B40E 6x6 35 000 L Articulated Water Truck



ENGINE

Manufacturer
Mercedes Benz (MTU)

Model OM471LA (MTU 6R 1300)

Configuration
Inline 6, turbocharged and intercooled

Net Power 380 kW (510 hp) @ 1 600 rpm

Gross Torque 2 600 Nm (1 918 lbft) @ 1 300 rpm

Displacement 12,8 litres (781 cu.in)

Auxiliary Brake
Jacobs Engine Brake®

Fuel Tank Capacity 533 litres (140.8 US gal)

Certification
OM471LA (MTU 6R 1300) is EU
Stage IIIA / EPA Tier 3 emission
level equivalent

TRANSMISSION

Manufacturer Allison

Model 4700 ORS

Configuration
Fully automatic planetary
transmission

Layout Engine mounted

Gear Layout
Constant meshing planetary
gears, clutch operated

Gears 7 Forward, 1 reverse

Clutch Type Hydraulically operated multi-

Control Type Electronic

Torque Control Hydrodynamic with lock-up in all gears

TRANSFER CASE

Manufacturer Kessler Model

W2400

Layout Remote mounted

Gear Layout

Three in-line helical gears

Output Differential Interaxle 29/71 proportional differential. Automatic inter-axle differential lock.

AXLES

Manufacturer Bell

Model 30T

Differential

High input controlled traction differential with spiral bevel gears

Final Drive
Outboard heavy duty p

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: 305 kN (68 567 lbf)

Park & Emergency Spring applied, air released driveline mounted disc

Maximum brake force: 218 kN (49 008 lbf)

Auxiliary Brake
Jacobs Engine Brake®.
Automatic retardation through
electronic activation of wet
brake system.

Total Retardation Power Continuous: 442 kW (593 hp) Maximum: 854 kW (1 145 hp)

WHEELS

Type Radial Earthmover

Tyre 29.5 R 25 (875/65 R 29 optional)

FRONT SUSPENSION

Semi-independent, leading A-frame supported by hydropneumatic suspension struts

Option: Electronically controlled adaptive suspension with ride height adjustment

REAR SUSPENSION

Pivoting walking beams with laminated rubber suspension blocks

Option: Comfort Ride suspension walking beams, with two-stage sandwich block

HYDRAULIC SYSTEM

Full load sensing system serving the prioritised 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 330 L/min (87 gal/min)

Pressure 315 Bar (4 569 psi)

Filter 5 microns

STEERING SYSTEM

Double acting cylinders, with ground-driven emergency steering pump

Lock to lock turns 5

Steering Angle 42°

PNEUMATIC SYSTEM

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

System Pressure 810 kPa (117 psi)

ELECTRIC SYSTEM

Voltage 24 V

Battery Type
Two AGM (Absorption Glass
Mat) type

Battery Capacity 2 X 75 Ah

Alternator Rating 28V 80A

VEHICLE SPE	EED
4 km/h	2,5 mph
9 km/h	6 mph
17 km/h	11 mph
23 km/h	14 mph
33 km/h	21 mph
44 km/h	27,3 mph
51 km/h	32 mph
7 km/h	4 mph
	4 km/h 9 km/h 17 km/h 23 km/h 33 km/h 44 km/h 51 km/h

