



Setup Guide

ABI Compact Water Trailer 300/500 Gallon



*Optional features shown

PLEASE READ AND UNDERSTAND PRIOR TO OPERATION

Welcome To The Family!

On behalf of the ABI family we would like to thank you for your recent purchase of your ABI Compact Water Trailer. Our Company's goal is to provide you, our customer; with innovative, quality tools as well as first rate customer service.

Model and Serial Number

Model Number: _____
Serial Number: _____
Invoice Number: _____
Purchaser's Name: _____

Contact Information

ABI Attachments, Inc
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Mishawaka, IN 46544

Customer Support

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To order parts or to speak to one of ABI's Customer Service Representatives contact us Monday to Friday 9am to 5pm EST.

Note To Operator

The information presented in this manual will prepare you to operate the ABI Compact Water Trailer in a safe and knowledgeable manner. Operating the ABI Compact Water Trailer in a proper manner will provide a safer working environment and create a more efficient result. Read this manual fully and understand the entire manual prior to setup, operation, adjusting, performing maintenance, or storing ABI Compact Water Trailer. This manual contains information that will allow you the operator to get years of dependable performance from the ABI Compact Water Trailer. This manual will provide you with information on safely operating and maintaining the ABI Compact Water Trailer. Operating the ABI Compact Water Trailer outside of the stated safety and operations guidelines may result in injury to operator and equipment or void the warranty. The information provided in this manual was current at the time of printing. Variations may be present as ABI Attachments continues to improve and upgrade the ABI Compact Water Trailer for future use. ABI Attachments, Inc. reserves the right to implement engineering and design changes to the ABI Compact Water Trailer as may be necessary without prior notification.

Operational Safety Rules

Please exercise caution at all times when setting up, operating, or performing maintenance on the ABI Water Trailer. Remember, any piece of equipment like the ABI Water Trailer can cause injury if operated improperly or if the user does not understand how to operate the equipment. Exercise caution at all times with using the ABI Water Trailer.

- Only operate the ABI Water Trailer with all covers, shields, and safety devices installed and secured prior to operation.
- Never permit any person to ride or board the ABI Water Trailer at any time. NEVER ALLOW RIDERS ON THE ABI WATER TRAILER!
- Use care and maintain minimum ground speed when operating the ABI Water Trailer on a hillside, or when operating close to ditches, fences, or water sources.
- Never place any body part under the ABI Water Trailer is in operation.
- Never allow anyone near the ABI Water Trailer while in operation.
- Operate the ABI Water Trailer in the daylight or under good artificial light. Operator should always be able to clearly see where they are going.
- Be alert for holes in the terrain, along with other hidden hazards. Always operate the ABI Water Trailer with caution over rough terrain.
- Use caution when operating the ABI Water Trailer in icy, wet, or snowy condition.
- Do not use the ABI Water Trailers on highways or public thoroughfares. The ABI Water Trailer is designed for off road use only.
- Use caution when backing up with the ABI Water Trailer. Ensure that all hazardous objects, and people are clear of the ABI Water Trailer before backing up.

Features

Designed for use with some ATV's UTV's and Compact Tractors:

Over the past few years the ATV / UTV market has seen tremendous growth. Many horse arena owners and property owners are now using ATVs and UTVs instead of, or as a supplement to, a tractor. This causes a problem when it comes to water trailers as most water trailers are simply too large and heavy for an or UTV or Compact Tractor to operate. To meet this growing need for water trailers that may be used with some UTVs and Compact Tractors, ABI has designed the 300 gallon and 500-gallon compact ABI water trailers.

Brass Spray Nozzle:

The brass spray nozzle produces a spray pattern that covers a swath from 6' to 20' wide each. The spray pattern is a flat 110° fan (at 40 psi). Increasing the motor speed will increase the pressure and therefore the spray width as the water will be projected further, out the back, before landing on the ground. Water is distributed evenly to eliminate inconsistent application of water that can create a dangerous "wet" base material. Even application of water is essential to consistent arena footing.

