B50E 6x6 43 000 L Articulated Water Truck

ENGINE

Manufacturer Mercedes Benz (MTU)

Model OM473LA (MTU 6R 1500)

Configuration Inline 6, turbocharged and intercooled

Net Power 430 kW (577 hp) @ 1 600 rpm

Gross Torque 2 850 Nm (2 102 lbft) @ 1 300 rpm

Displacement 15,6 litres (952 cu.in)

Auxiliary Brake Jacobs Engine Brake®

Fuel Tank Capacity 630 litres (166 US gal)

Certification OM473LA (MTU 6R 1500) is EU Stage IIIA / EPA Tier 3 emission level equivalent

TRANSMISSION Manufacturer Allison

Model 4800 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 multidisc

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 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: 458 kN (102 962 lbf)

Park & Emergency Spring applied, air released driveline mounted disc

Maximum brake force: 215.5 kN (48 446 lbf)

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

Total Retardation Power Continuous: 546 kW (732 hp) Maximum: 963 kW (1 291 hp) WHEELS Type

Radial Earthmover

875/65 R 29 (29.5 R 25 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 4,9

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)

24 V

ELECTRIC SYSTEM Voltage

Battery Type Two AGM (Absorption Glass Mat) type

Battery Capacity 2 X 75 Ah

Alternator Rating 28V 80A

MAX VEHICLE SPEED				
1st	4 km/h	2,5 mph		
2nd	9 km/h	6 mph		
3rd	17 km/h	11 mph		
4th	23 km/h	14 mph		
5th	33 km/h	21 mph		
6th	44 km/h	27,3 mph		
7th	51 km/h	32 mph		
R	7 km/h	4 mph		

WATER TANKER PLUMBING Centrifugal water pump

Rate of Flow 5 400 L/min

Head 70 m

CAB

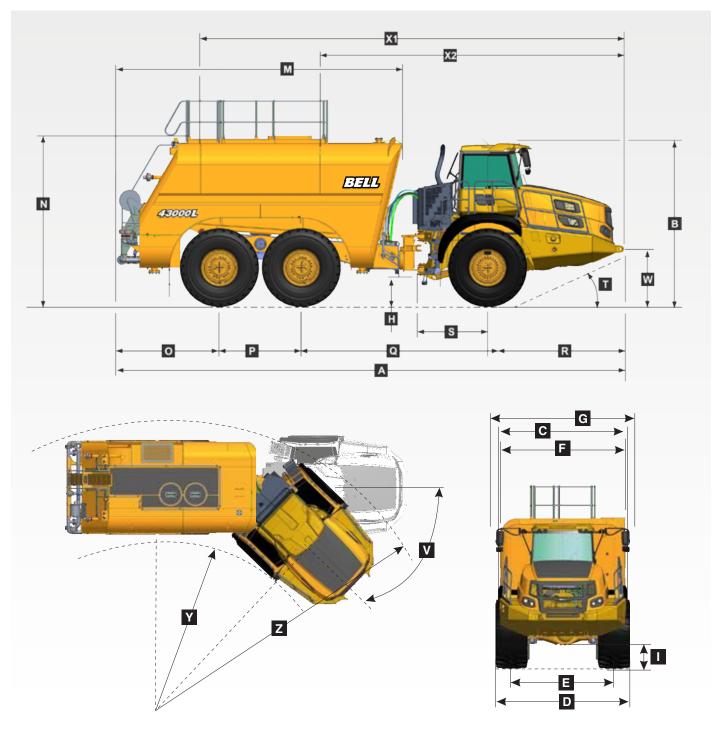
ROPS/FOPS certified 76 dBA internal sound level measured according to ISO 6396

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	16 442 (36 248)	Front	326 (47)	Rated Payload	43 000 litres
Middle	10 708 (23 607)	Middle	395 (57)		(11 350 gallons)
Rear	10 574 (23 312)	Rear	395 (57)		
Total	37 724 (83 167)				
LADEN					
Front	19 926 (43 929)	875/65 R29	kPa (Psi)		
Middle	30 066 (66 284)	Front	296 (43)		
Rear	30 732 (67 752)	Middle	366 (53)		
Total	80 724 (177 966)	Rear	366 (53)		

