



**TranTank<sup>®</sup>**  
INTERNATIONAL

Operator's Product HandBook

# **BlueMission<sup>™</sup>**

## AdBlue DEF Transfer Tank



**“HELPING TO DEVELOP AND PROTECT THE LAND”**

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## Disclaimer

All information, illustrations, and specifications contained in this manual are based on the latest product information available at the time of this publication's printing. TransTank International (TTi) reserves the right to alter and substitute specifications and methods at any time, in line with our commitment to continuous improvement.

No patent liability is assumed with respect to the use of information contained within this manual. While every precaution has been taken in the preparation of this manual, TTi assumes no responsibility for errors or omissions.

**Thank you for purchasing a TTi BlueMission Portable AdBlue Refuelling Unit (BlueMission), which will provide many years of reliable service when operated and maintained in accordance with this manual.**

TTi manufacture two BlueMission units, 100 and 200 litre tanks, each supplied with a Piusi 35L/min electric pump. This manual describes the operation and maintenance procedures applicable to both units.

All TTi BlueMission tanks are rotationally moulded from quality urea grade polyethylene, Diesel Exhaust Fluid (DEF) compatible, purpose designed and manufactured to high standards. The BlueMission tanks incorporate a lockable filler cap with strainer and an innovative breather system fitted as standard.

All BlueMission come standard with an auto shut-off nozzle; with the pump featuring a 40-minute duty cycle for continuous dispensing. All pumps contain an internal bypass to allow operation for short periods with the dispensing nozzle closed.

Included with your BlueMission is the following documents:

- Operator's Handbook (this manual, which includes the Warranty Registration Card)
- Integral pump manufacturer's handbook
- Tank Quality Check Form. This is your verification that the unit has been quality checked, and verifies the serial number affixed to the unit.

## Safety

This manual is intended for use by personnel experienced in the use of this and similar equipment. Read and understand this manual before attempting to operate or perform routine maintenance on this equipment. Your safety is of prime priority.



**A WARNING highlights an essential operating or maintenance procedure, practice, condition or statement, which, if not strictly observed, could result in injury or death of personnel, or long-term health hazards.**



**A CAUTION highlights an essential operating or maintenance procedure, practice, condition or statement, which, if not observed, could result in damage or destruction of equipment.**



**A NOTE highlights or clarifies an essential systems description, operating or maintenance procedure, condition or statement.**

## General Safety Instructions

1. This unit is designed and manufactured solely for the purpose of carrying and pumping AdBlue. Under no circumstances should it be used for any other purpose.
2. Only authorised and trained personnel are to operate this equipment.
3. Personal Protection Equipment (PPE) must be worn at all times.
4. Avoid AdBlue contact with skin and eyes, and avoid breathing vapours or mists. Refer to the relevant Safety Data Sheet (SDS).
5. Do not operate this equipment while under the influence of alcohol or any drugs that could impair your capabilities in any way.
6. Ensure the capacity of the vehicle is suitable for the loaded mass of the BlueMission. Refer to the vehicle's operator manual for safe working loads, correct secure points and relevant safety instructions. The unit must be securely restrained when being transported on a vehicle.
7. This BlueMission must not be lifted when partially or completely filled unless supported by an appropriate mounting frame or pallet. This unit is not suitable for stacking.
8. The BlueMission must never be left unattended while dispensing AdBlue or being filled with AdBlue.
9. Always store the BlueMission in a well-ventilated area, and away from any heating or ignition sources. It must not be stored in any garage attached to a dwelling.
10. Any spillage should be immediately cleaned up and the materials used in the clean-up disposed of safely and in accordance with relevant regulations applying to the safe use, storage and disposal of AdBlue.
11. Care should be taken at all times, particularly when operating on rough or steep terrain. Drivers should be aware of fluid surge affecting the centre of gravity.
12. The BlueMission has the following safety label affixed to the underside of the pump cover. This label should be kept clean and legible, and replaced if damaged.



## Statement of Suitability

1. All TTi BlueMission tanks are manufactured Nathalia, Victoria and are suitable for the transportation of AdBlue within Australia.
2. The tank material has been tested to ensure it meets the mechanical and chemical resistance requirements of International Regulations ECE R34.01 Annex 5 Section 5.0 and European Directive 2000/8/EC.
3. AdBlue is NOT classified as a Dangerous Good, according to the Australian Code for the Transport of Dangerous Goods by Road and Rail, as stated in SDS provided by fuel companies.
4. AdBlue is NOT classified as a Flammable Liquid in Australia; as stated in SDS provided by fuel companies.
5. TTi AdBlue tanks meet the requirements of VSB6 National code of practice for Heavy Vehicle Modifications, section M fuel systems. TTi AdBlue tanks are classed as permanent mounted fuel tanks and do not require removal for re-fuelling.
6. TTi AdBlue tanks do not require a dangerous goods license when transporting AdBlue. Dangerous goods notices are not required to be displayed when transporting AdBlue.

