

# B30E

4x4

Articulated Dump Trucks



**Stage IV/Tier 4f  
Certified**

- Gross Power: 246 kW (329 hp)
- Gross Torque: 1 300 Nm (958 lbft)
- Rated Payload: 28 000 kg (61 729 lbs)

**BELL**

# Technical Data - B30E

## ENGINE

**Manufacturer**  
Mercedes Benz

**Model**  
OM936LA

**Configuration**  
Inline 6, turbocharged and intercooled

**Gross Power**  
246 kW (329 hp) @ 2 200 rpm

**Net Power**  
236 kW (316 hp) @ 2 200 rpm

**Gross Torque**  
1 300 Nm (958 lbf) @ 1 150 -1 800 rpm

**Displacement**  
7,7 litres (469 cu.in)

**Auxiliary Brake**  
Engine Valve Brake

**Fuel Tank Capacity**  
302 litres (79.78 US gal)

**AdBlue® Tank Capacity**  
31 litres (8.2 US gal)

**Certification**  
OM936LA meets EU Stage IV / EPA Tier 4 Final emissions regulations.

## TRANSMISSION

**Manufacturer**  
Allison

**Model**  
3500PR ORS

**Configuration**  
Fully automatic planetary transmission with integral retarder.

**Layout**  
Engine mounted

**Gear Layout**  
Constant meshing planetary gears, clutch operated.

**Gears**  
6 Forward, 1 Reverse

**Clutch Type**  
Hydraulically operated multi-disc

**Control Type**  
Electronic

**Torque Control**  
Hydrodynamic with lock-up in all gears.

## TRANSFER CASE

**Manufacturer**  
Kessler

**Series**  
W1400

**Layout**  
Remote mounted

**Gear Layout**  
Three in-line helical gears

**Output Differential**  
Interaxle 33/67 proportional differential. Automatic inter-axle differential lock.

## AXLES

**Manufacturer**  
Bell

**Model**  
Front: Bell 18T  
Rear: Bell 36T

**Front Differential**  
High input limited slip differential with spiral bevel gears.

**Final Drive**  
Outboard heavy duty planetary on all axles.

## BRAKING SYSTEM

**Service Brake**  
Dual circuit, full hydraulic actuation wet disc brakes on all axles.

**Maximum brake force:**  
263 kN (59 125 lbf)

**Park & Emergency**  
Spring applied, air released driveline mounted disc.

**Maximum brake force:**  
396 kN (89 000 lbf)

**Auxiliary Brake**  
Automatic engine valve brake. Automatic, adjustable, integral, hydrodynamic transmission retarder. Output shaft speed dependent.

**Total Retardation Power**  
Continuous: 318 kW (426 hp)  
Maximum: 588 kW (788 hp)

## WHEELS

**Type**  
Radial Earthmover

**Tyre**  
Front: 23.5 R 25  
Rear: 29.5 R 25

## FRONT SUSPENSION

Semi-independent, leading A-frame supported by hydro-pneumatic suspension struts.

Optional: Adaptive Comfort Ride suspension.

## HYDRAULIC SYSTEM

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

**Pump Type**  
Variable displacement load sensing piston

**Flow**  
165 l/min (44 gal/min)

**Pressure**  
28 MPa (4 061 psi)

**Filter**  
5 microns

## STEERING SYSTEM

Double acting cylinders, with ground-driven emergency steering pump.

**Lock to lock turns**  
4,1

**Steering Angle**  
45°

## DUMPING SYSTEM

Two double-acting, single stage, dump cylinders.

