2806E 4x4 16 000 L Articulated Water Tanker

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 optional 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 BOX

Manufacturer
Kessler

Series
W1400

Layout
Remote mounted

Gear Layout
Three in-line helical gears

Output Differential
Permanent interaxle differential lock

AXLES

High torque, low speed suitable for dual wheels.

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 Wet disc brakes.

Maximum Brake Force:
132 kN (29 675 lbf) with standard tyres.

Park & Emergency
Spring applied air released, driveline mounted disc

Maximum Brake Force:
242 kN (54 400 lbf)

Auxiliary Brake
Automatic exhaust valve brake and engine valve brake.

Optional automatic, adjustable, integral, hydrodynamic transmission retarder. Output shaft speed dependant.

Maximum Retardation
165 kW (221 hp) Standard continuous
539 kW (723 hp) with Maximum retarder option

WHEELS

Standard Tyre: Size
23.5 X 25 SRG

Standard Tyre: Type
Radial Earthmover

FRONT SUSPENSION

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

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°

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	8 km/h	5 mph
2nd	15 km/h	9 mph
3rd	20 km/h	12 mph
4th	28 km/h	17 mph
5th	37 km/h	23 mph
6th	43 km/h	27 mph
R	6 km/h	3 mph

WATER TANK

Tank capacity
16 000 Litres

WATER TANKER PLUMBING

Centrifugal water pump

Rate of Flow
1 800 L/min

Head
50 m

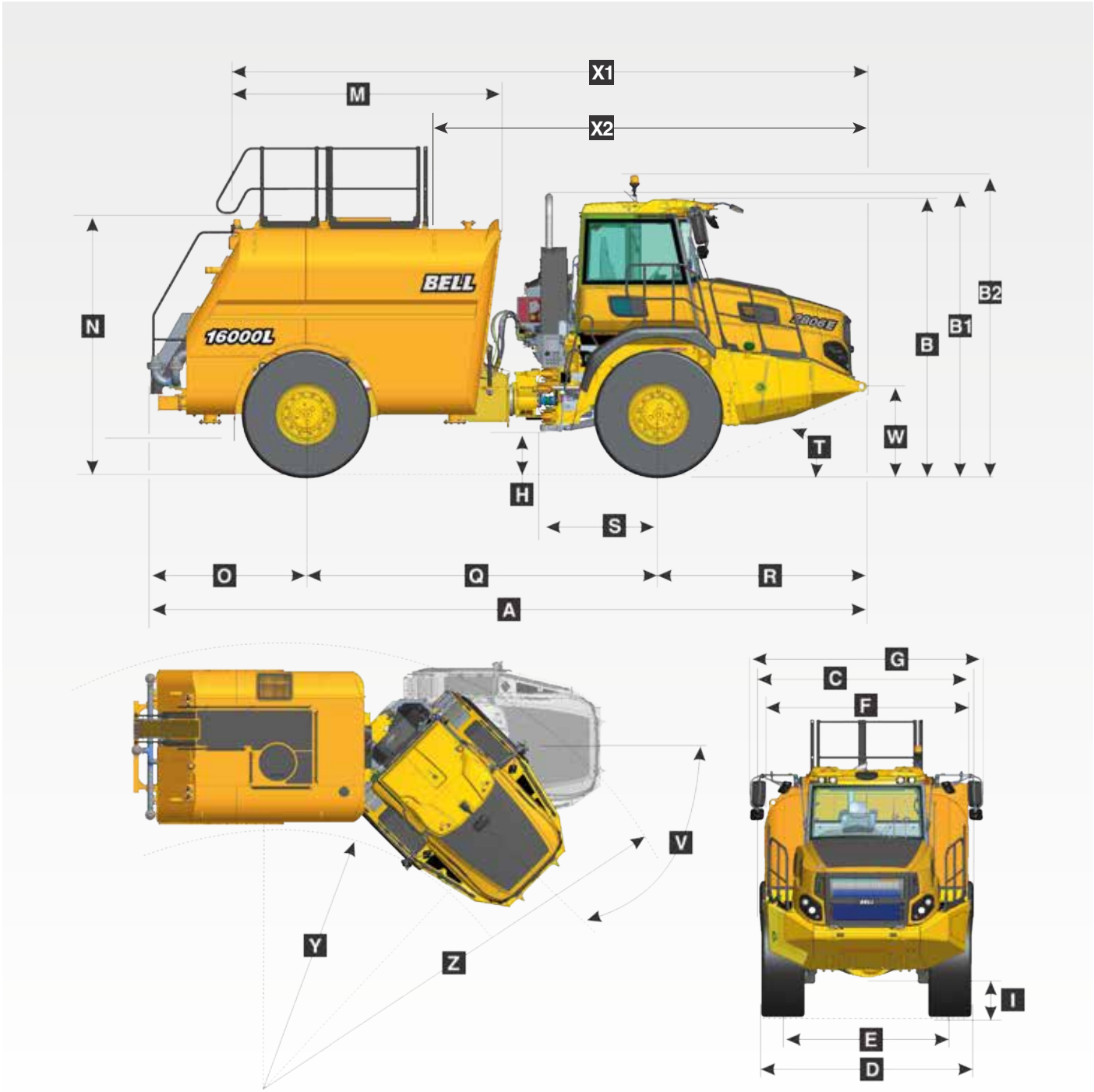
CAB

ROPS/FOPS certified 74 dBA internal sound level measured

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE		LOAD CAPACITY	
UNLADEN	kg (lb)	LADEN (No sinkage)			
Front	10 163 (22 405)		kPa (Psi)	Rated Payload	16 000 litres
Rear	9 009 (19 861)	Front	255 (36)		(4 200 gallons)
Total	19 172 (42 267)	Rear	445 (64)		
LADEN	kg (lb)				
Front	12 635 (27 855)				
Rear	17 075 (37 644)				
Total	35 148 (77 488)				