WATER TANKER PLUMBING

Centrifugal water pump

Rate of Flow 5 400 L/min

Head 70 m

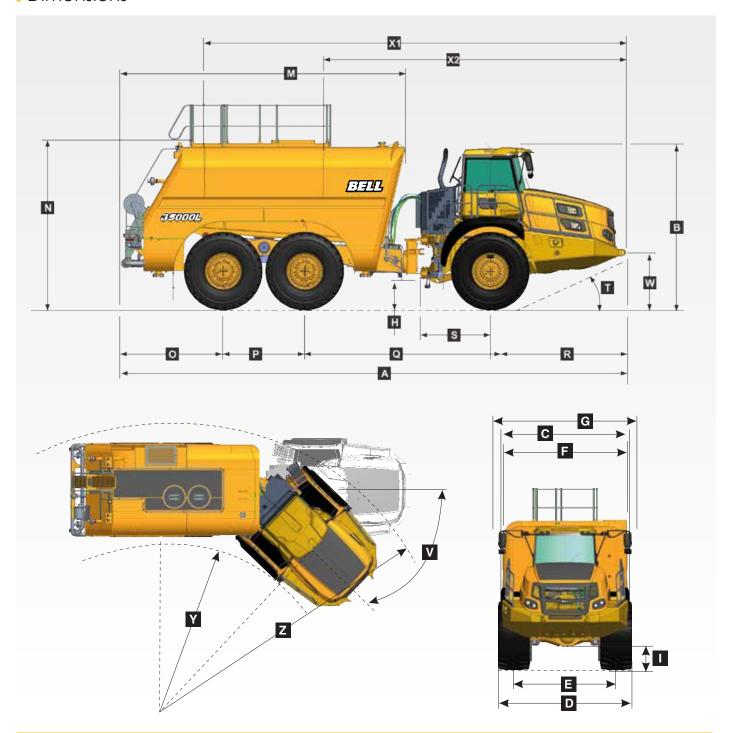
CAB

ROPS/FOPS certified 76 dBA internal sound level measured according to ISO 6396

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE		LOAD CAPACITY	
UNLADEN		LADEN (No sinkage/Total Contact Area Method)			
	kg (lb)	29.5 R 25	kPa (Psi)		
Front	15 743 (34 707)	Front	310 (45)	Rated Payload	35 000 litres
Middle	10 046 (22 147)	Middle	341 (50)		(9 250 gallons)
Rear	9 528 (21 005)	Rear	341 (50)		
Total	35 317 (77 859)				
LADEN					
Front	18 342 (40 438)	875/65 R29	kPa (Psi)		
Middle	27 391 (60 386)	Front	293 (43)		
Rear	27 584 (60 811)	Middle 329 (48)			
Total	73 317 (161 636)	Rear 329 (48)			

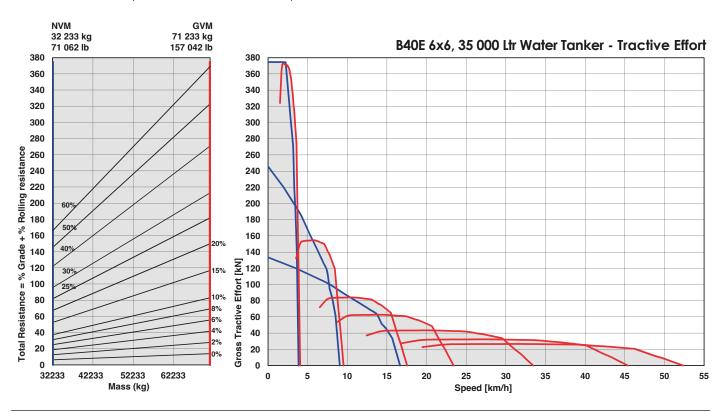
Dimensions



Machine Dimensions						
Α	Length - Transport Position	12 084 mm	(39 ft. 8 in.)	0	Rear Axle Centre to Bowser / Tank Rear	2 443 mm (8 ft. 0 in.)
В	Height - Transport Position	3 802 mm	(12 ft. 6 in.)	Р	Mid Axle Centre to Rear Axle Centre	1 950 mm (6 ft. 5 in.)
C	Width over Mudguards	3 495 mm	(11 ft. 6 in.)	Q	Mid Axle Centre to Front Axle Centre	4 438 mm (14 ft. 7 in.)
D	Width over Tyres - 875/65 R29	3 656 mm	(11 ft. 12 in.)	R	Front Axle Centre to Machine Front	3 255 mm (10 ft. 8 in.)
D	Tyre Track Width - 29.5R25	3 487 mm	(11 ft. 5 in.)	S	Front Axle Centre to Artic Centre	1 558 mm (5 ft. 1 in.)
E	Tyre Track Width - 875/65 R29	2 773 mm	(9 ft. 1 in.)	T	Approach Angle	24°
Е	Tyre Track Width - 29.5R25	2 725 mm	(8 ft. 11 in.)	V	Maximum Articulation Angle	42°
F	Width over Tank / Bowser	3 379 mm	(11 ft. 1 in.)	V	/ Front Tie Down Height	1 265 mm (4 ft. 2 in.)
F	Width over Tank / Bowser (with hose)	3 529 mm	(11 ft. 5 in.)	X	1 Tank Lifting Centres	10 023 mm (32 ft. 10 in.)
G	Width over Mirrors - Operating Position	3 614 mm	(11 ft. 10 in.)	X	2 Front Lifting Centres to Tank Lifting Centre	7 173 mm (23 ft. 6 in.)
Н	Ground Clearance - Artic	545 mm	(1 ft. 9 in.)	Υ	Inner Turning Circle Radius - 875/65 R29	4 782 mm (15 ft. 8 in.)
-	Ground Clearance - Front Axle	545 mm	(1 ft. 9 in.)	Υ	Inner Turning Circle Radius - 29.5R25	4 866 mm (15 ft. 12 in.)
М	Tank / Bowser Length	6 797 mm	(22 ft. 4 in.)	Z	Outer Turning Circle Radius - 875/65 R29	9 320 mm (30 ft. 7 in.)
N	Maximum Tank Height	4 002 mm	(13 ft. 2 in.)	Z	Outer Turning Circle Radius - 29.5R25	9 235 mm (30 ft. 4 in.)