On/Off Flow Control (from the seat of UTV or Tractor):

The ratcheting valve and attached rope enable the operator to turn the flow of water on and off without leaving the seat of the tow vehicle. Ideal for shutting off water flow while traveling over areas that have been watered, or do not need to be watered. This conserves water and eliminates over or inconsistent watering that can be detrimental in certain applications. In a horse arena this feature is a necessity! Rope is included.

Powerful Poly Banjo Pump:

The pump is a high quality and long-lasting Banjo brand pump. Banjo is the industry lead in pumps and valves. This is a corrosive resistant 1.5" polypropylene self-priming centrifugal pump. Priming is now made easier by the incorporation of two new prime and drain plugs for quick priming and draining before and after use. The pump and engine are separated from each other by a 1/2" and a special slinger/engine seal protects the engine from any corrosive fluids.

Banjo Brand Plumbing:

The plumbing system is designed with simplicity in mind. The valves are top quality "Banjo" brand name so you can rest assured the plumbing system will provide long service life. The pipes and fittings are galvanized steel and the hoses are non-collapsible and corrugated. When the trailer is loaded with the optional spray hose and optional quick fill system the trailer has 4 total 1.5" valves.

- 1. Spray Nozzle Ratchet Valve** - Located at the top of the system this valve turns the rear spray nozzles on and off.
- 2. Spray Hose Valve** - When installed this valve turns on and off the spray hose.
- 3. Quick Fill Valve** - When the optional quick fill hose is attached this valve directs the pump to either draw water out of the tank or out of the external water source.
- 4. Pressure Release/Circulate Valve** - This valve directs water back into the tank. This can be used to assist in adjustment of the water pressure in the system. For example: Close this valve for maximum pressure and maximum spray distance. Open this valve fully to cycle water back into the tank. Or partially open or close this valve at varying intervals to either increase or decrease pressure in the system.

Powerful Briggs and Stratton Engine:

The Briggs & Stratton 550 Series engine utilizes Overhead Valve (OHV) technology. It features an automotive-style air filter, cast iron cylinder sleeve, and dual ball bearings for longer life. With 5.50 Torque (ft-lbs, gross) and 127cc engine displacement this engine creates a significant amount of power. The Overhead Valve Design (OHV) runs cooler and cleaner delivering more power, smoother operation, longer engine life, and improved fuel economy. The Dura-Lube™ Splash Lubrication System is a gear driven system that continuously supplies oil to all internal parts. The gas fuel tank is 2.0 Quart for long run time and the oil capacity is 20 oz.. The pump is separated from the engine by a 1/2" and a special slinger/engine seal protects from any corrosive fluids.

Polyethylene Elliptical Tank (300 Gallon or 500 Gallon Compact):

The 300-gallon and 500-gallon compact tanks are easy to drain and wash out (if needed) after use due to the unique full drain elliptical design. These tanks are rotationally molded for superior quality and are FDA approved for potable water usage. The elliptical tank is designed to keep the water as near to the frame as possible to minimize the risk of becoming top heavy. The white tank allows the user to see the fill line (in day light) and has measurements on the front and side in both gallons and liters. The tanks are equipped with an 8' vented lid for easy top filling and cleaning. The tank is secured to the frame and saddle with metal banding.

Full Drain System:

Unlike many competitors these tanks are able to be fully drained for cleaning and discharge of fluid. Most trailers force the operator to crawl under the tank to release the drain. For some this even requires a wrench. This usually results in the operator getting dirty and soaked. The ABI UTV water trailers have an easy access drain valve that can be opened and closed while stand next to the front of the trailer. No more crawling or getting wet!

All Welded Steel Frame and Custom Tank Saddle:

The frame is fully welded tube steel and is custom engineered for the demands of the enormous weight of water. This is not a stock trailer frame. This frame features extreme durability and long service life. No bolts here! The steel saddle that mounts to the frame and secures the water tank is also custom designed. Only the highest quality steel, superior craftsmanship and powder coating is acceptable.

