



Transtank[®]
INTERNATIONAL

Operator's Product HandBook

DieselMajor[™]

Portable Diesel Tank with Reel



“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 DieselMajor[™] Portable Diesel Tank (DieselMajor), which will provide many years of reliable service when operated and maintained in accordance with this manual.

TTi manufacture a range of DieselMajor units, from 600 through to 1,000 litre tanks, supplied with electric or petrol pump and mounting frame options. This manual describes the operation, driving stability and maintenance procedures applicable to all units, noting additional requirements to options where necessary.

All TTi DieselMajor tanks are rotationally moulded from quality polyethylene, purpose designed and manufactured to high standards. The DieselMajor is designed as a ute tray or trailer-mounted tank diesel fuel dispensing system, to deliver and refuel your equipment in the field.

The DieselMajor unit is supplied complete, tested and ready to go. TTi recommends that only diesel be used in the DieselMajor unit. TTi warrants that the DieselMajor has been designed and built for its intended purpose for transporting and dispensing diesel fuel.

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 DieselMajor unit is the following documents:

- Operator's Handbook (this manual, which includes the Warranty Registration Card)
- Honda GX50 petrol engine and Aussie pump manufacturer's handbook
- Optional Fluid or EquipCo electric pump manual
- Optional Turbine digital meter manual
- 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 diesel fuel for refueling duties. Under no circumstances should it be used for any other purpose. It must never be used for transporting petrol or chemicals.
2. Only authorised and trained personnel are to operate this equipment. Operators must have read and fully understood this manual before operating the DieselMajor 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. Personal Protection Equipment (PPE) must be worn when refuelling or operating the pump on the DieselMajor. Exposure to excessive noise over an extended period can cause impairment or loss of hearing.
5. Avoid diesel or unleaded petrol contact with skin and eyes, and avoid breathing vapours or mists. Refer to the relevant Safety Data Sheet (SDS).
6. Any spillage of fuel while refilling the optional pump engine's tank 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 fuel.
7. Ensure the capacity of the vehicle is suitable for the loaded mass of the DieselMajor. 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. As a guide, one litre of diesel weighs approximately 0.85 kilograms (kg), therefore a full 1,000 litre DieselMajor with optional steel frame and pump system will weigh in excess of 1,000kg.
8. The DieselMajor must never be left unattended while being filled with diesel.
9. Do not operate the pump when there is no diesel in the tank.
10. Do not disconnect any hoses, nozzles or filters while the equipment is operating. Disconnecting any components while under pressure may result in uncontrolled diesel discharge which may be hazardous.
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 DieselMajor has safety labels affixed to various locations on the unit. These labels should be kept clean and legible, and replaced if damaged.



13. The tank is a confined space. Ensure compliance with AS 2865: 2001 Safe Working in a Confined Space Guidelines and relevant state legislation.
14. 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.

General Information

Specifications

Tank	Heavy duty UV resistant polyethylene tank (600, 800 and 1,000 litre capacities)
Standard features	Honda GX50 engine with 210L/min Aussie pump
	10m 25mm retractable hose reel with auto shut-off dispensing nozzle
	455mm dia. lid and seal assembly, fitted with lockable filler cap with inlet filter
	¾ inch drain bung
	LiquidLocker™ Baffle Safety System
Options	Anti-static earth strap
	Italian Fluid 60L/min 12V electric pump (with 4m power cable)
	EquipCo 80L/min 12V electric pump (with 4m power cable)
	5-digit electronic flow meter
	Fully welded and galvanised heavy duty steel frame

Description

The TTI DieselMajor is designed to carry and distribute diesel fuel, using the various self-contained pump and fuel dispensing system available. The DieselMajor units have the following features, refer to Figure 1 and Figure 2, and are available in the following configurations:

- Petrol-powered pump mounted onto the tank
- 12V electric pump mounted onto the tank.

