



Hydra Clip Spray System Installation Instructions



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This spray system is designed for use with the HYDRA CLIP 16" tree shear only. Using this spray system on any other piece of equipment will void the warranty provided with the spray system.

Please follow the instructions carefully for a correct and complete installation of your spray system. Disconnect the shear from the skid steer before installing this spray system. NEVER attempt to install a spray system while the shear is still attached to the skid steer. Hydraulic failure of the loader arms can cause severe injury or death while installing the spray system. The best method for installing the spray system is to place the shear on a flat surface approximately 3 ft from the ground with a minimum loading capacity of 2500lbs. Installation can be achieved while the shear is on the ground but the level of difficulty will be significantly higher.



Step 1

Install the bolt-in spray box on the right side of the guard as shown in Fig. 1 below. The spray pump and filter canister should come pre-installed, however if they are not then follow Fig. 1 below to install into the bolt-in spray box. Both the spray pump and filter housing are marked with direction of flow for routing the hoses. Provided are 1/2" bolts, lock washers, and nuts.

Fig.1



Step 2

Remove the two 1/2" existing guard bolts from the right hand side of the machine using a 3/4" end wrench. See Fig.3. Install the spray system hose guard and replace the bolts. Tighten securely to a maximum torque of 115 lb/ft.



Step 3

Bolt in place the spray tip bracket assembly on the stump guard over the spray hole using the supplied $\frac{1}{4}$ "-20 bolts, and lock washers. Shown in Fig. 4. On current models there are two holes drilled and tapped into the stump guard just in front of the spray hole. If your shear does not have the two holes then position the spray tip and bracket over the spray hole in the desired position, mark the two hole locations and drill/tap two $\frac{1}{4}$ "-20 holes. Note: Drill and tap these holes from the bottom side of the stump guard. This will make drilling and tapping much easier. The bolts should be tightened to a maximum torque of 15lb/ft. Be sure that the spray tip does not protrude through the spray hole as this may cause damage to the tip while cutting trees. If the tip does protrude simply adjust the angle of the bracket by bending with a pry bar or wrench until it is slightly above the bottom of the spray hole. Note: If your stump guard is bent from use it will need to be straightened before installing the spray tip assembly. The correct angle of the stump guard is approximately 15 degrees upward.

Fig. 4



Step 4

Provided in the kit is approximately 10 feet of 3/8" hose. This hose will be cut into several lengths. Please note that any hose barb fitting that has a yellow plastic connector in the barb is a push lock style connector. No hose clamp is necessary for this style of hose barb. Any other hose barb fitting must be connected using the provided 3/8" hose clamps.

There are two tank ports factory installed into your shear, one each on the left and right tanks. They are located in the bottom rear of the tanks. See Fig.5. The factory supplied and pre-assembled pipe tee should be placed just to the right side of the hydraulic distribution block approximately 1 inch. See Fig.6. Tip: When measuring the hose, it is easier to route the hose where it should be installed and mark/cut rather than trying to measure with a tape measure and transferring the measurements. Measure the hose from the left and right tanks, cut to length and connect to the straight 3/8" hose barb fittings in the pipe tee. Next measure from the 90 degree fitting installed in the pipe tee to underneath of the lower latching bars, up through the spray system hose guard (installed in Fig. 3) and to the inlet side of the strainer. Cut the 3/8" hose and connect one end on the 90 degree fitting on the tee and the other in to the inlet side of the strainer. Note: the strainer and pump are marked with an arrow to show direction of flow. The outlet side of the strainer should be factory connected to the inlet side of the pump, if not, measure, cut and connect now. Next measure, cut and connect 3/8" hose from the outlet side of the pump down through the spray system hose guard, (installed in Fig. 3) underneath the latching bars to the spray tip (Fig.4).