## Operating Instructions

### Before first use

Your BlueMission is delivered fully assembled. Once unpacked and before use, it needs to be setup following the instructions below:

- Complete the warranty registration online at [www.tti.com.au/warranty-registration](http://www.tti.com.au/warranty-registration), or use the Warranty Registration Card at the back of this handbook.
- Store this handbook, along with the Tank Quality Check Form, in a safe and easily accessible place for future reference.



**NOTE: The operator must fully understand all aspects of this handbook. Do not operate the BlueMission if you are unfamiliar with its operation until you have read this handbook.**

- Read and thoroughly understand this handbook, paying particular attention to all safety requirements, before using the BlueMission for the first time.
- Check that all fittings, hoses, tank breather and electrical leads are secure following transit, and are not damaged in any way.
- Inspect the tank for any damage or abrasions that may occur during transit.



**CAUTION: The unit must be securely mounted to the vehicle. Failure to do so may result in the unit moving or falling off the moving vehicle. Warranty is conditional on the unit being correctly mounted.**

- Position your BlueMission onto the vehicle and mount securely using tie-down straps located into the tie-down recesses on both sides of the tank, refer to Figure 1. The tie-down straps must be rated to at least the total mass of the unit when filled with AdBlue. A recommended frame design for mounting the BlueMission is available as an option from TTI.



**Figure 1 – Component Identification Overview (Mounting Frame not shown)**



**CAUTION: The unit has pump options allowing for different voltages. Warranty is conditional on the unit being connected to the correct power supply.**

The BlueMission is fitted with a Piusi DC electric powered pump and supplied with a 4m power cable fitted with alligator clips for direct connection to a battery. Ensure the pump is rated for the correct battery voltage, either 12 or 24 volts. A 240-volt AC pump option is also available.

If the unit is to be mounted permanently to a vehicle, it is recommended that it is directly connected to the vehicle power system by a qualified auto electrician. The installation must incorporate a fuse in accordance with the pump manufacturer's instructions (refer to the included pump handbook).

The main components of the BlueMission are illustrated at Figure 2.

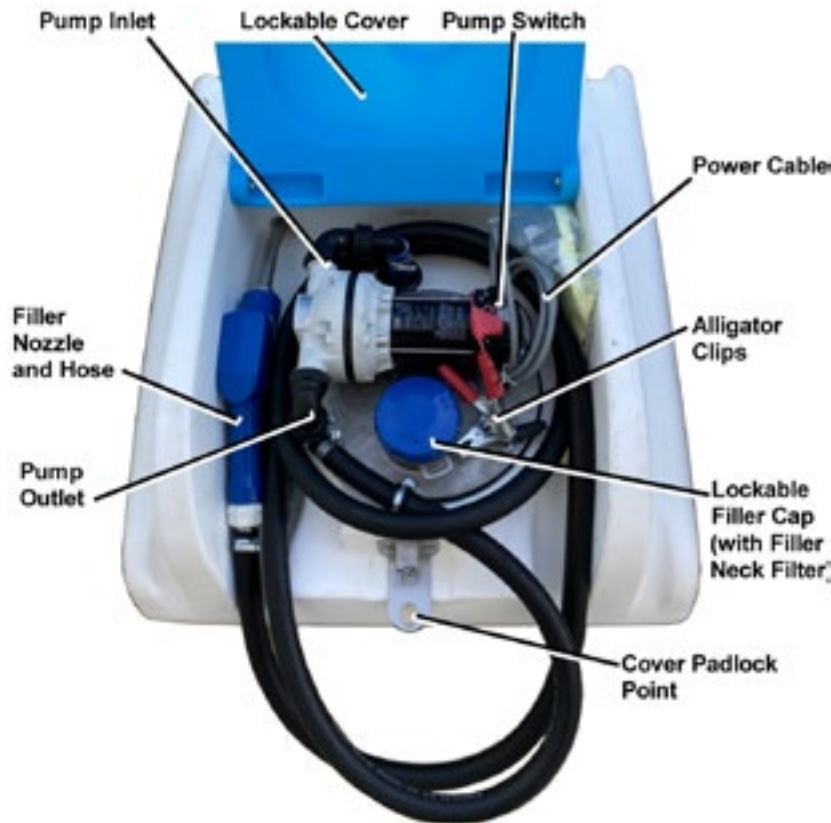


Figure 2 – Component Identification

## Operation

### Filling the BlueMission

The unit's tank is filled as follows, refer to Figure 2:



**WARNING: Ensure the filling area is in an open, well ventilated space.**

- If fitted, unlock and remove the padlock securing the BlueMission's cover, then open the cover to access the pump and associated components.
- If fitted, unlock and remove the padlock securing the filler cap.
- Remove the filler cap and check that the internal filler neck filter is clean. If any contaminants are detected, lift the filter out and clean it.