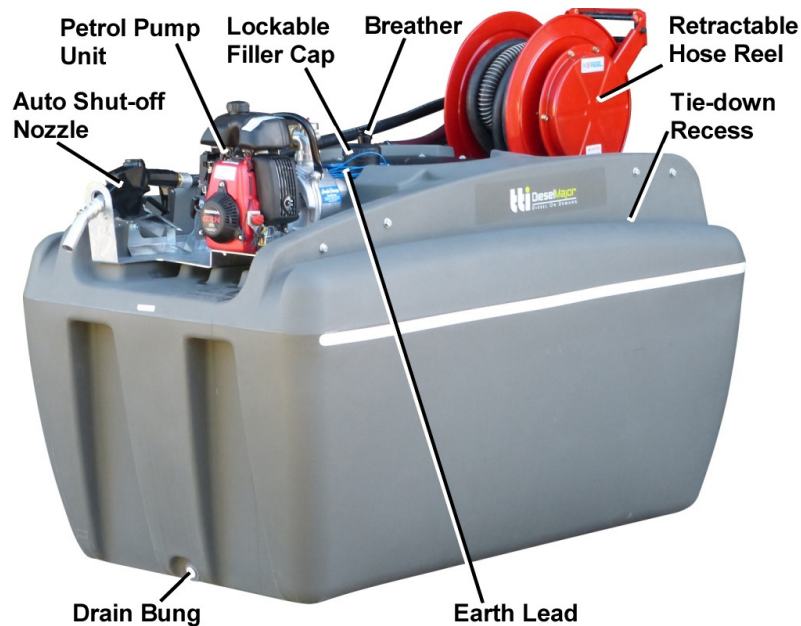


Figure 1 - Component Identification - 1,000 L DieselMajor

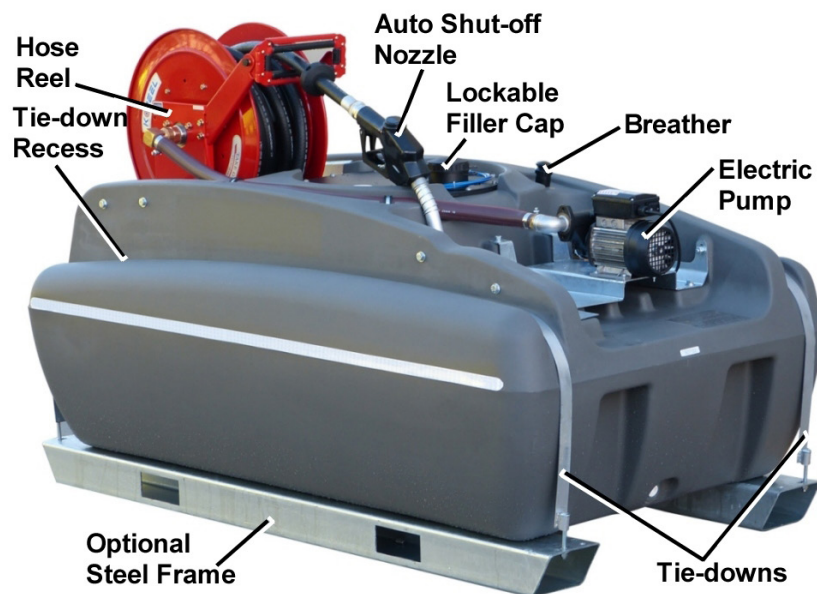


Figure 2 - Component Identification - 8,00L DieselMajor with Frame and Electric Pump

Tank

All TTI tanks are constructed from UV 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.

An earth cable is fitted to the lid of the tank for connection to the vehicle's chassis or the optional steel frame. The cover of the tank incorporates an integral lockable filler cap with an inlet filter. Mounted to the top of the tank is a breather, to prevent damage to the tank structure when discharging diesel fuel.

LiquidLocker Safety Baffle System

The LiquidLocker baffle system within the tank demonstrates measurable improvements in braking performance and dynamic stability and controllability. The system has been independently tested, with the report available upon request.

Pump

The DieselMajor is fitted with a Honda GX50 petrol engine coupled to an Aussie Pumps 210L/min pump, to deliver a maximum flow of 120L/min through the nozzle, as standard. The pump has an integrated bypass valve, enabling the pump to run when the dispensing nozzle is not squeezed.

An Italian Fluid 12V electric pump, delivering fuel at 60L/min, or an EquipCo 80L/min 12V electric pump are available as options. Both electric pumps are supplied with a 4m long power cable with alligator clips for connecting directly to the vehicle's battery.

Hose and Nozzle

The DieselMajor is supplied with a 10m long 25mm diameter high quality diesel grade hose with crimped fittings as standard. The hose is fitted with an auto shut-off dispensing nozzle.

Flow Meter

Optionally available is a 5-digit electronic flow meter, mounted next to the dispensing nozzle.

Hose Reel

A 10m 25mm diameter high quality diesel grade hose mounted on a retractable hose reel is supplied as standard. The hose is fitted with an auto shut-off dispensing nozzle which locates in a securing bracket.

Pump Power Supply

Power to the 12V electric pump options is supplied by the tow vehicle via integral 4m long cable and alligator clips.

