### Water Tankers

16 000 L | 27 000 L | 35 000 L | 38 000 L | 43 000 L



## The full package

A single point solution for all your needs. Bell Equipment's Water Tankers provide a completely integrated solution that delivers the greatest performance while providing reliable support.

As a global leader in Articulated Water Trucks, Bell Equipment brings you a complete OEM solution packed with class leading features that deliver production boosting performance, lower daily operating costs, superior ride quality and uncompromised safety standards.

- Ergonomic in-cab controls provide fatigue-beating operation, efficient water use, and rapid operation.
- Advanced performance information is readily available to the operator to enhance performance and turnaround times.
- The full integration of all systems has enabled the development of innovative control features that expand the machine's functionality.
- Daily operational costs are reduced thanks to advanced fuel saving technology coupled with high strength lightweight material.



With a strong legacy in mining and construction, the Bell Water Tanker is designed to withstand all heavy duty applications.

A wide range of options and intelligent operation deliver best performance in dust suppression to increase visibility on site and provide effective pulmonary disease prevention.

Innovative control features provide the accuracy required in material hydration applications and flexibility for firefighting requirements.

Bell E-series Water Tankers will give your business the competitive edge you need.

### Intelligence at your fingertips...

In-cab controls provide an ergonomic solution to control all implements and reduce operator fatigue and water wastage.

Leveraging the advanced system control and diagnostics capabilities has enabled the development of innovative features including:

- Auto spread: Ensures a uniform spread of water regardless of vehicle speed
- Ramp spray: Hill adjusted flow rate
- On board weighing: The volume of water in the tank is displayed on the display unit
- Pulse mode: Creates variable bursts of water to preserve water
- Reverse camera display: Viewable on the display unit during operation to see the spray of water from the cab

The pump speed is automated to provide the required flow rates for all activated implements. The automation of the pump speed removes complexity for the operator, improving performance and comfort. Full control or minor adjustments to the pump speed is possible with the use of the sealed switch module. The optional remote water Each implement can be cannon can be controlled controlled with a dedicated with the joystick. Rotating the push button on the sealed joystick varies the spray switch module. This enables individual activation of each of pattern while the height and direction of the cannon is the valves. The dribble bar is adjusted by shifting the split in half to provide further joystick. control.



Our wide range of optional implements provide the customisation needed to meet any job requirement.

A remote or manual water cannon can be fitted to the top of the tank to provide the height to target a jet of water at a desired target. The spread pattern can be altered from a fog to stream pattern while the flow rate can be adjusted with the use of the pump speed.

Three spray valves come standard on the rear of the water tank. Additional batter spray valves can be installed on the rear upper corners of the tank to enhance the spread pattern.

Optional hoses are available ranging from retractable hose reels to lay flat hoses.

A gravity fed or pressurised penetration spray bar can be installed on the rear of the water tank. The pressurised option has the additional option of nozzles to enhance the penetration potential of the spray bar.

Custom implements can be controlled with the flexible control electronics for further customisation.



Our quiet operator cabins are ROPS/ FOPS certified with an air suspension operator seat. The trainer seat has a retractable lap belt while the operator seat has a standard 3-point seat belt. Both have automatically locking retractors.



The planetary powershift transmission optimises shift points to match conditions and vehicle weight while protecting the transmission from operator error and abuse. Allison FuelSense® calibration optimises production and fuel burn.



The transfer case inter-axle differential delivers equal torque to each axle when traction is favourable. When conditions deteriorate, the diff-lock automatically engages to deliver torque to the tyres that can best use it.



High-strength steel and widely spaced taper roller bearings in the articulation area enhance long-term durability.

