

B30E 4x4 Articulated Dump Truck

ENGINE

Manufacturer
Mercedes Benz

Model
OM936LA

Configuration
Inline 6, turbocharged and intercooled

Gross Power
260 kW (348 hp) @ 2 200 rpm

Net Power
250 kW (335 hp) @ 2 200 rpm

Gross Torque
1 450 Nm (1 069 lbft)
@ 1 150-1 800 rpm

Displacement
7,7 litres (469 cu.in)

Auxiliary Brake
Compression brake

Fuel Tank Capacity
302 litres (79.78 US gal)

AdBlue® Tank Capacity
31 litres (8.2 US gal)

Certification
OM936LA meets EU Stage V emissions regulations

TRANSMISSION

Manufacturer
Allison

Model
3400 ORS

Configuration
Fully automatic planetary transmission

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 front and middle axles. Wet brake oil is circulated through a filtration and cooling system.

Maximum brake force:
284 kN (63 859 lbf)

Park & Emergency
Spring applied, air released driveline mounted disc

Maximum brake force:
396 kN (89 000 lbf)

Auxiliary Brake
Compression brake. Automatic retardation through electronic activation of wet brake system.

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

WHEELS

Type
Radial Earthmover

Tyre
Front: 23.5 R25
Rear: 875/65 R29

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

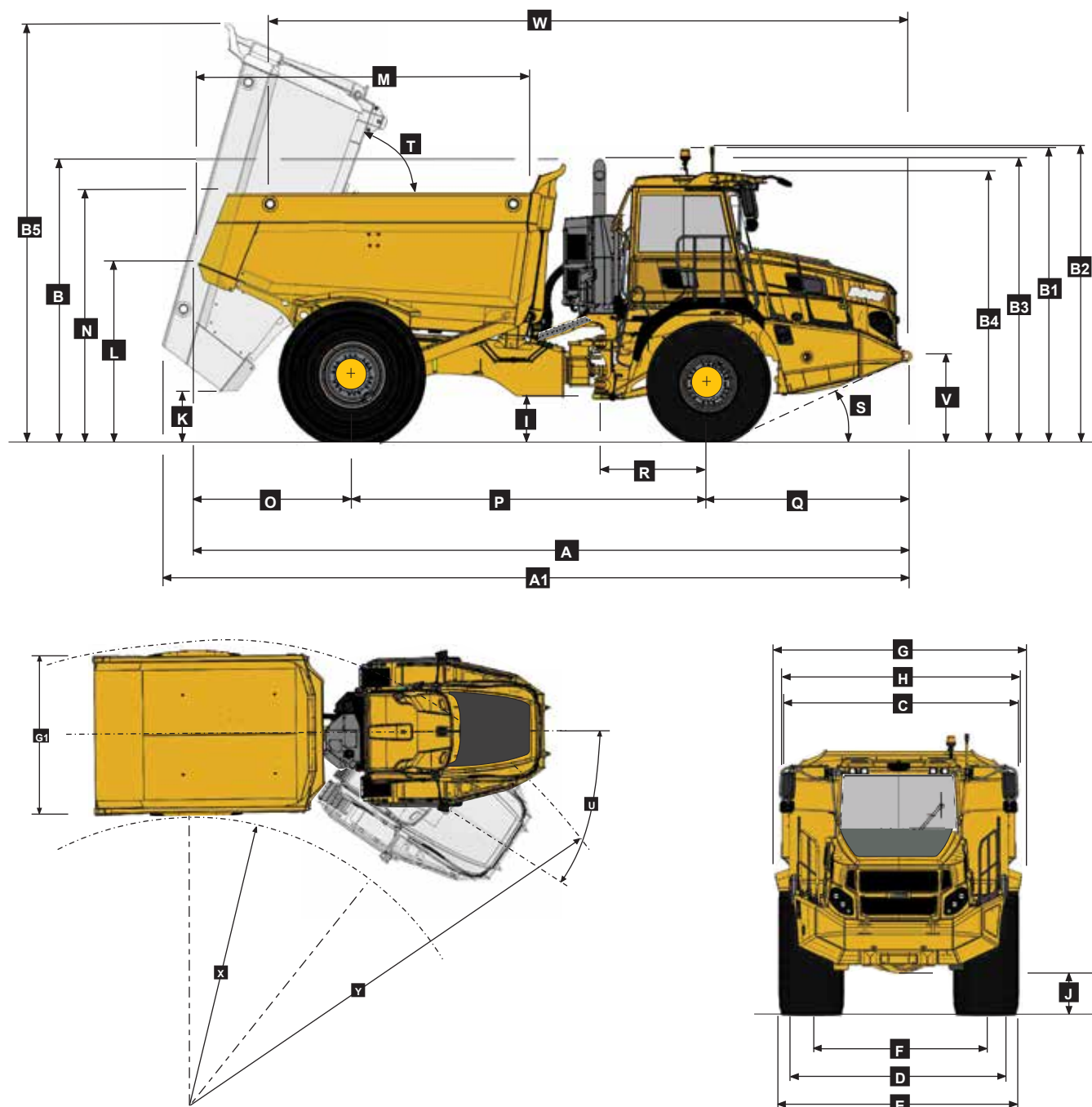
CAB

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	m ³ (yd ³)	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)			SAE 2:1 Capacity	18,5 (24)	23.5 R25	565 (1 246)
Total	21 517 (47 437)	875/65 R 29	kPa (Psi)	SAE 1:1 Capacity	21 (27,5)	875/65 R29	1 024 (2 258)
				Rear	467 (67)	Rated Payload	28 000 kg (61 729 lbs)
Front	12 819 (28 261)						
Rear	36 698 (80 905)						
Total	49 517 (109 166)						