**CAUTION: The BlueMission must never be left unattended while being filled with AdBlue.**



- Insert the filling nozzle and fill the tank, ensuring it does not overflow.
- Remove the filling nozzle and replace the tank filler cap.
- Close the BlueMission's cover and if necessary, secure it with the padlock removed previously.

### Transferring AdBlue

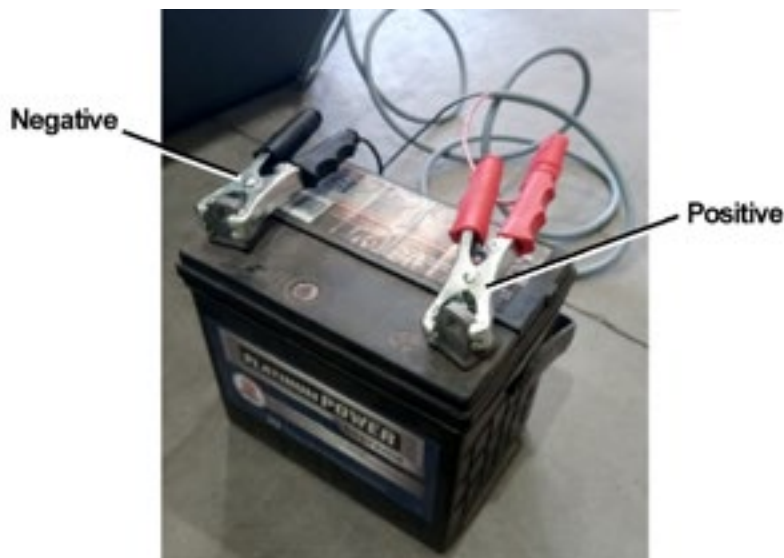
AdBlue from the BlueMission is transferred from its integral tank to the tank being refilled as follows. Always ensure the refuelling operation takes place in a well-ventilated area.

- Check that the breather located on the top of the tank is clear and not obstructed in any way.



**NOTE: Always connect the negative power cable's alligator clip to the power supply first, followed by the positive. Ensure the clips are connected securely to the correct terminals.**

- If not hardwired to the vehicle, uncoil the BlueMission's 4m power cable and connect the alligator clips to a battery (refer to Figure 3) or power supply in the following order:
  - Connect the blue negative lead to the negative terminal on the battery first, then
  - Connect the red positive lead to the positive terminal on the battery.
- If fitted, unlock and remove the padlock securing the filling nozzle.
- Remove the filler cap from the tank to be filled and insert the filling nozzle.



**Figure 3 – Battery Connection**



**CAUTION: The BlueMission must never be left unattended while transferring AdBlue.**

- Switch the pump ON and depress the filling nozzle trigger (refer to Figure 4). Fill the tank with the required quantity of fuel, or until the auto-shut nozzle cuts off the supply. Do not attempt to overfill the tank, as this may cause an AdBlue spillage.
- Switch the pump OFF and withdraw the filling nozzle. Coil the hose, taking care to prevent kinks or tangles and return it to its home on the BlueMission. If necessary, secure the filling nozzle with the padlock removed previously.
- If any AdBlue spillage has occurred, clean it up in accordance with relevant environmental and safety requirements.



**NOTE: Always disconnect the positive power cable's alligator clip from the power supply first, followed by the negative.**

- If not hardwired to the vehicle, disconnect the alligator clips from the battery or power supply in the following order:
  - Disconnect the red positive lead to the positive terminal from the battery first, then
  - Disconnect the blue negative lead to the negative terminal on the battery.
- Carefully coil the power cable and stow it in position on top of the pump.
- Close the BlueMission's cover and if necessary, secure it with the padlock removed previously.



