



Transtank[®]
INTERNATIONAL

Operator's Product HandBook

FireGuard[™]

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

TTi manufactures two FireGuard units, a 220 litre and 400 litre tank sizes, both fitted with a petrol driven pump. This manual describes the operation, driving stability and maintenance procedures applicable to the unit.

All TTi FireGuard tanks are rotationally moulded from quality polyethylene, purpose designed and manufactured to high standards. The FireGuard is a compact portable unit for the back of a utility or trailer and designed for firefighting, tree watering and washdown activities.

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

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 FireGuard unit is the following documents:

- Operator's Handbook (this manual, which includes the Warranty Registration Card)
- Honda Petrol engine manufacturer's handbook
- Aussie Pumps 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 water for firefighting, tree watering and washdown duties. 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 FireGuard 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 FireGuard. 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 FireGuard. 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 weighs one kilogram (kg), therefore a full 400 litre FireGuard unit will weigh in excess of 490kg.
8. The unit must be securely restrained on the vehicle. Ensure all fasteners are tightened and secure

before operation.

9. The FireGuard must never be left unattended while being filled with water.
10. Do not operate the pump when there is no water in the tank.
11. 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.
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 FireGuard 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 stabilised, impact resistant polyethylene tank, available in 220 and 400 litre capacities
Standard Equipment	Honda GX50 petrol engine
	Aussie Pumps QP154SX single impeller pump with 210 L/min capacity
	18m 19mm fire hose with adjustable nozzle
	Stainless steel pump mounting plate
	Surefit pin mount system
Options	Hot dipped galvanised steel mounting frames

Description

The TTi FireGuard is designed to carry and distribute water using a self-contained pump and firefighting hose system. The FireGuard is configured in two different capacities, refer to Figure 1 and Figure 2, both designed to fit on utility trays or trailers:

- 220 litre tank – 925mm long, 710mm wide and 810mm high
- 400 litre tank – 1620mm long, 710mm wide and 810mm high.

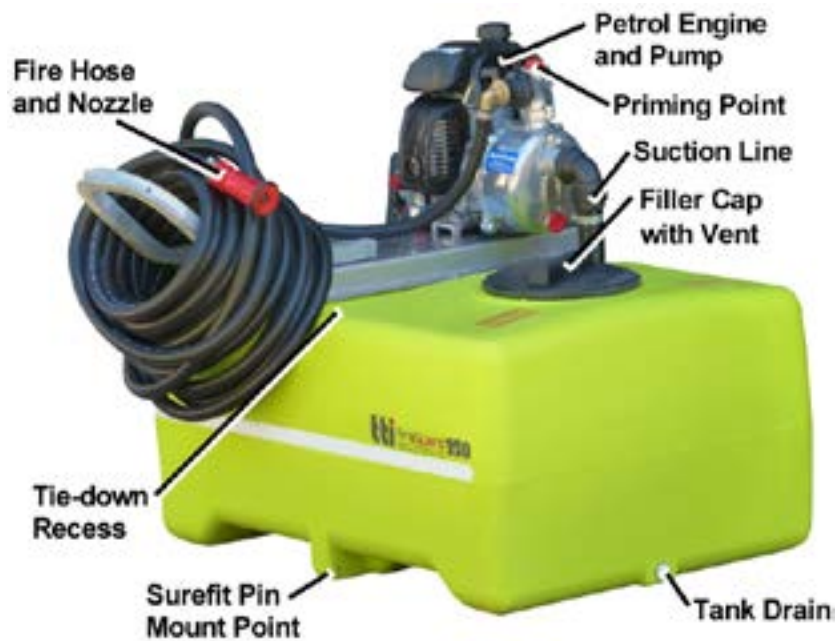


Figure 1 – Component Identification (220L FireGuard)



Figure 2 – Component Identification (400L FireGuard with Optional Frame shown)

Tank

All TTI tanks are constructed from UV stabilised, impact resistant, virgin material polyethylene and are fully drainable. 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 top-mounted filler cap has a large opening with integrated breather vent.

The base of each tank incorporates the Surefit pin mount system, enabling mounting directly to the optional steel mounting frame or owner-provided vehicle mounting device.

Pump Unit

The FireGuard is fitted with a single impeller Aussie Pumps QP154SX firefighting pump as standard. The pump is coupled to a Honda GX50 recoil (pull) start 4-stroke engine, capable of delivering 210L/min. The pump unit is fitted to a stainless steel mounting plate on the top of the tank. The mounting plate incorporates a bracket to secure the fire hose.

Fire Hose

An 18m 19mm fire hose is provided as standard, complete with a nozzle that adjusts from closed through to jet and mist sprays, depending on the requirement.

Frame

An optional fabricated, hot dipped galvanised steel mounting frame is available for both the 220 and 400 litre units. The frame has forklift pockets for easy movement.

Machine Limitations

The FireGuard 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 FireGuard 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 FireGuard tank is full, as the unit will have a higher centre of gravity.

Operating Instructions

Before first use

Your FireGuard Portable 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 manuals in the provided 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 FireGuard 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 FireGuard for the first time.
4. Check that all fittings and hoses are secure following transit, and are not damaged in any way.
5. Inspect the tank for any damage or abrasions.



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.

