



Operating and Service Manual for 300/400 JAH



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Introduction

Thank you for purchasing your new hydroseeder from VSI, our company greatly appreciates your business! This manual outlines the basic operating procedures of your hydroseeder. These machines have been designed to be user friendly. All of the motor maintenance and engine specifications should be directed to your engine manual. Let's get started!

Overview

Valves

As you are looking at your machine you will notice there are five valves. The valve located on the bottom of the tank/suction line is used to shut off the flow to the pump during transport or any time you need to isolate the tank from the pump. This valve needs to be opened during operation to provide flow to the pump. Failure to have this valve open can result in damage to the pump.

The next two valves (3") are located on the pressure side (top) of the pump. You will notice that one is orientated horizontally and the other vertically. The horizontal valve is used to control the jets inside the tank. The vertical valve is plumbed to a three inch line and acts as a high volume recirculation valve for breaking up mulch and mixing any floating seed into the mulch.

The third and smallest valve is also located on the pressure side of the pump. This is the valve that controls the flow to the hose and gun. Make sure this valve is **CLOSED** unless the hose and gun are attached. If this valve were to be opened upon start up, water/hydroseed would begin to spray out of the valve.

The final valve is located on the suction line. This is the valve to isolate the pond when utilizing the pond fill feature. Reference 'Filling from a pond or lake'.

Plumbing

All of our machines run a flange style poly plumbing system. These systems provide less resistance than conventional threading plumbing and are easy to disassemble/reassemble. All of the flange clamps use a regular 5/16" socket or wrench. You will find a gasket located in between the two connects parts. If you ever disassemble your unit take time to make sure the gasket is properly seated and clean before reassembly

Camlocks

Most pieces of the hydroseeder use camlock fittings. These fittings make removal of the sections quick and easy. You will notice that the gun, tips, and hose sections are all connected using these fittings. To connect these fittings simply insert the male end into the female end and push each cam lever down until they are fully closed.

There are three camlock fittings located on the unit. The first is located on the valve the hose attaches to. Simply take the female end of your spray hose and attach it in the way previously described. Take time to make sure the levers are fully locked!

The second camlock is located on the top of the unit. This is for your garden hose water fill line. We will be covering this next.

The third camlock is located on the pond fill side of the suction line.

Lifting/Moving the Hydroseeder

The 300/400 models have two lift locations. The fork pockets on both locations are fully enclosed tubes for confidence and safety when load or unloading. These machines can be side or front loaded. **Never attempt to lift the machine from the front loaded! Damage will occur to the frame.** It is safe to lift or carry the hydroseeder loaded from the side. Caution should be used when lifting full!

Filling the machine

The first step in mixing a batch of hydroseed is filling the machine with water. As mentioned before, there is a garden hose adapter supplied with your unit. This is the yellow female camlock which is attached to the top fill line on the hydroseeder. Thread the camlock onto your garden hose, connect the hose to the tank and begin filling. Make sure the hose valve is closed.

Pond Suction Feature

This section covers models equipped with the pond suction feature. This can be very useful when a water source is not close by, or when you wish to fill from a bulk storage tank or hydrant.

Filling from a pond or lake

First start by closing the tank valve on the suction line. Then submerge the end of the suction line in the water. After the water has filled the hose and the strainer end is under the water, connect it to the 2" camlock on the suction side of the pump and open the pond fill valve. Make sure the agitation valve is open. Now remove the plug at the top of the pump and fill the pump with water until full. Loosely install the plug and start the engine. With the engine slightly above idle, allow the pump to purge all of the air from the hose. Once the pump primes, tighten the top plug and throttle the engine up to fill the tank. Once the tank is full simply close the pond fill valve and open the tank valve.

Always use a strainer when drawing from a body of water! Large solids will damage the impeller and pump housing!

Filling from hydrant

If you are filling from a hydrant or with an auxiliary pump simply hook the hose to the suction camlock. Then open the valve on the suction line. The tank valve can remain open as the water will fill through the suction line. Once the tank is full, close the pond fill valve and remove the hose.

Mixing a Load of Mulch and Seed

We recommend running a granular paper mulch in our hydroseeders for the best performance. Wood mulch is NOT recommended and could damage the pump and clog the system.

Once your tank is $\frac{3}{4}$ full, start the engine. Make sure your agitation and tank valves are completely open. When the engine has warmed to operating temperature, increase the throttle until the engine reaches maximum rpm. You will see the water churning inside of the tank. Begin to add the mulch. Slowly dump half of the recommended amount of mulch in the tank, pouring a large amount in at one time could result in the dry mulch reaching the suction line and plugging. This is very rare but something to be aware of. The mulch will begin to thicken in the tank as it absorbs water.

After the first half is mixing in the tank, add your seed and any other product such as fertilizer and tackifier to the tank. The mulch will help mix the seed and prevent it from floating. Finally, add as much mulch as you need for your machine (outlined in the end of this manual). The last mulch will push down any floating seed that may be present.

