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 lbft) @ 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 l (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
18T

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, middle and rear axles.

Maximum brake force:
233 kN (52 380 lbf)

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

Maximum brake force:
214 kN (48 200 lbf)

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

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

WHEELS

Type
Radial Earthmover

Tyre
23.5 R 25 (750/65 R 25 optional)

FRONT SUSPENSION

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

REAR SUSPENSION

Pivoting walking beams with laminated rubber suspension blocks.

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
14,5 s

Lowering Time
7,5 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	15 km/h	9 mph
3rd	23 km/h	14 mph
4th	35 km/h	22 mph
5th	47 km/h	29 mph
6th	50 km/h	31 mph
R	7 km/h	4 mph

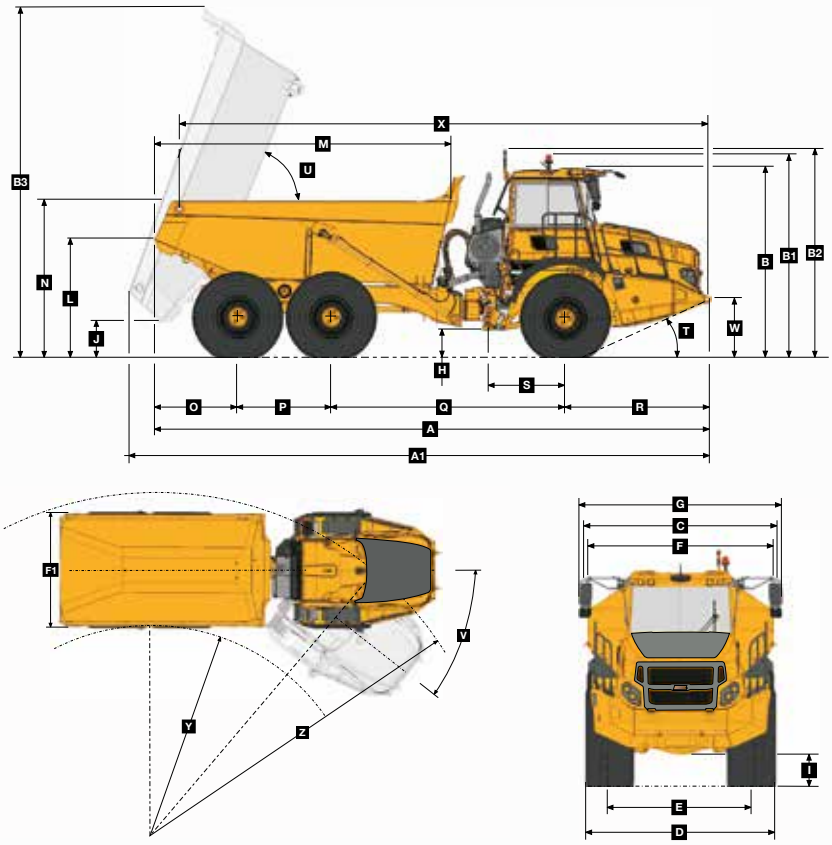
CAB

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		LADEN-15% sinkage		BODY	m³ (yd³)		kg (lb)
Front	10 130 (22 330)	23.5 R 25	kPa (Psi)	23.5 R 25	kPa (Psi)	Struck Capacity	14 (18,3)	Bin liner	1 182 (2 606)
Middle	5 025 (11 080)	Front	282 (41)	Front	246 (36)	SAE 2:1 Capacity	17,5 (22,9)	Tailgate	825 (1 818)
Rear	4 985 (10 990)	Middle	380 (55)	Middle	317 (46)	SAE 1:1 Capacity	21 (27,5)	Extra wheelset	
Total	20 140 (44 400)	Rear	380 (55)	Rear	317 (46)	SAE 2:1 Capacity		(23.5 R 25)	565 (1 246)
LADEN						with Tailgate	18 (23,5)	Extra wheelset	
Front	13 500 (29 760)	750/65 R 25	kPa (Psi)	750/65 R 25	kPa (Psi)			(750/65 R 25)	738 (1 627)
Middle	17 340 (38 230)	Front	235 (34)	Front	213 (31)	Rated Payload	28 000 kg		
Rear	17 300 (38 140)	Middle	310 (45)	Middle	274 (40)		(61 729 lbs)		
Total	48 140 (106 130)	Rear	310 (45)	Rear	274 (40)				

