TransTank® INTERNATIONAL

Operator's Product HandBook

FirePatrol15™

Water Cartage Trailers





"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 FirePatrol15™ Heavy-Duty Trailer Unit (FirePatrol), which will provide many years of reliable service when operated and maintained in accordance with this manual.

TTi manufacture a range of FirePatrol units, from 800 through to 3,000 litre tanks, supplied with petrol or diesel pump options. This manual describes the operation, driving stability and maintenance procedures applicable to all units, noting additional requirements to options where necessary.

All TTi FirePatrol tanks are rotationally moulded from quality polyethylene, purpose designed and manufactured to high standards. The FirePatrol is a trailer-mounted tank water dispensing system designed for firefighting, tree watering and similar manually conducted watering activities. With the optional single or dual deflector system fitted, the FirePatrol can be used for dust suppression on unmade roads, construction sites, etc.

The FirePatrol unit is supplied complete, tested and ready to go. TTi recommends that only water be used in the FirePatrol unit. TTi warrants that the FirePatrol has been designed and built for its intended purpose for firefighting and dispensing water, such as tree watering. With the optional deflector system, it can be used as a dust suppression system too.

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 FirePatrol unit is the following documents:

1. Operator's Handbook (this manual, which includes the Warranty Registration Card)
2. Integral Honda Petrol or Yanmar Diesel engine and pump manufacturer's handbook (whichever option selected)
3. 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 optional dust suppression 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 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. Personal Protection Equipment (PPE) must be worn when refuelling the or operating the pump on the FirePatrol. 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 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. Disconnect the battery, if fitted, before conducting any electrical maintenance work.

8. Ensure the capacity of the vehicle is suitable for the loaded mass of the FirePatrol. 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.

9. Ensure the tow vehicle is equipped with a 7-pin plug, with the AUX pin wired for 12-volt power. This pin connects to the brake safety unit.

10. The FirePatrol must never be left unattended while being filled with water.

11. Do not operate the pump when there is no water in the tank.

12. 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.

13. 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.

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

15. 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 (800 to 3,000 litre capacity), complete with LiquidLocker™ Baffle Safety System
Trailer	Fully welded and galvanised heavy duty steel frame, single or dual axle with 15" Sunraysia wheels with 6-stud pattern
Standard Equipment	LiquidLocker™ Baffle Safety System
	Honda Petrol pump
	36 m 19 mm fire hose reel with adjustable nozzle
	Pressure regulator
	Open funnel for stand pipe fill
	Tank bottom fill kit via integral pump
Options	Single and dual deflector spray head options
	Solenoid operation of dual deflector spray head option with wireless remote control
	Braked or unbraked trailer options
	Hydraulic or electric brake options
	Level sight tube
	Yanmar Diesel engine pump upgrade option
	Electric start on engines (with solenoid operated deflector option)
	Hydrant fill
	20 m 19 mm spring rewind hose reel

Description

The TTi FirePatrol is designed to carry and distribute water using a self-contained pump and various water dispensing systems. The FirePatrol has the following features, refer to Figure 1.

