TransTank® INTERNATIONAL

Operator's Product HandBook

FireBoss™

UTV Fire Fighter





"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 FireBoss UTV Fire Fighting Unit (FireBoss), which will provide many years of reliable service when operated and maintained in accordance with this manual.

TTi manufacture four FireBoss units, two with 300 litre tanks, as well as 400 litre and 600 litre tank version, each supplied with a petrol-powered pump. The 600 litre version can be optioned with a diesel engine. This manual describes the operation, driving stability and maintenance procedures applicable to all FireBoss units, noting additional requirements to options where necessary.

All TTi FireBoss tanks are rotationally moulded from quality polyethylene, purpose designed and manufactured to high standards. The FireBoss is a Utility Terrain Vehicle (UTV) tub-mounted unit designed for firefighting, tree watering or washdown activities. All versions of the FireBoss can also be mounted on the back of a utility or trailer.

The FireBoss unit is supplied complete, tested and ready to go. TTi recommends that only water be used in the FireBoss unit. TTi warrants that the FireBoss has been designed and built for its intended purpose for firefighting and dispensing water, such as tree watering.

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 FireBoss unit is the following documents:

1. Operator's Handbook (this manual, which includes the Warranty Registration Card)
2. Honda petrol engine manufacturer's handbook
3. Aussie Pumps or Davey Pumps (depending on version and engine) manufacturer's handbook.

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 water for firefighting, washdown and tree watering activities. Under no circumstances should it be used for any other purpose. It must never be used for transporting fuel 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 FireBoss 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 FireBoss. Exposure to excessive noise over an extended period can cause impairment or loss of hearing.

5. Avoid 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 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 FireBoss. 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 water weights one kilogram (kg), therefore a full 300 litre FireBoss unit will weigh in excess of 350kg.

8. The FireBoss must never be left unattended while being filled with water.

9. Do not operate the pump when there is no water 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 water discharge which may be hazardous.

11. At completion of operation, switch the pump off and relieve any residual pressure by squeezing the spray gun trigger.

12. 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.

13. The FireBoss has safety labels affixed to various locations on the unit. These labels should be kept clean and legible, and replaced if damaged.

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	UV resistant polyethylene tank (300L, 400L and 600L capacities), Standard and Compact configurations
Standard Equipment	Honda GX50 petrol engine coupled to Aussie Pumps QP154SX 210L/min capacity single impeller pump (300L versions)
	Honda GX200 petrol engine coupled to Davey 400L/min capacity single impeller pump (400L version and option for 300L)
	Honda GX200 petrol engine coupled to Davey 400L/min capacity twin impeller pump (600L version)
	18m 19mm fire hose reel with adjustable nozzle
	Fabricated galvanised steel frame (not applicable to 600L FireBoss)
	Bottom Fill Kit (400L, 600L; and 300L with GX200 engine option)
	Auxiliary freshwater tank with tap for handwashing (300L units)
Standard Equipment	Honda GX200 petrol driven pump with 400L /min capacity (300L)
	Diesel engine driven pump option (600L)
	Bottom Fill Kit (300L Standard)
	Scotty Foam Eductor or freshwater tank with tap for handwashing (400L and 600L versions)

Description

The TTi FireBoss is designed to carry and distribute water using a self-contained pump and hose reel dispensing system, refer to Figure 2, which shows the Standard unit. The FireBoss is configured in four different styles, all designed to fit into the trays of larger UTVs:Standard – 300 litre tank, 1,000mm long, 1,250mm wide and 600mm high



CAUTION: The FireBoss unit must not be fitted to a UTV that does not have the carrying capacity of a full FireBoss tank.

- 300 litre tank – Standard, 1,000mm long, 1,250mm wide and 600mm high
- 300 litre tank – Compact, 870mm long, 1,100mm wide and 850mm high
- 400 litre tank, 1,398mm long, 1,050mm wide and 780mm high
- 600 litre tank, 1,398mm long, 1,050mm wide and 847mm high

All configurations of the FireBoss are suitable for fitting to a conventional utility tray or trailer.



Figure 1 – FireBoss Low Profile UTV Fire Fighting Unit

The FireBoss has the following features, refer to Figure 2.

