• PIN3

Water Tanker

B30E • 27 000 L

EU Stage V

BELL

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.

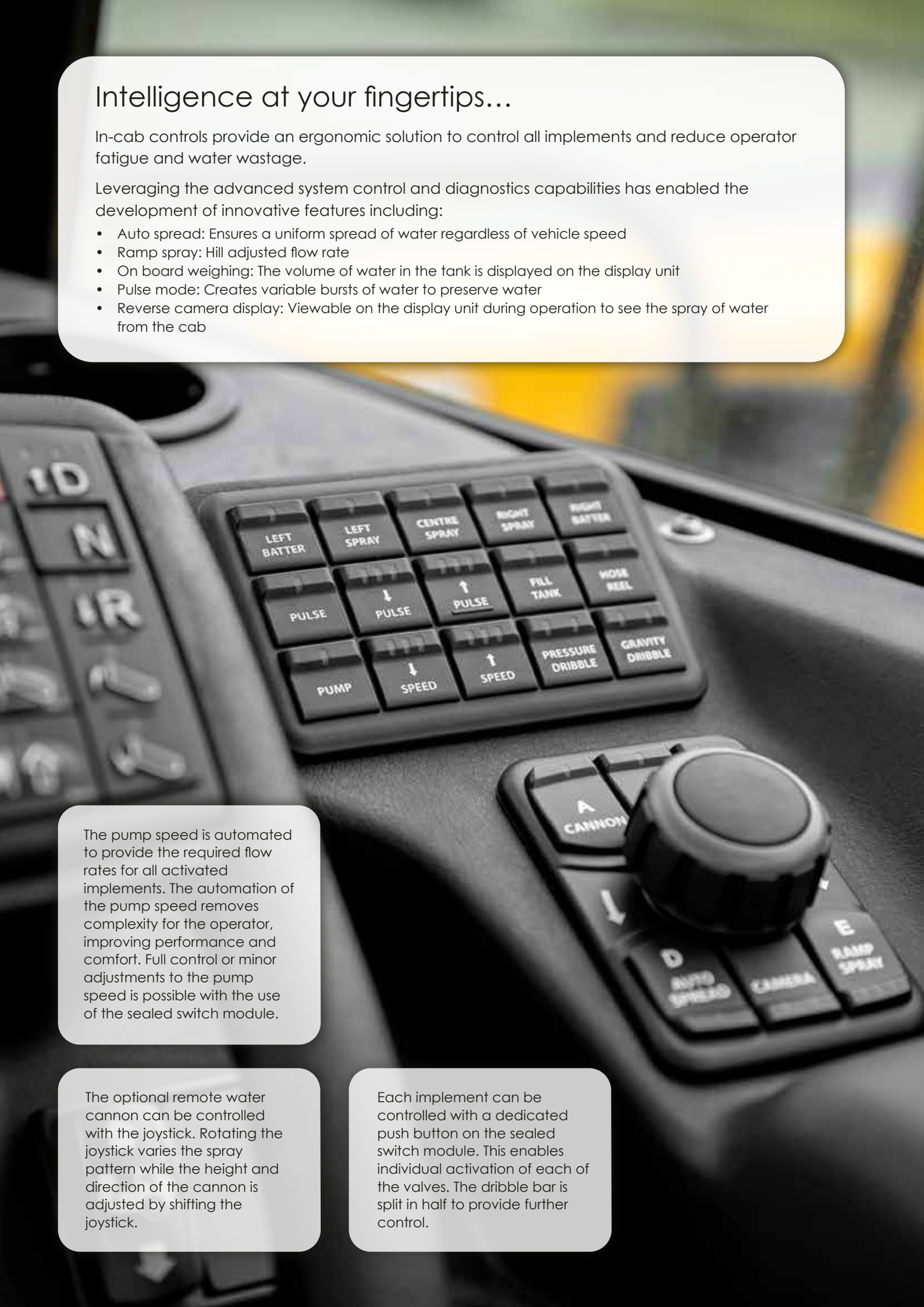
Bell E-series Water Tankers will give your business the competitive edge you need.