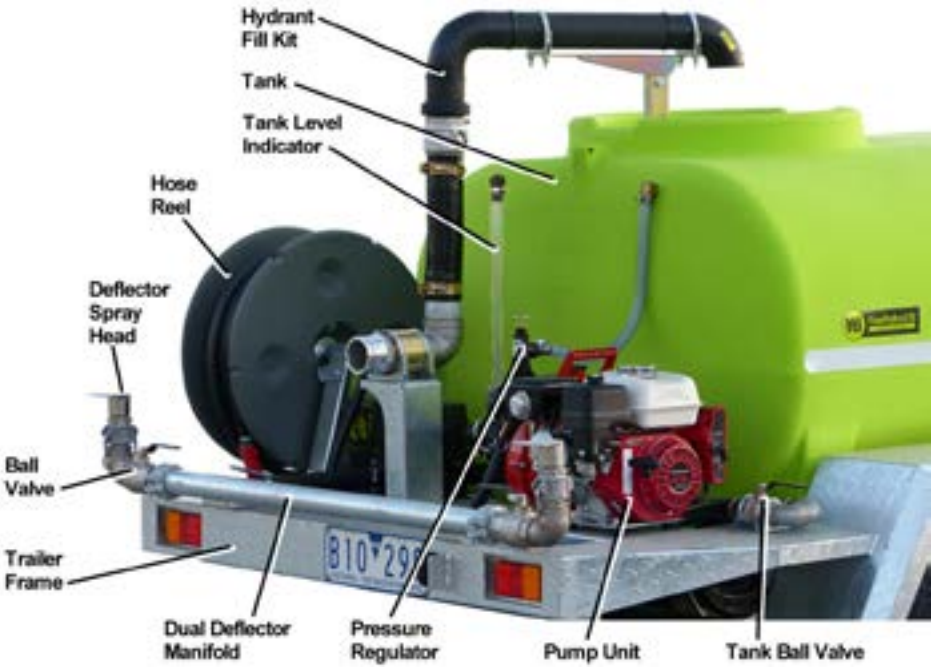


Figure 1 – Component Identification

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.

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.

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.

Pressure Regulator

A pressure regulator is fitted to the pump discharge flange to control line pressure and prevent pump cavitation. The factory-set regulator feeds excess water back to the tank and is set to relieve at 50 – 60 psi.

Hose Reel

Each FirePatrol is fitted with a 36m 19mm diameter fire hose mounted on a manually operated hose reel. The hose is fitted with an adjustable nozzle which locates in a securing bracket on the hose reel support when the hose is stowed. The nozzle adjusts from closed through to jet and mist sprays, depending on requirements.

A spring rewind 20m hose reel is available as an option.

Pump

The FirePatrol is fitted with a twin impeller Davey firefighting pump as standard. The pump is coupled to a Honda GX200 engine or optional Yanmar diesel engine. The petrol engine is recoil (pull) start with local or remote electric start upgrade options available. The diesel engine is electric start with a remote start option available.

Batteries

With optional electric brakes installed on the FirePatrol trailer, a dedicated 12-volt battery is mounted at the front of the tank, housed in a battery box.

With the optioned electric pump start upgrade, a separate, dedicated 12-volt battery is installed behind the hose reel. Power to start the pump is always provided by this battery.

Quick Fill Hose Kit

Each FirePatrol is fitted with a front-mounted hose bracket, housing the 6 m quick fill hose. The hose is fitted with a filter at one end and a camlock coupling on the opposite end, for direct connection to the pump.

Hydrant Fill Kit

An optional hydrant fill kit is available, which feeds directly into the top of the tank, with a camlock coupling to directly connect to a hydrant hose.

Trailer

The trailer frame is an all steel, fully welded construction and hot dip galvanised for corrosion resistance. The frame has additional welded gussets for added strength and filled-in chequer plate mudguards to protect the tank. Single and dual 50 mm solid axle units, depending on tank capacity, fitted with 6-stud 15' Sunraysia wheels.

The trailers are available as unbraked or braked (registerable), with hydraulic or electric brakes, depending on tank capacity. The electric braked version has its own dedicated 12-volt battery located at the front of the trailer, and incorporates a break-away safety system, refer to Figure 2.

Deflector Spray Head

Optional single water deflector spray head or dual deflector spray heads are available. Each deflector spray head is fitted with its own dedicated ball valve for individual operation. An optional solenoid actuated valve enables the dual water deflector spray head system to be started via the remote control unit.

Each of the dual deflectors are mounted on a hot dip galvanised steel manifold fed directly from the pump outlet manifold via a high pressure flexible hose, which absorbs vibration from the pump. The single deflector spray head is connected directly the pump outlet manifold via a flexible hose.

Each deflector spray head is secured with a camlock fitting, allowing removal for cleaning and adjustment for water spray direction.

Ball Control Valves

The FirePatrol has several ball control valves (depending on options) used to open or close water flow from the pump to the discharge points (hose reel and optional deflector spray head(s)). Ball control valves are also fitted on the suction line and the discharge side of the tank prior to entering the pump.

Solenoid Valve

An optional electrically operated solenoid valve is fitted to the deflector manifold to enable spray control via the remote control unit. The solenoid valve receives its power from a battery mounted next to the pump engine.

Remote Control Unit

An optional remote control unit enables the operator to start the optional dual water deflector spray system while in the tow vehicle's cab. If the optional petrol or diesel pump with electric start is fitted, the remote control unit enables pump start and stop, in addition to the water deflector spray system operation.

Machine Limitations

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

- Ensure the 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 FirePatrol tank is full, as the unit will have a higher centre of gravity.

Operating Instructions

Before first use

Your FirePatrol Firefighting Heavy-Duty Trailer 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 FirePatrol 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 FirePatrol 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.

