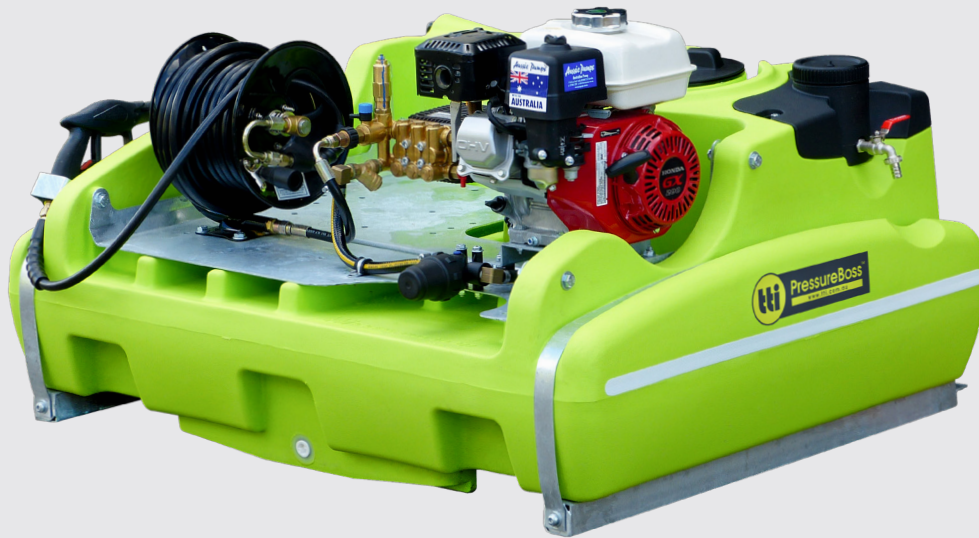


PressureBoss™

Compact Pressure Cleaning Unit



“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 TTi PressureBoss[™] Compact Pressure Cleaning skid-mounted unit (PressureBoss), which will provide many years of reliable service when operated and maintained in accordance with this manual.

The PressureBoss is a 300-litre tank unit, supplied with a petrol-operated high-pressure pump and hose reel. This manual describes the operation, driving stability and maintenance procedures, noting additional requirements to options where necessary.

All TTi PressureBoss tanks are rotationally moulded from quality polyethylene, purpose designed and manufactured to high standards. The PressureBoss can be mounted on the back of a utility or trailer, and can fit into the tub of a Utility Terrain Vehicle (UTV).

The PressureBoss unit is supplied complete, tested and ready to mount to your vehicle. TTi warrants that the PressureBoss has been designed and built for its intended purpose as a high-pressure water spray unit.

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 PressureBoss unit is the following documents:

1. Operator's Handbook (this manual, which includes the Warranty Registration Card)
2. Integral Honda Petrol pump manufacturer's handbook
3. Bertolini pump data sheet (includes link to download pump manual). TTi recommends that you download this manual.

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 maintenance procedure, condition or statement.

General Safety Instructions

1. This unit is designed and manufactured solely for the purpose of carrying and spraying water for pressure cleaning purposes. Under no circumstances should it be used for any other purpose. It must never be used for transporting chemicals or fuel.
2. Only authorised and trained personnel are to operate this equipment. Operators must have read and fully understood this manual before operating the PressureBoss unit.
3. Do not operate the PressureBoss unit anywhere near bystanders.
4. Do not operate this equipment while under the influence of alcohol or any drugs that could impair your capabilities in any way.
5. Personal Protection Equipment (PPE) must be worn when operating the petrol pump on the PressureBoss unit. Exposure to excessive noise over an extended period can cause impairment or loss of hearing.
6. Ensure the capacity of the vehicle is suitable for the loaded mass of the PressureBoss. Refer to the vehicle's operator manual for safe working loads, correct securing points 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 300 litre PressureBoss will weigh in excess of 400 kg.
7. The unit must be securely restrained on the vehicle. Ensure all fasteners are tightened and secure before operation.
8. Care should be taken at all times, particularly when operating on rough or steep terrain. Drivers should be aware of fluid surge affecting the vehicle's centre of gravity.
9. The PressureBoss must never be left unattended while being filled with fluids.
10. Do not operate the pump when there is no fluid 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 fluid discharge which may be hazardous.
12. Ensure any electrical connections are properly configured, to prevent damage such as shorting or reverse polarity.
13. At completion of the operation, switch the pump off and relieve any residual pressure by opening the hose reel valve and squeeze the spray gun trigger.
14. The PressureBoss 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 300 litre fully drainable tank
Standard Equipment	Honda petrol engine GX200 with Bertolini Italian 2,000 psi (140 bar) high-pressure pump
	Pressure regulator with bypass
	Galvanised steel forkable skid frame
	30 m hose with hose reel with spray gun
	Level sight tube

Description

The TTi PressureBoss Compact Pressure Cleaning Unit is designed to carry and distribute water using a self-contained pump. The PressureBoss is suitable for fitting to a utility tray or trailer, or ATV tub.

