

Operator's Product HandBook

# **AquaTrans**<sup>™</sup> & **AquaMove**<sup>™</sup>

Water Cartage Tanks





"HELPING TO DEVELOP AND PROTECT THE LAND"



# **Contents**

Safety	4
General Safety Instructions	5
General Information	6
Specification	6
Description	7
Machine Limitations	8
Oriving Stability	8
Operating Instructions	8
Before First Use	8
Filling the Tank	9
AquaTrans & AquaMove Operation	10
Maintenance	10
Periodic Checks	10
Risk Assessment	11
Warranty	12-13

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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 an AquaTrans™ & AquaMove™ Water Cartage Tank, which will provide many years of reliable service when operated and maintained in accordance with this manual.

TTi manufacture a range of AquaTrans & AquaMove units, from 10 through to 17,000 litre tanks. This manual describes the operation, driving stability, and maintenance procedures applicable to all units, noting additional requirements to options where necessary.

All TTi AquaTrans & AquaMove tanks are rotationally moulded from quality polyethylene, purpose-designed and manufactured to high standards. The AquaTrans & AquaMove is a ute, truck, or trailer-mounted tank transportation system.

The AquaTrans & AquaMove unit is supplied complete, tested, and ready to go. The AquaTrans & AquaMove is suitable not only for transporting potable water but other fluids such as molasses – almost any liquid except fuel and harsh chemicals.

TTi recommends that if fluids other than water are to use used in the AquaTrans & AquaMove, the unit should be designated solely to that fluid, to avoid any risk of cross-contamination from different products.

The owner is responsible to ensure that the equipment is operated in accordance with this manual, with Australian WorkSafe requirements, applicable road rules and local council regulations. TTi is not liable for any loss, injury or death resulting from the failure to observe all safe working regulations as required by law.

Included with your AquaTrans & AquaMove unit are the following documents:

- Operator's Handbook (this manual, which includes the Warranty Registration Card)
- 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 to carry water or benign fluids. Under no circumstances should it be used for any other purpose. It must never be used for transporting fuel or harsh chemicals.
- 2. Only authorised and trained personnel are to operate this equipment. Operators must have read and fully understood this manual before operating the Storm unit.
- 3. Do not operate this equipment while under the influence of alcohol or any drugs that could impair your capabilities in any way.
- 4. The AquaTrans & AquaMove must be supported and secured on a flat surface, as specified in this manual.
- Personal Protection Equipment (PPE) must be worn when refuelling or operating a pump associated with transferring fluid to or from your AquaTrans & AquaMove. Exposure to excessive noise over an extended period can cause impairment or loss of hearing.
- 6. Avoid diesel or unleaded petrol contact with skin and eyes, and avoid breathing vapours or mists. Refer to the relevant Safety Data Sheet (SDS).
- 7. Ensure the capacity of the vehicle is suitable for the loaded mass of the AquaTrans & AquaMove. Refer to the vehicle's operator manual for safe working loads and relevant safety instructions. Do not exceed the carrying and braking capacity as specified by the vehicle manufacturer.
- 8. The AquaTrans & AquaMove tank is a confined space. Ensure compliance with OH&S requirements if entering the tank.
- 9. Be aware of the height of the AquaTrans & AquaMove when mounted on a vehicle. Keep clear of overhead obstructions, such as bridges, low-hanging tree limbs and power lines.
- 10. Appropriate working at heights OH&S requirements must be followed if accessing the top of the tank is required.
- 11. TTi recommends the LiquidLocker baffle system be used in AquaTrans & AquaMove tanks of 2,000 litres and above. It is essential the LiquidLocker system be used in tanks of 10,000 litres and above.
- 12. All hoses and pipes attached to the AquaTrans & AquaMove tanks must be flexible, to prevent damage due to vibration from pumps and motors. Rigid pipes must not be coupled directly to the tank.
- 13. For AquaTrans & AquaMove tanks fitted with 3" outlets, additional venting is required to prevent internal negative pressure. This can be achieved by loosening or opening the tank lid.
- The AquaTrans & AquaMove must never be left unattended while being filled.
- 15. 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.
- 16. The AquaTrans & AquaMove has safety labels affixed to various locations on the unit. These labels should be kept clean and legible, and replaced if damaged.
- 17. Any unauthorised modifications to this equipment may affect its function and create a serious safety risk. Any unauthorised modifications will void any warranty on the unit.
- 18. Failure to observe the above safety precautions could void your warranty