Fig.5

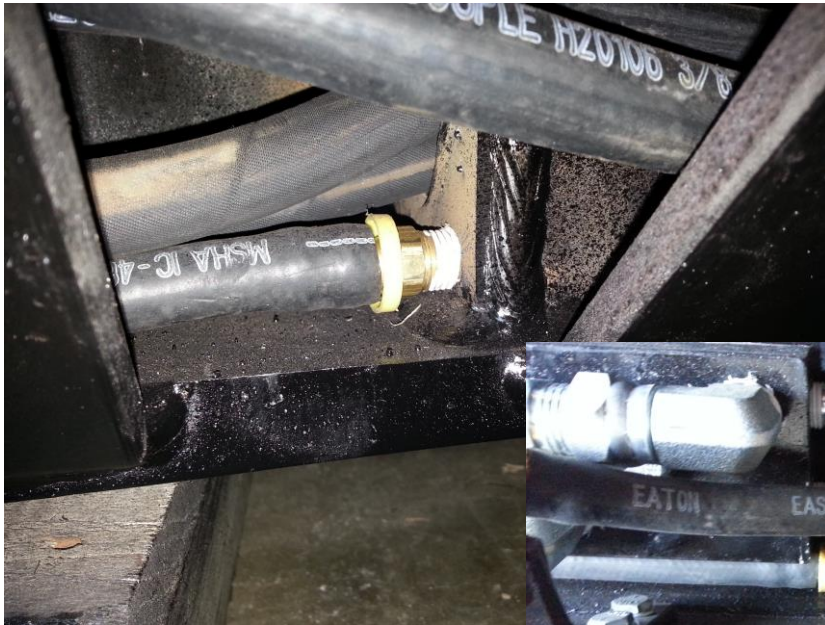


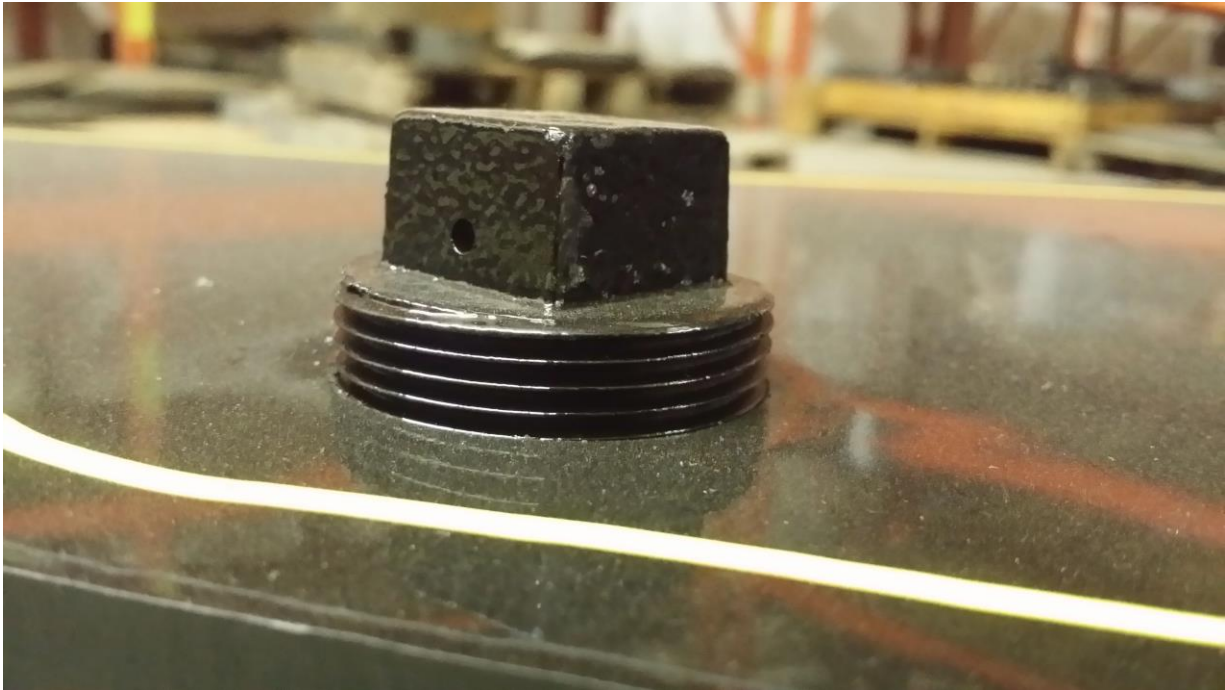
Fig. 6



Step 5

Remove the two pipe plugs from the top of the chemical tanks and replace with the vented plugs supplied in the kit. See Fig. 7. The spray system **must** be vented to allow chemical flow out of the tanks. Without venting the tank will draw a vacuum and no chemical will be pulled through the system. The vented plugs are engineered to allow air flow into the tank but little to no chemical out of the plug. As shown in Fig. 7 there are small vent holes in the vented plugs that will need to be cleared of debris while cutting trees to prevent improper or no tank ventilation.

Fig. 7



Each tank has a capacity of approximately 5 gallons. Both tanks will need to be filled for the spray system to work properly. Any air leaks that are present in the suction side of the system will cause the spray tip to spray intermittently. If your spray system malfunctions typically it is caused from an air leak. The spray pump is a Viton lined pump that is compatible with chemical and diesel fuel. It is recommended to drain the pump of any liquid while not in use for long periods of time, such as over winter.

FAQ:

- **My spray pump does not run -**
Make sure you have 12 volts as well as a ground to the pump. Check with a volt meter.
- **My spray pump runs but does not pump-**
Initial installation of the system will require all of the air to be purged from the system so allow time for purging. If the system does not spray after 3-4 minutes of priming, there is an air leak in the system or the pump is faulty.
- **I think I have a faulty pump-**
To check if the pump is faulty remove the inside hose from the pump, replace with a new hose and place directly into a can or bucket of fresh water. The pump should immediately start pumping water out of the exit side. If it does not pump, ensure there are 12 volts to the pump. If it still does not pump replace or rebuild the pump.
- **My spray system pumps for a short time then stalls out-**
When a spray system stalls it is due to one of two reasons. It is either drawing a vacuum in the tank due to a clogged or faulty tank vent or there is an air leak in the suction side of the system. Typically when a spray system is drawing a vacuum the small vent holes in the side of the vented caps are plugged with dirt or debris. Clear the debris and try the system again. To check if the system has a vacuum drawn on the tank listen carefully when unscrewing the vented caps for a suction sound. This will indicate the vented caps are plugged up. An air leak can be difficult to locate. The most time efficient way to diagnose an air leak is replacing the suction fuel hose and the o-ring inside the filter housing.
- **My vented caps are leaking fluid-**
The vented caps are machined with vent holes through the side of the square top down through the bottom of the cap. There is a one way check valve for air to enter the tank but not allow fluid to escape. If the tank is leaking excessively, remove the check valve and clear any debris. It may be necessary to replace the check valve from time to time depending on use and chemicals used in the spray tanks.

The Hydra Clip spray system is now installed and ready to wire to the skid steer. Provided is the wiring harness for the spray pump. Plug the harness into the pre-wired pump and route wires along the hydraulic hoses. Contact your local skid steer dealer for advice on how to connect the harness to the skid steer. There are several different types of connections that can be made to connect the spray system to the skid steer. However, any type of connection can be made at the owner's discretion. If you have any questions during this installation or anytime while running please call Weber Manufacturing, LLC at 620-251-8500 or email us at info@treeshear.com.