Adjustable Hitch System (Ideal for UTV/Compact Tractor):

Quickly & easily connect to most any tow vehicle with the adjustable hitch system. The hitch adjusts to properly line up the tongue of the water trailer to a variety of hitch heights for ease of use with different size UTVs and compact tractors. A 2,000 lbs. swivel crank jack is included to easily raise or lower the hitch to meet up with the hitch of the tow vehicle. A pin hitch is standard and ideal for farm and ranch use. Additional hitch options are available upon request.

Optional Features

Quick Fill System (Optional):

The optional quick fill system makes it easy to draw water from a pond, creek or other water reservoir. This system will fill 300-500 gallons in just a few minutes. The 25-foot-long 1.5" around "no-kink" suction hose easily stores on the included carrying rack when this option is purchased. A pond debris filter is included. All connections are quick attach couplers for ease of use. The tank may be top filled if this option is not purchased.

Spray Hose and Nozzle (Optional):

The optional 16-foot-long 1.5" around "no-kink" spray hose conveniently stores on the water trailers hose rack. The spray nozzle enables "fan" or "stream" spray patterns for a variety of washing and watering applications. Easily spray from seat of tow vehicle or from the ground. Perfect for spraying into arena corners, chutes, gates, and walls that the trailers back spray nozzle cannot reach. Also great for filling remote livestock troughs, basic fire control, watering plants and gardens, cleaning stalls/farm equipment/concrete & so much more! Actual hose and nozzle differ from picture.

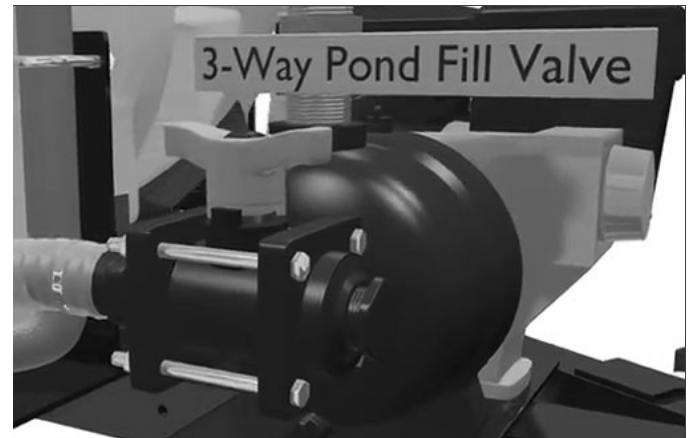
Basic Operations

INDOOR	WEEKLY	OUTDOOR	WEEKLY
80' X 100'	500-800 Gal.	60' ROUND	800-1200 Gal.
100' X 150'	1000-1500 Gal.	150' X 200'	2000-3000 Gal.
150' X 200'	1500-3000 Gal.	180' X 300'	4000-5000 Gal.

**Numbers are averages. Footing, drainages and climate will determine proper application for a specific arena.*

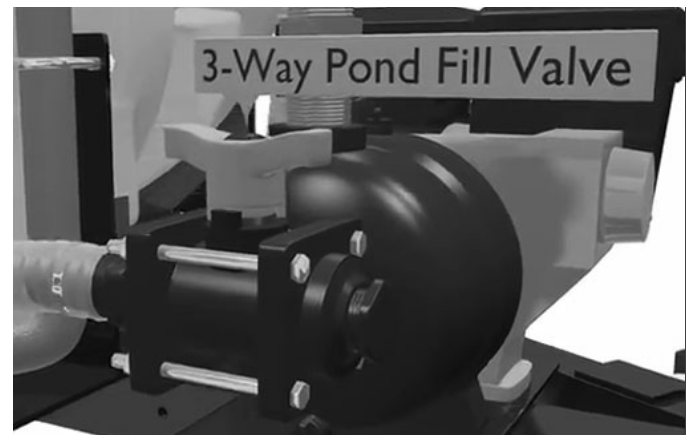
The 3-Way Pond Fill Valve:

The 3 way valve is used to pull water from the tank. When the handle of the 3 way valve is in line with the attached hose, the valve draws water from the tank, If the handle is turned 90 degrees the valve is then set for the optional Pond fill setup.