Dimensions



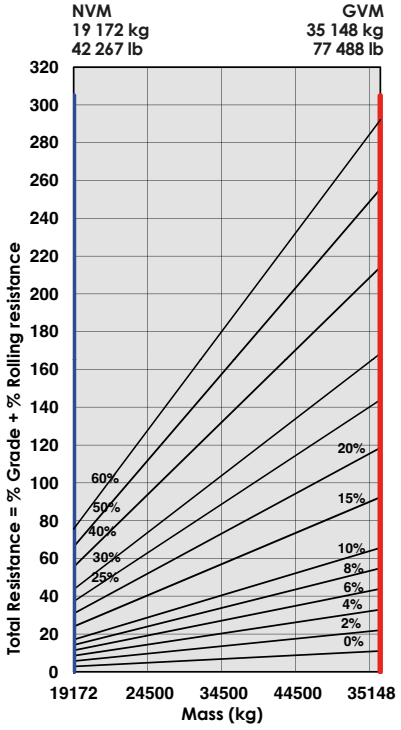
Machine Dimensions

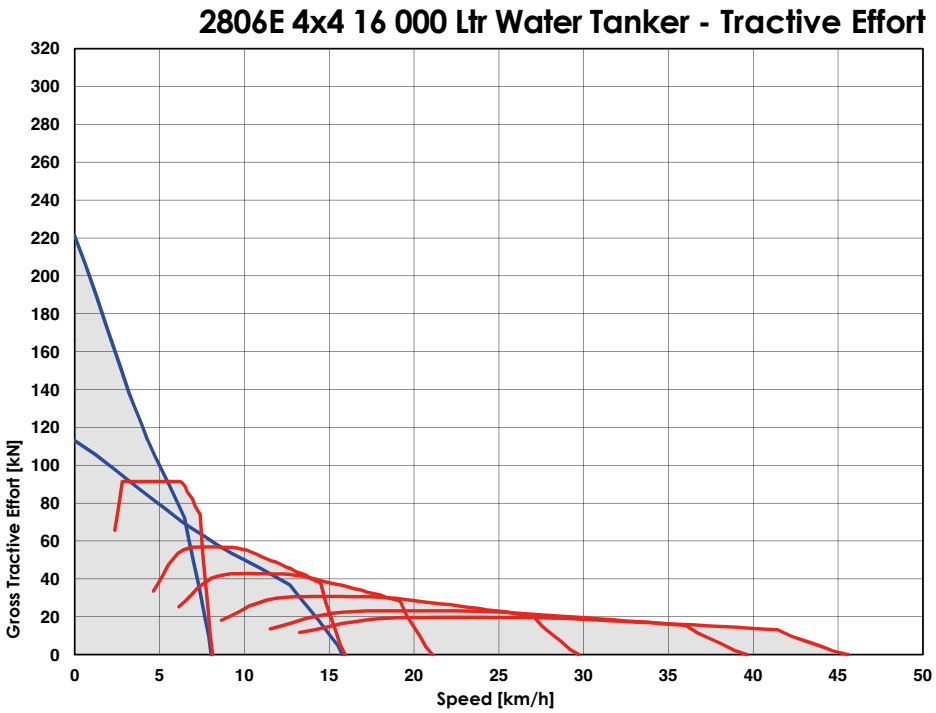
A	Length - Transport Position	8 946 mm	(29 ft. 4 in.)
B	Height - Transport Position	3 436 mm	(11 ft. 3 in.)
B1	Height-Rotating Beacon	3 548 mm	(11 ft. 8 in.)
B2	Height-Exhaust	3 517 mm	(11 ft. 6 in.)
C	Width over Mudguards	2 984 mm	(9 ft. 9 in.)
D	Width over Tyres-23.5R25	2 926 mm	(9 ft. 7 in.)
E	Tyre Track Width-23.5R25	2 325 mm	(7 ft. 8 in.)
F	Width over Tank / Bowser	2 840 mm	(9 ft. 4 in.)
G	Width over Mirrors - Operating Position	3 260 mm	(10 ft. 8 in.)
H	Ground Clearance - Artic	563 mm	(22.17 in.)
I	Ground Clearance - Front Axle	470 mm	(18.5 in.)
K	Ground Clearance - Under Run Bar	N/A	
M	Tank / Bowser Length	3 368 mm	(11 ft. 1 in.)

N	Maximum Tank Height	3 074 mm	(10 ft. 1 in.)
O	Rear Axle Centre to Bowser / Tank Rear	1 950 mm	(6 ft. 5 in.)
Q	Mid Axle Centre to Front Axle Centre	4 395 mm	(14 ft. 5 in.)
R	Front Axle Centre to Machine Front	2 601 mm	(8 ft. 6 in.)
S	Front Axle Centre to Artic Centre	1 363 mm	(4 ft. 5 in.)
T	Approach Angle	26°	
V	Maximum Articulation Angle	45°	
W	Front Tie Down Height	1 092 mm	(3 ft. 7 in.)
X1	Tank Lifting Centres	6 996 mm	(22 ft. 11 in.)
X2	Machine Lifting Centres	4 853 mm	(15 ft. 11 in.)
Y	Inner Turning Circle Radius - 23.5R25	3 475 mm	(11 ft. 5 in.)
Z	Outer Turning Circle Radius - 23.5R25	7 159 mm	(23 ft. 6 in.)

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.





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.