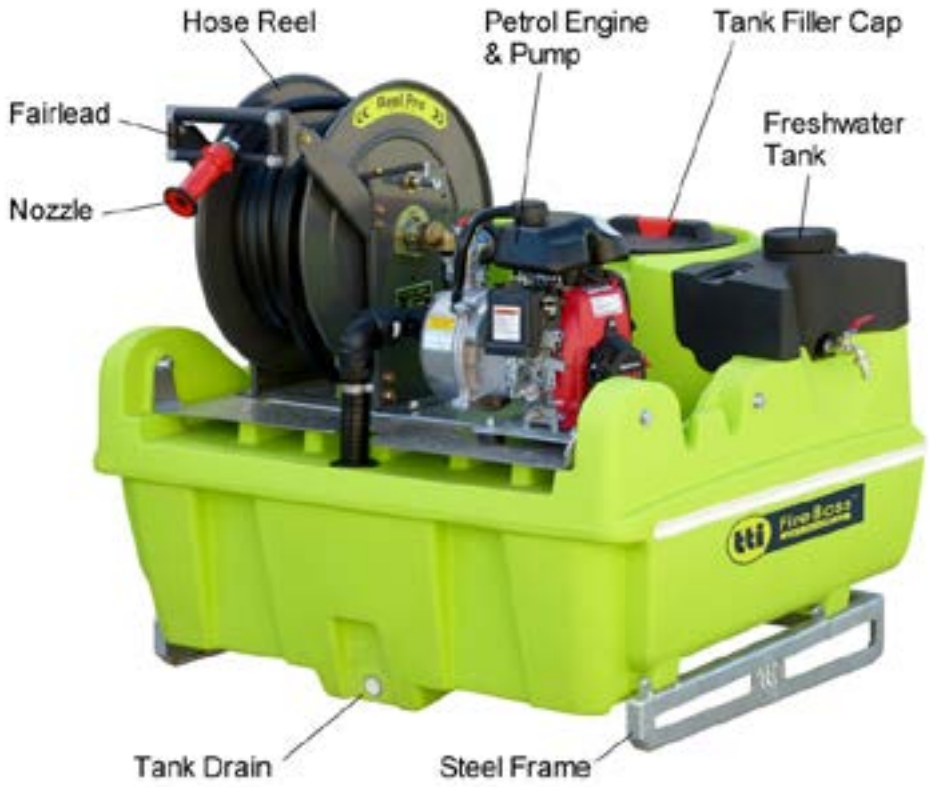


Figure 2 – Component Identification (Compact FireBoss)

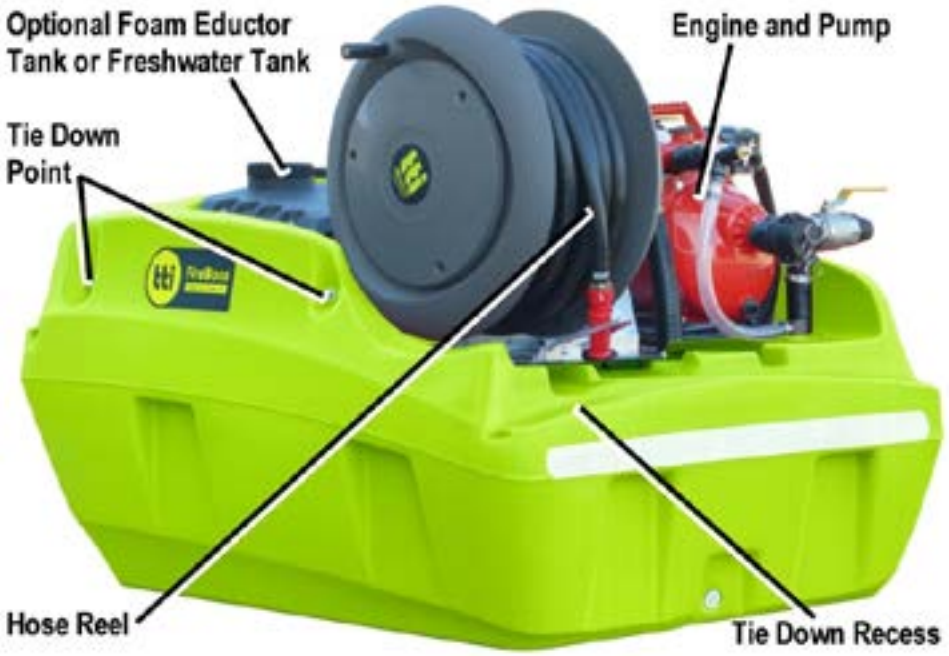


Figure 3 – Component Identification (600L FireBoss)

Tank

All TTi tanks are constructed from UV resistant, virgin material polyethylene. The tank is fully drainable and has a twist locking filling cap.