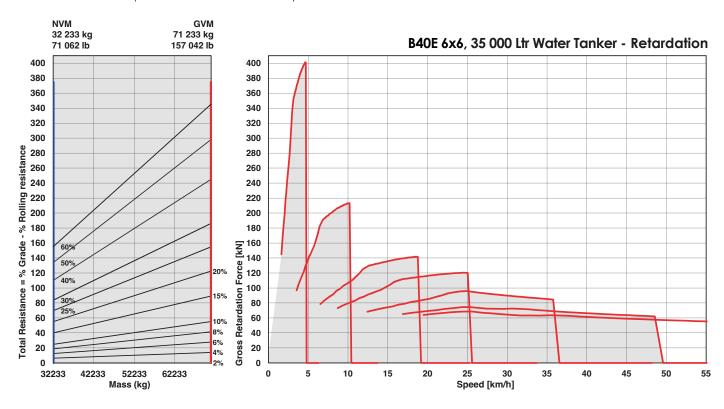
| Gradeability/Rimpull

- 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.



16 000 L 35 000 L 43 000 L		1000 1000 1000 1000 1000 1000 1000 100	7/00/00/00/00/00/00/00/00/00/00/00/00/00
~ (N (2) (2) A		/~/W/W/W/A	
	Engine Valve brake and exhaust brake Dual element air cleaner with dust ejector valve Precleaner with auto dust scavenging Water separator Serpentine drive belt with automatic tensioner Provision for fast fill Wet-sleeve cylinder liners		CAB (continued) 12-volt power outlet Cup holder Cooled/heated lunch box Utility bin (removable) Manually adjustable mirrors Electric adjustable & heated mirrors Deluxe 10" colour LCD: Speedometer / Fuel gauge / Transmission oil temperature gauge / Engine coolant temperature gauge /
	COOLING Crank-shaft mounted viscous-drive fan Fan guard PNEUMATIC SYSTEM Engine-mounted compressor Air drier with heater Integral unloader valve		LED function/warning indicators and audible alarm / Transmission gear selection / Tachometer / Battery voltage / Hour meter / Odometer / Fuel consumption / Trip timer / Trip distance / Metric/English units / Service codes/diagnostics Backlit sealed switch module
	Battery disconnect Drive lights Air horn Reverse alarm White noise reverse alarm Rotating beacon Pitch roll sensor LED drive lights LED artic reverse light	• • • •	functions with: Wiper control / Lights / Heated mirrors / Retarding aggressiveness / Transfer case differential lock / Transmission gear hold / Airconditioner/ Heater controls / Preselected Speed Control Backlit Plumbing sealed switch module functions with: Battery / Spray / Pulse / Tank fill / Hose reel / Pump / Dribble bar
	LED reverse light		PLUMBING Dribble bor
	STEERING SYSTEM Uni-directional ground-driven secondary steering pump Bi-directional ground-driven secondary steering pump		Dribble bar 1 800 lpm 50 m head pump 5 400 lpm 70 m head pump* Pressurised dribble bar system Pressurised dribble bar system with nozzles
	ROPS/FOPS certification Tilt cab Gas strut-supported door HVAC Climate control system AM/FM radio/CD player + USB Rear window guard Wiper/washer with intermittent		Spray valves (in-cab activation) Batter spray valves Fold down top rails Suction pipe for filling from dam Step ladder access Inspection access Remote control water cannon Hose reel
	control Tilt and telescoping steering wheel Centre-mount air-suspension seat Halogen work lights LED work lights Rotating beacon: seat belt installation Remote engine and machine isolation Remote battery jump start High visibility mirrors Retractable 3-point seat belt Foldaway trainer seat with		OTHER 23.5 R 25 tyres 620/75 R26 tyres 29.5 R 25 Radial Earthmover tyres 875/65 R 29 Radial Earthmover tyres Automatic greasing Cab peak Belly cover Handrails Remote transmission filter Reverse camera

^{* (}Option only): Larger centrifugal pump available if suction pipe option is not fitted.

FEATURES OF THE ARTICULATED WATER TRUCK

- PRODUCTIVE: Powerful built-for hauling ADT drivetrains are well matched for pulling and retarding heavy loads.

 Nitrogen over oil strut suspension smooths the ride for operator and machine.
- ECONOMY: Modern fuel efficient engine, lockup torque converter and planetary transmission deliver more work per unit of fuel used
 - EASY TO OPERATE: High quality cab is conducive to operator care.

Simple to use controls and electronic interfaces protect the machine from accidental misuse.





BATTER SPRAYS

- Two additional spray valves that expand the spray patterns reach on the sides of the tank
- Remotely activated from inside the cab



HOSE REEL

- 25 m hose reel
- Adjustable fog/ stream nozzle
- Spring retractable



DRIBBLE BAR

- Gravity fed dribble bar
- Remotely activated from inside the cab
- Even spread pattern covering the width of the vehicle



PENETRATION SPRAY BARS

- Available with nozzles or holes
- Remotely activated from inside the cab
- Pressurised by the pump to create a jet of water



REMOTE WATER CANNON

- Adjustable fog/stream pattern
- A variety of flow settings
- Remotely controlled via a joystick inside the cab
- High quality components built to last in heavy duty applications