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 cannon can be controlled with the joystick. Rotating the joystick varies the spray pattern while the height and direction of the cannon is adjusted by shifting the joystick.

Each implement can be controlled with a dedicated push button on the sealed switch module. This enables individual activation of each of the valves. The dribble bar is split in half to provide further 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.

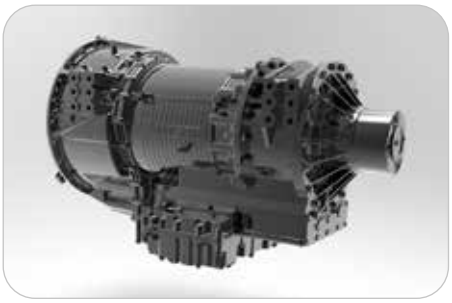
Five spray valves are standard on the rear of the water tank. Three in a horizontal configuration and two in a vertical configuration (batter sprays).

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

The choice of gravity fed or pressurised penetration spray bar is available for the rear of the water tank. The pressurised option has 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.

Reliable Performance

- With their oscillating frame and high-flotation tyres, Bell trucks won't leave you stuck. The articulation ensures manoeuvrability to get in and out of tight spots.
- Every water tank is pressurised during inspection to meet the highest quality standards.
- The use of high strength, lightweight materials coupled with fuel saving technology give these trucks the best fuel efficiency.
- The tank is constructed with internal baffle plates, which enhance the rigidity of the tank while providing greater stability. The tank is coated internally with an epoxy lining to prevent rust and prolong the life span of the product.
- Serviceability is enhanced with the pump and components being ground level accessible.
- Complete system integration enables the remote monitoring of live vehicle information for ease of fleet management.

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.

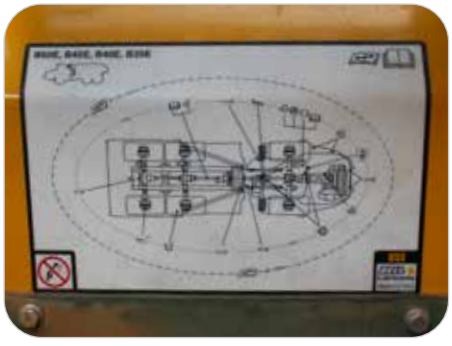
The cab can be tilted in minutes without special tools, for convenient service access to drivetrain components.

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.



- Automated daily service checks can be done with ease and comfort from inside the operator station using the 10" colour LCD monitor and sealed display controller.

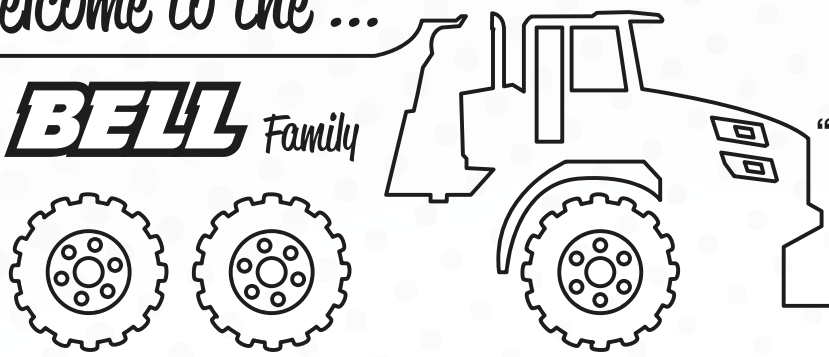
- The load-sensing hydraulic system was designed with simplicity in mind, while maintaining efficiency. Fewer components for improved reliability and serviceability.

- 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.

Welcome to the ... BELL Family



"Power up and plug in to our end-to-end customer solutions!"

START

Through our living motto **'Strong Reliable Machines, Strong Reliable Support'**, we offer both exceptional equipment and aftermarket support products because we want your Bell ownership experience to be a happy one.