**Raise Time**  
12 s

**Lowering Time**  
6 s

**Tipping Angle**  
70° standard, or any lower angle programmable.

## PNEUMATIC SYSTEM

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

**System Pressure**  
810 kPa (117 psi)

## ELECTRICAL SYSTEM

**Voltage**  
24 V

**Battery Type**  
Two AGM (Absorption Glass Mat) type.

**Battery Capacity**  
2 X 75 Ah

**Alternator Rating**  
28V 80A

## VEHICLE SPEEDS

1st	7 km/h	4 mph
2nd	12 km/h	8 mph
3rd	19 km/h	12 mph
4th	27 km/h	17 mph
5th	39 km/h	24 mph
6th	45 km/h	28 mph
R	7 km/h	4 mph

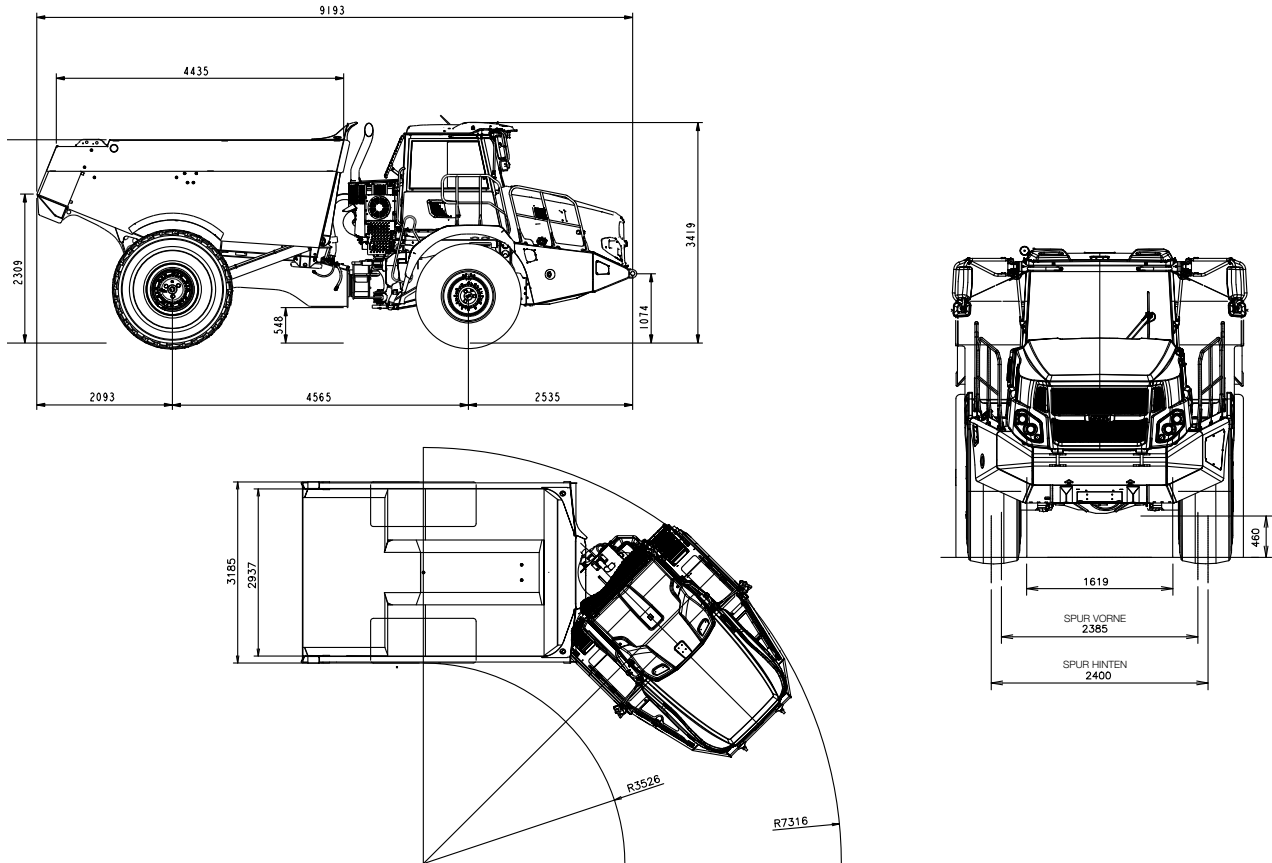
## CAB

ROPS/FOPS certified 74 dBA internal sound level measured according to ISO 6396.

