

CERTIFICATE OF CONFORMITY BUNDED FUEL BOWSERS & STATIC SKID BASE TANK

All 950 litre & 2140 litre bowzers from serial no 18380 upwards are U.N. certified & comply with current & pending EEC regulations for the containment of fuel oil. They also comply with current statutory instrument 2001 no 2954 the control of pollution (oil storage) England regulations. All highway fuel bowzers from 10th may 2004 are ADR or UN. Certified.

As from 30th October 2012 all highway bowzers & trailers have EU whole Vehicle type approval.

R.D. SWIFT
Managing Director

CERTIFICATE OF CONFORMITY FOR WATER BOWSERS

500, 1125 & 2000 litre polyethylene tank site & highway water bowzers comply with current & pending EEC regulations for the containment of water. The tank is constructed from food quality polyethylene. They also comply with current D.E.T.R environment agency & health and safety regulations the blue polyethylene tanks are moulded from water council approved plastic & approved to bs 6920:2000 for water bowzers & have secretary of state approval.

R.D. SWIFT
Managing Director

We reserve the right to change or modify our products without prior notice

All dimensions & weights are approximate & can vary with component changes.

TRAILER ENGINEERING LTD

UNIT 1 CENTRAL AVENUE
CRADLEY HEATH
WEST MIDLANDS
UNITED KINGDOM
B64 7BY
PHONE: +44 (0)1384 564765
Sales@trailereng.com
www.trailerengineering.co.uk

TRAILER ENGINEERING LTD

BOWSER MANUFACTURERS

Established 1972

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BOWSER & POLYCUBE OPERATING INSTRUCTIONS 2019



- 500/1125/2000 Litre Water Staka, Site & Highway Bowzers.
- 1125 / 2000 Litre Pressure Washer (Diesel or Petrol Engine) Site Or Highway Bowser
- 950 /2140 Litre U.N. Approved Skid base, Site & Highway Bunded Fuel Bowzers.
 - 950 / 2000 Litre U.N. Approved Bunded Fuel Polycube

INITIAL SET UP FOR BUNDED FUEL BOWSERS

1. Park the bowser on as near as possible a level surface. If disconnecting from towing vehicle , lower the front & rear support stands & secure clamps, apply brakes or chock the wheels. Open the rear hinge down access door.
2. To fill the bowser/polycube. A vent valve is fitted directly on the top of or in the rear of the tank, ensure this valve is fully open by turning anti-clockwise or lifting the lever until resistance is felt. Unscrew the aluminium cap secured by a chain which is covering the 2" BSP filler. Either insert the filling hose into the tank through the filler pipe or screw a connection to the filler & start filling, observing the level of fuel through the sight glass if fitted or through the translucent skin of the inner tank. Stop filling when the fuel is near the underside of the fill pipe.
3. To operate the bowser/ polycube. At the base of the inner tank of the bowser and on top of the polycube is the main supply valve to the pump , fully open these valves. Ensure that the vent valve on the top of the tank is fully open. Remove the trigger nozzle from its bracket & insert into fuel tank or container to be filled from the bowser/polycube. Squeeze the trigger nozzle lever & operate the semi-rotary hand pump or Diaphragm Pump by moving the handle from side to side or up and down. When sufficient fuel has been dispensed, stop pumping & release the trigger nozzle. Replace the trigger nozzle back onto the storage bracket inside the bund, Close the main supply valve at the base of the tank in the bowser or in the top of the polycube to pump.
Bowers / Polycube fitted with electric pumps. Fully open the main supply valve to the pump, located at the base of the inner tank on the bowser and on top of the polycube. Fully open the vent valve on top of the tank. Connect the cable from the pump to the appropriate power supply. Remove trigger nozzle from its bracket. Switch the pump on at the switch mounted on the pump body. Insert the trigger nozzle into the fuel tank or container to be filled from the bowser/polycube & squeeze the trigger. Release the trigger when sufficient fuel has been dispensed. Switch pump off & replace trigger nozzle on storage bracket inside bund.
Close valve in line to the pump, must not be left running against a closed trigger nozzle for more than 2 minutes (the oil seal will blow).