Incorporated into the top of the 300 litre tank versions (Standard and Compact) is a small freshwater tank with tap for handwashing. The 400L and 600L FireBoss has an optional 15L auxiliary foam eductor (injection) system or handwash tank.

Hose Reel

Each FireBoss is fitted with an 18m, 19mm diameter fire hose mounted on a manually operated hose reel. The hose is fitted with an adjustable nozzle which locates against the integral fairlead when the hose is fully retracted. The nozzle adjusts from closed through to jet and mist sprays, depending on requirement.

Pump

The FireBoss 300L Standard and Compact is fitted with an Aussie Pumps QP154SX single impeller pump firefighting pump coupled to a Honda GX50 4-stroke recoil (pull) start engine. A Honda GX200 engine with 400L/min Davey twin impeller pump is available as an option on the FireBoss 300L Standard unit.

The FireBoss 400L and 600L units are fitted with the Honda GX200 engine with 400L/min Davey twin impeller pump as standard.

Foam Eductor

An optional foam eductor (injection) system is available for the 400L and 600L FireBoss units. The system includes a 15 litre auxiliary tank with a variable check valve to regulate percentage of eductor flow rates.

Frame

The chassis frame of the FireBoss unit is an all steel, fully welded construction and hot dip galvanised for corrosion resistance. The 300L Standard FireBoss is mounted to the frame via metal straps, while the Compact and 400L FireBoss versions are bolted to the frame. All units have incorporated forklift pockets. The 600L FireBoss does not have a steel frame and is mounted directly to the vehicle via integrated tie down recesses or tie down points.

Machine Limitations

The FireBoss 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 FireBoss unit is heavy when filled with water. To maintain stability while operating this unit:

- Ensure the vehicle's 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 FireBoss tank is full, as the unit will have a higher centre of gravity.

Operating Instructions

Before first use

Your FireBoss Low Profile UTV Fire Fighting Unit 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.



WARNING: The operator must fully understand all aspects of this handbook. Do not operate the FireBoss 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 FireBoss for the first time.
4. Check that all fittings, valves, hoses and electrical leads are secure following transit, and are not damaged in any way.
5. Inspect the tank for any damage or abrasions that may have occurred during transit.

CAUTION: The FireBoss 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.

6. Position your FireBoss onto the vehicle and mount securely, either using tie-down straps located into the tie-down recesses or lugs on both sides of the tank, depending on configuration, refer to Figure 2 and Figure 3 for locations. The tie-down straps must be rated to at least the total mass of the unit when filled with fluid. Alternatively, the integrated tank frame may be bolted to the vehicle (not applicable to the 600L unit).

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

7. Prepare the pump engine in accordance with the Honda engine's manual supplied with your FireBoss unit.

Pump Operation

The FireBoss's petrol pump engine (both the GX50 and GX200 models) is started as follows, refer to Figure 4:

1. Turn the fuel lever to ON.
2. If the engine is cold, turn the choke lever to ON.

CAUTION: 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.

3. Set the throttle lever to idle for cold starting. If restarting a warm engine, the throttle can be left at normal engine operating speed.
4. Turn the power switch to ON. Pull the recoil starter handle until the engine starts, then back off the choke lever to OFF.
5. Once the engine is warmed up, adjust the throttle to increase the engine speed to normal operating revs.
6. When the engine needs to be stopped, turn the power switch to the OFF position.

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



Figure 4 – Engine Start-up (typical)

Filling the Tank

The FireBoss tank is filled in either of the following two ways:

CAUTION: The FireBoss unit is designed for water use only. It must not be used for chemicals or fuel.

1. Standpipe or hose filling method
2. Bottom fill method (400L, 600L; and 300L with GX200 engine option versions).

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

3. Insert the hose from the water supply into the top of the FireBoss tank and turn ON the supply.
4. Observe the water level directly in the tank. When the tank is filled, turn the water supply OFF.
5. Replace the tank's filler cap and twist to lock.

