B50E 6x6 45 000 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 multi-disc

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

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

FRONT SUSPENSION
Semi-independent, leading A-frame supported by hydro-pneumatic 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)

ELECTRIC SYSTEM
Voltage
24 V

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 TANK
Tank capacity
45 000 Litres

WATER TANKER PLUMBING
Centrifugal water pump

Rate of Flow
5 400 L/min

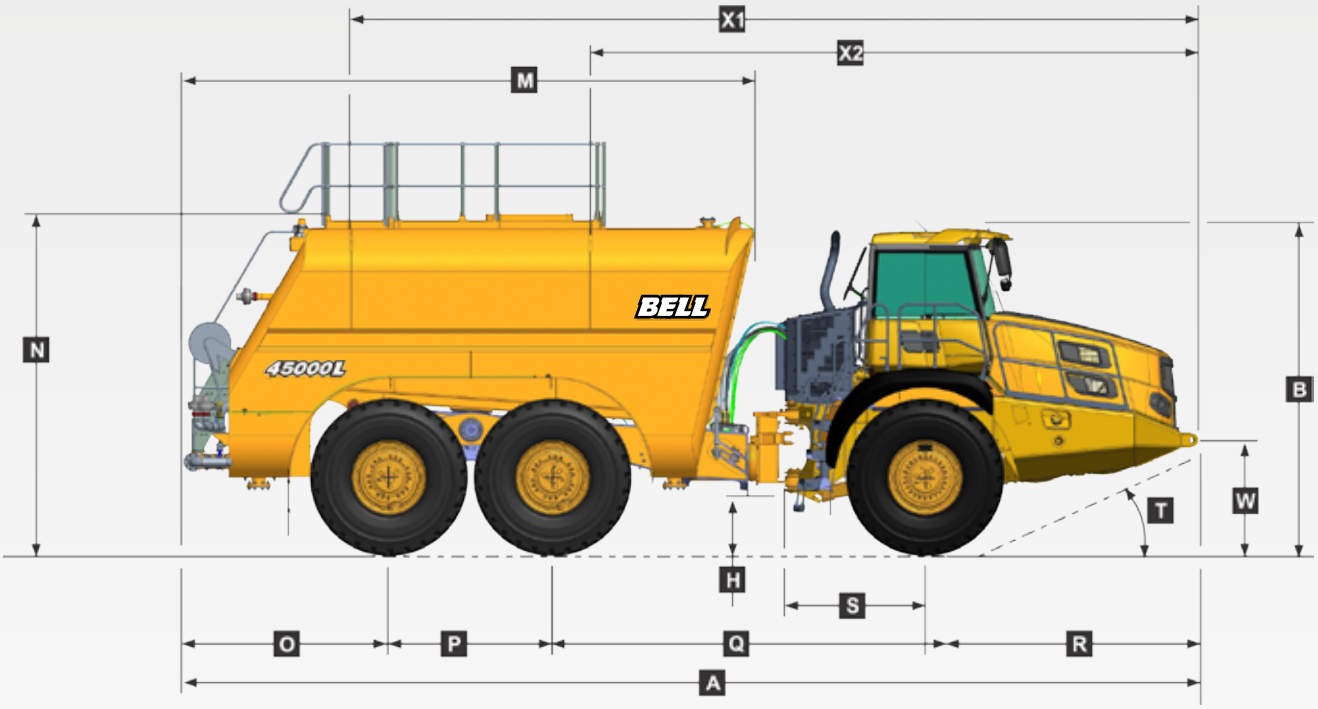
Head
70 m

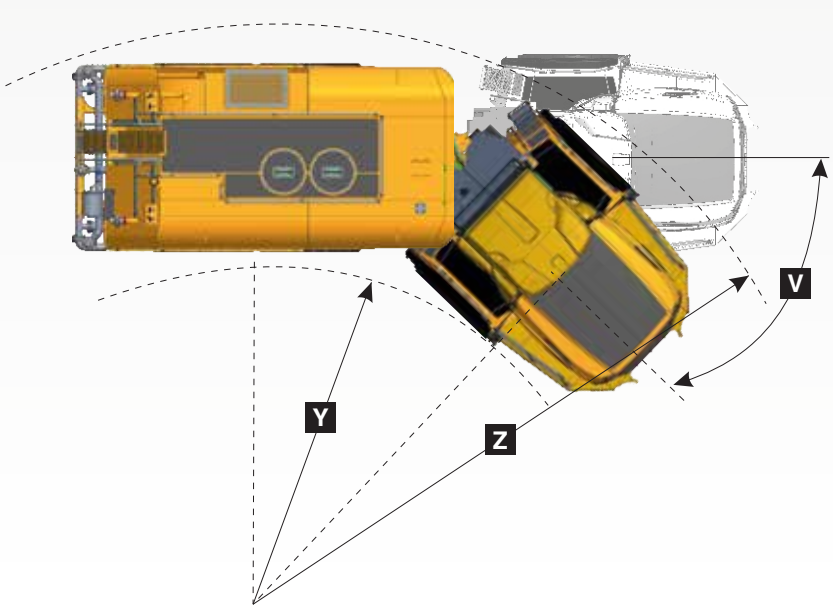
CAB
ROPS/FOPS certified 76 dBA internal sound level measured according to ISO 6396