6. Connect the FirePatrol to the tow vehicle, ensuring the tow hitch engages correctly and locks in place. Connect the safety chains using rated D-shackles.

NOTE: An optional Credo brake controller may be fitted.

7. Connect the 7-pin trailer plug to the tow vehicle, ensuring it locks firmly. Ensure the AUX pin is supplied with 12-volt power from the tow vehicle, as this is essential for the electric brake safety unit, refer to Figure 2. Check lights and indicators operate correctly.

8. If fitted with the optional Credo brake controller, scan this QR code [INSERT QR CODE LINKED TO CREDO MANUAL] to view the operating instructions.



Figure 2 – Brake Safety Unit and 7-Pin Plug

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

9. Prepare the pump engine in accordance with the selected engine's manual supplied with your FirePatrol unit.

10. Where an electric start petrol option or diesel pump is fitted, ensure the 12-volt battery is fully charged and correctly connected to the pump unit's engine. The battery box is located behind the hose reel. Refer to the supplied pump unit's manual and prepare the engine for use, such as filling its tank with fuel.

Pump Operation – Petrol Engine

The FirePatrol's petrol pump engine is started as follows, refer to Figure 3:

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.

NOTE: For a manual start engine, turn the power switch to ON. Pull the recoil starter handle until the engine starts, then back off the choke lever to OFF.

NOTE: Ensure the ignition key is switched ON. The engine will crank in the OFF position but will not start unless switched to ON.

4. For an optional electric start engine, insert the key and switch the engine to ON and START. When the engine starts, release the key, which will return to the ON position. Back off the choke lever to OFF.

   For an optional electric start engine using the remote control, insert the key and switch the engine to ON. Press and hold the START button of the remote control unit for several seconds. When the engine starts, release the pushbutton and 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 (manual start) or key switch (electric start) to the OFF position. For the remote control option, press the STOP button.

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



Figure 3 – Engine Start-up (Petrol Engine shown)

Pump Operation – Diesel Engine Option

The FirePatrol's optional diesel pump engine is started as follows, refer to Figure 3:

1. Turn the fuel tap to ON.

CAUTION: Ensure the engine's throttle is set to the start position. Do not adjust the throttle to maximum speed until the engine has warmed up.

2. Set the throttle lever to the START or RUN position (depending on model).
3. Insert the key and switch the engine to ON and START. When the engine starts, release the key, which will return to the ON position.

   For the optional remote control electric start engine, insert the key and turn to ON. Press and hold START button for several seconds. When the engine starts, release the pushbutton.
4. Once warmed up, adjust the engine speed to normal operating revs using the throttle lever.
5. When the engine needs to be stopped, turn the throttle lever back to the idle position.
6. Turn the key switch to the OFF position. For the remote control option, press the STOP button to turn the ignition OFF.

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

Filling the Tank

The FirePatrol tank can be filled in any of the following three ways:

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

1. Standpipe filling method using a standpipe to fill directly into the top of the tank via the open mesh funnel.
2. Bottom filling method, using the pump to draw water from a dam or other source.
3. Optional hydrant filling method, drawing pressurised water directly from a hydrant via the filling hose.

Standpipe Filling Operation

The FirePatrol tank is filled by gravity from an overhead standpipe as follows:

1. Position the FirePatrol unit's top-mounted fill point funnel under the standpipe.
2. Remove the filling lid from the tank's top opening.
3. Open the standpipe's valve and allow water to flow into the tank.

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

4. An optional sight level tube is fitted to the rear of 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 standpipe's valve.
5. Upon completion of filling, replace the tank's filling lid.

Bottom Filling Operation

The tank is filled by drawing water using the FirePatrol's pump as follows, referring to Figure 4:

CAUTION: Ensure all ball valves have been correctly set prior to commencing the filling operation, and that all camlock fittings are securely engaged and fully locked.

1. Close the ball valve on the suction line from the bottom of the tank to the pump.
2. Remove the camlock cap from the pump' suction line.
3. A bottom fill supply hose is located on its bracket at the front of the FirePatrol's trailer. Remove it from the bracket and attach the camlock end to the pump's suction line.
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. Open the pump's discharge manifold ball valve on the feed line to the bottom of the tank.
7. Referring to Pump Operation procedures (diesel or petrol engine), start the pump.
8. Ensure the pump is drawing water and discharging it into the FirePatrol's tank.