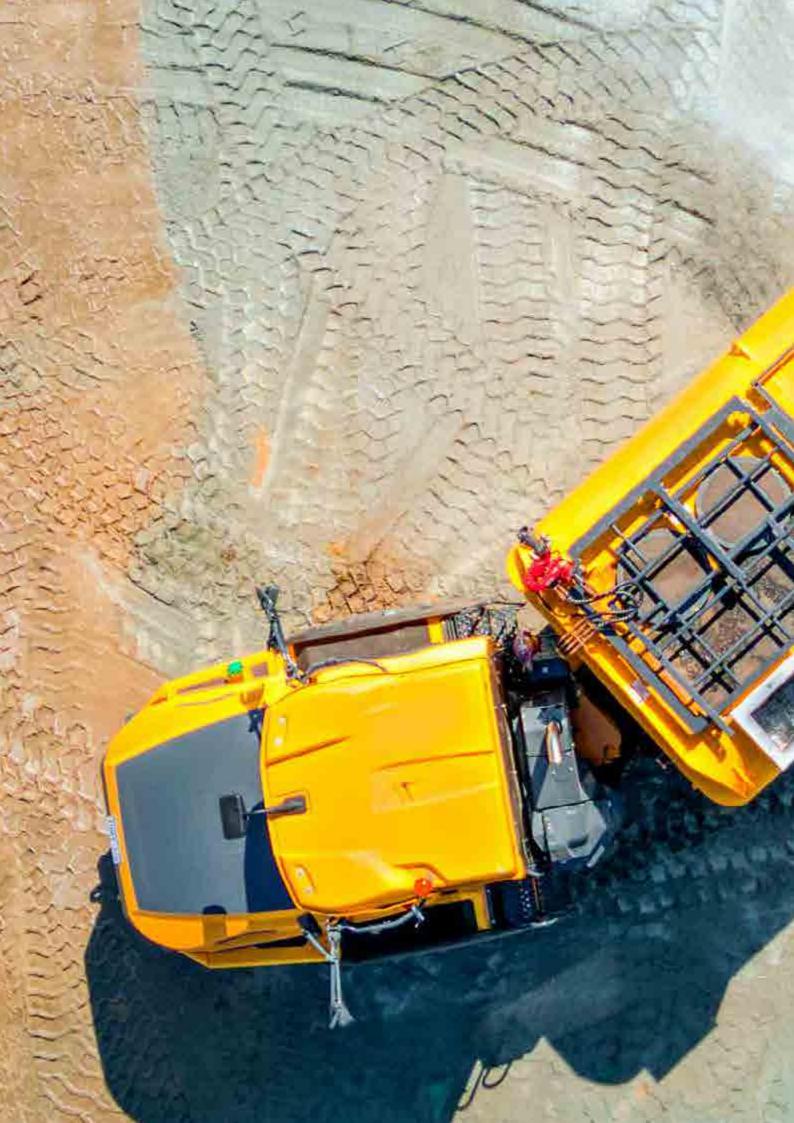


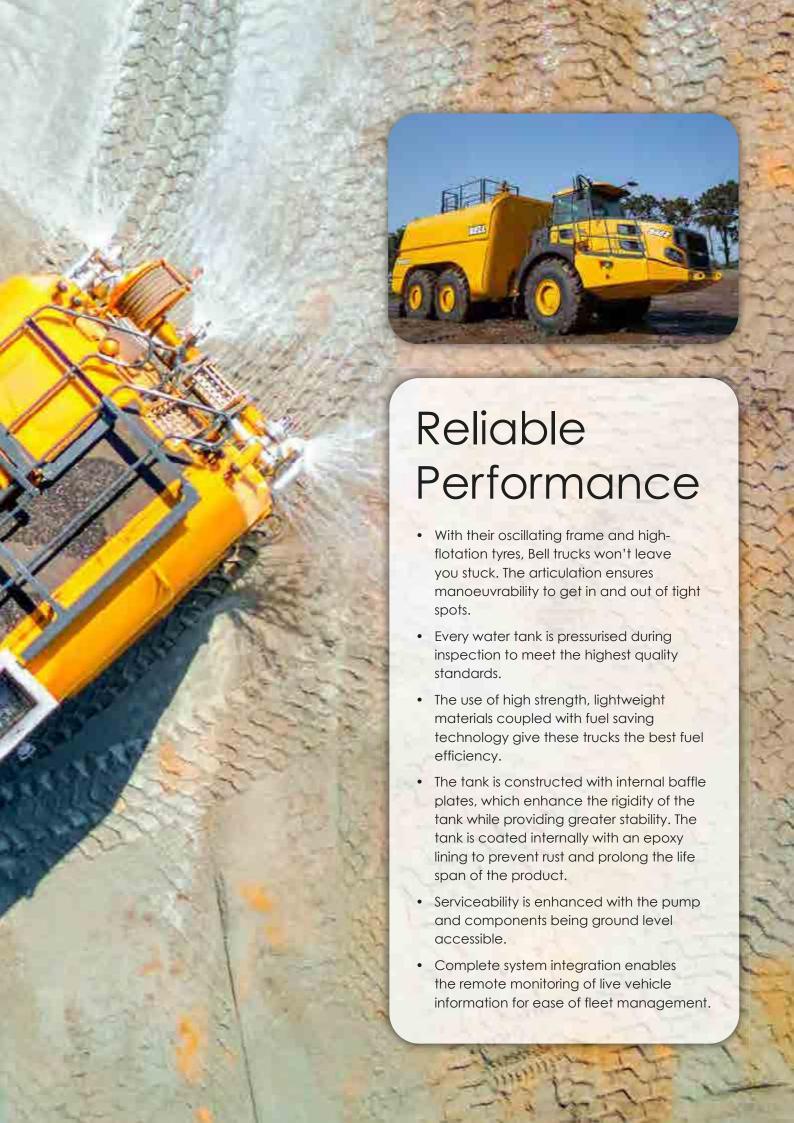
Our innovative front and rear comfort ride suspension options are offered to even further enhance ride quality and ensure minimal whole body vibration exposure.



- The water tank is designed to have a low centre of gravity for vehicle stability. Baffle plates further improve this stability by reducing sloshing effect of the water inside the water tank.
- Handrails are fitted along the staircase and on top of the water tank to ensure the safety of all roof access requirements. The plumbing is also routed internally to prevent any tripping hazards.
- Guards on the tank inlet to the pump and additional filters on the reservoir filling pipe protect the pump from any impurities. Safety reminders for the filling of the water tank from a reservoir are displayed.

- The park brake automatically applies when neutral is selected and it is not possible to engage neutral at speed. Torque dependent park brake release (Hill Assist) ensures no roll back on slopes.
- Best-in-class retarder and engine braking automatically applies when the operator lifts his foot off the accelerator. Retarder aggressiveness can be simply adjusted on the sealed switch module ensuring maximum descent control for all conditions.
- The short front end provides the best approach angle that allows these Water Tankers to attack steep terrain.





# Maximise your uptime

The E-series is loaded with features that make it as easy to maintain as it is to operate. Spend less time and expense getting ready for work and more time getting work done.

Easy-to-reach dipsticks and grouped service points make quick work of the daily routine. Quick-change filters together with extended engine and hydraulic oil-service intervals lower daily operating costs and provide superior machine uptime.

The industry leading, 10" colour monitor offers on-board machine diagnostics as well as automated daily service functionality, coupled with diagnostic test ports, for ease of troubleshooting and informing maintenance decisions on site.





If something goes wrong, the diagnostic monitor provides service codes and supporting info to help diagnose the problem.



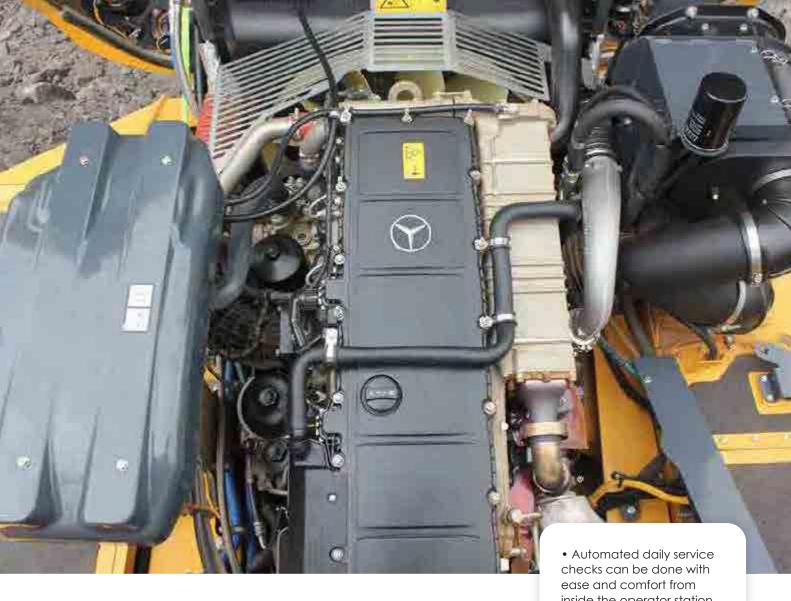
The cab can be tilted in minutes without special tools, for convenient service access to drivetrain components.