Steel Frames

DieselMajor tanks are available with optional skid frames, fully welded steel and hot-dip galvanised for long-lasting protection. The frames incorporate forklift pockets and include steel tie-down straps to secure the DieselMajor to the frame.

Machine Limitations

The DieselMajor unit is 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 DieselMajor unit is heavy when filled with diesel. To maintain stability while operating this unit:

- Ensure the vehicle or trailer 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 DieselMajor tank is full, as the unit will have a higher centre of gravity.

Operating Instructions

Before first use

Your DieselMajor Cartage Tank is delivered fully assembled. Before use, it needs to be set up using the following instructions:

1. Complete the warranty registration online at www.tti.com.au/warranty-registration, or use the Warranty Registration Card at the back of this handbook.
2. 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.



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

3. Read and thoroughly understand this handbook, paying particular attention to all safety requirements, before using the DieselMajor for the first time.
4. Check that all fittings, valves, hoses and electrical leads, where applicable, are secure following transit, and are not damaged in any way.
5. Inspect the tank for any damage or abrasions.
6. Position the DieselMajor tank onto the vehicle, ensuring it is fully supported on a flat surface.
7. If the DieselMajor is supplied with an optional steel frame, ensure the steel frame is securely mounted to the vehicle. Where the unit is not supplied with the optional steel frame, mount securely using tie-down straps located into the tie-down recesses on both sides of the tank, refer to Figure 1 and Figure 2. The tie-down straps must be rated to at least the total mass of the unit when filled with diesel.



CAUTION! The engine must be inspected and prepared in accordance with the manufacturer. Failure to fulfil this requirement may void the engine's warranty.

8. Where fitted with the standard petrol driven pump, prepare the pump engine in accordance with the Honda manual supplied with your DieselMajor unit.
9. Fill the DieselMajor's tank with diesel, refer to the Filling the Tank procedure below.

Filling the Tank

The DieselMajor tank is filled as follows:



CAUTION! The DieselMajor unit is designed for diesel fuel use only. It must not be used for chemicals or petrol.

- Position the DieselMajor near the diesel fuel supply point.
- Unscrew the filler cap from the tank's top opening, refer to Figure 3.
- Inspect the inlet filter for any sign of contaminants. If dirty, lift the filter out and clean it before reinserting it.
- Insert the diesel supply nozzle and commence filling the DieselMajor tank.



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

- Observe the diesel level directly in the tank. When the tank is filled, close the diesel's supply nozzle and remove.
- Replace the DieselMajor's filler cap.

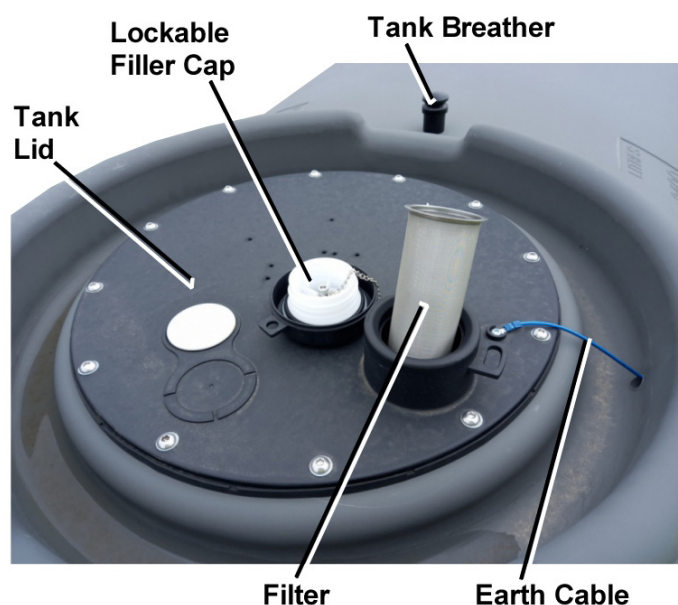


Figure 3 – Tank Filling Operation

Operation – petrol engine powered pump

The DieselMajor's standard petrol pump engine is started as follows:

- Park the DieselMajor near the equipment to be refueled.
- Uncoil the blue earth lead and connect it to the vehicle's tray or an earthed object.
- Remove the DieselMajor's nozzle and pull out the required length of hose from the hose reel, then insert the nozzle into the equipment's fuel tank.
- Turn the fuel lever to ON, refer to Figure 4.
- If the engine is cold, turn the choke lever to ON.



WARNING! Ensure the engine's throttle is set to idle if the engine is cold. Do not adjust the throttle to maximum speed until the engine has warmed up.

