

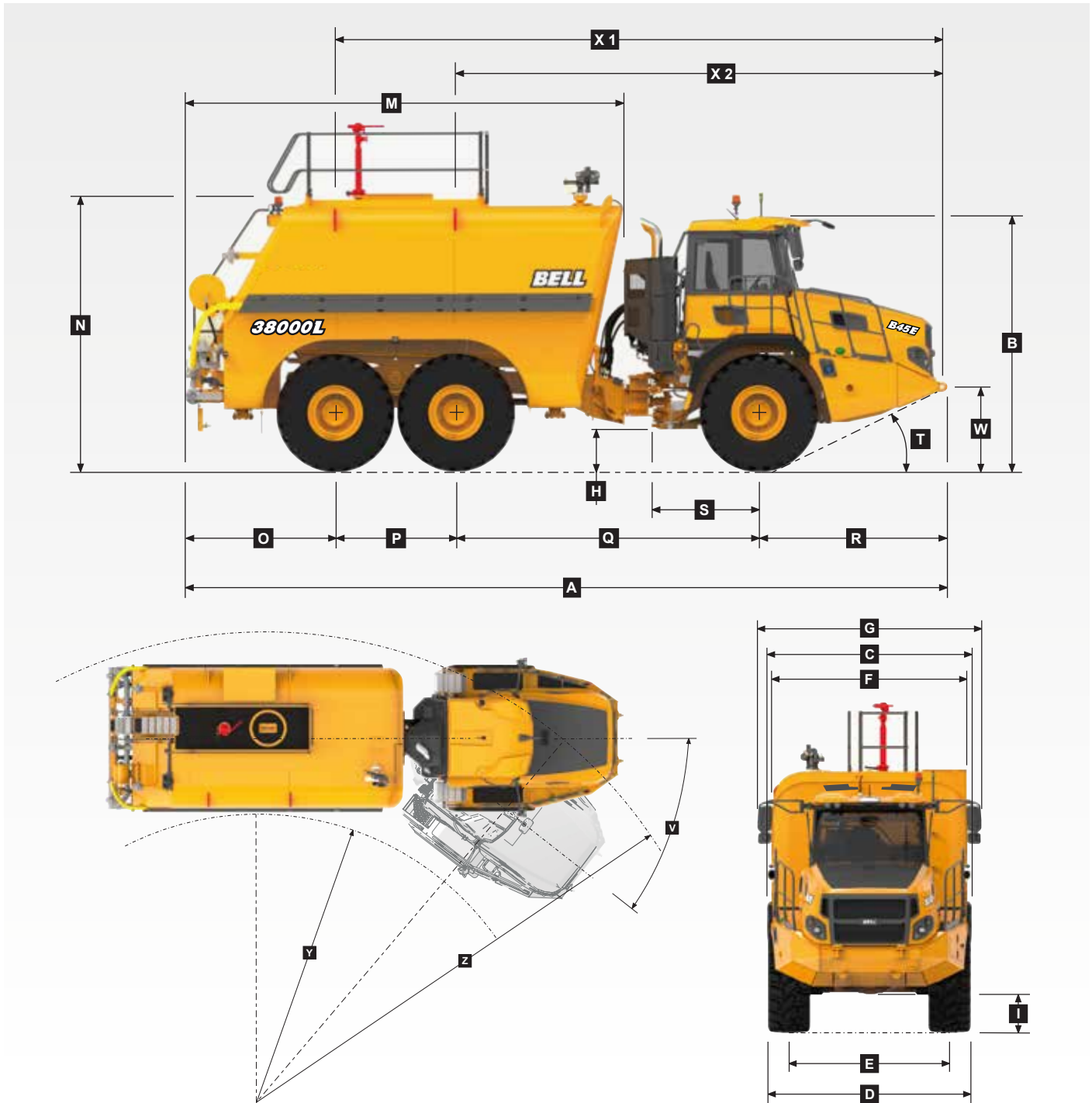
# B45E 6x6 38 000 L Articulated Water Truck