An in-cab load centre simplifies fuse replacement. Fewer relays, connectors and harnesses mean higher reliability.



The remote transmission filter option makes transmission filter replacement an even faster and cleaner task.



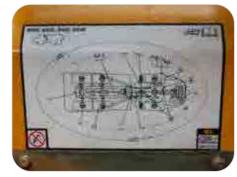


See-through fluid reservoirs and sight gauges let you check fluid levels at a glance.



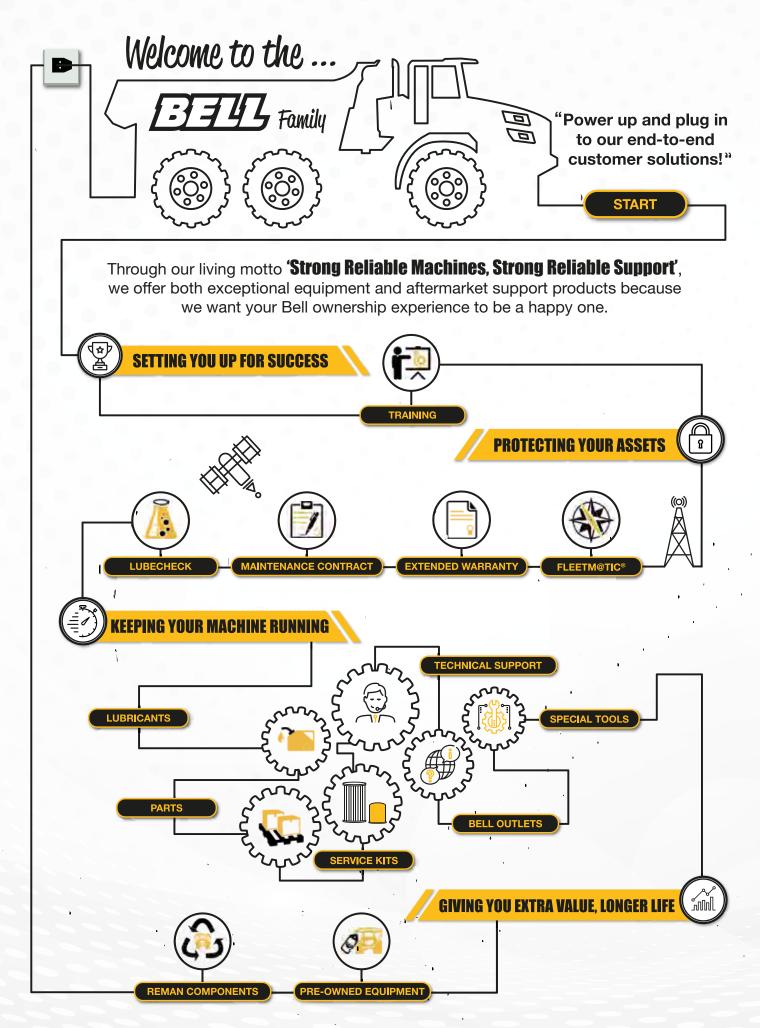


Easily accessible test ports allow technicians to troubleshoot problems more quickly.



inside the operator station using the 10" colour LCD monitor and sealed display controller.

- The load-sensing hydraulic system was designed with simplicity in mind, while maintaining efficiency. Fewer components for improved reliability and serviceability.
- Extended engine transmission and hydraulic oil-change for increased uptime and lower operating cost.
- Available environmental drains allow quick, no-spill changes.
- Your Bell Service Centre has the parts and backup you need to stay productive and offers a wide variety of preventative maintenance and support programmes to help you control costs.



SUPPORTING YOU EVERY STEP OF YOUR BELL OWNERSHIP EXPERIENCE



Cutting edge technology, helping you run your fleet smarter. Providing accurate, up-to-date operational data, production data and diagnostic data.

The key to a productive and profitable fleet, lies in the ability to monitor and manage your machines and operators efficiently. Machine operational data is processed and compiled into useful production and performance statistics, accessible via the Bell Fleetm@tic® website. These reports are also automated and emailed directly to you. The two monitoring packages that we have available, are:

- **The Classic Package** supplies you with good enough information for you to have a very good understanding of how your machines is operating for each shift that it runs. This package comes standard with the machine for 2 years.
- The Premium Package is focused on customers who need to have extremely detailed information of the machine's operation. For this package we offer similar information to that of the Classic Package but for each individual laden unladen cycle. In addition, live tracking is available on the Fleetm@tic® website on a per minute basis.

### Fleetm@tic®:

- Maximise productivity
- Generate machine utilisation reports
- Identify operator training requirements
- Pro-active maintenance planning
- Implement safety features

- Receive machine fault codes as well as suggested trouble shooting procedures
- Protect investments
- · Receive real time geospatial data



### 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 multidisc

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 hydropneumatic 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 CREEDS

VEHI	CLE 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

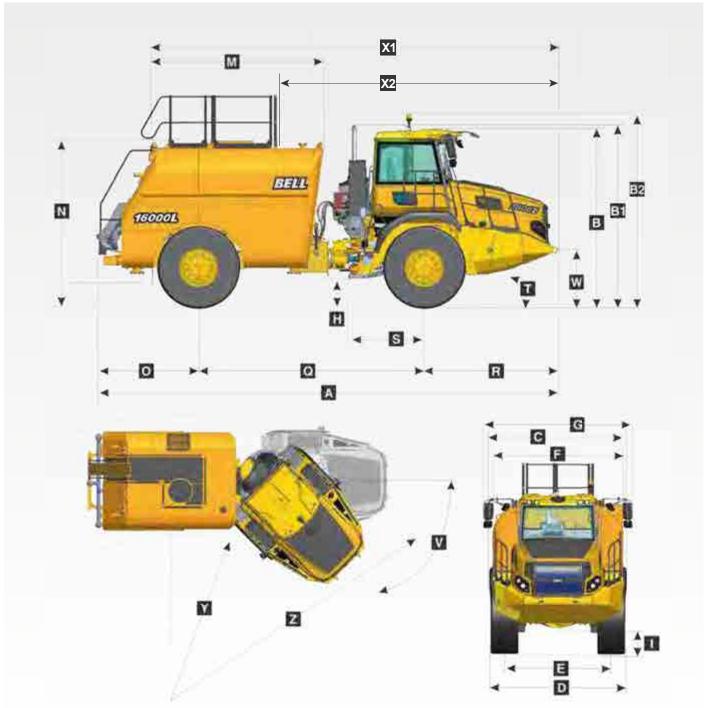
### CAB

ROPS/FOPS certified 74 dBA internal sound level measured

### Load Capacity & Ground Pressure

OPERATIN	IG WEIGHTS	GROUND	PRESSURE	LOAD CAPACITY		
UNLADEN	kg (lb)	LADEN (N	o 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