The PressureBoss has the following features, refer to Figure 1.

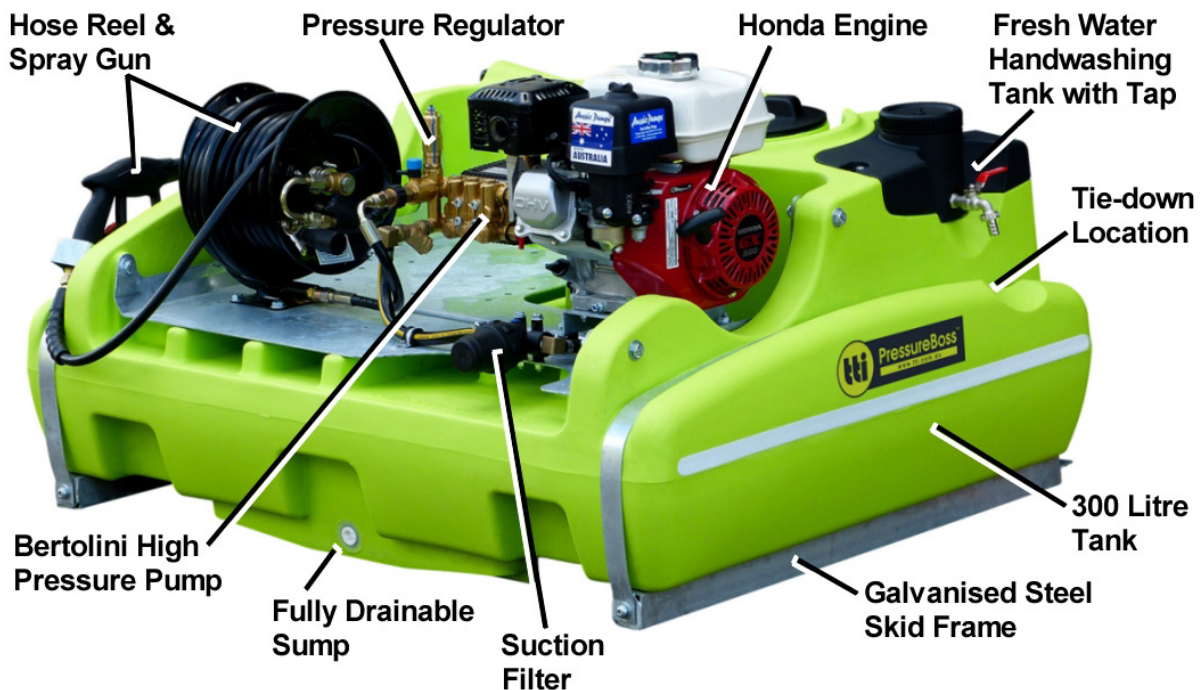


Figure 1 – PressureBoss Component Identification

Tank

All TTi tanks are constructed from UV resistant, virgin material polyethylene. The tank is fully drainable and includes a level sight tube to provide an accurate level indication of fluid within the tank. The tank inlet is fitted with an internal basket strainer under the 250 mm filling cap.

Incorporated into the top of the tank is a small freshwater tank with tap for handwashing.

Pump

The PressureBoss is fitted with a Honda GX200 petrol engine directly coupled to a Bertolini Italian pump. The high-pressure pump is rated at 2,000 psi (140 bar).

If the spray gun is not in operation when the pump is running, the fluid recirculates within the pump.

30m Hose Reel and Spray Gun

A manually operated hose reel containing 30m of 10mm diameter hose is connected to a trigger actuated spray gun with adjustable nozzle. The hose is pulled out manually from the reel and retracted using the handle on the side.

The nozzle adjusts from jet through to mist sprays by rotating the nozzle head. When the trigger is squeezed, the fluid is discharged; when the trigger is released, the fluid bypasses back into the tank.

Pressure Regulator

A pressure regulator is fitted to the pump discharge flange to control line pressure and prevent pump cavitation. The regulator is factory set and adjustment is not recommended.

Suction Filter

Adjacent to the pump a filter is installed on the suction line. The filter has a removeable filter element for easy cleaning.

Frame

The chassis frame of the PressureBoss unit is an all steel, fully welded construction and hot dip galvanised for corrosion resistance.