SETTING YOU UP FOR SUCCESS

- TRAINING

PROTECTING YOUR ASSETS

- LUBECHECK
- MAINTENANCE CONTRACT
- EXTENDED WARRANTY
- FLEETM@TIC®

KEEPING YOUR MACHINE RUNNING

- LUBRICANTS
- TECHNICAL SUPPORT
- SPECIAL TOOLS
- PARTS
- SERVICE KITS
- BELL OUTLETS

GIVING YOU EXTRA VALUE, LONGER LIFE

- REMAN COMPONENTS
- PRE-OWNED EQUIPMENT

SUPPORTING YOU EVERY STEP OF YOUR BELL OWNERSHIP EXPERIENCE

Smarter fleet management

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

B30E 6x6 27 000 L Articulated Water Truck

ENGINE
Manufacturer
Mercedes Benz

Model
OM936LA

Configuration
Inline 6, turbocharged and intercooled

Maximum Net Power
260 kW (348 hp) at 1 800 rpm in accordance with UN ECE R120

Gross Torque
1 450 Nm (1 069 lbft)
@ 1 200 - 1 600 rpm

Displacement
7,7 litres (469 cu.in)

Auxiliary Brake
Compression brake

Fuel Tank Capacity
302 litres (79.78 US gal)

AdBlue® Tank Capacity
31 L (8.2 US gal)

Certification
OM936LA meets EU Stage V / EPA Tier 4 Final emissions regulations.

TRANSMISSION
Manufacturer
Allison

Model
3400P ORS

Configuration
Fully automatic planetary transmission

Layout
Engine mounted

Gear Layout
Constant meshing planetary gears, clutch operated

Gears
6 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

Series
W1400

Layout
Remote mounted

Gear Layout
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, middle and rear axles. Wet brake oil is circulated through a filtration and cooling system.

Maximum brake force:
174 kN (39 116 lbf)

Park & Emergency
Spring applied, air released driveline mounted disc

Maximum brake force:
251 kN (56 400 lbf)

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

Total Retardation Power
335kW (449 hp) Continuous
494kW (662 hp) Maximum

WHEELS
Type
Radial Earthmover

Tyre
23.5 R 25 (750/65 R 25 optional)

FRONT SUSPENSION
Semi-independent, leading A-frame supported by hydro-pneumatic suspension struts.

Optional active dual springrate Comfort Ride suspension available, including height control.

REAR SUSPENSION
Pivoting walking beams with laminated rubber suspension blocks.

Optional passive dual-springrate Comfort Ride walkingbeam available.

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
202 L/min (53 gal/min)

Pressure
310 Bar (4 500 psi)

Filter
5 microns

STEERING SYSTEM
Double acting cylinders, with ground-driven emergency steering pump.

Lock to lock turns
4,1

Steering Angle
45°

DUMPING SYSTEM
Two double-acting, single stage, dump cylinders

Raise Time
12 s

Lowering Time
10 s

Tipping Angle
70° standard, or any lower angle programmable

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

System Pressure
8,1 Bar (117 psi)

ELECTRICAL SYSTEM
Voltage
24 V

Battery Type
Two AGM (Absorption Glass Mat) type

Battery Capacity
2 X 75 Ah

Alternator Rating
28V 100A

VEHICLE SPEEDS

1st	7 km/h	4 mph
2nd	15 km/h	9 mph
3rd	23 km/h	14 mph
4th	35 km/h	22 mph
5th	47 km/h	29 mph
6th	50 km/h	31 mph
R	7 km/h	4 mph