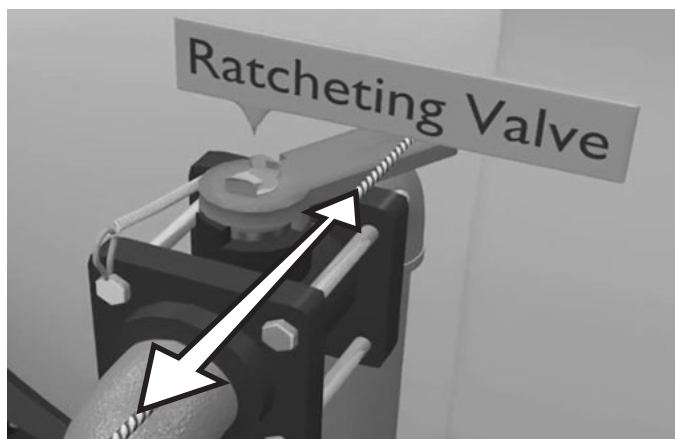
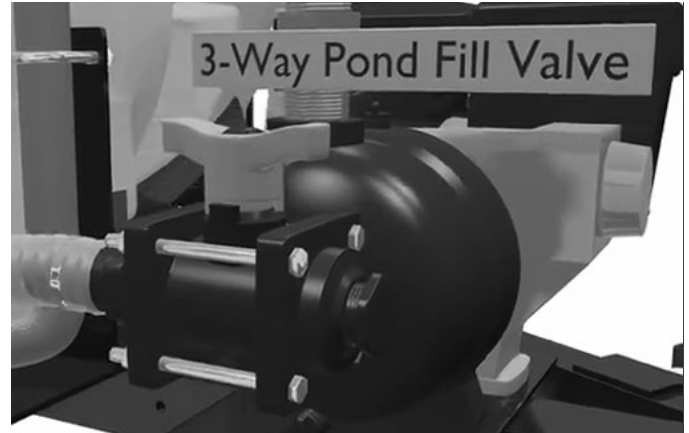
The Return Valve:

Always leave the return valve opened part way, this includes during use of optional fire hose. The return valve can assist in controlling the pressure of the back sprayer. Close the valve for more pressure, open for less pressure out the back sprayer. For use with the optional pond fill option this valve must be fully opened.



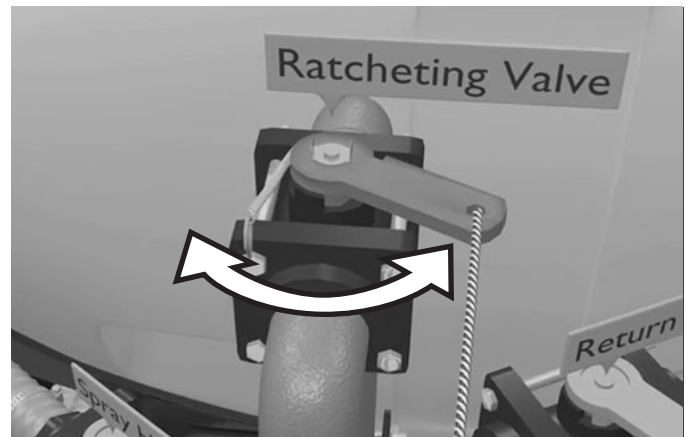
The Ratcheting Valve

When the ears of the tab on the ratcheting valve are in line with pipe, water will flow to the rear sprayer. When the tab is not in line with the pipe coming from the valve, the sprayer is off. The rope needs to be pulled completely to fully turn the tab on top in order to work. A partial pull will result in partial flow out of the rear sprayers. To reset a partially open ratchet valve, it pull the rope fully again to turn off flow and then re-pull the rope fully to open again.