# **General Information**

# **Specifications**

Tank	Heavy duty UV stabilised chemical resistant polyethylene tank (10 to 17,000 litre capacity),
Standard Equipment	Tank lid and seal (10 to 400 litre tanks)
1 1 1 1 1	Tank lid, rim and seal assembly (500 to 17,000 litre tanks) (x2 for 13,000 to 17,000 litre tanks)
1 1 1	¾" Poly drain bung and seal (10 to 400 litre tanks)
1 1 1	1½" MBSP fitting – poly (fitted) (500 to 1,500 litre tanks)
1 1 1	2" MBSP fitting – poly (fitted) (2,000 to 6,000 litre tanks)
 	3" MBSP fitting – brass (7,000 to 17,000 litre tanks)
 	Galvanised mounting pins (500 to 7,000 litre tanks)
! !	Galvanised mounting pins and wedges (8,000 litres and above)
Options	Translucent and opaque tank colour range
! !	LiquidLocker™ Baffle Safety System (600 litres and above)
! !	Top mount steel pump plate (220 and 400 litre tanks)
1	Galvanised steel skid frame (220 and 400 litre tanks)
! !	Galvanised steel mounting frame (2,000 to 17,000 litre tanks)
1	Water level sight tube (from 200 litres and above)



#### **Description**

The TTi AquaTrans & AquaMove is designed to carry water and benign fluids safely and effectively. The AquaTrans & AquaMove has the following features, refer to Figure 1.



Figure 1 - Component Identification

#### Tank

All TTi tanks are constructed from UV stabilised, chemical resistant, virgin material polyethylene. Due to the rotational moulding process, there may be a small variance in the overall dimensions of the tank, therefore, calibration markings should be used as a guide only.

The extra thick tank wall structure provides a load capacity of up to 1.3 Specific Gravity. Top mount steel pump plate built-in mounting points are available on the smaller tank sizes. A specific design feature is our tank feet, enabling easy and quick mounting to any tray surface.

The AquaTrans & AquaMove comes in our standard opaque Safety Green, with a range of translucent and opaque colours available as an option.

#### LiquidLocker Safety Baffle System

The LiquidLocker baffle system within the tank demonstrates measurable improvements in braking performance and dynamic stability and controllability. LiquidLocker baffles are recommended for tanks from 600 litres and above. The system has been independently tested, with the report available upon request.

#### **Tank Level Indicator**

An optional level sight tube is fitted to the rear of the tank and provides an accurate level indication of water within the tank. It is available for fitting to 200 litre tanks and above.

#### **Steel Frames**

The 220 and 400 litre AquaTrans tanks are available with optional skid frames, fully welded steel and hotdip galvanised for long-lasting protection.



AquaTrans & AquaMove tanks of 2,000 to 17,000 litres are available with optional fully welded steel mounting frames, hot-dip galvanised for long-lasting protection. The frames incorporate forklift pockets and are available with incorporated pump and hose reel mounting plates incorporated into the frame.

#### **Machine Limitations**

The AquaTrans & AquaMove tanks are subject to operating limitations. It is the operators' responsibility to ensure that this equipment is being operated safely and within these limitations.

#### **Driving Stability**

The AquaTrans & AquaMove tanks are heavy when filled with fluid. To maintain stability while operating this unit:

- Ensure the vehicle tyres are inflated to their correct pressure at all times. Underinflated tyres can cause excessive lateral motion of the tyre, which may cause a rollover.
- Allow extra room for braking and turning when the tank is full.
- Ensure any side gradient (slope) is accounted for, especially when the AquaTrans & AquaMove tank is full, as the unit will have a higher centre of gravity.

# **Operating Instructions**

#### **Before First Use**

Your AquaTrans & AquaMove tank is delivered fully assembled. Before use, it needs to be set up using the following instructions:

- Complete the warranty registration online at 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 and pump unit's manual in the provided leather pouch, in a safe and easily accessible place for future reference.



WARNING: The operator must fully understand all aspects of this handbook. Do not use the AquaTrans & AquaMove tank until you have read this handbook.