WATER TANKER PLUMBING
Centrifugal water pump

Rate of Flow
Standard:
1 800 L/min with 50 m head

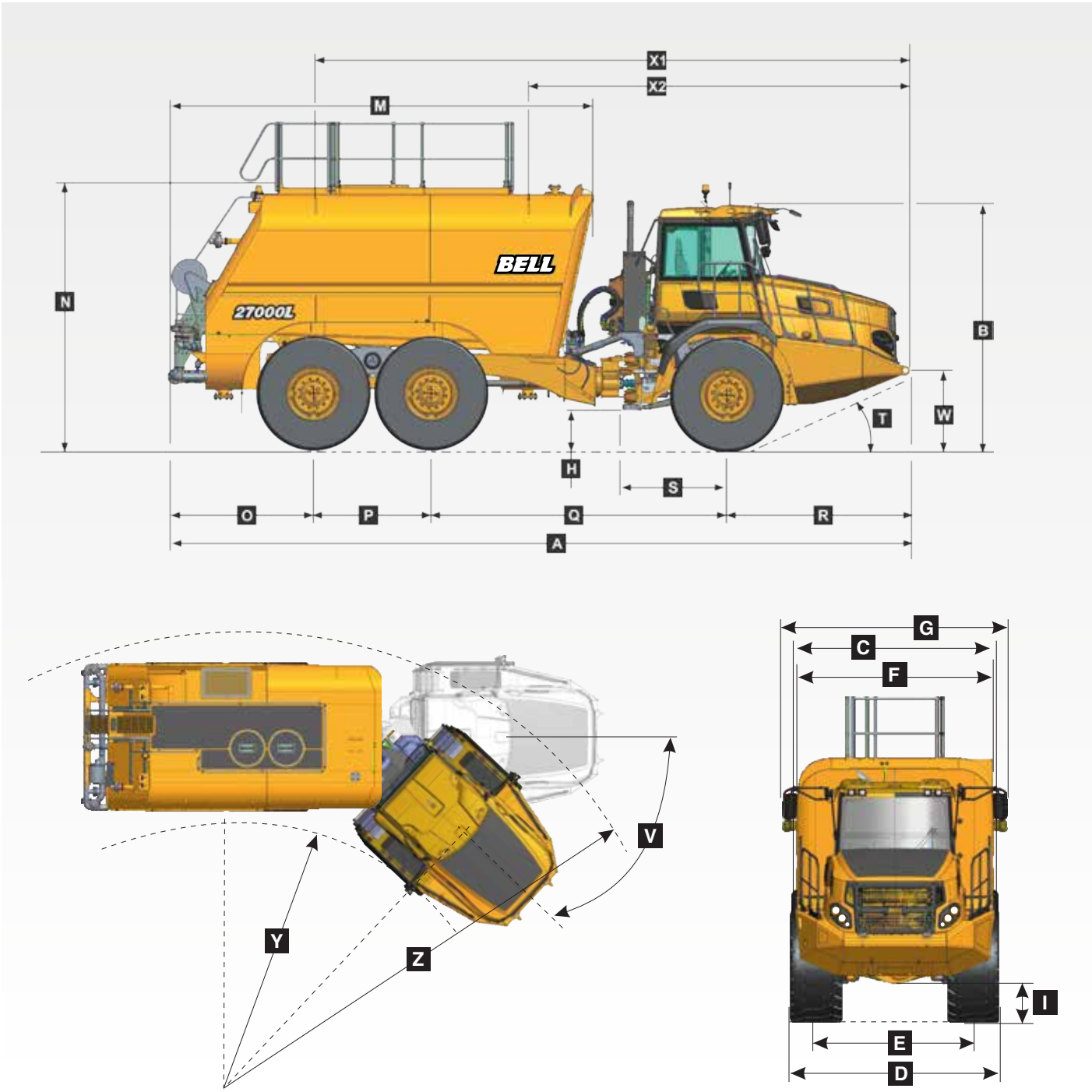
Option:
5 400 L/min with 70 m head

CAB
ROPS/FOPS certified 74 dBA internal sound pressure measured according to ISO 6396.