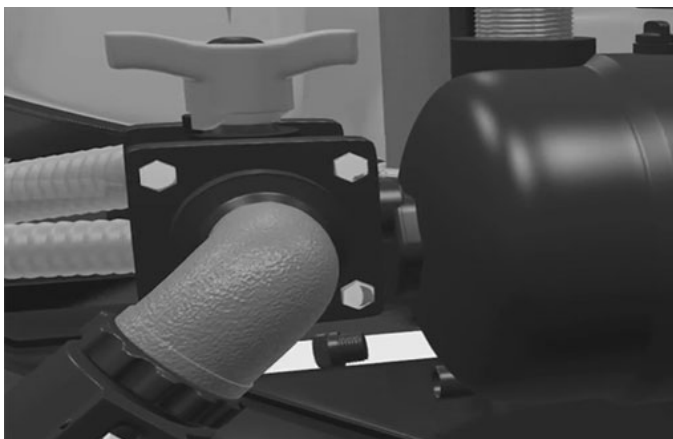
To ensure the sprayer is "on" make sure the silver "eared" tab is fully in line with the tubing.

To ensure that the sprayers are "off" make sure the silver tab is not in line with the tubing. The tab will run perpendicular to the tubing.



Drain Valves:

Turning this valve will drain the water out of the tank. This is for use during periods of cleaning, changing water sources, or storage. This valve is located under the water trailer.



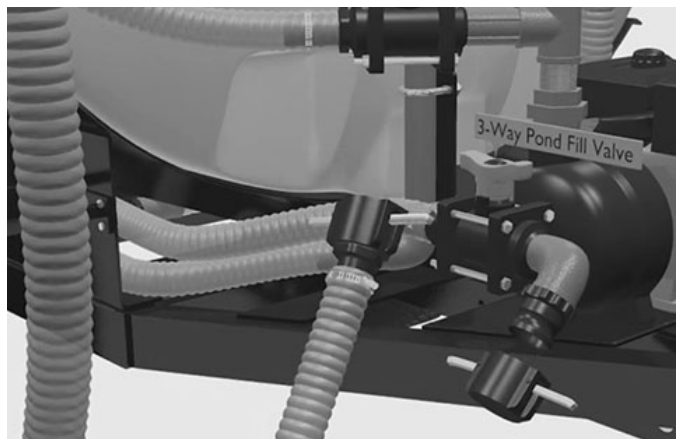
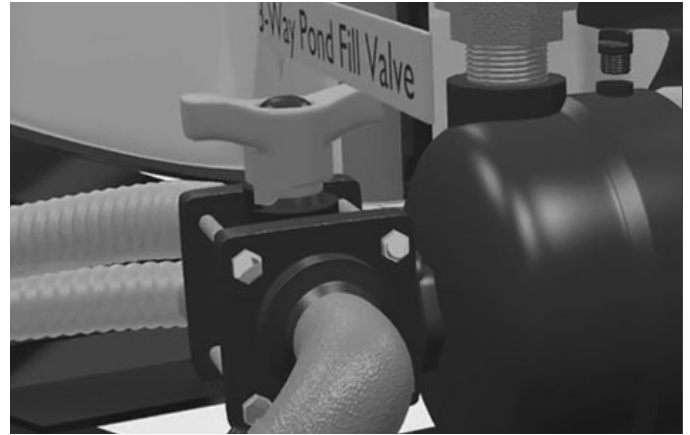
Remove this plug from the Poly pump to drain out water from the Poly pump before storage, changing water sources, or cleaning. Replace the plug back into the poly pump before using the Water Trailer.

To drain water from the piping and spray boom line, remove this plug and allow any excess water to drain out. Replace plug before using the Water Trailer.



Primer Port:

Before using the Sprayers or the optional Pond fill attachment the Poly pump may need to be primed. To prime the system, remove the turn screw on top of the Poly pump and fill with water till full. Then replace the plug and resume operation. When using the optional Pond fill option, the system may need primed more than once. Replace plug prior to using the Water Trailer.