- Read and thoroughly understand this handbook, paying particular attention to all safety requirements, before using the AquaTrans & AquaMove for the first time.
- Check that all fittings are secure following transit and are not damaged in any way.
- Inspect the tank for any damage or abrasions.
- Mount the AquaTrans & AquaMove tank onto the vehicle, ensuring it is fully supported on a flat surface. Ensure all feet are secured correctly with the supplied mounting pins (500 to 7,000 litres) or the supplied mounting pins and wedges for the tanks of 8,000 litres and above, refer to Figure 2.



- For AquaTrans & AquaMove tanks of 2,000 litres and above, TTi recommend installing the LiquidLocker baffle system to minimise fluid surge during transportation. It is essential the LiquidLocker system be used in tanks of 10,000 litres and above.
- If the AquaTrans & AquaMove is supplied with an optional steel frame, ensure the steel frame is securely mounted to the vehicle.

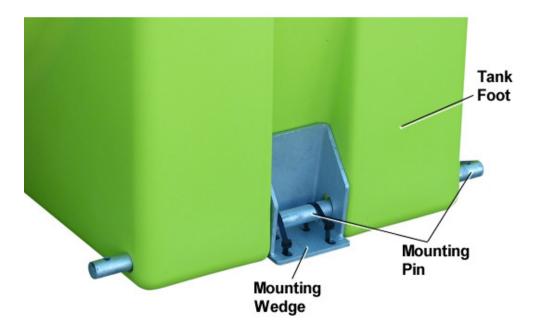


Figure 2 - AquaTrans & AquaMove Mounting System

#### Filling the Tank



CAUTION: The AquaTrans & AquaMove unit is designed for water and other benign fluid use only. It must not be used for harsh chemicals or fuel.

The AquaTrans & AquaMove tank is filled by gravity from a supply, such as an overhead standpipe or supply hose as follows:

- Remove the filling lid from the tank's top opening.
- Position the AquaTrans & AquaMove unit's top-mounted fill point under the standpipe or life up and suitable secure a supply hose.
- Open the standpipe or supply hose valve and allow water to flow into the tank.



**CAUTION:** To prevent overflow, do not leave the filling operation unattended.



- An optional sight level tube is fitted to the tank, providing a visual indicator of the level of water in the tank. If a sight level tube is not fitted, observe the water level directly in the tank. When the tank is filled, close the supply's valve.
- Upon completion of filling, replace the tank's filling lid.

#### **AquaTrans & AquaMove Operation**

The AquaTrans & AquaMove is supplied with an MBSP fitting at the base of the tank to connect to your discharge system. When so connected, the control of flow may be regulated by the discharge system.

For the larger tanks (2,000 litres and above) fitted with a 2" MBSP fitting, the tank's filling lid must be loosened and opened to provide adequate venting when discharging the tank's fluid.

#### Maintenance

Your AquaTrans & AquaMove 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**

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 AquaTrans & AquaMove unit. 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.
- Check all hoses, fasteners and fittings are firmly secured, tighten if necessary.
- If the AquaTrans & AquaMove 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.