Load Capacity & Ground Pressure

OPERATING WEIGHTS		GROUND PRESSURE		LOAD CAPACITY	
UNLADEN		LADEN (No sinkage)			
	kg (lb)	23.5 R 25	kPa (Psi)	Rated Payload	27 000 litres
Total	26 043 (57 415)	Front	280 (41)		(7 100 gallons)
		Middle	378 (55)		
LADEN		Rear	378 (55)		
	kg (lb)				
Front	13 736 (30 283)				
Middle	19 221 (42 375)				
Rear	19 704 (43 440)				
Total	52 661 (116 097)				

Dimensions

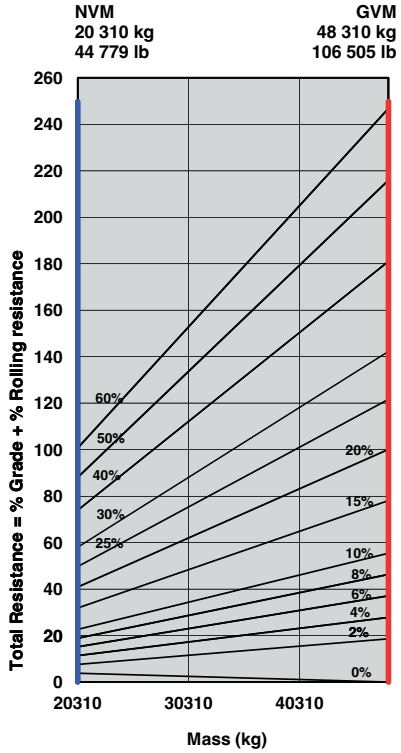


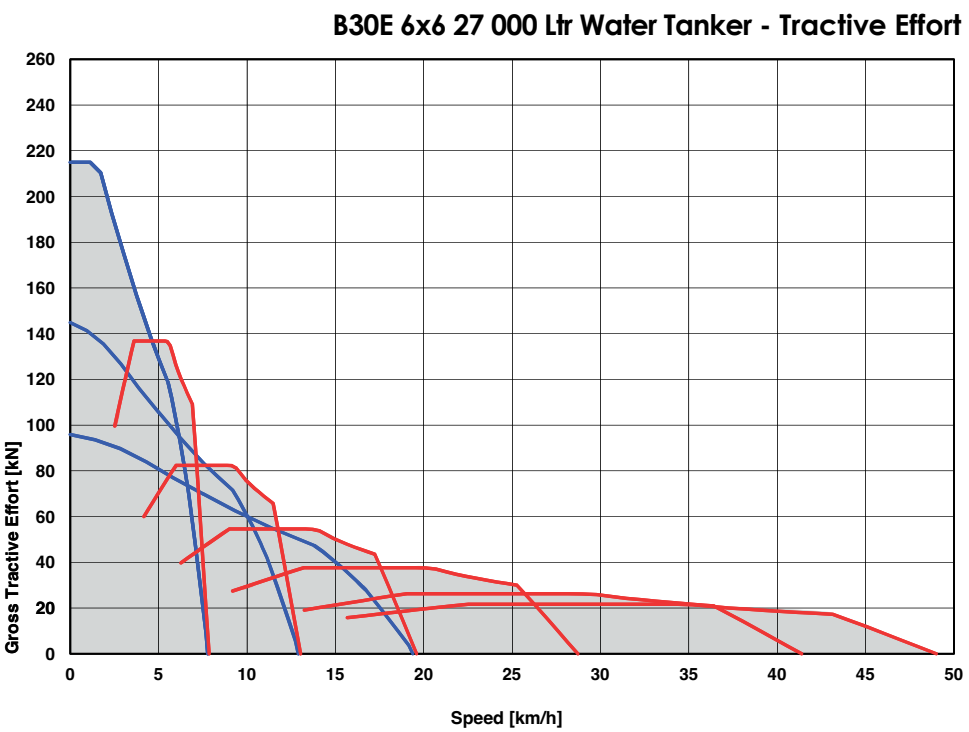
Machine Dimensions

A	Length - Transport Position	10 525 mm	(34 ft. 6 in.)
B	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.)
E	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.)
H	Ground Clearance - Artic	537 mm	(1 ft. 9 in.)
I	Ground Clearance - Front Axle	488 mm	(1 ft. 7 in.)
M	Tank / Bowser Length	6 030 mm	(19 ft. 9 in.)
N	Maximum Tank Height	3 780 mm	(12 ft. 8 in.)
O	Rear Axle Centre to Bowser / Tank Rear	2 072 mm	(6 ft. 10 in.)
P	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.)
X1	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.)
Y	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