Pump Switch



Trigger Filling Nozzle

**Figure 4 – Pump Switch and Filling Nozzle**

# Risk Assessment

Task	Hazard	Risk	Control Measure/Mitigation
Partially fill the tank with AdBlue, connect the 12-volt transfer kit battery and test the unit	Manual handling; slips, trips or falls; fingers jammed; electric shock or electricity	Low	<p>Concentrate on task; follow safe manual handling techniques:</p> <ul style="list-style-type: none"> <li>• Don't lift on your own if &gt;20kg</li> <li>• bend knees and keep back straight</li> <li>• keep fingers clear</li> </ul> <p>Keep unit at least 8m away from overhead powerlines. Keep substances away from electrical sources. Tank mounting to comply with relevant codes of practice and transport authority requirements</p>
Check weather conditions and select the appropriate PPE to suit the refuelling being carried out	Manual handling; slips, trips or falls; diesel and fumes	Low	<ul style="list-style-type: none"> <li>• Put on PPE as per the chemical requirements in the Safety Data Sheet - gloves, safety footwear, mask, glasses, etc.</li> <li>• Follow safe manual handling techniques as above.</li> </ul>
Fill AdBlue tank	As above; AdBlue fume drift, AdBlue spillage, emission of vapours or flammability; weather; untrained visitors; tank not secured; tank used for non-AdBlue products	Medium	<p>As above;</p> <ul style="list-style-type: none"> <li>• user trained in the states' chemical mixing &amp; administration course e.g. Chem Cert.</li> <li>• Follow the relevant Environment Protection Authority requirements.</li> <li>• Fire extinguisher present – CO2 or powder.</li> <li>• Keep visitors away from the job unless wearing full PPE.</li> <li>• Check load secure.</li> </ul>
Check that transport vehicle is safe before use, i.e. where applicable: wheel nuts, tyre pressure, bearings, tow hitch, has been serviced, etc. Use AdBlue unit	As above; loss of load; heat & cold; noise; exceed load limit of vehicle; hose entanglement; exhaust fumes; terrain & slopes.	High	<p>As above;</p> <ul style="list-style-type: none"> <li>• wear clothes to suit heat &amp; cold.</li> <li>• Wear hearing protection if noise &gt; 85 dB.</li> <li>• Follow the manufacturer's safe operation instruction for the vehicle and the 12-volt transfer it.</li> <li>• Don't overload – AdBlue weighs 1.09kg for every 1 litre.</li> <li>• Secure load to vehicle.</li> <li>• Hoses tidy.</li> </ul>
Clean up, maintenance and storage	As above. Fresh water tank use	Low	<p>As above;</p> <ul style="list-style-type: none"> <li>• continue to wear PPE for clean-up, follow state legislation &amp; AS 2865: 2001 Safe Working in a Confined Space GUIDELINES.</li> <li>• Store tank in a dry, well ventilated area.</li> </ul>

## Maintenance

Your BlueMission requires minimal maintenance but regular cleaning and checks will ensure safe and reliable service over its lifetime. Periodic checks and inspections will identify any potential issues, enabling timely rectification and minimising downtime.

### Periodic Checks



**CAUTION: In dusty, dirty or smoky environments, cleaning, inspection and servicing of the unit on a regular basis is essential. The cleaning, inspection and servicing must be undertaken more frequently in harsh conditions to avoid damage or destruction of equipment.**

The following checks and cleaning operations should be undertaken on a regular basis. The frequency of these activities will depend on the nature of the operating environment and the operational hours of the BlueMission. Refer to the maintenance schedule tables below for details of maintenance intervals.

- Clean the unit and inspect it for any signs of damage or wear. Replace any safety labels if they are damaged or illegible.
- Inspect the filling nozzle, hoses, breather vent and fittings for any defects such as cracks, leaks or other signs or wear or damage. Replace any damaged components as necessary.
- Check all fittings are firmly secured, tighten if necessary.
- If the BlueMission is to be stored for an extended period, ensure the tank and all pipelines are empty and are not pressurised. Store the unit in a clean, dry and well-ventilated area.

### Maintenance Schedule

The following tasks are to be conducted in accordance with each of the schedules. All scheduled tasks are to be undertaken concurrently. For example, at the three month maintenance interval, all tasks listed are to be undertaken, in addition to the daily, weekly and monthly tasks.



**NOTE: Maintenance is important. Keep a record of all maintenance tasks conducted on the BlueMission unit.**

TTi recommends photocopying these schedules in order to keep a detailed log of all maintenance tasks. A copy of these schedules will be required to support any warranty claim.

### Daily Tasks

The following tasks are to be undertaken daily, or prior to each use, of the BlueMission unit.

No.	Task	Notes
1	Inspect the BlueMission for any signs of damage or wear	Clean, repair or replace
2	Inspect electric pump's cable and connectors	Repair or replace

### Weekly Tasks

The following tasks are to be undertaken each week or 10 operating hours, whichever occurs first.