# Load Capacity & Ground Pressure

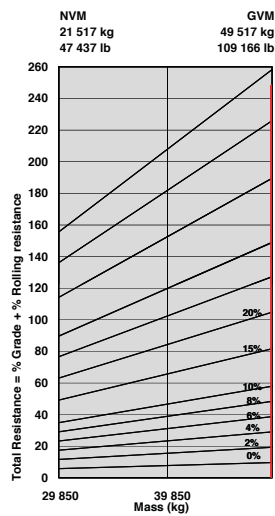
OPERATING WEIGHTS		GROUND PRESSURE		LOAD CAPACITY		OPTION WEIGHTS	
UNLADEN	kg (lb)	LADEN-No Sinkage		BODY	m³ (yd³)		kg (lb)
Front	10 453 (23 045)	23.5 R 25	kPa (Psi)	Struck Capacity	15 (19,5)	Extra wheelset:	
Rear	11 064 (24 392)	Front	278	SAE 2:1 Capacity	18,5 (24)	Front	565 (1 246)
Total	21 517 (47 437)	Rear	464	SAE 1:1 Capacity	21 (27,5)	Rear	937 (2 066)
LADEN				Rated Payload	28 000 kg		
Front	12 819 (28 261)				(61 729 lbs)		
Rear	36 698 (80 905)						
Total	49 517 (109 166)						

## Dimensions

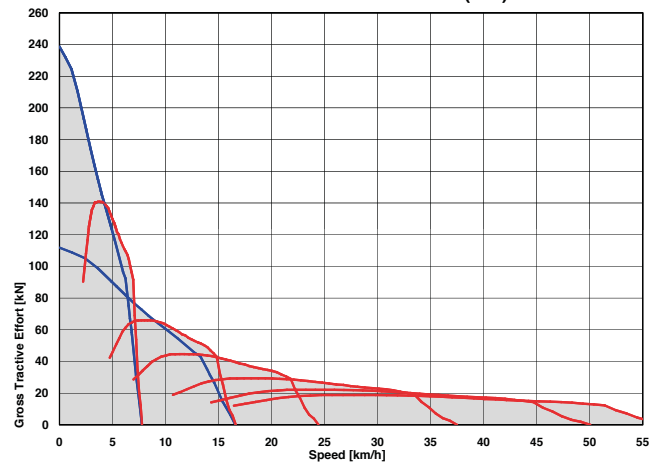


## Grade Ability/Rimpull

1. Determine tractive resistance by finding intersection of vehicle mass line and grade line.  
NOTE: 2% typical rolling resistance is already assumed in chart and grade line.
2. From this intersection, move straight right across charts until line intersects rimpull curve.
3. Read down from this point to determine maximum speed attained at that tractive resistance.