Dimensions



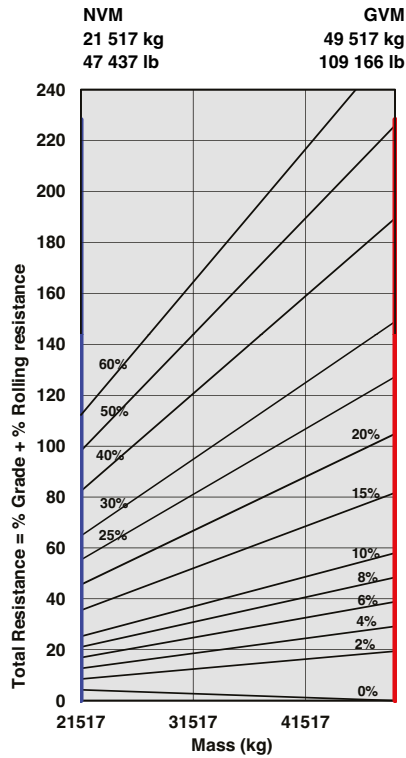
Machine Dimensions

A	Length - Transport Position	9 122 mm	(29.11 ft.)	J	Ground Clearance - Front Axle	480 mm	(18.9 in.)
A1	Length - Bin Fully Tipped	9 709 mm	(31.10 ft.)	K	Ground Clearance - Bin Fully Tipped	444mm	(17.5 in.)
B	Height - Transport Position (no exhaust stack)	3 548 mm	(11.8 ft.)	L	Bin Lip Height - Transport Position	2 331 mm	(7.8 ft.)
B1	Height - Rotating Beacon	3 718 mm	(12.2 ft.)	M	Bin Length	4 271 mm	(14.00 ft.)
B2	Height - Load Light	3 740 mm	(12.3 ft.)	N	Load over Height	3 207 mm	(10.6 ft.)
B3	Height - Exhaust Stack	3 605 mm	(11.10 ft.)	O	Rear Axle Centre to Bin Rear	1 957 mm	(6.5 ft.)
B4	Height - Cab	3 418 mm	(11.3 ft.)	P	Rear Axle Centre to Front Axle Centre	4 560 mm	(14.12 ft.)
B5	Bin Height - Fully Tipped	5 310 mm	(17.5 ft.)	Q	Front Axle Centre to Machine Front	2 605 mm	(8.7 ft.)
C	Width Over Mudguards	2 985 mm	(9.10 ft.)	R	Front Axle Centre to Artic Centre	1 360 mm	(4.6 ft.)
D	Width Over Tyres - Front - 23.5R25	2 998 mm	(9.10 ft.)	S	Approach Angle	25°	
E	Width Over Tyres - Rear - 875/65 R29	3 270 mm	(10.9 ft.)	T	Maximum Bin Tip Angle	70°	
F	Tyre Track Width - Front	2 390 mm	(7.10 ft.)	U	Maximum Articulation Angle	45°	
F	Tyre Track Width - Rear	2 386 mm	(7.10 ft.)	V	Front Tie Down Height	1 040 mm	(3.5 ft.)
G	Width over Bin	3 383 mm	(11.2 ft.)	W	Machine Lifting Centres	8 126 mm	(26.8 ft.)
G1	Width over Tailgate	3 480 mm	(11.5 ft.)	X	Inner Turning Circle Radius	3 488 mm	(11.5 ft.)
H	Width over Mirrors - Operating Position	3 260 mm	(10.9 ft.)	Y	Outer Turning Circle Radius	7 385 mm	(24.3 ft.)
I	Ground Clearance - Artic	539 mm	(21.22 in.)				