No.	Task	Date	Signed
1	All Daily tasks		

### Monthly Tasks

The following tasks are to be undertaken each month or 20 operating hours, whichever occurs first.

No.	Task	Date	Signed
1	All Daily and Weekly tasks		
2	Check hose and hose reel by unwinding fully, replace replacing seals and nozzles as required		
3	Check security of mounting system		

### Three Monthly Tasks

The following tasks are to be undertaken every three months or 50 operating hours, whichever occurs first.

No.	Task	Date	Signed
1	All Daily, Weekly and Monthly tasks		
2	Check all hoses, fasteners, nozzles and fittings		

### Six Monthly Tasks

The following tasks are to be undertaken every six months or 100 operating hours, whichever occurs first.

No.	Task	Date	Signed
1	All Daily, Weekly, Monthly and 3-Monthly tasks		

## Twelve Monthly tasks

The following tasks are to be undertaken every twelve months or 200 operating hours, whichever occurs first.

No.	Task	Date	Signed
1	All Daily, Weekly, Monthly, 3-Monthly & 6-Monthly tasks		
2	Drain the tank via the drain bung and clean		

## Two Yearly Tasks

The following tasks are to be undertaken every 24 months or 500 operating hours, whichever occurs first.

No.	Task	Date	Signed
1	All Daily, Weekly, Monthly, 3-Monthly, 6-Monthly and 12-Monthly tasks		

## TroubleShooting

If a fault develops with the BlueMission, the following trouble shooting table provides guidance to identify and rectify the problem.

Problem	Possible Cause	Remedy
Motor does not run	No electrical power to pump	Ensure correct connection to battery or power supply. Check for blown fuse Check fuse holder for loose connection
	Motor runs slowly with low fuel flow	Low voltage supply Test power supply and ensure adequate voltage
	Motor runs, but no AdBlue delivery	Tank level too Low Add AdBlue to tank Clogged suction line Clean suction line and filters Filter air leak in suction line Check all joints for leaks
Pump makes a squealing or scratching sound while running	Dirt or debris in pump chamber	Clean impeller and vanes.
	Broken regulator spring	Replace regulator spring
Pump makes a squealing or scratching sound while running	Air lock in nozzle	Undo nozzle, return delivery hose back into tank, run pump.
	Blockage in nozzle	Check end of nozzle and remove any foreign objects

# Warranty

## Warranty Policy

TTi will, at its option, repair or replace without charge any part covered by this warranty which is found to be defective in material and/or workmanship within one (1) year after date of sale to the original retail purchaser. If the product is used for rental purposes, this warranty is limited to ninety (90) days.

Upon request, the customer will make the defective part available for inspection and/or return the defective part to TTI, transportation charges prepaid. All parts and components are covered by this warranty except the following, which are warranted separately by their respective manufacturers:

- engines
- gearboxes
- pumps
- regulators.

TTi does not assume any warranty obligation, liability or modification for these items, which are covered exclusively by the stated warranty of the respective manufacturers.

## What this Warranty Does Not Cover?

### This warranty does not cover:

1. defects caused by depreciation or damage caused by incorrect mounting, normal wear, accidents, improper maintenance, improper use or abuse of the product, alterations or failure to follow the instructions and warnings provided.
2. Any charges for making service calls, clean up time and transport charges.
3. The use of non-genuine parts on equipment supplied by TTI. This will automatically negate any warranty.

### How to Obtain Service Under this Warranty?

Warranty service can be arranged by contacting your dealer, or by contacting TTI directly on 1800 816 277.

Proof of warranty registration and date of purchase may be required to verify warranty coverage. Any defective parts returned to TTI must be accompanied by a Return Goods Note. This form can be obtained by contacting Product Support on 1800 816 277 or emailing [ProductSupport@tti.com.au](mailto:ProductSupport@tti.com.au).

### Warranty Limitations

Warranty limitations are as follows:

1. There is no other express warranty. Any warranty that may be implied from this purchase including merchantability and fitness for purpose is hereby limited to the duration of this warranty and to the extent permitted by law. Any and all implied warranties are excluded.
2. TTI will not be liable for any incidental, consequential or special damages and/or expenses in connection with the purchase or use of this equipment, to the extent permitted by law.
3. Only the warranty expressed in this limited warranty shall apply and no dealer, distributor or individual is authorised to amend, modify, or extend this warranty in any way. Accordingly, additional statements, whether oral or written, do not constitute warranties by TTI, and should not be relied upon.



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