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE		LOAD CAPACITY	
UNLADEN		LADEN (No sinkage/Total Contact Area Method)			
	kg (lb)	875/65 R29	kPa (Psi)		
Total	38 287 (84 408)	Front	297 (43,1)	Rated Payload	45 000 litres
		Middle/Rear	366 (53,1)		(11 900 gallons)
LADEN					
	kg (lb)	29.5 R 25	kPa (Psi)		
Front	24 034 (52 986)	Front	339 (49,2)		
Middle	29 879 (65 872)	Middle	381 (55,3)		
Rear	29 774 (65 640)				
Total	83 687 (184 498)				

Dimensions





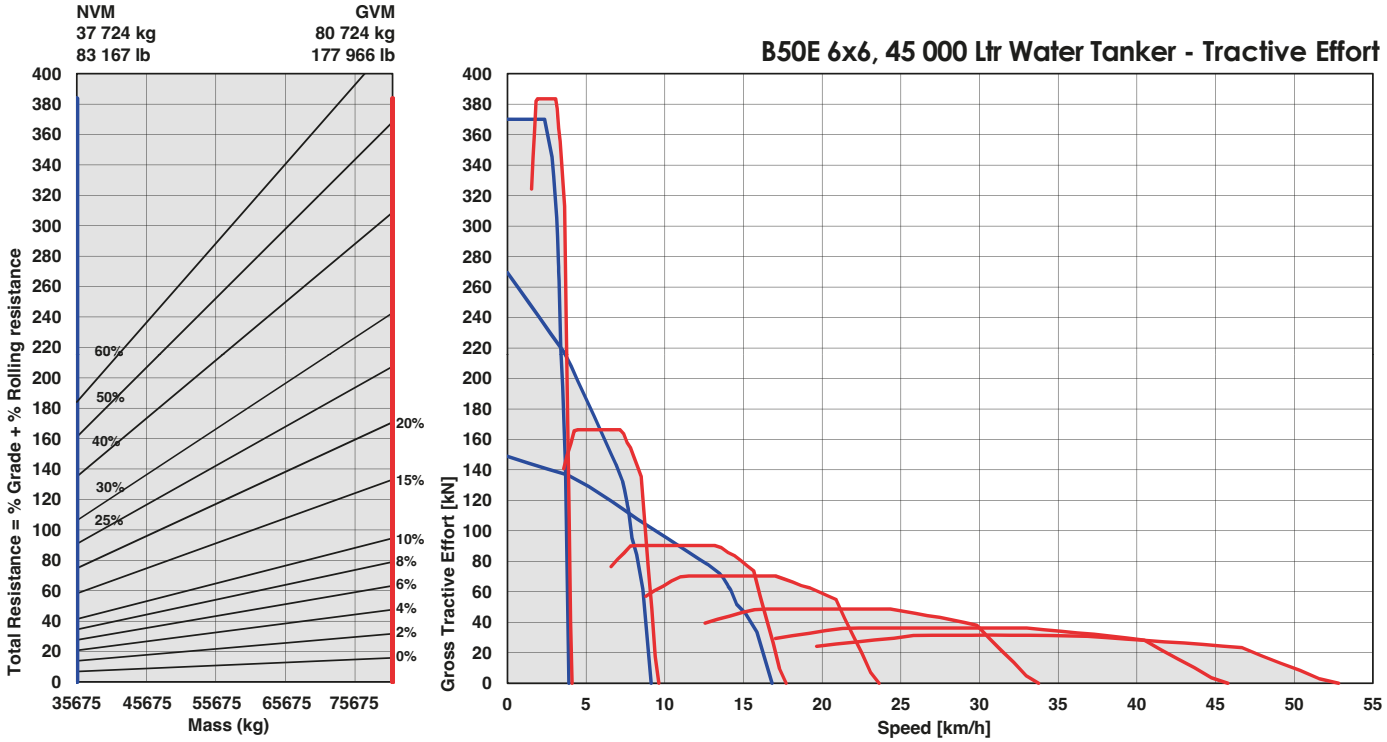
Machine Dimensions

A	Length - Transport Position	12 279 mm	(40 ft. 3 in.)
B	Height - Transport Position	3 820 mm	(12 ft. 6 in.)
C	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.)
E	Tyre Track Width - 875/65 R29	2 949 mm	(9 ft. 8 in.)
E	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.)
H	Ground Clearance - Artic	558 mm	(1 ft. 9 in.)
I	Ground Clearance - Front Axle	555 mm	(1 ft. 9 in.)
M	Tank / Bowser Length	6 877 mm	(22 ft. 7 in.)
