

# B50D<sub>6x6</sub> ARTICULATED DUMP TRUCK

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## 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 6394
- Radio/CD/Tape
- Memory Module
- Air horn

### 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

- 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
- Forward working lights
- Artic reverse light
- Fuel heater
- External windshield visor
- Headlight protection grills
- Rear window wiper
- Antenna mounting bracket
- Provision for reverse camera
- Wiggins quick fuelling system

\*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**



BELL INTERNATIONAL: Tel: +27 (0) 35-907 9431

France Tel: +33 (0) 5 55 89 23 56 Germany Tel: +49 (0) 6631 / 91 13 - 0

Spain Tel: +34 91 879 60 19 South Africa Tel: +27 (0) 11-928-9700

UK Tel: +44 (0) 1283 712862

E-mail: sales@bellequipment.com • www.bellequipment.com

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**



SPLC/092/04/08 V4 - B50D (02) Eng - 1446 (Rev1) - UK

### key features

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

**D SERIES**



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**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  
**Gross power** 382 kW (512 hp) @ 1 800 rpm  
**Net power** 2 200 Nm (1,622 lbf) @ 1 200 rpm SAE J1349  
**Gross torque** 2 147 Nm (1,584 lbf) @ 1 200 rpm  
**Net torque** 15,93 litres (730 cu.in) 640 litres (169 US gal)  
**Displacement** Automatic exhaust brake  
**Fuel tank capacity** Engine Valve Brake (EVB)  
**Auxiliary Brake** Certification OM 502 LA.E2/1-00 meets Europe (EU) step2; OM 502 LA.E3A/1 meets Europe (EU) step 3  
**Non Regulated**  
**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  
**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)

**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.

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

**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** 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)

**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** 350 l/min (92.5 US gal/min) 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

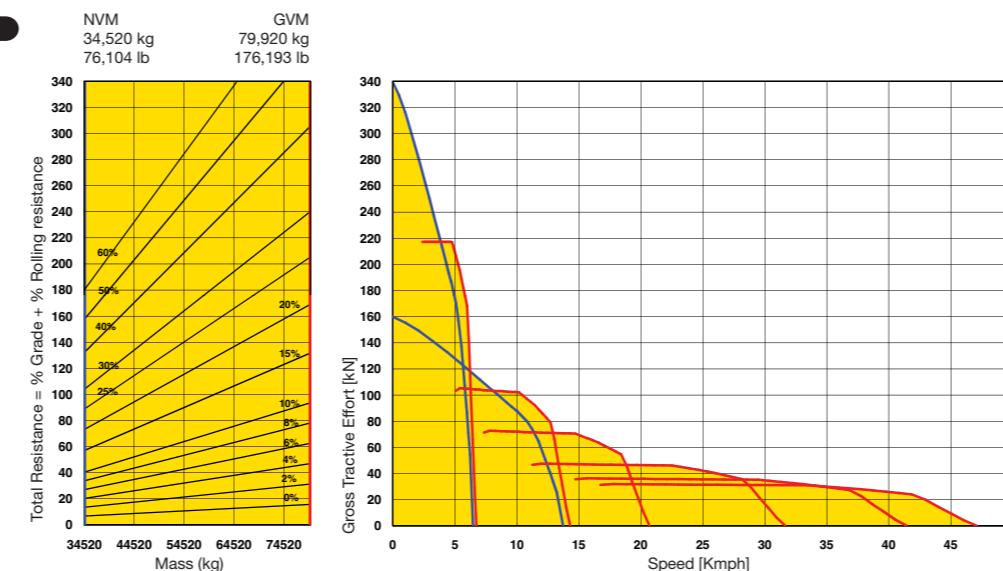
**BODY** Capacity 21.4 m<sup>3</sup> (28.0 yd<sup>3</sup>)  
**Struck** 28.2 m<sup>3</sup> (36.9 yd<sup>3</sup>)  
**Heaped** SAE 2:1 45 400 kg (100,090 lbs)  
**Rated payload** 11.2 s (60° tip angle)  
**Raise time** 9.9 s (60° tip angle)  
**Power down time** 70° standard, or any lower angle programmable  
**Tipping angle**

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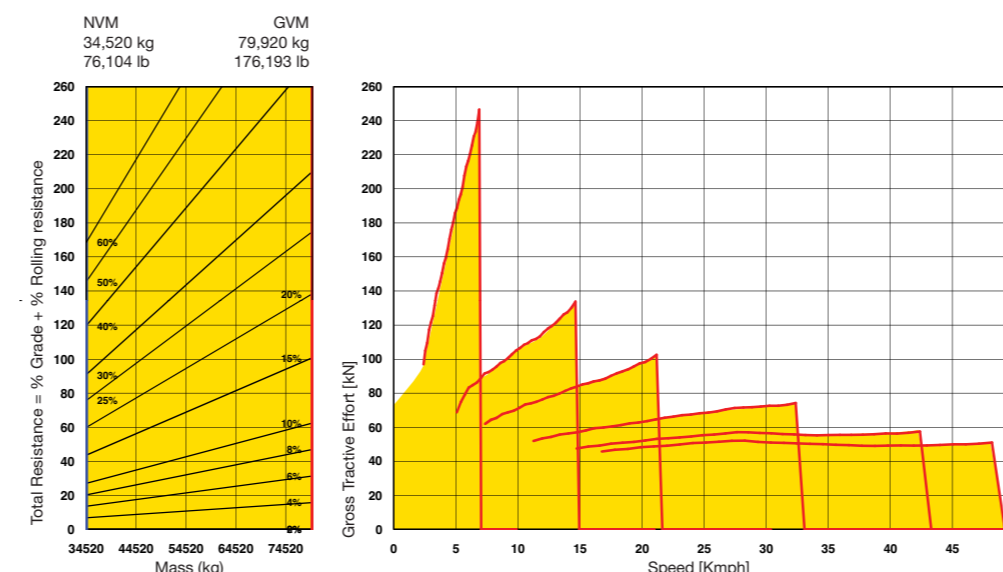
## LOAD CAPACITY & GROUND PRESSURE

| WEIGHTS |        |         | GROUND PRESSURE   |     |      | LOAD CAPACITY            |                |             |
|---------|--------|---------|---|-----|------|--------------------------|----------------|-------------|
|         |        |         | At 15% sinkage of unloaded radius and specified weights |     |      |                          |                |             |
| UNLADEN | kg     | lbs     | UNLADEN   | kPa | psi  | BODY (Ribbed reinforced) | m <sup>3</sup> | cu.yd       |
| Front   | 17,550 | 38,691  | Front   | 100 | 14.6 | Struck Capacity          | 21,4           | 27.99       |
| Middle  | 8,500  | 18,739  | Middle  | 53  | 7.7  | SAE 2:1 Capacity         | 28,2           | 36.88       |
| 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            |                |             |
| LADEN   |        |         | LADEN   |     |      |                          | 30             | 39.23       |
| Front   | 23,440 | 51,676  | Front   | 314 | 45   |                          |                |             |
| Middle  | 28,255 | 62,292  | Middle  | 365 | 53   | Rated Payload            | 45 400 kg      | 100,090 lbs |
| Rear    | 28,225 | 62,225  | Rear  | 365 | 53   |                          |                |             |
| Total   | 79,920 | 176,193 |   |     |      |                          |                |             |

## GRADEABILITY/RIMPULL



## RETARDATION



## DIMENSIONS