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

9. An optional sight level tube is fitted to the rear of 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, stop the pump.
10. At the pump's discharge manifold, close the ball valve on the feed line to the bottom of the tank.
11. Disconnect the bottom fill supply hose from the pump's suction port.
12. Reinstall the camlock cap to the pumps' discharge manifold.
13. Open the tank's suction line valve.
14. Drain and clean the hose and return it to its stowage bracket at the front of the trailer.

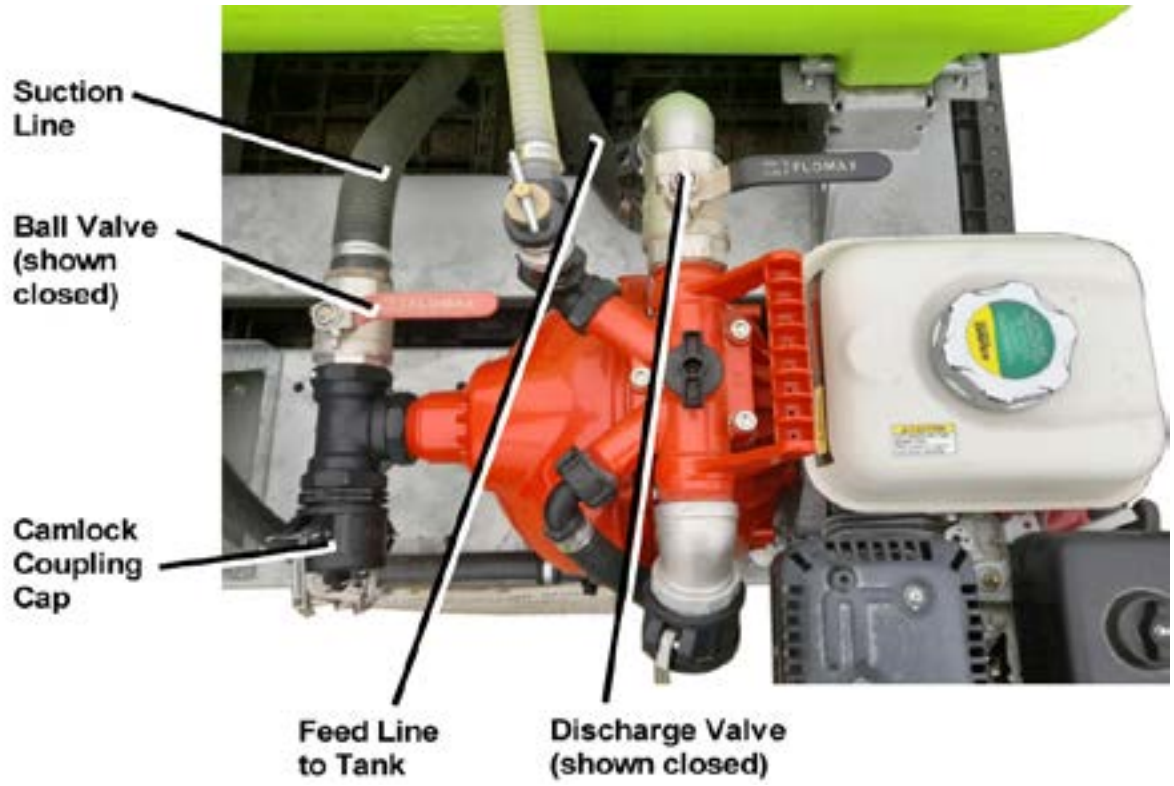


Figure 4 – Tank Filling Operation

Hydrant Filling Operation

The FirePatrol tank is filled from a hydrant via the optional hydrant fill system as follows, referring to Figure 5:

1. Attach one end of a 3" hydrant hose (not supplied) to the FirePatrol's hydrant port, the other end to the hydrant.
2. Remove the tank's filling lid from the top of the tank.
3. Open the supply hydrant's valve slowly; water will flow under pressure through the FirePatrol's pipe system into the top of the tank.

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

4. An optional sight level tube is fitted to the rear of the tank, providing a visual indicator of the level of water in the tank. When the tank is filled, close the supply hydrant's valve.
5. Replace the filling lid.
6. Disconnect the hydrant supply hose and stow it.



Figure 5 – Hydrant Filling Operation (optional fill kit)

FirePatrol Operation

Initial Operation Set Up

The FirePatrol Multi-purpose Heavy-Duty Trailer Unit is operated as follows:

1. Connect the unit to the tow vehicle and check security of all connections (refer to Before First Use procedure above).
2. Fill the tank from an appropriate water source, refer to the Filling the Tank procedure above.
3. Open the ball valve on the suction hose at the bottom of the tank.
4. Start the pump (referring to the procedure above) and allow to warm up. The regulator (bypass valve) fitted to the top of the pump will divert the water back into the tank.