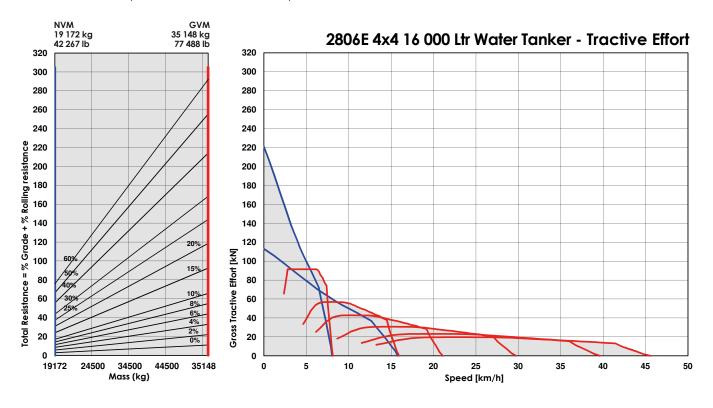


M	achine Dimensions		
Α	Length - Transport Position	8 946 mm	(29 ft. 4 in.)
В	Height - Transport Position	3 436 mm	(11 ft. 3 in.)
B1	Height-Rotating Beacon	3 548 mm	(11 ft. 8 in.)
B2	Height-Exhaust	3 517 mm	(11 ft. 6 in.)
С	Width over Mudguards	2 984 mm	(9 ft. 9 in.)
D	Width over Tyres-23.5R25	2 926 mm	(9 ft. 7 in.)
Е	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.)
Н	Ground Clearance - Artic	563 mm	(22.17 in.)
-1	Ground Clearance - Front Axle	470 mm	(18.5 in.)
K	Ground Clearance - Under Run Bar	N/A	
М	Tank / Bowser Length	3 368 mm	(11 ft. 1 in.)

N	Maximum Tank Height	3 074 mm (10 ft. 1 in.)
0	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.)
Х2	Machine Lifting Centres	4 853 mm (15 ft. 11 in.)
Υ	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.)

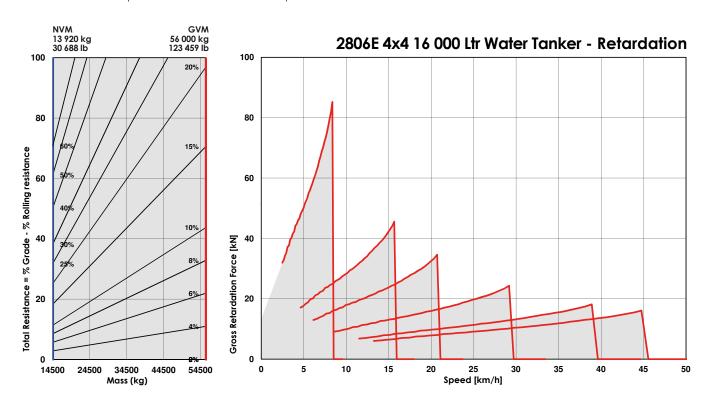
### Gradeability/Rimpull

- 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.



### B30E 6x6 27 000 L Articulated Water Truck



Manufacture Mercedes Benz

Model OM926LA

Configuration

Inline 6, turbocharged and intercooled.

240 kW (322 hp) @ 2 200 rpm in accordance with UN ECE R120

**Gross Torque** 1 300 Nm (959 lbft) @ 1 200 -1 600 rpm

**Displacement** 7,2 litres (439 cu.in)

**Auxiliary Brake** Exhaust Valve Brake Engine Valve Brake

**Fuel Tank Capacity** 379 litres (100 US gal)

Certification

OM926LA meets EU Stage II/EPA Tier 2 emissions regulations.

### **TRANSMISSION**

Manufacturer Allison

Model 3400P ORS

Configuration

Fully automatic planetary transmission

Lavout

Engine mounted

Gear lavout Constant meshing planetary gears, clutch operated

6 Forward, 1 Reverse

Clutch Type Hydraulically operated multi-

**Control Type** Electronic

**Torque Control** Hydrodynamic with lock-up in all gears.

### **TRANSFER CASE**

Manufacturer Kessler

Series W1400

Lavout

Remote mounted

Gear Lavout

Three in-line helical gears

**Output Differential** Interaxle 33/67 proportional differential. Automatic inter-axle differential lock.

### **AXLES**

Manufacturer

Bell

Model 18T

**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 on

front and middle axles. Wet brake oil is circulated through a filtration and cooling system.

Maximum brake force: 187 kN (42 000 lbf)

Park & Emergency Spring applied, air released driveline mounted disc.

Maximum brake force: 251 kN (56 400 lbf)

**Auxiliary Brake** 

Automatic engine valve brake. Automatic retardation through electronic activation of wet brake system.