6. Position your FireGuard onto the vehicle and mount securely to the tray. If using tie-down straps, they must be rated to at least the total mass of the unit when filled with water. There is one tie-down recess across the 220L FireGuard tank (refer to Figure 1), with two recesses for the 400L FireGuard (Figure 2). Alternatively, the tank incorporates the Surefit pin mount holes on its base, to enable a bolt and bracket system to secure the unit to the vehicle or optional frame. The 400L unit has four Surefit mount points, the 22L unit has two, refer to Figure 3.

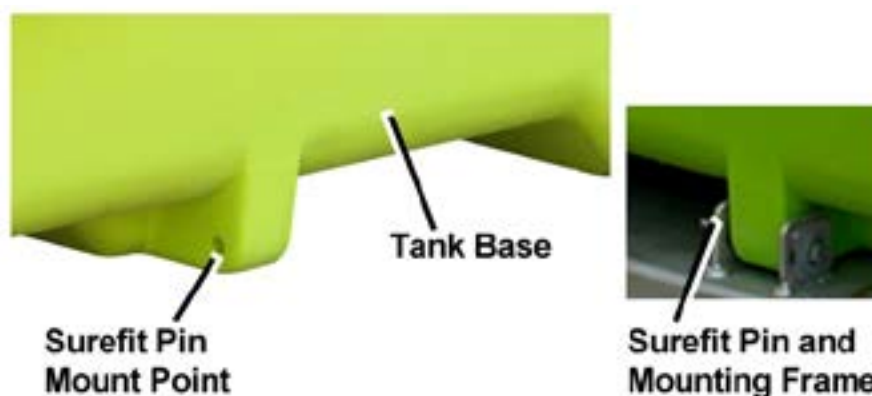


Figure 3 – Surefit Pin Mount System



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

7. Prepare the pump engine in accordance with the Honda manual supplied with your FireGuard unit. Fill the fuel tank with fresh unleaded petrol.

Filling the Tank

The FireGuard tank is filled as follows:



WARNING! The FireGuard unit is designed for water use only. It must not be used for chemicals or fuel.

1. Open the tank's filler cap by twisting and lifting the cap from the tank's top opening.
2. Insert a hose from the water supply, the at the water supply's valve, move it to the OPEN position, to allow water to flow into the FireGuard's tank.



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

3. Observe the water level directly in the tank. When the tank is filled, move the water supply's valve to its CLOSED position.
4. Upon completion of filling, replace the tank's filler cap.

Pump Operation Procedure

The FireGuard's petrol pump engine 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.



NOTE! 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 FireGuard 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

FireGuard Operation

The FireGuard Portable 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, prime the pump by unscrewing the cap at the top of the pump and filling it with water. Once full, replace the cap and tighten firmly.
3. Unwind the fire hose from its bracket on the end of the FireGuard. Ensure the fire hose's nozzle is closed.
4. Start the pump's engine (referring to the Pump Operation 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.

5. Adjust the pump engine's speed to achieve the optimum flow rate.
6. Open the fire hose's nozzle by rotating it to achieve the desired spray pattern.
7. Upon completion of the task, close the fire hose nozzle and turn the pump engine to OFF, referring to the Pump Operation Procedure above.
8. Open the fire hose nozzle again to release the residual pressure.
9. Rewind the hose onto its mounting bracket, then close the nozzle.

Risk Assessment

Task	Hazard	Risk	Control Measure/Mitigation
Partially fill the tank with water, start the motor & test	Manual handling; slips, trips or falls; petrol; fumes; fingers jammed	Medium	Concentrate on task; follow safe manual handling techniques: <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 fumes; mask & gloves.
Check weather conditions	Manual handling; slips, trips or falls	Low	<ul style="list-style-type: none"> • Follow safe manual handling techniques: don't lift on your own if >20kg, bend knees & keep back straight.
Use fire fighting unit.	As above; loss of load; heat & cold; noise; exceed load limit of vehicle; hose entanglement; exhaust fumes; terrain & slopes; run over by unit	High	<ul style="list-style-type: none"> • 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 unit • Don't overload - water weighs 1kg for every 1 litre • Secure unit to vehicle; • Keep hose tidy.
Clean up, maintenance & storage	As above	Low	<ul style="list-style-type: none"> • As above; • Wear PPE for clean up; • Store unit in a dry, well ventilated area.
Burn risk	Hot exhaust/muffler	Med	<ul style="list-style-type: none"> • Do not reach over hot exhaust • Do not service engine while hot • Wear appropriate PPE

Maintenance

Your FireGuard Portable 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.

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 FireGuard 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 from its bracket fully to check that hose is in good order. Pressurise the line and check operation of spray nozzle. Rewind the hose onto its bracket.
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. 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.
7. If the FireGuard 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 FireGuard 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 FireGuard unit.

No.	Task	Notes
1	Inspect the FireGuard for any signs of damage or wear	Clean, repair or replace
2	Check fuel	Top up as required
3	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.

No.	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.

No.	Task	Date	Signed
1	All Daily and Weekly tasks		
2	Check hose by unwinding fully		
3	* 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	Check security of unit's tie-down/mounting connections		
3	Inspect the air filter, replace if clogged or damaged		
4	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 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 fuel tank		
4	Replace the engine's fuel filter		
5	Replace the 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 FireGuard, 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

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.

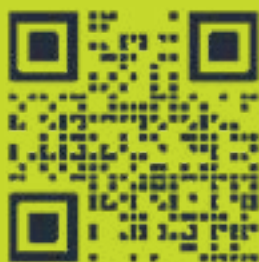
Warranty Limitations

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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