Fire Hose Use

With the FirePatrol unit operating as described above, the fire hose is used as follows, refer to Figure 6:

1. Unlock the hose reel and release the hose's nozzle from its retaining bracket. Pull out the length of fire hose required.
2. Adjust the pump engine's speed to achieve the optimum flow rate.
3. Open the fire hose's nozzle by rotating it to achieve the desired spray pattern.
4. Upon completion of the task, close the fire hose nozzle and turn the pump engine to OFF, referring to the appropriate Pump Operation procedure above.
5. Open the fire hose nozzle again to release the residual pressure.
6. Rewind the hose onto the reel by manually winding the handle on the side of the reel. Close the nozzle and lock the nozzle back into its bracket.
7. Close the ball valve on the suction hose at the bottom of the tank.



Figure 6 – Fire Hose Reel

Water Deflector Spray Head

The FirePatrol can be optionally fitted with a single, centrally mounted water deflector spray head, or a dual deflector spray head system mounted across the back of the unit. The dual system has a deflector spray head located at each corner. These systems may be used for dust suppression or similar watering activities.

CAUTION: The solenoid is electrically active when in use. Ensure it is switched to the ON position.

If fitted with the optional solenoid actuated valve, move the three-way switch at the rear of the FirePatrol from OFF to the POWERED position, refer to Figure 7. This will draw power from the tow vehicle via the Anderson plug. If power is not available, move the switch to the SELF POWERED position. This will draw power from the pump engine's battery. Using this battery should only be for short periods as the battery has limited charging capacity.



Figure 7 – TTI Multi-Controller

The optional single, centrally mounted deflector spray head is operated as follows (refer to Figure 7):

1. If required, release the camlock connector to rotate the deflector spray head to the desired angle, refer to Figure 8. Lock the spray head back into place, ensuring the camlock levers are fully home.
2. Start the FirePatrol's pump system as described above.
3. For manual operation of the deflector spray head, open the ball valve. Water will spray from the deflector.

   Where the optional solenoid actuated valve is fitted, press the VALVE 1 button on the remote control. Water will spray from the deflector.
4. Commence driving the tow vehicle at a moderate speed to achieve the required water coverage.
5. Upon completion, stop the vehicle and shut the pump down.

6. Close the deflector spray head's ball valve.

   For the solenoid actuated valve, press the VALVE 1 button on the remote control to close the valve.

7. Close the ball valve on the suction hose at the bottom of the tank.



Figure 8 – Water Deflector Spray Head (optional)

The optional dual deflector spray head system is operated as follows:

1. If required, release the camlock connector to rotate the deflector spray head to the desired angle, refer to Figure 8. Lock the spray head back into place, ensuring the camlock levers are fully home.
2. Start the FirePatrol's pump system as described above.
3. At each deflector spray head, open the ball valve. Water will spray from the deflector.

   Where the optional solenoid actuated valve is fitted, press the VALVE 1 and/or VALVE 2 button/s on the remote control. Water will spray from the deflector/s.

4. Commence driving the tow vehicle at a moderate speed to achieve the required water coverage.
5. For the solenoid actuated valve, press the VALVE 1 and/or VALVE 2 button/s on the remote control to close the valve.
6. Upon completion, stop the vehicle and shut the pump down.
7. Close each of the deflector spray head's ball valves.
8. Close the ball valve on the suction hose at the bottom of the tank.

Remote Control Pairing

Replacement Remote Control Pairing

The FirePatrol has an optionally available wireless remote control for use with the dual deflector spray head option. Where this is supplied, the remote control is also used to start and stop the pump. If the remote control is lost or damaged, a replacement unit can be ordered by contacting TTi at tti.com.au. The replacement remote control needs to be paired with the FirePatrol's TTi Multi-Controller located on the side of the unit, next to the engine. This is done as follows, referring to Figure 9:

NOTE: Make sure power is connected to both the TTi Multi-Controllerand the remote control.