Standpipe or Hose Filling Operation

1. Open the tank's filler cap by twisting and lifting the cap.

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

2. Align the opening under a standpipe, or insert the hose from the water supply into the top of the FireBoss tank and turn ON the supply.
3. Observe the water level directly in the tank. When the tank is filled, turn the water supply OFF.
4. Replace the tank's filler cap and twist to lock.

Bottom Filling Operation

1. Close the ball valve on the pump's inlet line (see Figure 5).
2. Remove the camlock cap from the inlet line.
3. Fit the bottom fill hose to the pump's inlet line port. Secure with the camlock fittings.
4. Place the filter end of the bottom fill hose into the water source. Ensure the filter is deep enough in the water to prevent it sucking air.
5. If required, prime the pump by unscrewing the cap at the top of the pump and fill it with water. Once full, replace the cap and tighten firmly.
6. Referring to Pump Operation procedure, start the pump. Ensure the pump is drawing water and discharging it into the FireBoss's tank.

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

7. Observe the water level in the tank. When the tank is filled, stop the pump.
8. Disconnect the bottom fill supply hose from the pump's inlet port.
9. Reinstall the camlock cap to the pumps' inlet port.
10. Open the ball valve on the pump's inlet line.
11. Drain and clean the bottom fill hose and return it to its stowage position.

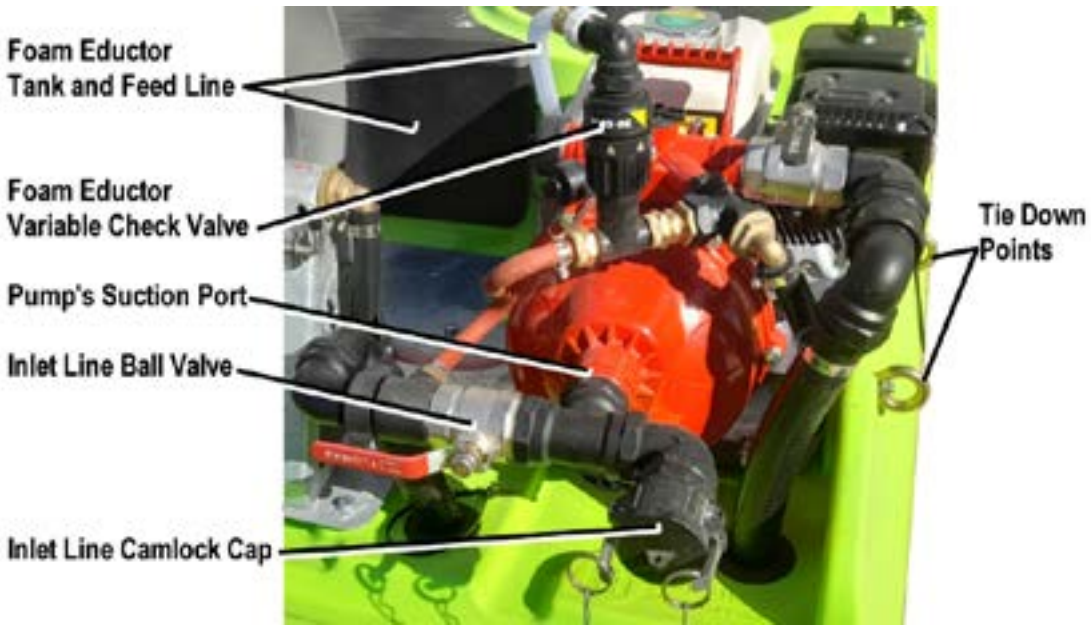


Figure 5 – Bottom Filling Operation

FireBoss Operation

Initial Operation Set Up

The FireBoss Low Profile UTV Fire Fighting Unit is operated as follows:

1. Fill the tank from an appropriate water source, refer to the Filling the Tank procedure above.
2. If required (and is fitted), fill the foam tank with approved material.
3. Adjust the foam eductor check valve to the required setting ratio for injection of foam into the water line.
4. Unlock the hose reel then pull out the required length of hose off the reel. Check that the hose nozzle is closed.

NOTE: The pump is self-priming due to the direct coupling to the FireBoss tank.

5. Start the pump (referring to the procedure above) and adjust engine speed.

CAUTION: To prevent damage, do not operate the pump for more than five minutes with the hose nozzle closed.