<b>ENGINE</b> <b>Manufacturer</b> Mercedes Benz (MTU) <b>Model</b> OM471LA (MTU 6R 1300) <b>Configuration</b> Inline 6, turbocharged and intercooled <b>Net Power</b> 390 kW (523 hp) @ 1 600 rpm <b>Gross Torque</b> 2 600 Nm (1 918 lbf) @ 1 300 rpm <b>Displacement</b> 12,8 litres (781 cu.in) <b>Auxiliary Brake</b> Jacobs Engine Brake® <b>Fuel Tank Capacity</b> 533 litres (140.8 US gal) <b>Certification</b> OM471LA (MTU 6R 1300) is EU Stage IIIA / EPA Tier 3 emission level equivalent	<b>TRANSFER CASE</b> <b>Manufacturer</b> Kessler <b>Model</b> W2400 <b>Layout</b> Remote mounted <b>Gear Layout</b> Three in-line helical gears <b>Output Differential</b> Interaxle 29/71 proportional differential. Automatic inter-axle differential lock.	<b>WHEELS</b> <b>Type</b> Radial Earthmover <b>Tyre</b> 29.5 R 25 (875/65 R 29 optional)	<b>PNEUMATIC SYSTEM</b> Air drier with heater and integral unloader valve, serving park brake and auxiliary functions <b>System Pressure</b> 810 kPa (117 psi)																								
<b>TRANSMISSION</b> <b>Manufacturer</b> Allison <b>Model</b> 4700 ORS <b>Configuration</b> Fully automatic planetary transmission <b>Layout</b> Engine mounted <b>Gear Layout</b> Constant meshing planetary gears, clutch operated <b>Gears</b> 7 Forward, 1 reverse <b>Clutch Type</b> Hydraulically operated multi-disc <b>Control Type</b> Electronic <b>Torque Control</b> Hydrodynamic with lock-up in all gears	<b>AXLES</b> <b>Manufacturer</b> Bell <b>Model</b> 30T <b>Differential</b> High input controlled traction differential with spiral bevel gears <b>Final Drive</b> Outboard heavy duty planetary on all axles	<b>FRONT SUSPENSION</b> Semi-independent, leading A-frame supported by hydro-pneumatic suspension struts Option: Electronically controlled adaptive suspension with ride height adjustment <b>REAR SUSPENSION</b> Pivoting walking beams with laminated rubber suspension blocks Option: Comfort Ride suspension walking beams, with two-stage sandwich block	<b>ELECTRIC SYSTEM</b> <b>Voltage</b> 24 V <b>Battery Type</b> Two AGM (Absorption Glass Mat) type <b>Battery Capacity</b> 2 X 75 Ah <b>Alternator Rating</b> 28V 80A																								