Machine Limitations

The PressureBoss is subject to operating limitations. It is the operator's responsibility to ensure that this equipment is being operated safely and within these limitations.

Driving Stability

The PressureBoss unit is heavy when filled with fluid (in excess of 400 kg). To maintain stability while operating this unit:

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

PressureBoss Operating Instructions

Before first use

Your PressureBoss Compact Pressure Cleaning Unit is delivered fully assembled and ready to be fitted onto the vehicle. 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 a safe and easily accessible place for future reference.



WARNING: The operator must fully understand all aspects of this handbook. Do not operate the PressureBoss 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 PressureBoss 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 occur during transit.



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 PressureBoss unit onto the vehicle and mount securely, either using tie-down straps located into the tie-down recesses on both sides of the tank, refer to Figure 1. The tie-down straps must be rated to at least the total mass of the unit when filled with fluid. Alternatively, the integrated steel tank frame may be bolted to the vehicle.
7. Refer to the supplied pump unit's manual and prepare the engine for use, such as filling its tank with fuel.

Filling the PressureBoss Tank

The unit's tank is filled as follows:

1. Open the tank filler by twisting and lifting the cap.
2. Withdraw the internal basket strainer and inspect it for any debris. Clean it if required and reinstall it into the top of the tank.



CAUTION: The PressureBoss must never be left unattended while being filled with fluid.

3. Fill up the tank with water to the required level, ensuring it is not overfilled. A sight tube is located at a corner of the tank, providing a visual indication of the fluid level in the tank.
4. Upon completion of filling the PressureBoss tank, replace the filler cap and twist to tighten.

Operating Instructions

The PressureBoss is started and operated as follows:

1. Position the vehicle at a suitable point of the operations area.
2. Confirm the tank contains sufficient fluid by observing the fluid level at the level sight tube.
3. Start the pump, refer to Petrol Pump Operation procedure below.
4. For pressure spraying operations, refer to Hose Spray Operation below.

Petrol Pump Operation

The PressureBoss's Honda GX200 petrol pump engine is started as follows, refer to Figure 2:

1. Turn the ignition switch to ON.
2. Turn the fuel tap to ON.
3. Set the choke lever to the closed position if the engine is cold.



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.

4. Check that the throttle is set to the idle position. If restarting a warm engine, the throttle can be left at normal engine operating speed.
5. Grasping the pull-start handle, firmly pull to start the engine. This may need to be repeated 2-3 times. If the engine fails to start, refer to the supplied pump manual.



Figure 2 –Honda Pump Engine Details

6. Once the engine starts, slowly move the choke lever to the open position.
7. Once the engine is warmed up, slowly increase the engine speed to a medium setting, which should result in the required performance while minimising the fuel consumption and excessive engine noise.
8. When the engine needs to be stopped, turn the ignition switch to the OFF position.

If the PressureBoss is not going to be used within the next few hours, shut the system down as follows:

1. Set the engine throttle lever to the idle position.
2. Turn the fuel tap to OFF.

Hose Spray Operation

Set up and operation of the high-pressure hose spray system is conducted as follows:



WARNING: Suitable PPE must be worn by the operator when conducting high-pressure hose spraying operations.

1. Position the vehicle at a suitable point of the operations area.
2. Start up the pump (refer to Petrol Pump Operation for the start up procedure). The fluid will now be circulating through the system and returning to the tank via the bypass circuit.



CAUTION: Ensure not to over-run the hose when pulling it out from the reel, as this may damage the hose or the fittings.

3. Uncoil the hose by pulling it to unwind it from the reel.
4. Aim the hose's spray gun in the required direction and squeeze the trigger. Adjust the spray pattern by rotating the nozzle tip, refer to Figure 3.
5. At the end of the task, release the spray gun trigger and switch the pump OFF. (The fluid will automatically recirculate through the pump via the bypass circuit until the pump is switched OFF.)
6. Aiming the spray gun in the required direction, squeeze the trigger to release the residual pressure in the hose, which will result in a small amount of fluid discharging.



Figure 3 – Spray Gun

7. With the hose pressure released, the hose is ready to stow back on the PressureBoss.
8. To retract the hose, turn the handle at the side of the hose reel (Figure 4) to wind it onto the spool, guiding the hose as necessary to ensure even distribution across the width of the reel. Allow enough slack in the hose to stow the spray gun in its holder beside the reel.