Keep the engine running at maximum rpm until the mulch has absorbed its maximum capacity of water. You will notice the motion in the tank begin to slow as it reaches this point (usually 5 minutes). You are now ready to spray.

Applying the Hydroseed

Connect as many hoses to your machine as you need, dragging them out as you connect each section. Finally, connect the gun to the hose. Make sure the gun valve is close before opening the hose valve on the hydroseeder. Keep the engine running at maximum rpm to provide the best performance at the gun.

Begin to close the agitation valve. The further closed the valve, the more pressure will be present at the gun. In some situations, you may want to have the agitation valve closed completely to achieve the maximum spray distance and flow from the gun. Remember that the agitation acts as your bypass for the pump to prevent the seals from burning out. If you run the machine with the valve closed, be mindful that you will need to get back to open the agitation valve if you will not have any flow through the gun for more than 30 seconds. It is best to keep the agitation opened slightly to have constant bypass.

When spraying, work your way back and forth evenly covering the ground with mulch. Every 100 gallons of product should cover roughly 1000-1400 square feet. In dry conditions, you may find you can only cover $\frac{3}{4}$ of that amount. Use the valve on the gun to control the flow to prevent splattering sidewalks and siding. If additional hoses are installed, drop the hose sections as you go. This will reduce fatigue for the operator and make moving across the area much easier. Simply drag the hose to the side.

When disconnecting hose sections, turn the valve off at the gun. Walk to the machine and close the hose valve. Make sure to open the gun valve to relieve the built-up pressure that is in the hose. Connect the gun to the next hose, open the hose valve, and begin spraying again.

Occasionally open the agitation system on the hydroseeder to ensure the mulch and seed are evenly mixed. Spray until the tank is empty and repeat!

Cleaning the Hydroseeder

The final step in hydroseeding is cleaning the unit. Fill the tank with 25-50% of its capacity with water. You may find it beneficial to wash any hydroseeder off the sides inside the tank. Start the pump and let the system agitate. This will clean the mulch out of the agitation lines. Connect any hoses that were used and flush the lines out with the gun attached. If you are finding large amounts of mulch left in the tank, repeat the process once more. The machine is now ready for the next job!

Winterizing

If you live in a cold climate you will need to winterize the pump and engine. Adding fuel stabilizer in all fuel added to the engine is a good way to prevent build-up in the carburetor.

There are two plugs located on the pump, one on the top and one on the bottom. Remove both plugs. You may see water running out of the bottom drain line. Wait until all of the water has drained from the pump. Open the tank valve if it is close to help drain any water in the suction line. Install the bottom plug. Use a funnel to add RV antifreeze to the pump. Fill the pump until you see the RV antifreeze beginning to fill the bottom of the tank. If the pump fills and you do not see any antifreeze in the tank, pour the antifreeze in the bottom of the tank until the suction line is full. Open all valves to remove any water and leave them open during storage. Remember, RV antifreeze is a cheap investment compared to the pump! The unit is now ready for the winter!

Table of Mixing Quantities

Model	Capacity	Coverage	Mulch (lbs)	Seed (lbs)	1-2 Punch*	Mix Time
300 JAH	300 Gallons	3000-3600 Square Feet	120-150	15-21	3 Scoops	5-7 Minutes
400 JAH	400 Gallons	4000-4800 Square Feet	160-200	20-28	4 Scoops	5-7 Minutes

*1-2 Punch is the VSI brand of fertilizer and tackifier. One scoop = 100 gallons

Hydroseeder Specifications

Engine/Performance/Weights

Model	Engine	Pump	Max Hose	Weight (Dry)	Weight (loaded)
300 JAH	GX390 Honda	3" Hypro	200-250 ft	660 lbs	3120 lbs
400 JAH	GX390 Honda	3" Hypro	200-250 ft	710 lbs	3990 lbs

Dimensions

Model	Length (Inches)	Width (Inches)	Height (Inches)
300 JAH	90	31 (skid)	50
400 JAH	90	31 (skid)	58

Contact Information

If you experience any problems with your unit, need parts, or have other questions feel free to contact our company, we would be more than happy to help. Please refer to the pump parts breakdown when ordering parts.

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“The VSI Guarantee”

At VSI, nothing is more important to us than your complete and total satisfaction with our products and customer service. From the day you buy it to the day you retire it, we want you to truly feel that the product you purchased served you as well or better than any piece of equipment you have ever owned.

We use only Honda engines on our machines. Our machines are tested by Honda to ensure they meet every specification and parameter so that your engine will last for a very long time and are backed by Honda’s 3 year commercial warranty.

We use Banjo pumps, valves and plumbing components on our machines. All Banjo products are warrantied for no less than 1 year from the date you purchase your machine.

At VSI we warranty our overall machines for 3 years from the date of purchase. We understand that downtime is expensive and will make sure to minimize it for you. Even if the part failure is your fault, we will overnight parts at wholesale cost to keep you up and running.

We are so confident in our products that if you buy a machine from us and are not 100% satisfied with it we will arrange and pay for return shipping and give you a full refund.