Pond Fill Attachment (Optional):

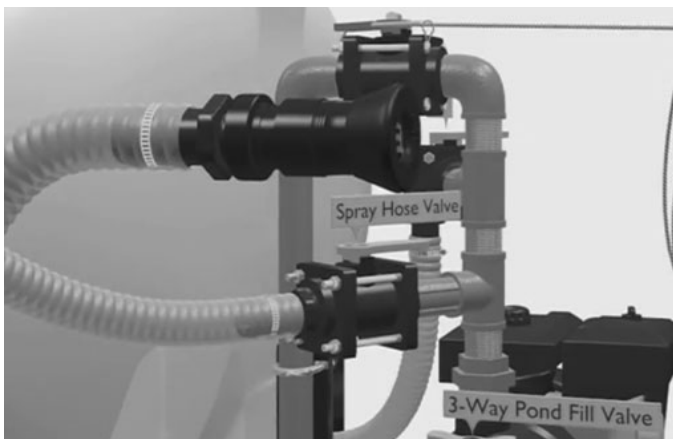
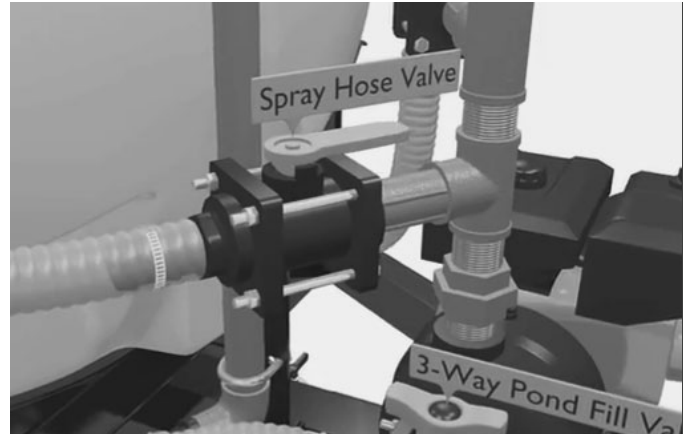
The Pond fill attachment is connected to the male quick cam coupler coming from the 3- way valve. When using the optional pond fill system, you will need to shut of the sprayers, using the ratcheting valve, and turn the 3 way valve so the handle is perpendicular to the fitting and hose. Then open the return valve fully and close the spray hose valve. Last make sure the vent cap is open enough to allow the system to fill. Ensure the rubber seal inside the female quick connect is firmly seated. If the seal is not, the system may not be able to build up enough pressure to move water to the tank.

Before using the Pond Fill option, secure the end of the attachment in a 5-gallon bucket. This is to help prevent debris from entering the system and damaging the poly pump.



The Spray Hose Valve (for optional Spray Hose):

In the position shown in the adjacent picture, the water flow will go to the spray-hose. If the valve handle is turned 90 degrees, the valve is then closed. Remember to shut off the ratcheting valve and crack open the tank valve prior to operation.



Adjust the pressure coming from the nozzle by twisting the nozzle open or close. Remember to hold on tightly to the hose when using the Spray hose for safety purposes. When connecting the Spray nozzle hose to the male quick connect fitting, ensure the rubber seal is firm seated in the female quick connector. If the seal is not firmly seated, the hose may lose pressure.

Basic Maintenance

Pump/Motor

Refer to the manuals provided by the pump and motor manufacturer for maintenance instructions for the respective components. This can be located in the document holder connected to the frame on the front of the Water Trailer.

Trailer:

The wheel bearings should be packed every 6 months or every 6,000 miles (whichever comes first). Lubrication may be needed more often if the trailer is used in severe conditions. The wheel hubs should be checked regularly for excess heat. Heat buildup is an indication that the bearings need greased and may soon fail.

Cleaning Your Tank for Potable Water Usage

When cleaning out the tank first drain the system completely. Once the water has been drained out, refill the tank $\frac{3}{4}$ full of non-contaminated water. Add 2 gallons of bleach. Drive tank around briefly to agitate the water around the tank. Then let it soak for a few hours. Drive around again then dispose of water in compliance with local regulations. Rinse out tank.

