Technical Data - B25E 6x4 Supertruck

ENGINE

Manufacturer
Mercedes Benz

Model
OM906LA

Configuration
Inline 6, turbocharged and intercooled.

Gross Power
205 kW (275 hp) @ 2 200 rpm

Net Power
198 kW (265 hp) @ 2 200 rpm

Gross Torque
1 100 Nm (811 lbft) @ 1 200 -1 600 rpm

Displacement
6,37 litres (389 cu.in)

Auxiliary Brake
Exhaust Valve Brake
Engine Valve Brake

Fuel Tank Capacity
379 litres (100 US gal)

Certification
OM906LA meets EU Stage II / EPA Tier 2 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
15T

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 dry disc brakes with 8 calipers (4F, 2M, 2R).

Maximum brake force:
194 kN (43 613 lbf)

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

Maximum brake force:
170 kN (38 217 lbf)

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

Total Retardation Power
250 kW (335 hp) Continuous.
539 kW (723 hp) Maximum.

WHEELS

Type
Radial Earthmover

Tyre
20.5 R 25

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
28 V 80 A

VEHICLE SPEEDS

1st	9 km/h	6 mph
2nd	18 km/h	11 mph
3rd	27 km/h	17 mph
4th	41 km/h	25 mph
5th	50 km/h	31 mph
6th	50 km/h	31 mph
R	8 km/h	5 mph