**Total Retardation Power** 265 kW (355 hp) Continuous 494 kW (662 hp) Maximum

### **WHEELS**

Tvpe Radial Earthmover

Tyre 23.5 R 25

### FRONT SUSPENSION

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

### **REAR SUSPENSION**

Pivoting walking beams with laminated rubber suspension blocks

### **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

VEHI	CLE 2LEED2	
1st	8 km/h	5 mph
2nd	14 km/h	9 mph
3rd	20 km/h	12 mph
4th	29 km/h	18 mph
5th	43 km/h	26 mph
6th	50 km/h	31 mph
R	8 km/h	5 mph

### WATER TANKER PLUMBING

Standard centrifugal water amua

Rate of Flow 1 800 L/min

Head 50 m

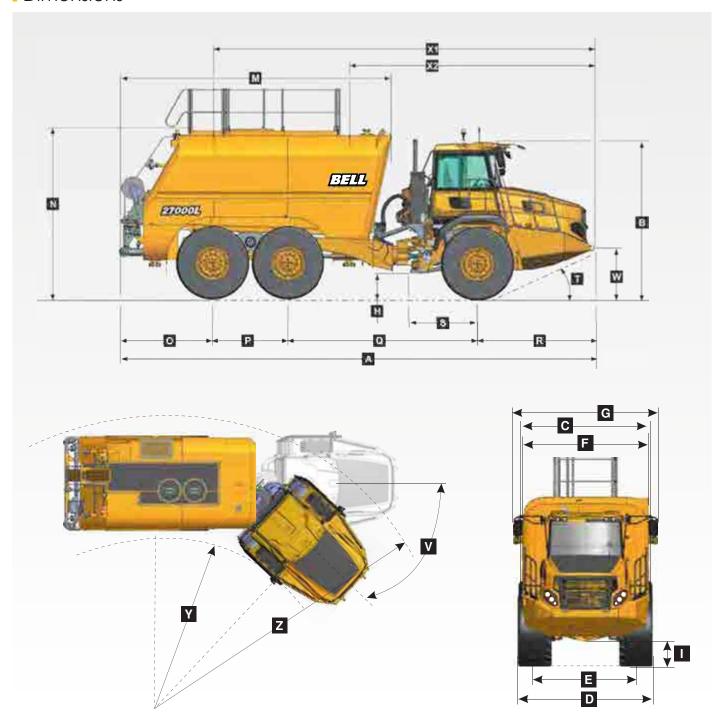
### CAB

ROPS/FOPS certified 72 dBA internal sound level measured according to ISO 6396.

### Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE		LOAD CAPACITY	
UNLADEN	N - kg (lb)	LADEN (No	o sinkage)		
Front	9 750 (21 495)	23.5 R 25	kPa (Psi)	Rated Payload	27 000 litres
Middle	4 800 (10 582)	Front	280 (41)		(7 100 gallons)
Rear	4 760 (10 494)	Middle	378 (55)		
Total	19 310 (42 571)	Rear 378 (55)			
LADEN	LADEN - kg (lb)				
Front	13 120 (28 925)				
Middle	17 115 (37 732)				
Rear	17 075 (37 644)				
Total	47 310 (104 301)				

### Dimensions

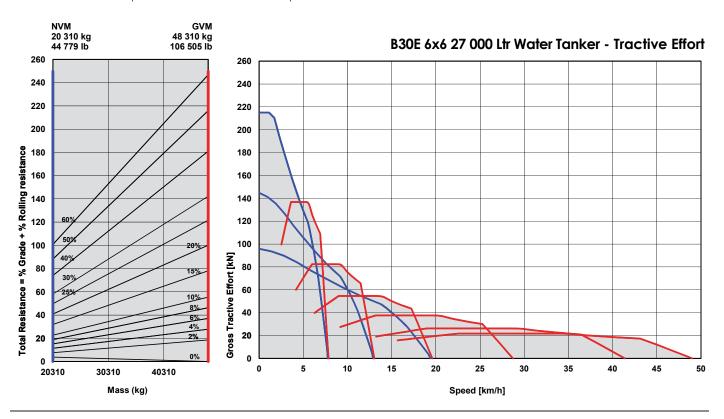


M	achine Dimensions		
Α	Length - Transport Position	10 525 mm	(34 ft. 6 in.)
В	Height - Transport Position	3 436 mm	(11 ft. 3 in.)
C	Width over Mudguards	2 985 mm	(9 ft. 6 in.)
D	Width over Tyres - 23.5R25	2 940 mm	(9 ft. 8 in.)
Е	Tyre Track Width - 23.5R25	2 356 mm	(7 ft. 9 in.)
F	Width over Tank / Bowser	2 855 mm	(9 ft. 4 in.)
G	Width over Mirrors - Operating Position	3 260 mm	(10 ft. 8 in.)
Н	Ground Clearance - Artic	537 mm	(1 ft. 9 in.)
1	Ground Clearance - Front Axle	488 mm	(1 ft. 7 in.)
М	Tank / Bowser Length	6 030 mm	(19 ft. 9 in.)
N	Maximum Tank Height	3 780 mm	(12 ft. 8 in.)
0	Rear Axle Centre to Bowser / Tank Rear	2 072 mm	(6 ft. 10 in.)

			_
Р	Mid Axle Centre to Rear Axle Centre	1 670 mm	(5 ft. 6 in.)
Q	Mid Axle Centre to Front Axle Centre	4 181 mm	(13 ft. 9 in.)
R	Front Axle Centre to Machine Front	2 602 mm	(8 ft. 9 in.)
S	Front Axle Centre to Artic Centre	1 362 mm	(4 ft. 65 in.)
T	Approach Angle	25°	
V	Maximum Articulation Angle	45°	
W	Front Tie Down Height	1 075 mm	(3 ft. 6 in.)
Х1	Tank Lifting Centres	8 359 mm	(27 ft. 5 in.)
X2	Front Lifting Centre to Tank Lifting Centre	5 334 mm	(17 ft. 6 in.)
Υ	Inner Turning Circle Radius - 23.5R25	4 110 mm	(13 ft. 6 in.)
Z	Outer Turning Circle Radius - 23.5R25	8 000 mm	(26 ft. 3 in.)

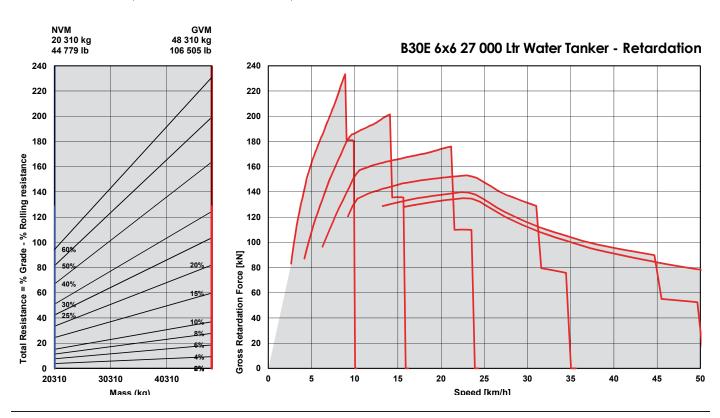
### Gradeability/Rimpull

- 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.