Winterizing Preparation

The tank and fittings are susceptible to rupture in freezing conditions if water or other fluids are left in tank or plumbing. To prevent freeze damage, the tank and plumbing should be drained. Remove all the drain plugs from the system allowing the water to drain out including the pump drain plug, and then open valves to allow any of the excess water to drain from the system. Then run 3-4 gallons of RV antifreeze through entire system - all hoses, nozzles, and pumps. This will lubricate and prevent freezing and breakage. After circulating through pumps, open ratchet valve until the pink antifreeze begins spraying out the back nozzles indicating that it has circulated and the entire system has been properly lubricated. Leave about 2 gallons of the RV Antifreeze in the tank to store for winter.

NOTE: Failure to properly Winterize/Freeze Protect your Water Trailer may result in damage to the Water Trailer components that may not be covered by Manufacturer Warranty. Be sure to properly flush already winterized units before use.

SAFETY INSPECTION CHECKLIST

The following items should be inspected before use:

- Check for Water leakage from tank, valves, piping, or hoses.
- Check ratcheting valve rope for any damage.
- Check cradle straps to ensure they are tight and bolted in properly.
- Make sure vent cap is secured in place properly.
- Inspect hoses for any tears or damage to hoses or connectors.
- Inspect spray boom for any damage to boom or nozzles.
- Check engine for fuel/oil leakage – if found refer to motor manufacturer manual.
- Check engine for fuel level and oil level before operating the motor. Refer to motor manufacturer manual for running instructions.
- Inspect hand jack for any damage and ability to raise or lower the Water Trailer.
- Check tow receiver, safety chains, and hooks for any damage.
- Check wheels, and rims for damage. Check lugs or studs to ensure they are tight.
- Check tires for proper air pressure. Refer to PSI rating on the tire for proper air pressure.

CAUTION: CORRECT ANY DISCOVERED DEFECTS BEFORE CONTINUING USE!

Specifications Table

PART #	WW 300	WW 500
Tank Capacity	300 Gallons	500 Gallons
Wet Weight	870 lbs.	1,410 lbs.
Dry Unit Weight	720 lbs.	720 lbs.
Unit Weight With Tank Full	3,255 lbs.	5,385 lbs.
Unit Length	130"	151"
Unit Width	56"	74"
Unit Height	58"	70"
Min. ATV / UTV C.C. (Level Terrain)	600cc 4WD	750cc 4WD
Min. Tractor H.P. (Level Terrain)	25 H.P. 4WD	35 H.P. 4WD
Frame Construction	All Welded Tube Steel 2" wide x 3" tall OD - 1/8"	
Ground Clearance	wall 12" At Wheels - 8" At Hitch	
# of Tires	2 (Two)	
Tires	Model: H188ST - Size: ST205/75D14	Model: WH235 - Size: 85/16- 8/65 Radial Tire
Rims	Total Diameter: 14" - Total Width: 5.5"	
Hitch Type	5/8" Pin	
Hitch Height	Adjustable From 8.5" -17"	
Tank Type	Elliptical Rotationally Molded	
Tank Color	White	
Tank Drainage	Full Drain	
Tanks Top Opening	8" around with vented lid	
# of Spray Nozzles	1	2
Rear Nozzle Type	Brass - Flat 110° Fan (at 40 psi).	
Spray Coverage	6' - 20'	
Motor Brand	Briggs & Stratton	
Motor Power	5.50 Torque (ft-lbs, gross) and 127cc engine displacement	
Cylinder Sleeve	Cast Iron	
Overhead Valve Design	Yes	
Pump Brand	Banjo	
Pump Construction	1.5" Polypropylene	
Priming	Self-Priming	
Fire Hose	Optional	
Quick Fill System	Optional	
D.O.T. Compliant	No	
Warranty	36 Month Limited	