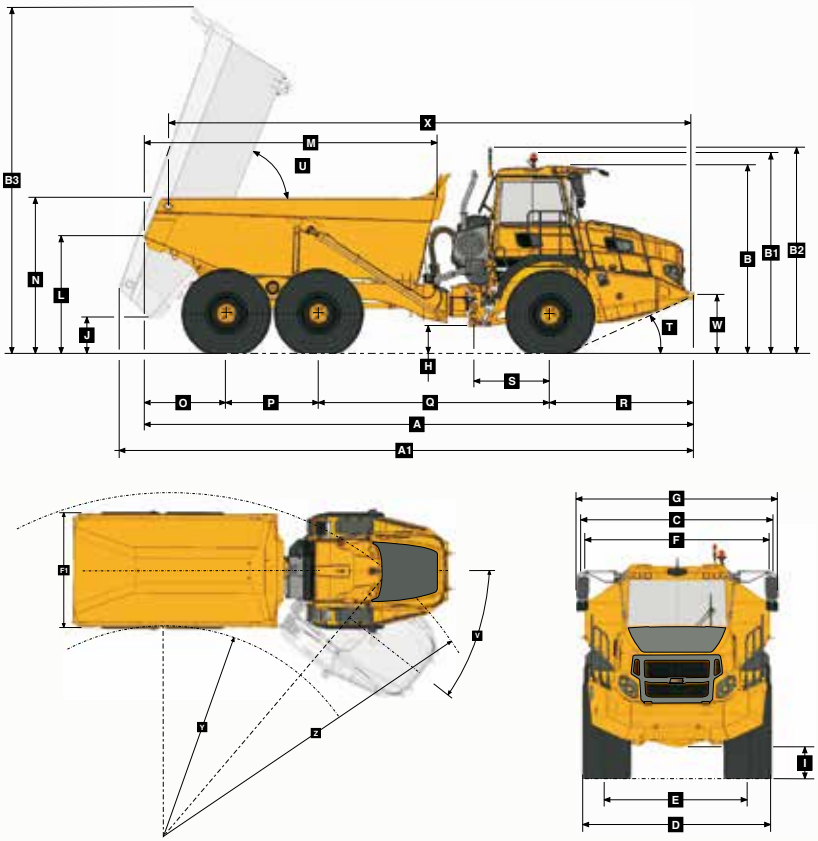
CAB

ROPS/FOPS certified 72 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 - Total Contact Area)		**BODY**	**m^3 (yd^3)**		**kg (lb)**
Front	9 640 (21 253)	**20.5 R 25**	**kPa (Psi)**	Struck Capacity	12 (15,7)	Extra wheelset	370 (816)
Middle	4 190 (9 237)	Front	305 (44)	SAE 2:1 Capacity	15 (19,5)		
Rear	3 930 (8 664)	Middle	355 (51)	SAE 1:1 Capacity	18 (23,5)		
Total	17 760 (39 154)	Rear	355 (51)				
				Rated Payload	24 000 kg		
LADEN		**LADEN** (15% sinkage)			(52 911 lbs)		
Front	12 370 (27 271)	Front	258 (37)				
Middle	14 760 (32 540)	Middle	301 (44)				
Rear	14 630 (32 254)	Rear	301 (44)				
Total	41 760 (92 065)						

Dimensions

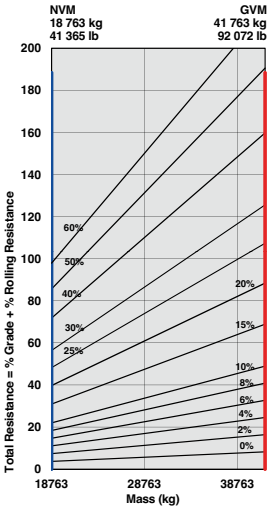


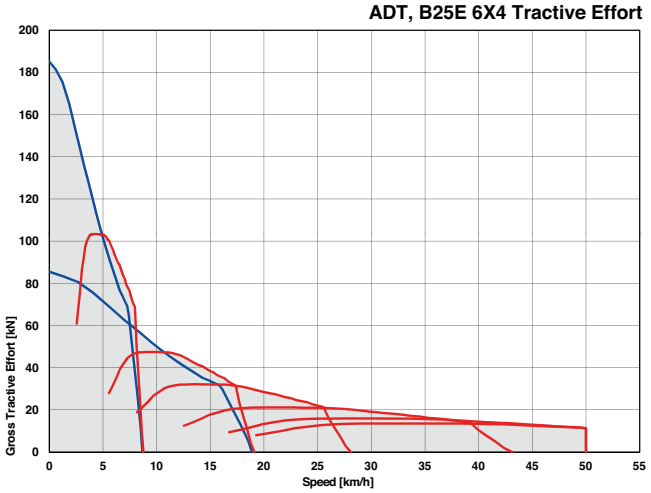
Machine Dimensions

A	Length - Transport Position	9953 mm
A1	Length - Bin Fully Tipped	10311 mm
B	Height - Transport Position	3373 mm
B1	Height - Rotating Beacon	3598 mm
B2	Height - Load Light	3693 mm
B3	Bin Height - Fully Tipped	6198 mm
C	Width over Mudguards	2985 mm
D	Width over Tyres - 20.5R25	2850 mm
E	Tyre Track Width - 20.5R25	2322 mm
F	Width over Bin	2700 mm
F1	Width over Tailgate	2998 mm
G	Width over Mirrors - Operating Position	3260 mm
H	Ground Clearance - Artic	490 mm
I	Ground Clearance - Front Axle	435 mm
J	Ground Clearance - Bin Fully Tipped	615 mm
K	Ground Clearance - Under Run Bar	N/A
L	Bin Lip Height - Transport Position	2116 mm
M	Bin Length	5272 mm
N	Load over Height	2703 mm
O	Rear Axle Centre to Bin Rear	1500 mm
P	Mid Axle Centre to Rear Axle Centre	1670 mm
Q	Mid Axle Centre to Front Axle Centre	4181 mm
R	Front Axle Centre to Machine Front	2602 mm
S	Front Axle Centre to Artic Centre	1362 mm
T	Approach Angle	24 °
U	Maximum Bin Tip Angle	70 °
V	Maximum Articulation Angle	45 °
W	Front Tie Down Height	1024 mm
X	Machine Lifting Centres	9477 mm
Y	Inner Turning Circle Radius - 20.5R25	4155 mm
Z	Outer Turning Circle Radius - 20.5R25	7955 mm

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.





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.