SERVICE / MAINTENANCE RECORD

IMPORTANT 12Volt pumps must not be run continuously for more than 25 minutes every hour. 24Volt pumps must not be run more than 20 minutes every hour.

Note:- Regular maintenance with particular attention to the Brake condition/adjustment and Bearings is vital to the safety of the trailer.

TRAILER 'RUNNING GEAR' MAINTENANCE SCHEDULE

	1ST. 2000 KILOMETRES 1200 MILES	EVERY 4000 KILOMETRES 2500 MILES	EVERY 16000 OR 1 YEAR 10,000 MILES	WEEKLY
CHECK AND ADJUST BRAKES	*	*	*	
CHECK AND ADJUST SYSTEM			*	
GREASE LINKAGES AND CABLES		*	*	
GREASE AND CHECK OVER-RUN COUPLING		*	*	
CHECK TYRE PRESSURES				*
CHECK AND GREASE HUBS			*	
CHECK WHEEL NUT TIGHTNESS	*		*	
CHECK TYRE TREAD DEPTH			*	*
CHECK HUB ADJUSTMENT	*		*	
REMOVE HUBS – CHECK BRAKES, BEARINGS			*	

**Clean 'Y' Strainer on fuel bowser/polycube monthly.
Failure to clean 'Y' Strainer will cause pump to malfunction.**

INITIAL SET UP FOR WATER BOWSERS

Park the bowser on as near as possible to a level surface. If disconnecting from towing vehicle, lower the front and rear support stands and secure clamps, apply brakes or chock the wheels.

IMPORTANT INFORMATION- On filling a water bowser with a hydrant connection. Before connecting the hydrant hose to the tank ensure that the black inner manlid is fully open, the pressure from the hydrant could burst the lid or the tank when it is full.

Refer to drinking water bowser operating manual when bowser is used for the carriage of potable water.

LIFTING INSTRUCTIONS FOR WATER STAKA-TANKS & BUNDED SKID BASE & U.N. FUEL BOWSERS & POLY CUBES

All skid base, staka tanks & polycubes have built in lifting eyes fitted. Lift only using 4 legged chains, 2 meter minimum leg length of sufficient capacity for the load, using 'D' shackles or hooks with relevant safety catches on the hook. Secure to the 4 lifting eyes on the tank or use an approved lifting beam. All skid bases, staka tanks & polycubes have built in forklift truck sockets, use only fork trucks with sufficient capacity to lift the load. Ensuring that the forks are securely inserted within the socket channels on the tank & are sufficient length to suit the tank, U.N. Tank fork sockets are for use when not fitted in a chassis.

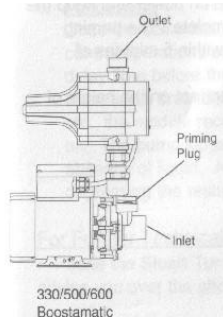
OPERATING INSTRUCTIONS FOR 110/240 VOLT ON DEMAND PUMP

Ensure there is water in the bowser tank prior to operation, connect the delivery hose from the pump to the feed/supply inlet of the unit requiring the water supply, open the gate/ball valve from the tank to the pump, loosen the priming plug on the top of the pump & bleed the air out & re-tighten when bled. Connect

ON DEMAND PUMP INFORMATION

Electrical Connection

The pressure control module fitted to this product is provided with a factory fitted supply cord. This must be connected to the power supply with a weatherproof plug or alternatively in permanently with a double pole switch protected with a fuse. If the power is supplied from a generator, the generator must have a Non-fluctuating constant 110/230 Volt supply, generators that fluctuate cause the capacitor in the motor of the pump to fail after a short period of time.



Cold Weather Protection

When there is frost or freezing temperatures & the pump is not used i.e. Night time/ weekends or holidays, the power & water supply should be disconnected. Close the gate/ball valve from the tank to pump & drain the pump body by removing the supply hose to the pump & draining the water out of the pump body. Alternatively ensure that the bowser and pump are located in a frost free environment or have insulation placed around the pump body.

Trouble Shooting Guide

In normal operation the green L.E.D. 'POWER ON' is illuminated & the yellow L.E.D. 'PUMP RUNNING' is illuminated. If the red L.E.D. Lights up this indicates the pump is out of liquid or priming is incomplete. In the event of this happening, check liquid supply to the pump, if all is in order keep the 'RESTART' Button depressed with a tap open & wait until the red light goes out. When the button is released & the tap is closed the pressure control module will stop the pump at its maximum pressure.