िनग

Dimensions



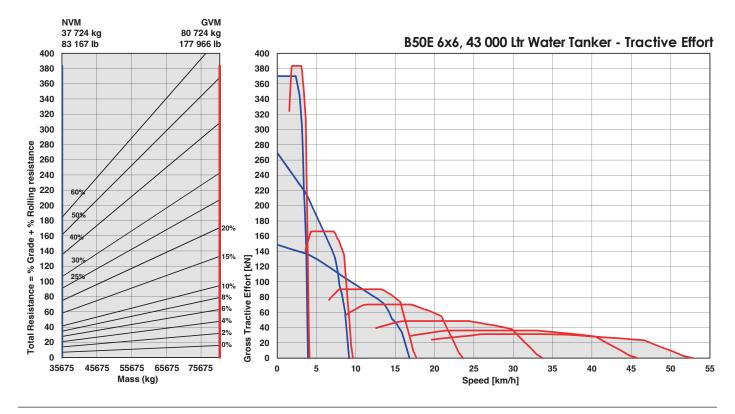
Machine Dimensions

А	Length - Transport Position	12 279 mm	(40 ft. 3 in.)
В	Height - Transport Position	3 820 mm	(12 ft. 6 in.)
С	Width over Mudguards	3 790 mm	(12 ft. 5 in.)
D	Width over Tyres - 875/65 R29	3 832 mm	(12 ft. 7 in.)
D	Tyre Track Width - 29.5R25	3 714 mm	(12 ft. 2 in.)
Е	Tyre Track Width - 875/65 R29	2 949 mm	(9 ft. 8 in.)
Ε	Tyre Track Width - 29.5R25	2 952 mm	(9 ft. 8 in.)
F	Width over Tank / Bowser	3 699 mm	(12 ft. 2 in.)
F	Width over Tank / Bowser (with hose)	3 849 mm	(12 ft. 8 in.)
G	Width over Mirrors - Operating Position	4 027 mm	(13 ft. 3 in.)
Н	Ground Clearance - Artic	558 mm	(1 ft. 9 in.)
1	Ground Clearance - Front Axle	555 mm	(1 ft. 9 in.)
Μ	Tank / Bowser Length	6 877 mm	(22 ft. 7 in.)
Ν	Maximum Tank Height	4 137 mm	(13 ft. 7 in.)

0	Rear Axle Centre to Bowser / Tank Rear	2 543 mm (8 ft. 4 in.
Р	Mid Axle Centre to Rear Axle Centre	1 950 mm (6 ft. 5 in.
Q	Mid Axle Centre to Front Axle Centre	4 438 mm (14 ft. 7 in.
R	Front Axle Centre to Machine Front	3 351 mm (11 ft. 0 in.
S	Front Axle Centre to Artic Centre	1 558 mm (5 ft. 1 in.
Т	Approach Angle	23°
V	Maximum Articulation Angle	42°
W	Front Tie Down Height	1 269 mm (4 ft. 2 in.
X1	Tank Lifting Centres	10 218 mm (33 ft. 6 in.
X2	Front Lifting Centres to Tank Lifting Centre	7 310 mm (24 ft. 0 in.
Υ	Inner Turning Circle Radius - 875/65 R29	4 694 mm (15 ft. 5 in.
Υ	Inner Turning Circle Radius - 29.5R25	4 753 mm (15 ft. 7 in.
Ζ	Outer Turning Circle Radius - 875/65 R29	9 408 mm (30 ft. 10 in.
Ζ	Outer Turning Circle Radius - 29.5R25	9 349 mm (30 ft. 8 in.

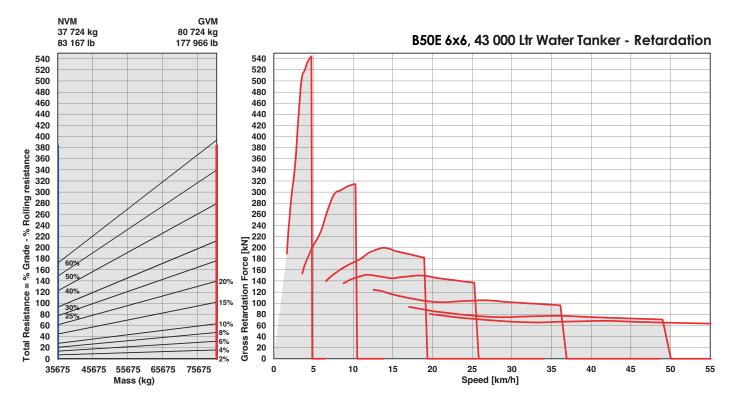
Gradeability/Rimpull

- 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.



Features and Options

16 0001 35 0001 33 0001 43 0001	/	16 0001 35 0001 33 0001 43 0001	
	ENGINE		CAB (continued)
	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		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 /
	COOLING Crank-shaft mounted viscous-drive fan Fan guard		Engine coolant temperature gauge / LED function/warning indicators and audible alarm / Transmission gear selection / Tachometer / Battery voltage / Hour meter / Odometer /
	PNEUMATIC SYSTEM Engine-mounted compressor Air drier with heater Integral unloader valve	• • • • •	Fuel consumption / Trip timer / Trip distance / Metric/English units / Service codes/diagnostics Backlit sealed switch module
	ELECTRICAL SYSTEM 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
	STEERING SYSTEM Uni-directional ground-driven secondary steering pump Bi-directional ground-driven secondary steering pump CAB ROPS/FOPS certification Tilt cab Gas strut-supported door		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 Spray valves (in-cab activation) Batter spray valves Fold down top rails Suction pipe for filling from dam
	HVAC Climate control system AM/FM radio/CD player + USB Rear window guard Wiper/washer with intermittent control		Step ladder access Inspection access Remote control water cannon Hose reel
	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		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
	High visibility mirrors Retractable 3-point seat belt Foldaway trainer seat with retractable seat belt		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