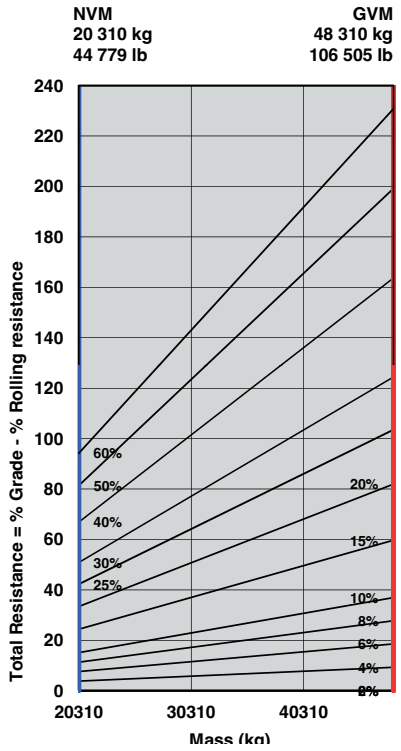
1. Determine tractive resistance by finding intersection of vehicle mass line and grade line. NOTE: 2% typical rolling resistance is already assumed in chart and grade line.
2. From this intersection, move straight right across charts until line intersects rimpull curve.
3. Read down from this point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

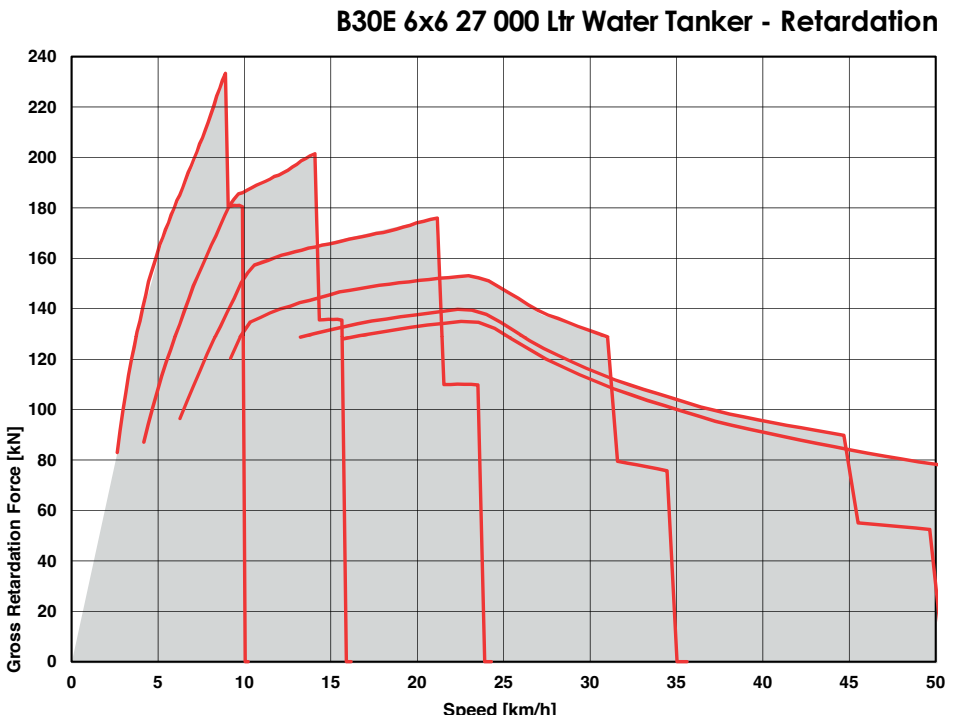




Retardation

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.





Features and Options

● STANDARD ▲ OPTION

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
- ▲ 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
- ● 12-volt power outlet
- ● Cup holder
- ● Cooled/heated lunch box

CAB (continued)

- ● 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 L/min 50 m head pump
- ▲ 5 400 L/min 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

- ● 23.5 R 25 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.

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

Notes

Notes

All dimensions are shown in millimetres, 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.

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Strong Reliable Machines
Strong Reliable Support

BELL

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