### **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 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

### **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

MAY VEHICLE CREEK

Battery Capacity 2 X 75 Ah

Alternator Rating 28V 80A

MAX	AEHICLE 251	EED
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

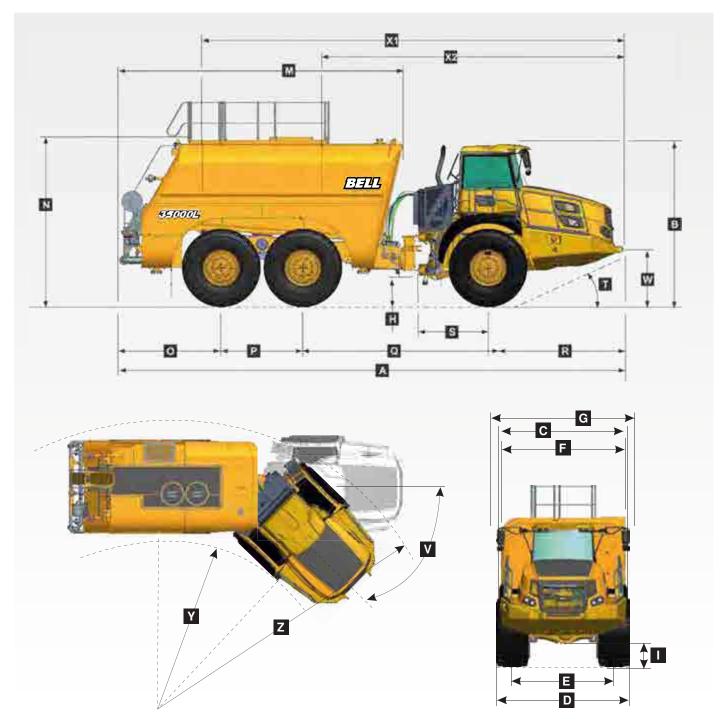
### CAB

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

### Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND	PRESSURE	LOAD CAPACITY	
UNLA	ADEN	LADEN (No sinkage/Tota	al 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)		

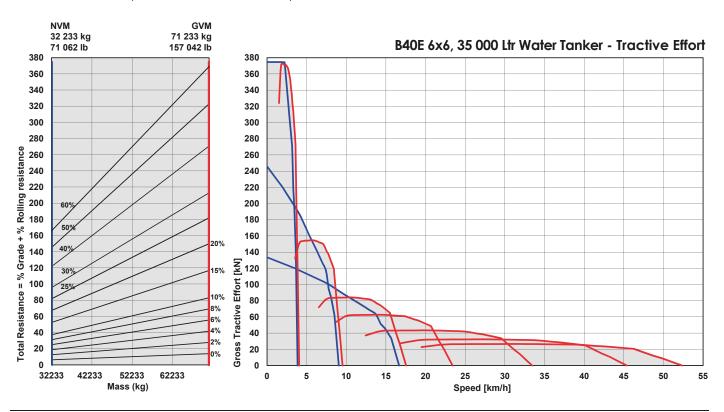
### Dimensions



M	achine 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.)
Ε	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.)	W	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.)	X1	Tank Lifting Centres	10 023 mm (32 ft. 10 in.)
G	Width over Mirrors - Operating Position	3 614 mm	(11 ft. 10 in.)	X2	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.)

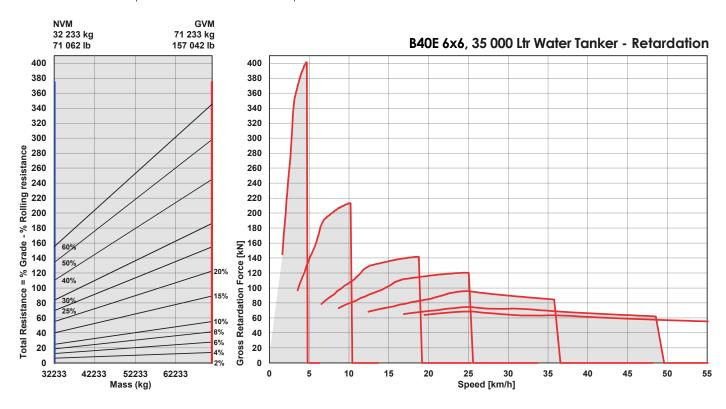
### Gradeability/Rimpull

- 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.



### **B45E 6x6 38 000 L** Articulated Water Truck



### **ENGINE**

Manufacturer Mercedes Benz (MTU)

Model OM471LA (MTU 6R 1300)

Configuration
Inline 6, turbocharged and intercooled

Net Power 390 kW (523 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 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 aears

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: 330 kN (74 187 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**

rype 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

MAX	VEHICLE SPE	ED
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

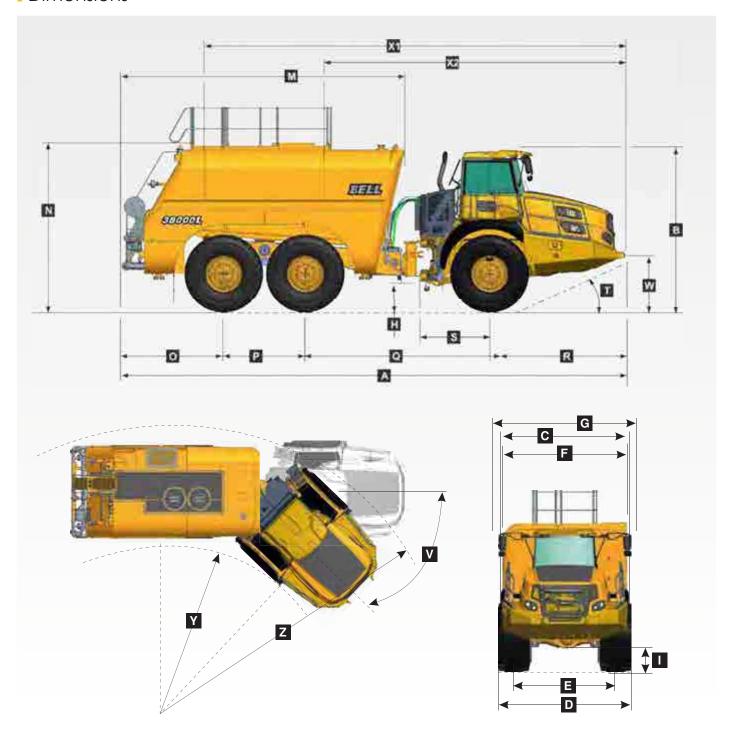
### CAB

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	15 743 (34 707)	Front	321 (47)	Rated Payload	38 000 litres
Middle	10 046 (22 147)	Middle	370 (54)		(10 000 gallons)
Rear	9 528 (21 005)	Rear	370 (54)		
Total	35 317 (77 859)				
LADEN					
Front	18 342 (40 438)	875/65 R29	kPa (Psi)		
Middle	27 391 (60 386)	Front	294 (43)		
Rear	27 584 (60 811)	Middle	331 (48)		
Total	73 317 (161 636)	Rear	331 (48)		