DO NOT RUN AGAINST A CLOSED VALVE FOR PERIODS LONGER THAN 5 MINUTES

WATER BOWSERS FITTED WITH PETROL PUMP ENGINES

Follow the instructions in manual supplied with pump.

	FAULT	REMEDY
A	Brake Shoes – Adjusted too Tight, wheels difficult to rotate.	Reset brakes according to reset procedure.
B	Brake Cable – Sticking, dirty, trapped or corroded.	Remove cables, clean, re-grease, fit to reset procedure.
C	Brake Spring – Broken or dislodged.	Remove hubs, clean brakes and drums, refit new springs and brake shoes.
D	Brake Shoes – Worn	Remove hubs, clean brakes and drums, replace brake shoes.
E	Hitch – Incorrectly adjusted.	Follow adjustment procedure, as laid down.
F	Cable linkage system incorrectly adjusted, sticking.	Remove linkages, cables, rods clean, refit, re-adjust linkage system.
G	Cable System insufficiently supported or supports broken.	Re-fit flexible supports under trailer to reduce friction in system.
H	Reversing Vehicle on slippery surface.	Use manual stop on over-run coupling if fitted.
I	Hand brake left "on" or "partially on".	Ensure hand brake fully off – if vehicle has been driven extensively with hand brake on, remove hubs, check brakes and hub bearing – replace if damaged.
J	Damper failure in coupling.	Return coupling to supplier for damper replacement.
K	Coupling shaft jammed or damaged/Rusty.	Return coupling to supplier for repair/ replacement.
L	Incorrect nose weight on trailer coupling.	Adjust load to give between 50 - 100 Kilos. "Nose-weight" on trailer coupling.
M	Rust formation or hub grease in brake drum.	Remove hubs/drums – clean away rust, oil, refit. <i>Take care to avoid breathing brake-lining dust.</i>
N	Brake shoe carrier rollers rusty, damaged/worn.	Remove hubs and brakes, clean carrier shoe with wire brush. Grease rollers with "copperslip" or similar material, refit and adjust.
O	Brakes not equally adjusted on all wheels.	Jack up trailer – adjust.
P	Wrong tyre pressures.	Check tyre pressures and correctly inflate to trailer manufacturer's recommendations.

**TRAILER RUNNING GEAR FAULT
DIAGNOSIS AND REMEDIES**

IDENTIFY POSSIBLE CAUSE, THEN REFER TO FAULT/REMEDY TABLE

★ LIKELY CAUSE ● MOST LIKELY CAUSE

SYMPTOM	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
Brakes over-heating	●	★		★	★	★		★			★	★				
Trailer failing to auto reverse	★	★	★		●	★		★	★			★	★			
Hand brake not working efficiently		★	★	★	★	★							★			
Brakes not working efficiently	★	★	★	★	★	★					★	★	★		★	
Brakes snatching	★	★	★	★	★	★				●			★	★		
Trailer "snaking"	★	★	★	★	★	★						●	★	★		
Trailer swerving to one side	★	★	★	★	★	★						●	★	★	●	★
Brakes remaining on after hand brake release	★	★	★	★	★	★	●	★					★	★		
Trailer failing to tow easily (resistance)	●	★	★	★	★	★				★			★	★		
Trailer brakes "jerkily"	★	★	★	★	★	★							★	★		

**REGULATIONS FOR TOWING BUNDED FUEL BOWSERS AS AT
MAY 2004**

Bowsers manufactured prior to 10th may 2004 are reclassified as UN/ IBC's if they have a bolt on tank & or are skid base versions, as long as they are well maintained, bunded & are leak free, this exemption runs until further notice. If they have a capacity of 1000 litres or under the driver carrying or towing them was exempt from needing a full ADR licence until further notice (this regulation is changing from january 2007 depending on the size & gross weight of the towing or carrying vehicle) but needs instructing on the hazards of the product carried & what emergency action is needed in case of an accident or spillage. They should carry a 2kg fire extinguisher in vehicle, personal protection equipment, spill kit & report dangerous goods incidents & accidents to the department for transport.