N	Maximum Tank Height	4 137 mm	(13 ft. 7 in.)

O	Rear Axle Centre to Bowser / Tank Rear	2 543 mm	(8 ft. 4 in.)
P	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.)
T	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.)
Y	Inner Turning Circle Radius - 875/65 R29	4 694 mm	(15 ft. 5 in.)
Y	Inner Turning Circle Radius - 29.5R25	4 753 mm	(15 ft. 7 in.)
Z	Outer Turning Circle Radius - 875/65 R29	9 408 mm	(30 ft. 10 in.)
Z	Outer Turning Circle Radius - 29.5R25	9 349 mm	(30 ft. 8 in.)

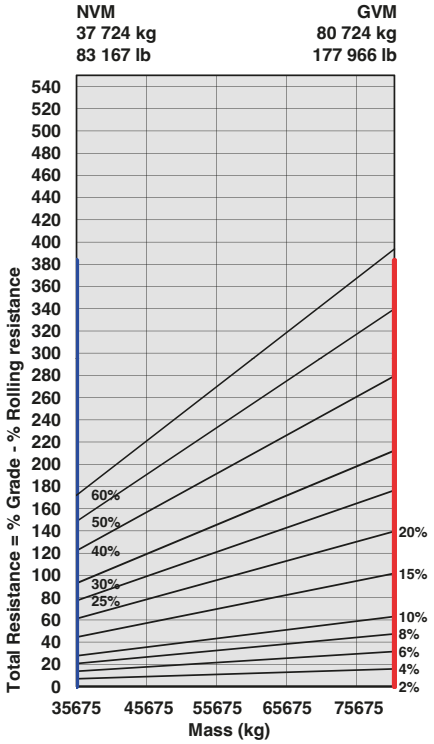
Gradeability/Rimpull

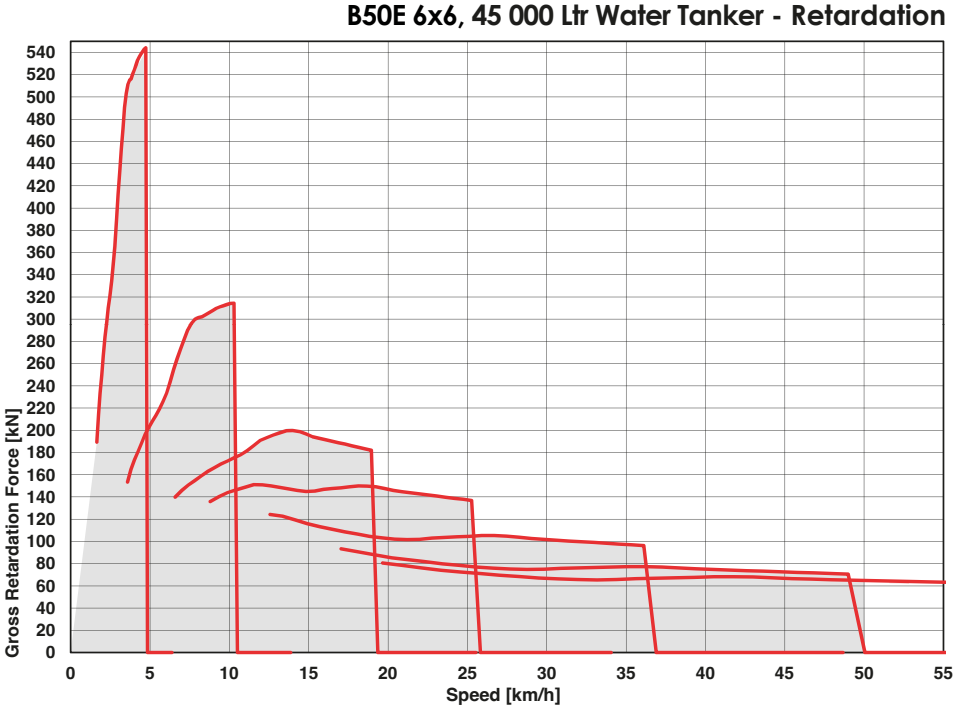
1. Determine tractive resistance by finding intersection of vehicle mass line and grade line. NOTE: 2% typical rolling resistance is already assumed in chart and grade line.
2. From this intersection, move straight right across charts until line intersects rimpull curve.
3. Read down from this point 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.