	<b>BRAKING SYSTEM</b> <b>Service Brake</b> 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: 330 kN (74 187 lbf) <b>Park &amp; Emergency</b> Spring applied, air released driveline mounted disc Maximum brake force: 218 kN (49 008 lbf) <b>Auxiliary Brake</b> Jacobs Engine Brake®. Automatic retardation through electronic activation of wet brake system. <b>Total Retardation Power</b> Continuous: 442 kW (593 hp) Maximum: 854 kW (1 145 hp)	<b>HYDRAULIC SYSTEM</b> 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. <b>Pump Type</b> Variable displacement load sensing piston <b>Flow</b> 330 L/min (87 gal/min) <b>Pressure</b> 315 bar (4 569 psi) <b>Filter</b> 5 microns	<b>MAX VEHICLE SPEED</b> <table border="1"> <tr><td>1st</td><td>4 km/h</td><td>2,5 mph</td></tr> <tr><td>2nd</td><td>9 km/h</td><td>6 mph</td></tr> <tr><td>3rd</td><td>17 km/h</td><td>11 mph</td></tr> <tr><td>4th</td><td>23 km/h</td><td>14 mph</td></tr> <tr><td>5th</td><td>33 km/h</td><td>21 mph</td></tr> <tr><td>6th</td><td>44 km/h</td><td>27,3 mph</td></tr> <tr><td>7th</td><td>51 km/h</td><td>32 mph</td></tr> <tr><td>R</td><td>7 km/h</td><td>4 mph</td></tr> </table>	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
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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																									
		<b>STEERING SYSTEM</b> Double acting cylinders, with ground-driven emergency steering pump <b>Lock to lock turns</b> 5 <b>Steering Angle</b> 42°	<b>WATER TANK</b> <b>Tank capacity</b> 38 000 Litres																								
			<b>WATER TANKER PLUMBING</b> Centrifugal water pump <b>Rate of Flow</b> 5 400 L/min <b>Head</b> 70 m																								
			<b>CAB</b> 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)	875/65 R29 (kPa/Psi)		
Total	35 479 (78 218)	Front: 314 (45,5)	Front: 295 (42,8)	Rated Payload	38 000 litres (10 000 gallons)
		Mid/Rear: 370 (53,7)	Mid/Rear: 331 (48)		
LADEN		Calculation method used by competition			
	kg (lb)	29.5 R 25 (kPa/Psi)	875/65 R29 (kPa/Psi)		
Front	22 739 (50 131)	Front: 153 (22,2)	Front: 135 (19,6)		
Middle	27 115 (59 778)	Mid/Rear: 176 (25,5)	Mid/Rear: 154 (22,3)		
Rear	26 626 (58 700)				
Total	76 479 (168 607)				

