integral transmission output retarder with 6 settings
- Other**

(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

- 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



# B50D 6x6 ARTICULATED DUMP TRUCK

**ENGINE** Mercedes Benz OM502LA V-8 Turbocharged and intercooled  
**Configuration** Liquid cooled with single pass radiator as well as charge air cooler  
**Cooling system** 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** OM 502 LA.E2/1-00 meets Europe (EU) step2;  
**Non Regulated** OM 502 LA.E3A/1 meets Europe (EU) step 3  
**Regulated**  
**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 Electronic  
**Control type** 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** 875/65 R29  
**Tyre size** Radial Earthmover  
**Type**

**AXLES** High strength steel fabricated with spiral bevel type gears on the Controlled Traction differential and heavy duty outboard planetary gears.  
**Final drive type** Outboard heavy duty planetary on all axles  
**Housing type** Steel fabricated  
**BRAKING SYSTEM** Dual circuit, full hydraulic oil immersed wet multi-disc brakes on all three axles  
**SERVICE BRAKE** 399 kN (89,699 lbf)  
**Maximum brake force** Spring applied, air released driveline mounted disc.  
**PARK & EMERGENCY** 440 kN (98,920 lbf)-Static  
**Maximum brake force** 105 kN (23,605 lbf)-Dynamic  
**RETARDATION SYSTEM** Automatic exhaust brake and Engine Valve Brake (EVB)  
**ENGINE BRAKE**  
**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)  
**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  
**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 2 x 105 Ah (optional 2 extra batteries)  
**Battery capacity** 28 V 100 A  
**Alternator rating**  
**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)

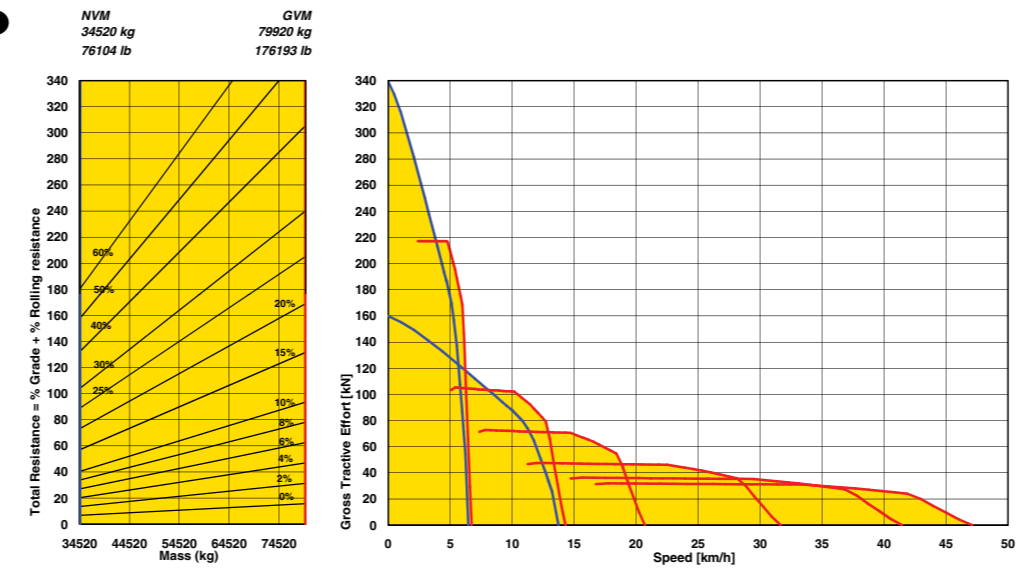


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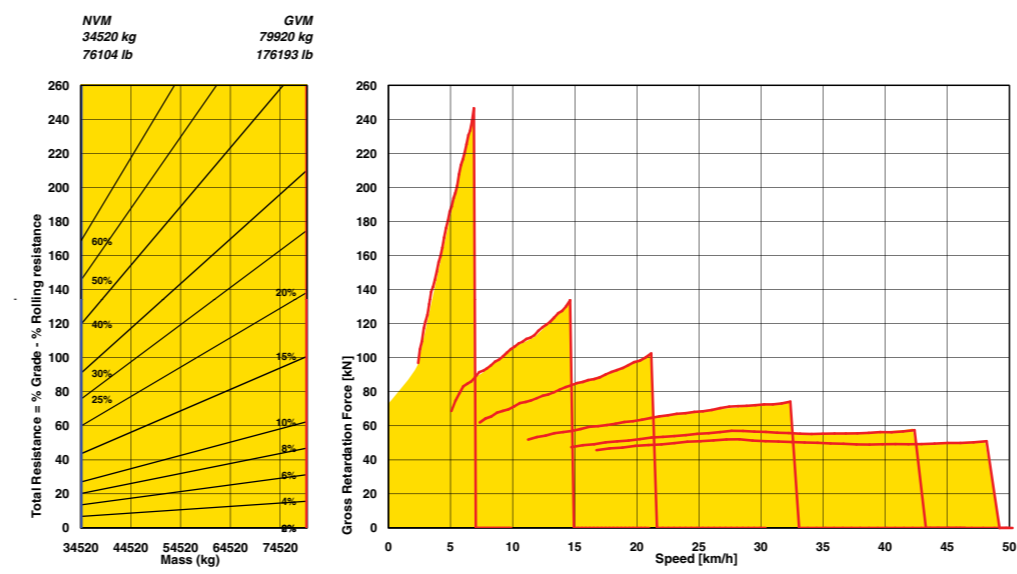
## LOAD CAPACITY & GROUND PRESSURE

WEIGHTS			GROUND PRESSURE			LOAD CAPACITY		
UNLADEN	kg	lbs	UNLADEN	kPa	psi	BODY	m³	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		
<b>LADEN</b>			<b>LADEN</b>			with Autogate	28,7	37.5
Front	23,440	51,676	Front	314	45			
Middle	28,255	62,292	Middle	365	53	<b>Rated Payload</b>	45 400 kg	100,090 lbs
Rear	28,225	62,225	Rear	365	53			
Total	79,920	176,193						

## GRADEABILITY/RIMPULL



## RETARDATION



# B50D 6x6 ARTICULATED DUMP TRUCK

## DIMENSIONS