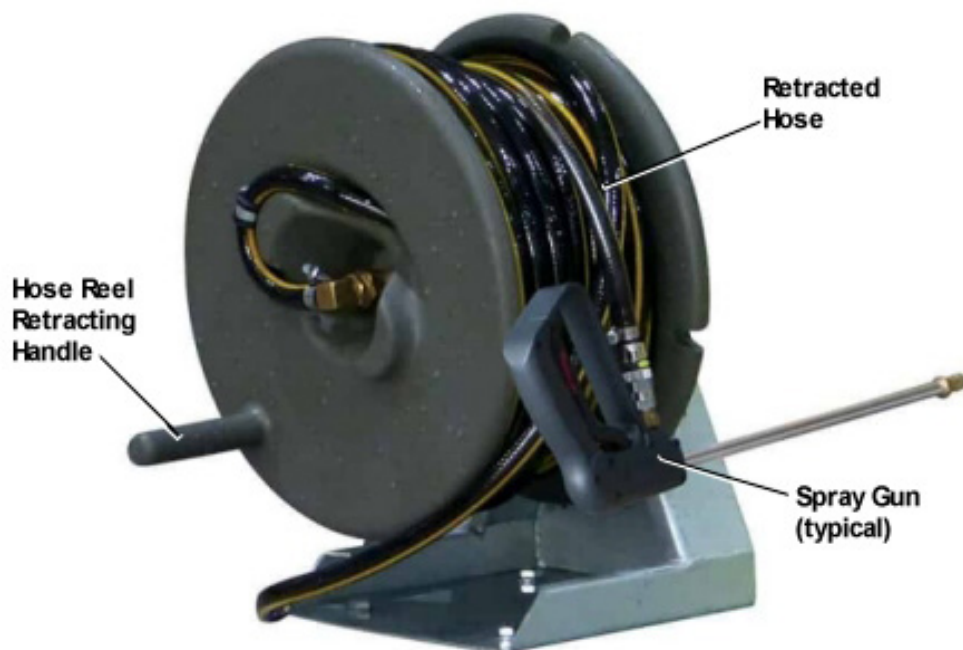


Figure 4 – 30m Manual Hose Reel (typical)

Maintenance

Your PressureBoss Compact Pressure Cleaning 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 (at least annually). The frequency of these activities will depend on the nature of the operating environment and the operational hours of the Storm unit.

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 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 gun nozzle. Rewind the hose onto the reel, ensuring it retracts all the way.
4. Check the pump engine's oil level weekly. Top up if required.
5. Check for any signs of fuel or oil leaks around the engine. If detected, investigate and rectify.
6. Check the engine fuel line filter, clean or replace as necessary.
7. Clean the engine's air filter regularly, especially if working in a dusty environment.
8. Check all electrical cables and fittings for any sign of damage.
9. If the PressureBoss is to be stored for an extended period, thoroughly clean it. Ensure it is allowed to dry, the tank and all lines empty and not pressurised then store it in a 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 PressureBoss 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 PressureBoss unit.

#	Task	Notes
1	Inspect the PressureBoss unit 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.

#	Task	Date	Signed
1	All Daily tasks		
2	Remove and clean the petrol engine's air filter		
3	Check engine oil level, top up as required		
4	Check pump oil level, top up as required (refer to Figure 5)		

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 (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.

#	Task	Date	Signed
1	All Daily, Weekly and Monthly tasks		
2	Inspect the petrol engine air filter, replace if clogged or damaged		
3	* Change pump oil (first change, thereafter every six months or 500 operating hours)		
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.

#	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.

#	Task	Date	Signed
1	All Daily, Weekly, Monthly, 3-Monthly & 6-Monthly tasks		
2	Replace the petrol 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		
2	Change pump oil		
3	Replace pump check valves and diaphragms		

Maintenance Tasks

The following tasks must be undertaken on a periodic basis to ensure your PressureBoss's ongoing reliability.



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 PressureBoss but as a minimum, the following tasks should be undertaken annually.

Petrol Driven Pump

1. Refer to the supplied pump engine's manual, drain and replace the engine oil in accordance with the manufacturer's recommendations.
2. Clean engine's air filter regularly, especially if working in a dusty environment.
3. Unscrew the suction filter cover (refer to Figure 5) and remove the filter screen and gasket. Soak the filter screen in clean water, brushing carefully with a nozzle brush. When re-assembling, ensure the gasket is in position.
4. For the Bertolini pump, check the oil level, refer to Figure 5.