## Dimensions

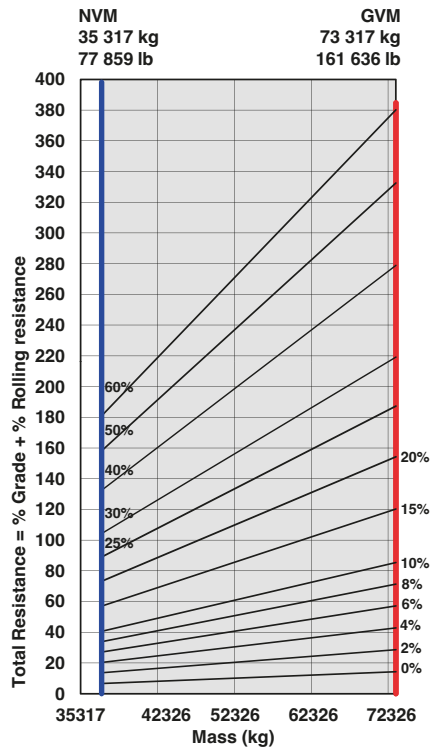


### Machine Dimensions

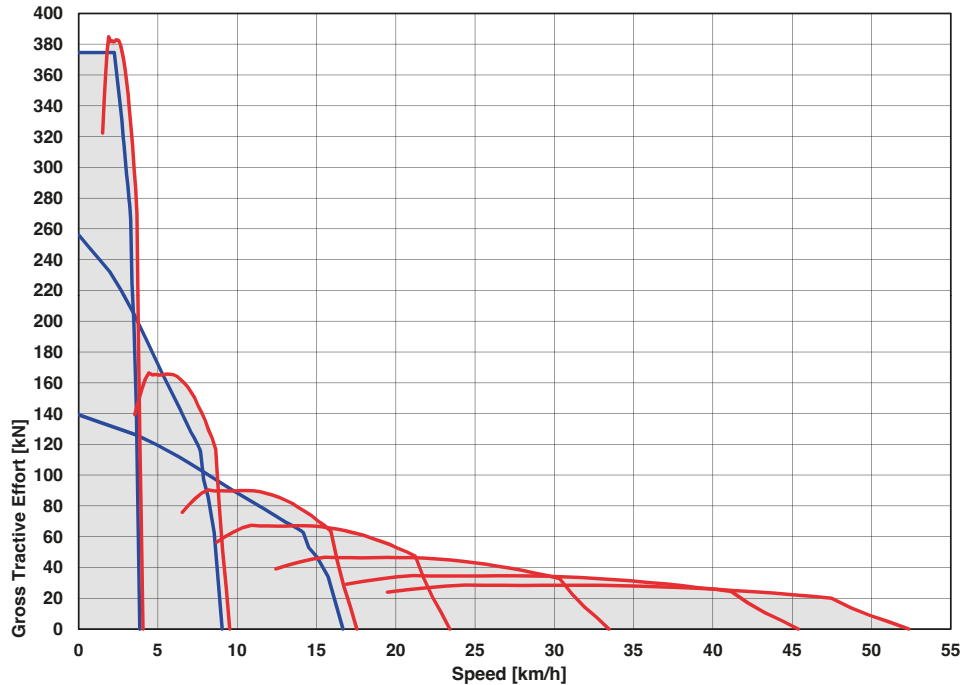
A	Length - Transport Position	12 084 mm	(39 ft. 8 in.)	P	Mid Axle Centre to Rear Axle Centre	1 950 mm	(6 ft. 5 in.)
B	Height - Transport Position	3 802 mm	(12 ft. 6 in.)	Q	Mid Axle Centre to Front Axle Centre	4 438 mm	(14 ft. 7 in.)
C	Width over Mudguards	3 495 mm	(11 ft. 6 in.)	R	Front Axle Centre to Machine Front	3 253 mm	(10 ft. 8 in.)
D	Width over Tyres - 875/65 R29	3 656 mm	(11 ft. 12 in.)	S	Front Axle Centre to Artic Centre	1 558 mm	(5 ft. 1 in.)
D	Tyre Track Width - 29.5R25	3 487 mm	(11 ft. 5 in.)	T	Approach Angle	25°	
E	Tyre Track Width - 875/65 R29	2 773 mm	(9 ft. 1 in.)	V	Maximum Articulation Angle	45°	
E	Tyre Track Width - 29.5R25	2 725 mm	(8 ft. 11 in.)	W	Front Tie Down Height	1 282 mm	(4 ft. 2 in.)
F	Width over Tank / Bowser	3 379 mm	(11 ft. 1 in.)	X1	Tank Lifting Centres	10 023 mm	(32 ft. 10 in.)
G	Width over Mirrors - Operating Position	4 027 mm	(13 ft. 3 in.)	X2	Front Lifting Centres to Tank Lifting Centre	7 173 mm	(23 ft. 6 in.)
H	Ground Clearance - Artic	545 mm	(1 ft. 9 in.)	Y	Inner Turning Circle Radius - 875/65 R29	4 782 mm	(15 ft. 8 in.)
I	Ground Clearance - Front Axle	543 mm	(1 ft. 9 in.)	Y	Inner Turning Circle Radius - 29.5R25	4 866 mm	(15 ft. 12 in.)
M	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.)
O	Rear Axle Centre to Bowser / Tank Rear	2 443 mm	(8 ft. 0 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.