### Dimensions

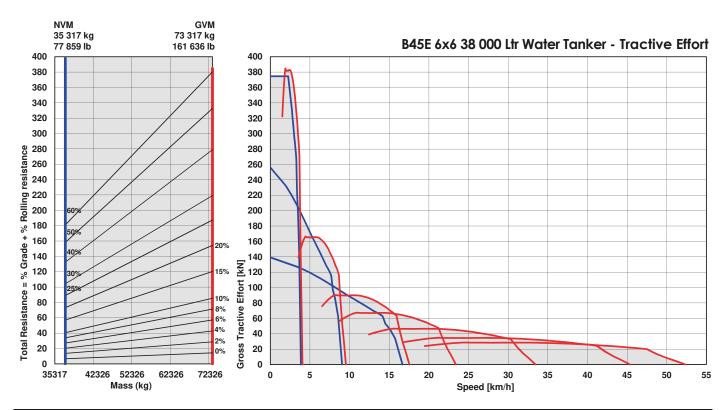


M	achine Dimensions		
Α	Length - Transport Position	12 084 mm	(39 ft. 8 in.)
В	Height - Transport Position	3 802 mm	(12 ft. 6 in.)
C	Width over Mudguards	3 495 mm	(11 ft. 6 in.)
D	Width over Tyres - 875/65 R29	3 656 mm	(11 ft. 12 in.)
D	Tyre Track Width - 29.5R25	3 487 mm	(11 ft. 5 in.)
Е	Tyre Track Width - 875/65 R29	2 773 mm	(9 ft. 1 in.)
Е	Tyre Track Width - 29.5R25	2 725 mm	(8 ft. 11 in.)
F	Width over Tank / Bowser	3 379 mm	(11 ft. 1 in.)
G	Width over Mirrors - Operating Position	4 027 mm	(13 ft. 3 in.)
Н	Ground Clearance - Artic	545 mm	(1 ft. 9 in.)
1	Ground Clearance - Front Axle	543 mm	(1 ft. 9 in.)
М	Tank / Bowser Length	6 797 mm	(22 ft. 4 in.)
Ν	Maximum Tank Height	4 002 mm	(13 ft. 2 in.)
0	Rear Axle Centre to Bowser / Tank Rear	2 443 mm	(8 ft. 0 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	3 253 mm (10 ft. 8 in.)
S	Front Axle Centre to Artic Centre	1 558 mm (5 ft. 1 in.)
T	Approach Angle	25°
V	Maximum Articulation Angle	45°
W	Front Tie Down Height	1 282 mm (4 ft. 2 in.)
X1	Tank Lifting Centres	10 023 mm (32 ft. 10 in.)
X2	Front Lifting Centres to Tank Lifting Centre	7 173 mm (23 ft. 6 in.)
Υ	Inner Turning Circle Radius - 875/65 R29	4 782 mm (15 ft. 8 in.)
Υ	Inner Turning Circle Radius - 29.5R25	4 866 mm (15 ft. 12 in.)
Z	Outer Turning Circle Radius - 875/65 R29	9 320 mm (30 ft. 7 in.)
Z	Outer Turning Circle Radius - 29.5R25	9 235 mm (30 ft. 4 in.)

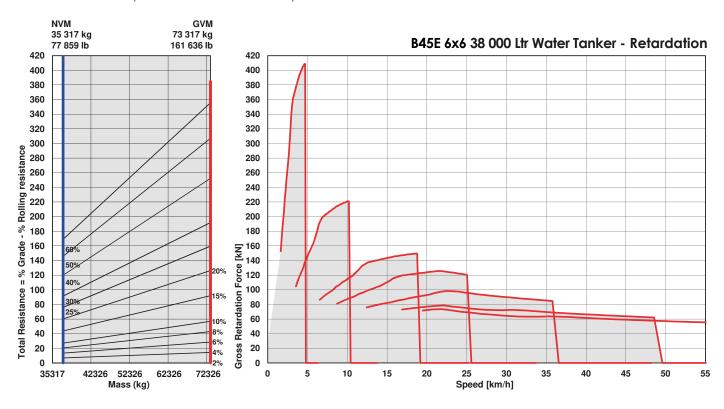
### Gradeability/Rimpull

- 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.



### 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 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 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 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

### **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

MAY VEHICLE CREEK

MAX	AEHICLE 251	EED
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

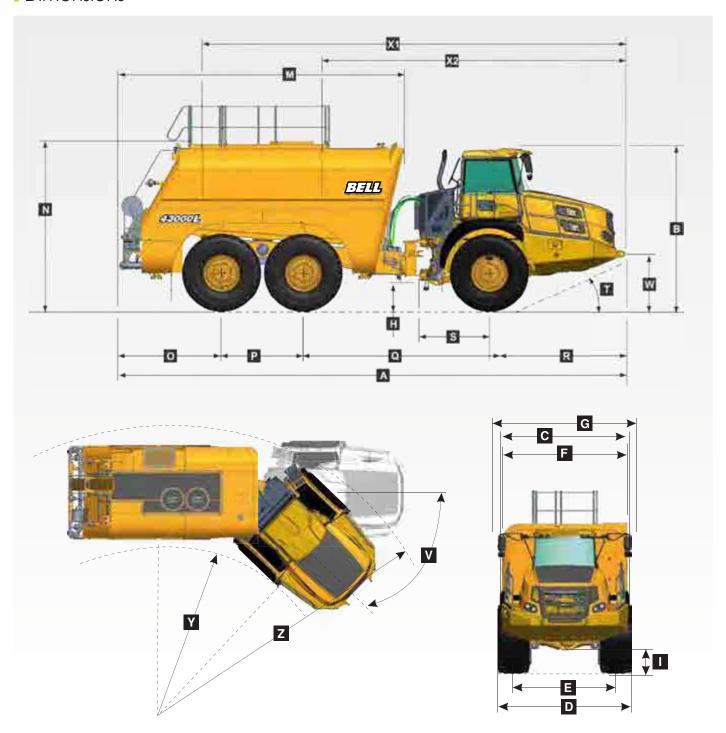
### CAB

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)		