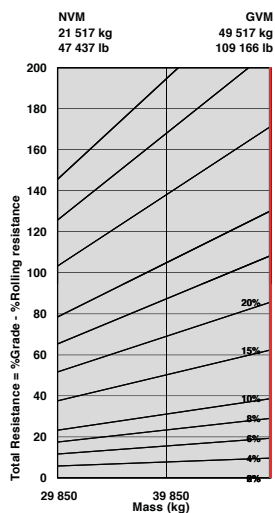


B30E (4x4) Tractive Effort

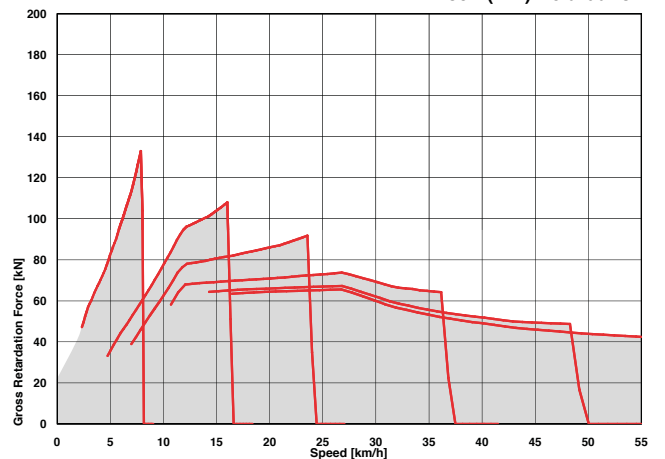


## Retardation

1. Determine retardation force required by finding intersection of vehicle mass line.
2. From this intersection, move straight right across charts until line intersects the curve.  
NOTE: 2% typical rolling resistance is already assumed in chart.
3. Read down from this point to determine maximum speed.



B30E (4x4) Retardation



# Features and Options

## ● STANDARD ▲ OPTION

### ENGINE

- Engine valve brake and exhaust brake
- Dual element air cleaner with dust ejector valve
- Precleaner with automatic dust scavenging
- Water separator
- Serpentine drive belt with automatic tensioner
- Provision for fast fill

### COOLING

- Crankshaft mounted electronically controlled viscous fan drive
- Fan guard

### PNEUMATIC SYSTEM

- Engine-mounted compressor
- Air drier with heater
- Integral unloader valve

### ELECTRICAL SYSTEM

- Battery disconnect
- Drive lights
- Air Horn
- Reverse alarm
- Rotating Beacon
- Pitch Roll Sensor
- ▲ Artic reverse light

### STEERING SYSTEM

- Bi-directional ground-driven secondary steering pump

### CAB

- ROPS/FOPS certification
- Tilt cab
- Gas strut-supported door
- I-Tip programmable dump-body tip settings
- HVAC Climate control system
- Radio with mp3 function
- Rear window guard
- Wiper/washer with intermittent control
- Tilt and telescoping steering wheel
- Center-mount air-suspension seat
- Forward work lights
- ▲ LED work lights
- ▲ Rotating beacon: seat belt installation
- ▲ Remote engine and machine isolation
- ▲ Remote battery jump start
- Retractable 3 point seat belt
- Heated seat
- Foldaway trainer seat with retractable seat belt

## ● STANDARD ▲ OPTION

### CAB (continued)

- 12-volt power outlet
- Cab utility bin (removable)
- Cup holder
- Cooled/heated lunch box
- Electric adjustable and heated mirrors
- Deluxe 10" color LCD:
  - Speedometer / Fuel gauge /
  - Transmission oil temperature gauge /
  - Engine coolant temperature gauge /
  - LED function/warning indicators and audible alarm /
  - Transmission gear selection /
  - Tachometer / Battery voltage / Hour meter /
  - Odometer / Fuel consumption / Tip counter /
  - Trip timer / Trip distance / Metric/English units /
  - Service codes/diagnostics
- Backlit sealed switch module functions with:
  - Wiper control / Lights / Heated mirrors /
  - Retarding aggressiveness / Transfer case differential lock /
  - Transmission gear hold /
  - Dump-body tip limit / Automatic dump-body tip settings /
  - Air conditioner/ Heater controls /
  - Preselected Speed Control

### DUMP BODY

- Dump body mechanical lock
- ▲ Body liner
- ▲ Tailgate
- ▲ Body heater
- ▲ Less dump body and cylinders

### OTHER

- Automatic Traction Control (ATC)
- Wet disc brakes
- 23.5R25 Radial Earthmover tires (Front)
- 29.5R25 Radial Earthmover tires (Rear)
- Remote grease banks
- ▲ Automatic greasing
- ▲ Onboard Weighing
- ▲ Load lights: stack
- ▲ Comfort ride suspension (Front)
- ▲ Reverse camera
- ▲ Hand rails
- Cab peak
- ▲ High pressure hydraulic filter
- ▲ Fuel heater
- Belly cover
- Cross member cover
- ▲ Remote transmission filters

All dimensions are shown in millimeters, unless otherwise stated between brackets.  
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