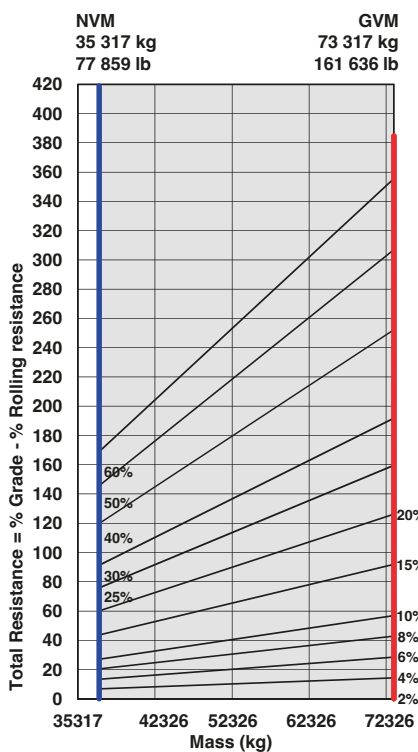


B45E 6x6 38 000 Ltr Water Tanker - Tractive Effort

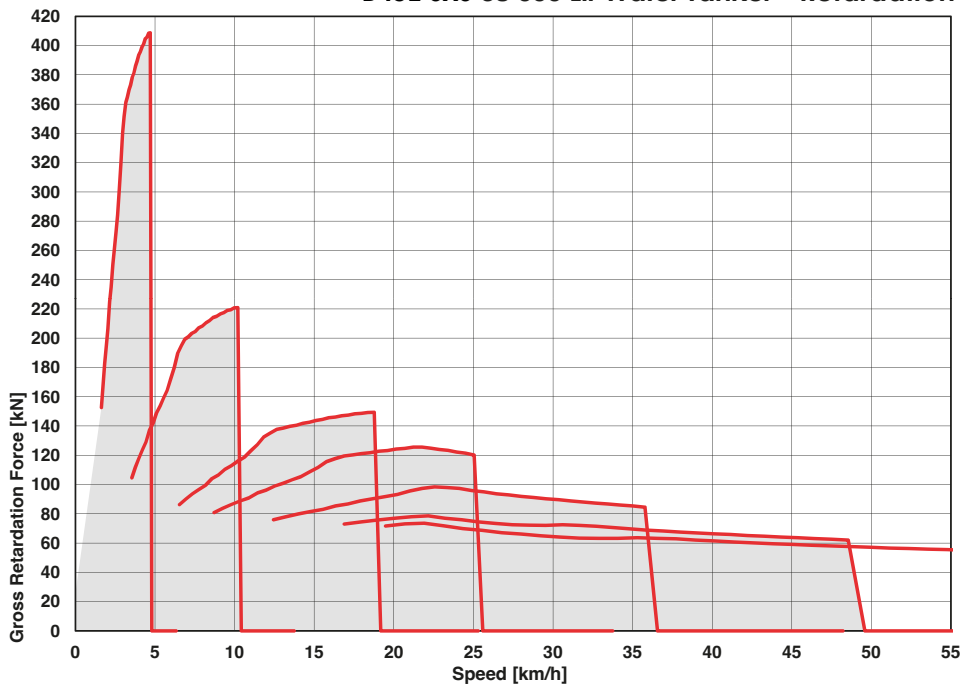


## Retardation

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.



B45E 6x6 38 000 Ltr Water Tanker - Retardation





## 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



16 000 L	18 000 L	23 000 L	27 000 L	35 000 L	38 000 L	45 000 L	
<b>ENGINE</b>							
●	●	●	●	●	●	●	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
<b>COOLING</b>							
●	●	●	●	●	●	●	Crank-shaft mounted viscous-drive fan
●	●	●	●	●	●	●	Fan guard
<b>PNEUMATIC SYSTEM</b>							
●	●	●	●	●	●	●	Engine-mounted compressor
●	●	●	●	●	●	●	Air drier with heater
●	●	●	●	●	●	●	Integral unloader valve
<b>ELECTRICAL SYSTEM</b>							
●	●	●	●	●	●	●	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
<b>STEERING SYSTEM</b>							
●	●	●	●	●	●	●	Uni-directional ground-driven secondary steering pump
▲	▲	▲	▲	▲	▲	▲	Bi-directional ground-driven secondary steering pump
<b>CAB</b>							
●	●	●	●	●	●	●	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
<b>CAB (continued)</b>							
●	●	●	●	●	●	●	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
<b>PLUMBING</b>							
●	●	●	●	●	●	●	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
<b>OTHER</b>							
●	●	●	●	●	●	●	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.