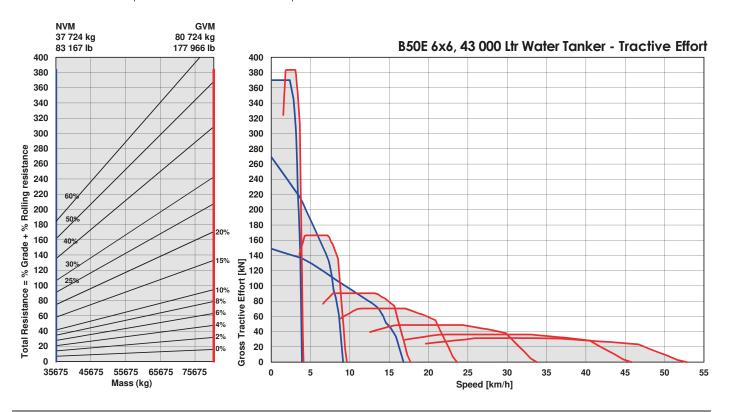
### Dimensions



M	Machine Dimensions						
Α	Length - Transport Position	12 279 mm	(40 ft. 3 in.)	0	Rear Axle Centre to Bowser / Tank Rear	2 543 mm (8 ft. 4 in.)	
В	Height - Transport Position	3 820 mm	(12 ft. 6 in.)	Р	Mid Axle Centre to Rear Axle Centre	1 950 mm (6 ft. 5 in.)	
C	Width over Mudguards	3 790 mm	(12 ft. 5 in.)	Q	Mid Axle Centre to Front Axle Centre	4 438 mm (14 ft. 7 in.)	
D	Width over Tyres - 875/65 R29	3 832 mm	(12 ft. 7 in.)	R	Front Axle Centre to Machine Front	3 351 mm (11 ft. 0 in.)	
D	Tyre Track Width - 29.5R25	3 714 mm	(12 ft. 2 in.)	S	Front Axle Centre to Artic Centre	1 558 mm (5 ft. 1 in.)	
E	Tyre Track Width - 875/65 R29	2 949 mm	(9 ft. 8 in.)	T	Approach Angle	23°	
Е	Tyre Track Width - 29.5R25	2 952 mm	(9 ft. 8 in.)	V	Maximum Articulation Angle	42°	
F	Width over Tank / Bowser	3 699 mm	(12 ft. 2 in.)	W	Front Tie Down Height	1 269 mm (4 ft. 2 in.)	
F	Width over Tank / Bowser (with hose)	3 849 mm	(12 ft. 8 in.)	X1	Tank Lifting Centres	10 218 mm (33 ft. 6 in.)	
G	Width over Mirrors - Operating Position	4 027 mm	(13 ft. 3 in.)	X2	Front Lifting Centres to Tank Lifting Centre	7 310 mm (24 ft. 0 in.)	
Н	Ground Clearance - Artic	558 mm	(1 ft. 9 in.)	Υ	Inner Turning Circle Radius - 875/65 R29	4 694 mm (15 ft. 5 in.)	
	Ground Clearance - Front Axle	555 mm	(1 ft. 9 in.)	Υ	Inner Turning Circle Radius - 29.5R25	4 753 mm (15 ft. 7 in.)	
М	Tank / Bowser Length	6 877 mm	(22 ft. 7 in.)	Z	Outer Turning Circle Radius - 875/65 R29	9 408 mm (30 ft. 10 in.)	
N	Maximum Tank Height	4 137 mm	(13 ft. 7 in.)	Z	Outer Turning Circle Radius - 29.5R25	9 349 mm (30 ft. 8 in.)	

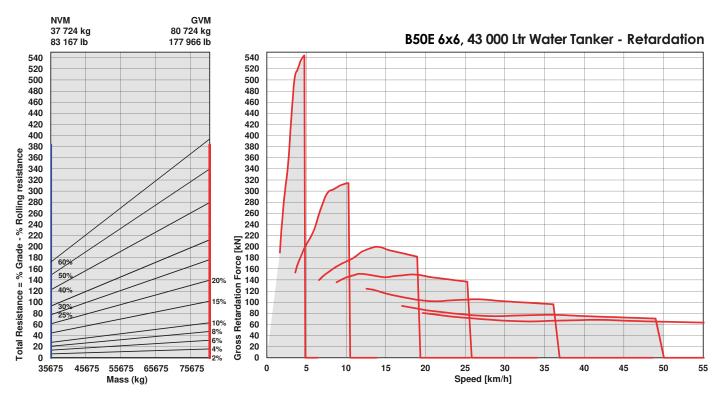
### Gradeability/Rimpull

- 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.



1600 2700 3800 48800 4300 4300 4300 4300	700	16001 270001 350001	43,000
~\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\		/~/ W/ W/ G	
	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 bar
	STEERING SYSTEM Uni-directional ground-driven secondary steering pump Bi-directional ground-driven secondary steering pump		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

<sup>\* (</sup>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



### Notes

### Notes



### Tel: 1300 448 224

### Dealer e-mail: hitachifleet@hcma.com.au • Web: www.hitachicm.com.au

All dimensions are shown in millimeters, unless otherwise stated between brackets. Under our policy of continuous improvement, we reserve the right to change technical data and design without prior notice. Photographs featured in this brochure may include optional equipment. Blu@dvantage™ is a trademark of Bell Equipment Co. (PTY) Ltd. AdBlue® is a registered trademark of VDA.

### BELL INTERNATIONAL: Tel: +27 (0)35-907 9431

### E-mail: marketing@bellequipment.com • Web: www.bellequipment.com

Tel: +61 (0)8-9355-2442

Tel: +49 (0)6631 / 91-13-0

Tel: +33 (0)5-55-89-23-56

Tel: +27 (0)11-928-9700

Tel: +44 (0)1283-712862 Tel: +1 (854) 855 7507