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

- 30m hose reel
- 1.5" 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 between 250 and 700 GPM
- Remotely controlled via a joystick inside the cab
- High quality components built to last in heavy duty applications

MANUAL WATER CANNON

- Long range spray nozzle
- High quality components built to last in heavy duty applications

Features and Options

● STANDARD ▲ OPTION

16 000 L	18 000 L	23 000 L	27 000 L	35 000 L	38 000 L	45 000 L	
							ENGINE
●	●	●	●	●	●	●	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
							COOLING
●	●	●	●	●	●	●	Crank-shaft mounted viscous-drive fan
●	●	●	●	●	●	●	Fan guard
							PNEUMATIC SYSTEM
●	●	●	●	●	●	●	Engine-mounted compressor
●	●	●	●	●	●	●	Air drier with heater
●	●	●	●	●	●	●	Integral unloader valve
							ELECTRICAL SYSTEM
●	●	●	●	●	●	●	Battery disconnect
●	●	●	●	●	●	●	Drive lights
●	●	●	●	●	●	●	Air horn
●	●	●	●	●	●	●	Reverse alarm
	▲	▲	▲	▲	▲	▲	White noise reverse alarm
●	●	●	●	●	●	●	Rotating beacon
●	●	●	●	●	●	●	Pitch roll sensor
				▲	▲	▲	LED drive lights
▲	▲	▲	▲	●	●	●	Halogen artic reverse light
▲	▲	▲	▲	▲	▲	▲	LED artic reverse light
●	●	●	●	●	●	●	LED reverse light
							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
●	●	●	●	●	●	●	HVAC Climate control system
●	●	●	●	●	●	●	AM/FM radio/CD player + USB
●	●	●	●	●	●	●	Rear window guard
●	●	●	●	●	●	●	Wiper/washer with intermittent 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 retractable seat belt

16 000 L	18 000 L	23 000 L	27 000 L	35 000 L	38 000 L	45 000 L	
							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 / 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 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
							PLUMBING
●	●	●	●	●	●	●	Dribble bar
●	●	●	●				1 800 lpm 50 m head pump
▲	▲	▲	▲	●	●	●	5 400 lpm 70 m head pump*
▲	▲	▲	▲	▲	▲	▲	Pressurised dribble bar system with nozzles
●	●	●	●	●	●	●	Spray valves (in-cab activation)
●	●	●	●	●	●	●	Batter spray valves
●	●	●	●	●	●	●	Fold down top rails
▲	▲	▲	▲	▲	▲	▲	Suction pipe for filling from dam
●	●	●	●	●	●	●	Step ladder access
●	●	●	●	●	●	●	Inspection access
▲	▲	▲	▲	▲	▲	▲	Manual water canon
▲	▲	▲	▲	▲	▲	▲	Remote control water canon
▲	▲	▲	▲	▲	▲	▲	Hose reel
							OTHER
	●						20.5 R 25 Radial earthmover tyres
●		●	●				23.5 R 25 tyres
▲							620/75 R26 tyres
				●	●	▲	29.5 R 25 Radial Earthmover tyres
				▲	▲	●	875/65 R 29 Radial Earthmover tyres
●			●				Remote grease banks
▲	▲	▲	▲	▲	▲	▲	Automatic greasing
●	●	●	●	●	●	●	Cab peak
▲	▲	▲	▲	▲	▲	▲	High pressure hydraulic filter
▲	▲	▲	▲	▲	▲	▲	Fuel heater
●	●	●	●	●	●	●	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.