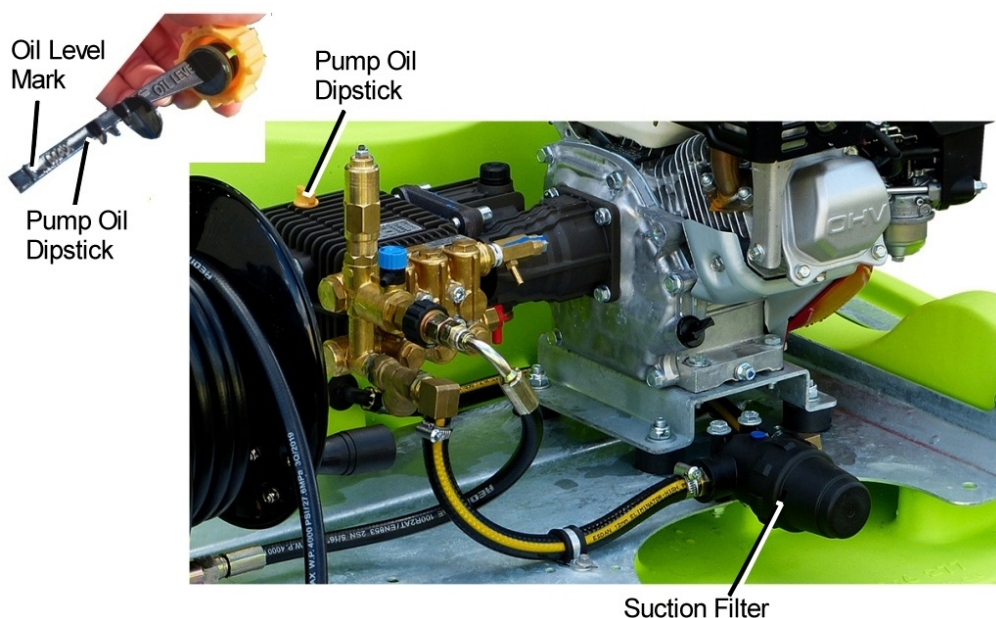


Figure 5 – Bertolini Pump

Manual Hose Reel

1. Fully unwind the hose and inspect for any signs of damage or wear, replace as necessary.
2. Inspect and clean the hose spray gun, replacing seals and nozzles as required.

Trouble Shooting

If a fault develops with your PressureBoss unit, the following trouble shooting tables provides guidance to identify and rectify the problem.

Pump

Problem	Possible cause	Remedy
Pump will not prime	Insufficient motor speed	Increase motor speed
	Air leak on suction line	Tighten or replace fittings
Pressure drops under load and pump is noisy	Insufficient motor speed to prevent clutch slippage	Increase motor speed
Pressure drops or fluctuates during operation	Suction line restriction	Remove restriction
	Pump sucks air	Tighten or replace fittings
	Residue on valves	Disassemble and clean valves, replace any broken valve springs as necessary
No pressure	Residue on valves	Disassemble and clean valves, replace any broken valve springs as necessary
	Broken regulator spring	Replace regulator spring

Risk Assessment

Task	Hazard	Risk	Control Measure/Mitigation
Check weather conditions	Manual handling; slips, trips or falls	Low	<ul style="list-style-type: none"> Wear PPE as per high-pressure requirements SDS – coveralls, gloves, safety footwear & glasses Follow safe manual handling techniques: don't lift on your own if >20kg, bend knees & keep back straight.
Mix chemicals (if applicable) and fill spray tank	As above, spray drift, chemical spillage, emission of vapours or flammability; weather, untrained visitors	Medium	<ul style="list-style-type: none"> As above Follow relevant Environmental Protection Authority requirements; Fire extinguisher nearby; Keep visitors away from job location unless wearing full PPE.
Check the Spray Unit and carry vehicle is safe before use, i.e. where applicable: - wheel nuts, tyre pressure, bearings, tow hitch, etc. Use spray unit as per instructions in manual	As above; loss of load; heat & cold; noise; exceed load limit of vehicle; hose entanglement; exhaust fumes; terrain & slopes;	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 spray unit Don't overload - water weighs 1kg for every 1 litre Secure load to vehicle; Keep hose tidy; Put unit brakes on.
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.

Warranty

Your rights under the law

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

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

About this document

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

What this warranty covers

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

What this warranty does not cover

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

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

How long this warranty lasts for

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

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

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

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

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

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

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

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

How to make a claim under this warranty

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

Name:	Trans Tank International
Postal Address:	PO Box 137 Nathalia, VIC, 3683
Physical Address:	Murray Valley Highway, Nathalia, VIC, 3638
Phone:	1800 816 277
Email:	ProductSupport@tti.com.au

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

Who is responsible for expenses for claims made under this warranty

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



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SCAN HERE!

1800 816 277

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Murray Valley Hwy, Nathalia, VIC 3638

Proudly Built By:

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Date

Quality Checked By:

Signature

Date

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