Dimensions

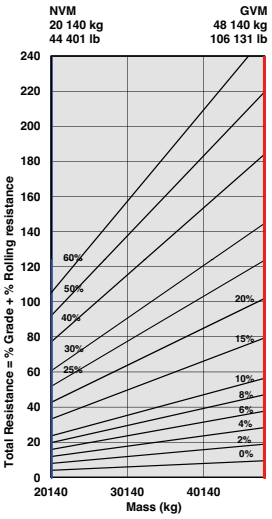


Machine Dimensions

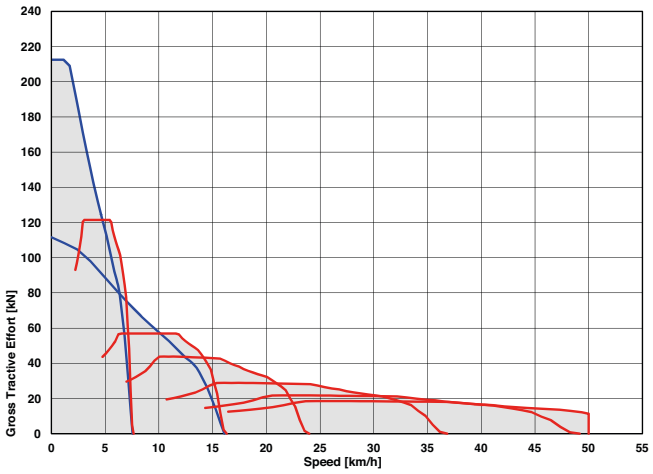
A	Length - Transport Position	9953 mm (32 ft. 7 in.)
A1	Length - Bin Fully Tipped	10395 mm (34 ft. 1 in.)
B	Height - Transport Position	3426 mm (11 ft. 2 in.)
B1	Height - Rotating Beacon	3661 mm (12 ft.)
B2	Height - Load Light	3747 mm (12 ft. 3 in.)
B3	Bin Height - Fully Tipped	6307 mm (20 ft. 8 in.)
C	Width over Mudguards	2985 mm (9 ft. 9 in.)
D	Width over Tyres - 23.5 R25	2940 mm (9 ft. 7 in.)
D1	Width over Tyres - 750/65 R25	2998 mm (9 ft. 10 in.)
E	Tyre Track Width - 23.5 R25	2356 mm (7 ft. 8 in.)
E1	Tyre Track Width - 750/65 R25	2260 mm (7 ft. 4 in.)
F	Width over Bin	2968 mm (9 ft. 8 in.)
F1	Width over Tailgate	3268 mm (10 ft. 8 in.)
G	Width over Mirrors - Operating Position	3260 mm (10 ft. 8 in.)
H	Ground Clearance - Artic	537 mm (21.14 in.)
I	Ground Clearance - Front Axle	488 mm (19.21 in.)
J	Ground Clearance - Bin Fully Tipped	670 mm (26.38 in.)
K	Ground Clearance - Under Run Bar	N/A
L	Bin Lip Height - Transport Position	2176 mm (7 ft. 1 in.)
M	Bin Length	5294 mm (17 ft. 4 in.)
N	Load over Height	2864 mm (9 ft. 4 in.)
O	Rear Axle Centre to Bin Rear	1500 mm (4 ft. 11 in.)
P	Mid Axle Centre to Rear Axle Centre	1670 mm (5 ft. 5 in.)
Q	Mid Axle Centre to Front Axle Centre	4181 mm (13 ft. 8 in.)
R	Front Axle Centre to Machine Front	2602 mm (8 ft. 6 in.)
S	Front Axle Centre to Artic Centre	1362 mm (4 ft. 5 in.)
T	Approach Angle	25 °
U	Maximum Bin Tip Angle	70 °
V	Maximum Articulation Angle	45 °
W	Front Tie Down Height	1075 mm (3 ft. 6 in.)
X	Machine Lifting Centres	9443 mm (30 ft. 11 in.)
Y	Inner Turning Circle Radius - 23.5 R25	4110 mm (13 ft. 5 in.)
Y1	Inner Turning Circle Radius - 750/65 R25	4081 mm (13 ft. 4 in.)
Z	Outer Turning Circle Radius - 23.5 R25	8000 mm (26 ft. 2 in.)
Z1	Outer Turning Circle Radius - 750/65 R25	8029 mm (26 ft. 4 in.)

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.

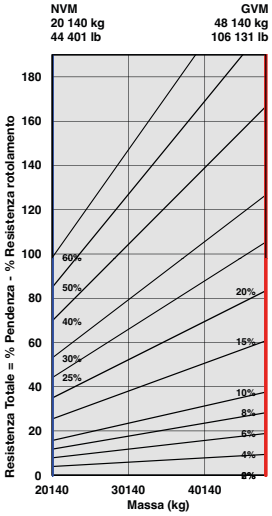


ADT, B30E 6X6 - Tractive Effort



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 6X6 - Retarder