- Set the throttle lever to idle for cold starting. If restarting a warm engine, the throttle can be left at normal engine operating speed.
- Turn the power switch to ON. Pull the recoil starter handle until the engine starts, then back off the choke lever to OFF.
- Once the engine is warmed up, adjust the throttle to increase the engine speed to normal operating revs. With the engine running, the pump will operate with the diesel bypassing back into the DieselMajor's tank.



CAUTION! Do not allow the pump to run in bypass mode for more than two (2) minutes.

- At the dispensing nozzle, squeeze the supply trigger. The nozzle will shut off automatically when the equipment's tank is full.
- Turn the pump engine's power switch to the OFF position.
- Return the hose and nozzle to its stowed position, retracting the hose onto the hose reel.

If the DieselMajor is not going to be used within the next few hours, shut the system down by turning the fuel tap to OFF.



Figure – Petrol Engine Start-up Procedure

Operation – electric pump

Where the DieselMajor is fitted with an optional electric pump, it is started as follows:

- Park the DieselMajor's vehicle near the equipment to be refueled.
- Uncoil the blue earth lead and connect it to the vehicle's tray or an earthed object.
- Remove the DieselMajor's nozzle and pull out the required length of hose from the hose reel, then insert the nozzle into the equipment's fuel tank.



CAUTION! Ensure the electrical cables are connected correctly.

- Uncoil and connect the pump's electrical cable's alligator clips to the power supply, ensuring each clip is connected to the correct terminal – black clip to NEGATIVE, red clip to POSITIVE, refer to Figure 5.
- At the rear of the pump, press the control switch to ON. The pump will start operating, with the diesel bypassing back into the DieselMajor's tank.



CAUTION! Do not allow the pump to run in bypass mode for more than two (2) minutes.

- At the dispensing nozzle, squeeze the supply trigger. The nozzle will shut off automatically when the equipment's tank is full.



NOTE! The pump has a maximum duty cycle of 30 minutes of continuous operation. After 30 minutes, turn the pump to OFF for at least 30 minutes before next use.

- After completing the filling operation or 30 minutes of continuous use (whichever comes first), press the pump's control switch to OFF.
- Return the hose and nozzle to its stowed position, retracting the hose onto the hose reel.
- Unclip the pump's electrical cable from the power supply and stow the cable.