# **Risk Assessment**

Task	Hazard	Risk	Control Measure/Mitigation
Ensure tank is mounted correctly on vehicle and do not overload vehicle. Partially fill the tank with water & test the tank or pumping system, if necessary, before use	Load not secured; overloaded vehicle; manual handling; slips, trips or falls; fingers jammed; overhead powerlines - electricity; leaks; tank in a confined space	Medium	<ul> <li>Read/follow decals on the tank</li> <li>Follow safe manual handling techniques;</li> <li>Don't lift on your own if &gt; 20kg, bend knees &amp; keep back straight;</li> <li>Keep fingers clear</li> <li>Keep tank at least 8m away from overhead powerlines</li> <li>Keep water away from electrical sources</li> <li>Make sure tank mounted securely to comply with relevant codes of practice and transport authority requirements;</li> <li>Don't exceed vehicle load limit; follow state legislation &amp; AS 2865: 2001 confined space</li> <li>Chassis mount frame to be designed by licensed Truck Body Engineer if used on public roads</li> </ul>
Check weather and ground conditions for stability	Manual handling; ground instability	Low	<ul> <li>Follow safe manual handling techniques as above.</li> <li>Drive cautiously to suit ground and weather conditions.</li> </ul>
Fill the tank with water/ other fluids using a pump, hydrant, hose or similar apparatus	Manual handling; slips, trips or falls; ground instability; weather conditions; falling from height; use of chemicals	Medium	<ul> <li>As above 1 &amp; 2;</li> <li>Ensure fall prevention strategy exists if on the tank;</li> <li>Whilst on the back of a vehicle filling the tank - work platform or handrails in place &amp;/or the person filling the tank is secured with a safety line or harness fall arrest system in place. Follow MSDS.</li> </ul>
Check that transport vehicle is safe before use, i.e. where applicable: wheel nuts, tyre pressure and condition, bearings, tow hitch, have been serviced, etc. Driving and using the water tank from a vehicle - take into account the sway of water in the tank when driving.	As above; loss of load; heat & cold; noise; exceed load limit of vehicle; hose entanglement; exhaust fumes; terrain & slopes	High	<ul> <li>As above;</li> <li>Wear clothes to suit heat &amp; cold;</li> <li>Wear hearing protection if noise &gt;85 dBa;</li> <li>Follow the manufacturer's safe operation instruction for the vehicle and pump/spray unit;</li> <li>Don't overload - water weighs 1kg for every 1 litre;</li> <li>Secure unit to vehicle;</li> <li>Keep hose attachments tidy;</li> <li>TTi recommends LiquidLocker Baffle System to control liquid surge.</li> </ul>
Clean up, maintenance & storage	As above	Low	As above; Store unit in a dry, well ventilated area



## **Defects Warranty**

#### Your rights under the law

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law.

You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure.

#### **About this document**

This document sets out the terms of the defects warranty that we offer to retail purchasers of our goods, including components, parts, and accessories (referred to as "products" in this document). We offer this defects warranty in addition to the consumer guarantees referred to above. Nothing in this document excludes or reduces your rights under those consumer guarantees.

#### What this warranty covers

This warranty covers defects in materials or workmanship (or both) which are found to be present in our products, other than the defects in the parts and components listed below.

#### What this warranty does not cover

This warranty does not cover defects or damage caused by your negligence, your failure to follow instructions (including incorrect assembly or mounting by you), or the improper use, maintenance, or abuse of the products.

This warranty does not cover engines, gearboxes, pumps, or regulators. These come with separate warranties from their manufacturers. By offering this defects warranty, we do not assume any additional obligations or liability on behalf of those manufacturers beyond what we must do to comply with the consumer guarantees referred to above.

#### **How long this warranty lasts for**

Except in the case of products used for rental purposes, the period of our defects warranty is as follows for our various products:

Tanks (non-diesel), excluding frames	25 Years
Steel frames	5 Years
Other TTi Manufactured Components	1 Year

This warranty lasts for one year from the date of your retail purchase of the products, unless it is used for rental purposes, in which case this warranty is limited to 90 days.

#### What we will do if you make a claim under this warranty

If you make a claim under this warranty, we will consider it in good faith. If we agree that the products are covered by this warranty and are defective, we will either (at our option) repair or replace them without charge to you.



#### What you must do (and not do) to entitle you to a claim under this warranty

You must be able to provide proof of purchase, either by providing details of your warranty registration or a purchase receipt.

You must not repair or modify (or allow the repair or modification of) the products without prior authorisation from us. Further, you must not use any non-genuine parts with the products. Doing any of these things will void this defects warranty.

#### How to make a claim under this warranty

If you believe that you have a claim under this warranty, please contact your reseller, or contact us using the following details:

Name: Trans Tank International

Postal Address: PO Box 137 Nathalia, VIC, 3683

Physical Address: Murray Valley Highway, Nathalia, VIC, 3638

Phone: 1800 816 277

Email: ProductSupport@tti.com.au

You must make the defective products available for inspection by returning them to us, and (if requested to do so) by making them available for inspection by us on site beforehand. You must ensure that the products are made safe for transportation and inspection, including by cleaning them thoroughly to remove any chemical residues. All returned products must be accompanied by a completed Return Goods Note. Please contact us using the details displayed above for a copy of this document.

#### Who is responsible for expenses for claims made under this warranty

You are responsible for any expenses associated with the warranty claim, including transportation, charges made for service calls, and clean-up time.





**SCAN HERE!** 

# 1800 816 277

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Proudly Built By:		Quality Checked By:	
Signature	 Date	Signature	 Date

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