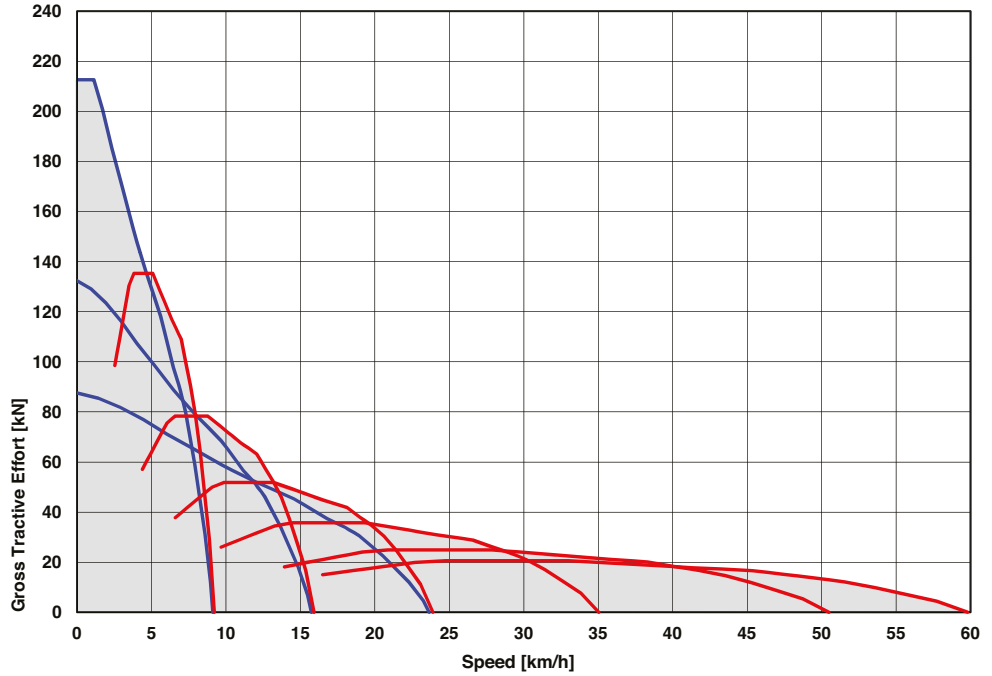
B30E 4x4

Gradeability/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.

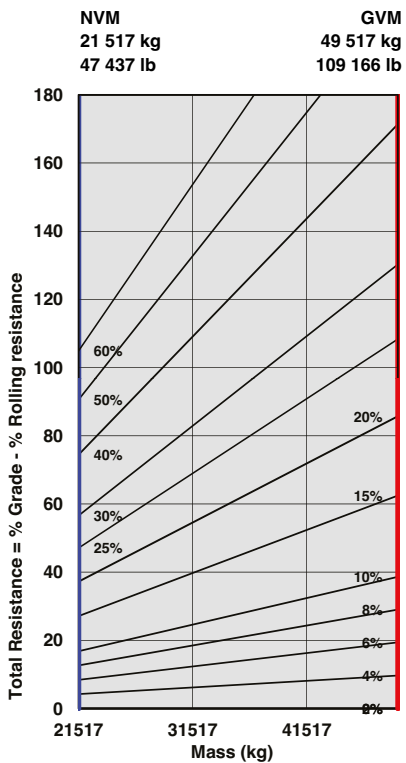


ADT, B30E 4x4 Tractive Effort



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.



ADT, B30E 4x4 Retardation