1. Remove the rear cover and insert a new battery into the remote control.
2. Turn the TTi Multi-Controller ON by pressing the rocker switch on the side of the unit. The LEDs on the top of the unit will light up.
3. Press and hold the PAIR A button on the controller. The LEDs will go out then start flashing, indicating the unit is ready for pairing.
4. Rapidly press both the VALVE 1 and VALVE 2 buttons on the remote control at the same time five times. All of the remote control buttons will flash RED then turn BLUE for one second. This indicates the pairing process is complete.
5. Turn the TTi Multi-Controller OFF at the rocker switch on the side of the unit.
6. If a second remote control is to be paired, repeat the above process by pressing the PAIR B button.

The above process programs all functions of the new remote control. The remote control is now ready for use.



Figure 9 – TTi Multi-Controller and Remote Control

Risk Assessment

Task	Hazard	Risk	Control Measure/Mitigation
Partially fill the tank with water, start the motor & test the spray unit	Manual handling; slips, trips or falls; petrol; diesel; 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 & diesel 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 FirePatrol15™ Heavy-Duty Trailer 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

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 FirePatrol 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 the reel 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. For the petrol or optional diesel engine driven pump, 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. Check the condition of the optional diesel or petrol pump engine's 12 volt battery, replace it or charge it as necessary.
7. Check the condition of the optional electrical brake's 12 volt battery, replace it or charge it as necessary.
8. If the FirePatrol is to be stored for an extended period, ensure the tank and all pipelines are empty and are not pressurised. Store the unit is a clean, dry and well-ventilated area.

Maintenance

The FirePatrol has been designed and built for minimal maintenance requirements, however to ensure a long and reliable unit life, the following tasks must be undertaken on a periodic basis.



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 frequency of these activities will depend on the nature of the operating environment and the operational hours of the FirePatrol unit.

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

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 FirePatrol 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 FirePatrol unit.

No.	Task	Notes
1	Inspect the FirePatrol for any signs of damage or wear	Clean, repair or replace
2	Check plug connections and test lights/indicators	Test function of lights and trailer brakes
3	Check fuel	Top up as required
4	Inspect engine's air filter and housing for dust	Clean, replace as necessary
5	Press button on brake safety unit (Figure 2) to test charge	Charge brake battery

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 tyre pressures are 36psi (248kPa or 2.48 Bar)		
3	Visually inspect tyres for wear or damage		
4	Check wheel nut tension		
5	Visually inspect suspension components		
6	Visually inspect hydraulic brake lines, check for leaks, top up reservoir as required		
7	Check for damaged electrical brake cables		
8	Check hose and hose reel by unwinding fully		
9	* 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	* Re-tension axle U-bolts (first time, thereafter every six months or 100 operating hours)		
3	Inspect, clean and grease suspension lubrication points		
4	Inspect the air filter, replace if clogged or damaged		
5	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 (petrol engine only)		
4	Check tension on axle U-bolts and suspension components		
5	Lubricate grease nipples on suspension shackles and trailer hitch (hydraulic brake version)		

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	Check the battery condition (if fitted)		
3	Replace the engine's air filter		
4	Drain and flush the fuel tank		
5	Replace the engine's fuel filter		
6	Replace the spark plug (petrol engine only)		
7	Inspect brake shoe/pad wear and adjustment (if fitted)		
8	Replace the battery in the remote control		

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		
2	Disassembly, clean and repack wheel bearings		
3	Change brake fluid and bleed brakes (hydraulic braked version)		

Trouble Shooting

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

Problem	Possible Cause	Remedy
Pump will not feed water	Ball valve closed on outlet/s	Open ball valve/s
Engine will not crank (petrol or optional diesel engine)	Flat battery	Check battery state-of-charge
	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 needed
	Mechanical problem in engine	Check Engine
	Problem in theft deterrent system	Check service manual for system tests
Engine cranks too slowly to start	Weak Battery	Check battery and charge as needed
	Loose or corroded connections	Clean and tighten connections
	Faulty starter motor	Test Starter
	Mechanical problems with engine or starter	Check engine and starter, replace worn out parts
Starter keeps running	Damaged pinion or ring gear	Check gears for wear or damage
	Faulty plunger in magnetic switch	Test starter pull-in and hold-in coils
	Faulty ignition switch or control circuit	Check switch and circuit components
	Binding ignition key	Check key for damage
Starter spins, but engine will not crank	Faulty over-running clutch	Check over-running clutch for proper operation
	Damaged or worn pinion gear or ring gear	Check gears for damage and wear; replace as needed
Starter does not engage/disengage properly	Faulty magnetic switch	Bench test starter
	Damaged or worn pinion gear or ring gear	Check gears for damage and wear; replace as needed

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

www.tti.com.au