6. Open the fire hose's nozzle by rotating it to achieve the desired spray pattern. If necessary, adjust the engine speed to obtain the optimal water pressure.
7. Upon completion of the task, close the fire hose nozzle and turn the pump engine to OFF.
8. Open the fire hose nozzle again to release the residual pressure.

9. Rewind the hose onto the reel by manually winding the handle on the side of the reel. Close the nozzle once the hose is fully retracted and the nozzle is located near the hose's fairlead.

Risk Assessment

Task	Hazard	Risk	Control Measure/Mitigation
Partially fill the tank with water, start the pump engine & test the hose spray	Manual handling; slips, trips or falls; petrol fumes; fingers jammed	Medium	Concentrate on task; follow safe manual handling techniques: • 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 fumes - mask & gloves.
Check weather conditions	Manual handling; slips, trips or falls	Low	• Follow safe manual handling techniques: don't lift on your own if >20kg, bend knees & keep back straight.
Use spray or fire fighter units.	As above; loss of load; heat & cold; noise; exceed load limit of vehicle; hose entanglement; exhaust fumes; terrain & slopes; run over by unit	High	• As above • Wear clothes to suit heat & cold; • Wear hearing protection if noise >85 dBa; • Follow the manufacturer 's safe operation instruction for the vehicle and the spray unit • Don't overload - water weighs 1kg for every 1 litre • Secure unit to tow vehicle; • Keep hose tidy; • Put unit brakes on (if fitted).
Clean up, maintenance & storage	As above	Low	• As above; • Wear PPE for clean up; • Store unit in a dry, well ventilated area.
Burn risk	Hot exhaust/muffler	Med	• Do not reach over hot exhaust • Do not service engine while hot • Wear appropriate PPE

Maintenance

Your FireBoss Low Profile UTV Fire Fighting Unit 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.



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.

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

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 FireBoss unit. Refer to the maintenance schedule tables below for details of maintenance intervals.

1. Clean the unit and inspect it for any signs of damage or wear. Replace any safety labels if they are damaged or illegible.
2. Check all hoses, fasteners and fittings are firmly secured, tighten if necessary.
3. Unwind the hose fully to check that hose is in good order. Pressurise the line and check operation of spray nozzle. Rewind the hose onto the reel, ensuring it retracts all the way.
4. Check the engine's oil level weekly. Top up as required.
5. Check for any signs of fuel or oil leaks. If detected, investigate and rectify immediately.
6. If the FireBoss is to be stored for an extended period, ensure the tank, optional foam tank and all pipelines are empty and are not pressurised. Store the unit is a clean, dry and well-ventilated area.

Maintenance Schedule

The following tasks are 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 task 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 FireBoss 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 FireBoss unit.

#	Task	Notes
1	Inspect the FireBoss for any signs of damage or wear	Clean, repair or replace
2	Check the engine's electrical connections	Test function of engine
3	Check fuel	Top up as required
4	Inspect engine's air filter and housing for dust	Clean, replace as necessary

Weekly tasks

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

#	Task	Date	Signed
1	All Daily tasks		
2	Remove and clean the 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.

#	Task	Date	Signed
1	All Daily and Weekly tasks		
2	Check hose and hose reel by unwinding fully		
3	* Change engine oil (first change, thereafter every six months or 100 operating hours), refer Honda manual		

Three Monthly tasks

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

#	Task	Date	Signed
1	All Daily, Weekly and Monthly tasks		
2	Inspect the 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.

#	Task	Date	Signed
1	All Daily, Weekly, Monthly and 3-Monthly tasks		
2	Change engine oil		
3	Inspect spark plug		

Twelve Monthly tasks

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

#	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 fuel tank		
4	Replace the engine's fuel filter		
5	Replace the spark plug		

Two Years tasks

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

#	Task	Date	Signed
1	All Daily, Weekly, Monthly, 3-Monthly, 6-Monthly and 12-Monthly tasks		

Trouble Shooting

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

Problem	Possible cause	Remedy
Pump will not feed water	Hose nozzle closed	Open hose nozzle
Engine will not crank	Loose Connections	Clean and tighten connections
	Faulty ON/OFF switch	Check switch operation, replace as needed
	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.

TransTank®
INTERNATIONAL

SCAN HERE!

1800 816 277

sales@tti.com.au

PO Box 137, Nathalia, VIC, 3638

Murray Valley Hwy, Nathalia, VIC 3638

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

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