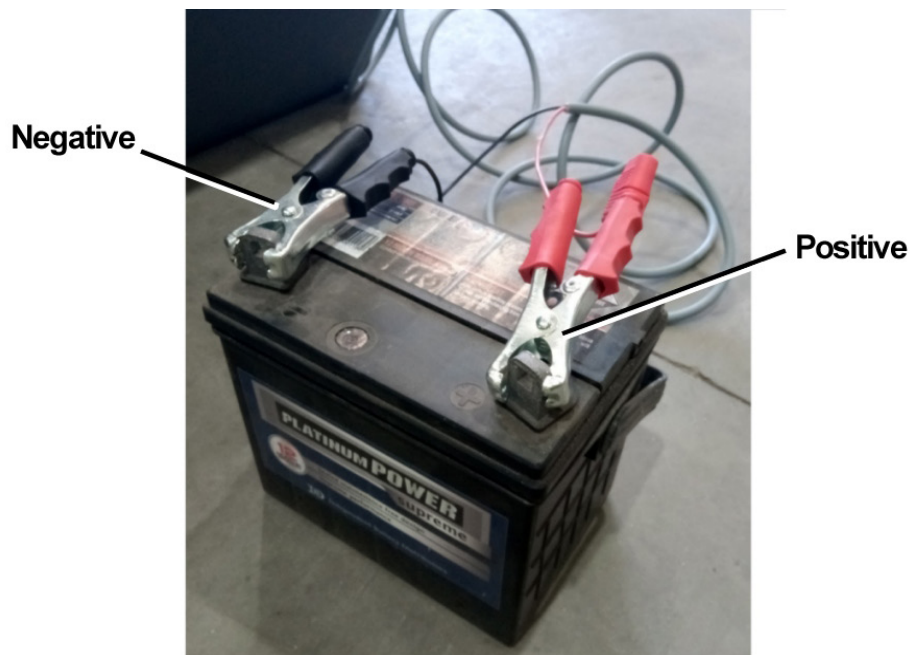


Figure 5 – Battery Connection – Electric Pump

Risk Assessment

Task	Hazard	Risk	Control Measure/Mitigation
Partially fill the tank with diesel, connect the 12V cable to the power supply (electric pump option), start the pump (electric or petrol options) and test the unit	Manual handling; slips, trips or falls; petrol; diesel fumes; fingers jammed	Medium	<p>Concentrate on task; follow safe manual handling techniques:</p> <ul style="list-style-type: none"> • Don't lift on your own if > 20kg, bend knees & keep back straight; Keep fingers clear; • Keep unit at least 8m away from overhead powerlines; • Fire extinguisher nearby; • Follow warning stickers on tanks; Wear PPE for petrol & diesel fumes-mask & gloves; • Tank mounting to comply with relevant codes and transport authority requirements.
Check weather conditions, select appropriate PPE for refueling operations	Manual handling; slips, trips or falls; petrol; diesel fumes	Low	<ul style="list-style-type: none"> • Wear PPE for petrol & diesel fumes • Follow safe manual handling techniques: don't lift on your own if >20kg, bend knees & keep back straight.
Fill diesel tank	As above; diesel fume drift, diesel spillage, emission of vapours or flammability; weather; untrained visitors; tank used for non-diesel products	High	<p>As above</p> <ul style="list-style-type: none"> • User trained in accordance with relevant requirements • Wear hearing protection if noise >85 dBa; • Follow the relevant Environment Protection Authority requirements; • Fire extinguisher present – CO2 or powder; • Keep visitors away from the job unless wearing full PPE; • Check load secure; "DIESEL ONLY" sticker on • Don't overload - diesel weighs 0.85kg for every 1 litre • Keep hose tidy
Transportation and use of unit	As above; loss of load; noise; exceed load limit of vehicle; hose entanglement; exhaust fumes; terrain & slopes	High	<p>As above;</p> <ul style="list-style-type: none"> • Wear hearing protection if noise > 85 dBa; • Follow the manufacturer's safe operation instruction for the vehicle and 12 volt transfer from vehicle to unit; • Don't overload – diesel weighs 0.85kg for every 1 litre; • Secure unit to vehicle; • Check earth strap; • Hoses tidy.
Clean up, maintenance & storage	As above	Low	<ul style="list-style-type: none"> • As above; • Wear PPE for clean up; • follow state legislation & AS 2865: 2001 Safe Working in a Confined Space Guidelines; • Store unit in a dry, well ventilated area.

Maintenance

Your DieselMajor Refueling Trailer 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 DieselMajor unit. Refer to the maintenance schedule tables below for details of maintenance intervals.

For the petrol engine driven pump, refer to the supplied pump manual, drain and replace the engine oil in accordance with the manufacturer's recommendations.

- 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.
- Unwind the hose from the hose reel fully to check that hose is in good order. Pressurise the line and check operation of the dispensing nozzle, including auto shut-off function. Rewind the hose onto the reel, ensuring it retracts all the way.
- For the petrol engine driven pump, check the engine's oil level weekly. Top up as required.
- Check for any signs of fuel or oil leaks. If detected, investigate and rectify immediately.
- Check the condition of the optional electrical pump's 12 cable and connectors.
- If the DieselMajor 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 DieselMajor 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 DieselMajor unit.

No.	Task	Notes
1	Inspect the DieselMajor for any signs of damage or wear	Clean, repair or replace
2	Inspect optional electric pump's cable and connectors	Repair or replace
3	Check fuel (petrol engine pump)	Top up as required
4	Inspect optional electric pump's cable and connectors	Clean, replace as necessary

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		
2	Remove and clean the optional engine's air filter		
3	Check engine oil level, top up as required		

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 for damaged electrical cable on electric pump option		
3	Check hose and hose reel by unwinding fully		
4	Check security of mounting system		
5	* Change pump engine oil (and filter, if fitted) (first change, thereafter every six months or 100 operating hours)		

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	Inspect the engine's air filter, replace if clogged or damaged		
3	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		
2	Change engine oil (and filter, if fitted)		
3	Inspect engine's spark plug		

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	Replace the engine's air filter		
3	Drain and flush the engine's fuel tank		
4	Replace the engine's fuel filter		
5	Replace the engine's spark plug		

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		

Trouble Shooting

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

Problem	Possible cause	Remedy
Pump will not feed diesel	DieselMajor tank is empty	Fill up tank
Engine will not crank (petrol engine)	Melted fusible link/circuit breaker	Replace fusible link/breaker
	Loose Connections	Clean and tighten connections
	Faulty Ignition Switch	Check switch operation, replace as needed
	Faulty magnetic, relay, neutral start or clutch switches	Check and replace as required
	Mechanical problem in engine	Check engine

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.



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Handbook online

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Proudly Built By:

Signature

Date

Quality Checked By:

Signature

Date

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