Over 1000 litres capacity if the tank is carrying more than 1000 litres then the driver needs and ADR licence. The person or company operating these must appoint a dangerous goods safety advisor, the drivers must undergo awareness training, carry PPE & spill kit as per 'tremcard', a 2kg & 6kg fire extinguisher, wheel chocks & 2 warning triangles, hi-vis vests for crew of vehicle & torch. Report dangerous goods incidents and accidents to the department for transport.

All highway fuel bowsers manufactured after 10th may 2004 must either be ADR Certified or UN / IBC's. All of our 950 litre and 2140 litre tanks are U.N. ICB's.

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As from 1st November 2012, all highway trailers, bowsers manufactured from this date must be approved to EU standards Rolling chassis must be either EU Whole Vehicle Type Approval or UK Single Vehicle Type Approval.

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APPROXIMATE DIMENSIONS & WEIGHTS**950 LITRE U.N. BUNDED POLYCUBE**

Length: 1213mm
 Width: 1213mm
 Height: 1410mm
 Weight: 290kg Unladen
 1100kg Laden

**1125 LITRE WATER STAKA TANK**

Length: 1828mm
 Width: 1537mm
 Height: 1524mm
 Weight: 180kg Unladen
 1316kg Laden

**950 LITRE U.N. BUNDED IBC FUEL TANK**

Length: 2014mm
 Width: 1155mm
 Height: 1260mm
 Weight: 390kg Unladen
 1200kg Laden

**2140 LITRE U.N. BUNDED IBC FUEL TANK**

Length: 2014mm
 Width: 1663mm
 Height: 1663mm
 Weight: 623kg Unladen
 2500kg Laden

1125 LITRE WATER SITE

Length: 2540mm
 Width: 1447mm
 Height: 1370mm
 Weight: 200kg Unladen
 1400kg Laden

2000 LITRE WATER SITE

Length: 3378mm
 Width: 1854mm
 Height: 1600mm
 Weight: 460kg Unladen
 2460kg Laden

**1125 LITRE PRESSURE WASHER
EU HIGHWAY**

Length: 3500mm
 Width: 1550mm
 Height: 1346mm
 Weight: 375kg Unladen
 1500kg Laden

950 LITRE U.N. BUNDED FUEL SITE

Length: 3175mm
 Width: 1448mm
 Height: 1498mm
 Weight: 450kg Unladen
 1500kg Laden max

2140 LITRE U.N. BUNDED FUEL SITE

Length: 3378mm
 Width: 1803mm
 Height: 1982mm
 Weight: 700kg Unladen
 3000kg Laden max

1125 LITRE WATER EU HIGHWAY

Length: 2770mm
 Width: 1550mm
 Height: 1360mm
 Weight: 260kg Unladen
 1500kg Laden

2000 LITRE WATER EU HIGHWAY

Length: 3530mm
 Width: 1982mm
 Height: 1600mm
 Weight: 515kg Unladen
 2800kg Laden

**2000 LITRE U.N. BUNDED FUEL
POLYCUBE**

Length: 2400mm
 Width: 1213mm
 Height: 1430mm
 Weight: 558kg Unladen
 2358kg Laden max

**950 LITRE U.N. BUNDED FUEL EU
HIGHWAY**

Length: 3555mm
 Width: 1550mm
 Height: 1524mm
 Weight: 476kg Unladen
 1500kg Laden max

**2140 LITRE U.N. BUNDED FUEL
EU HIGHWAY**

Length: 3684 mm
 Width: 1981mm
 Height: 1981mm
 Weight: 850kg Unladen
 2800kg Laden max

UNLADEN TOWING HEIGHTS WITH BOWSER ON LEVEL

500 & 1125 Litre Water Site - 460mm
 500 & 1125 Litre Water Highway- 420mm
 1125 Litre Pressure Washer Highway - 420mm
 2000 Litre Water Site 420 mm
 2000 Litre Water Highway - 480 mm
 950 Litre U.N. Bunded Fuel Site - 533mm
 950 Litre U.N. Bunded Fuel Highway - 580mm
 2140 Litre Bunded Fuel Site - 660mm
 2140 Litre Bunded Fuel Highway - 590mm