

HWH SHUTTLE VALVE R&R – 2004 ITASCA HORIZON 40AD

Thread: <https://www.winnieowners.com/forums/f259/2004-vintage-hwh-325-jack-system-will-not-run-360807.html#post3893630>

If you have good access to the shuttle valve on top of the HWH System, this is about a 1.5hr job almost anyone can do. And you do not special tools.

- * Screwdriver + 7/16" wrench
- * 9/16" wrench
- * 7/8 deep socket and long 3/8" drive extension and ratchet
- * 1-zip tie
- * Mineral spirits, paper towels, rag.

PRE-CHECK

- * Do not proceed to check the shuttle valve until you verify you have fluid in the reservoir and all those 5/8" caps are tight. (Finger tight and then a little more.)

PROCEEDURE

- * Open the top lid to your entry step to gain access and prop up so you can work underneath.
- * The shuttle valve is visible where the U-tube pipe connects to it closest to the door.
- ➔ CLEAN off everything real good using mineral spirits on paper towels first then do it again using a rag.
- ➔ Remove the U-tube from both ends (evenly). Then sand off the rust and paint if required. Notice: the Bend in my tube is up, but it probably does not matter. It's just a tube.
- ➔ Use a zip tie to pull back the battery cable that runs over the top of the U-tube pipe.
- ➔ Use a large crescent wrench and spin off the 90-degree-elbow screwed into the old shuttle valve. (Do not remove the 5/8 cap next to it.
- ➔ Check all four 5/8" caps are finger tight... plus little more torque. Do not over tighten.

Note: One of my caps required 2 full turns!

- ➔ If you see a leak out of the 5/8" caps, this is a good time to replace them. You can get these o-rings at any auto parts store or hydraulic shop and I think they are Standard #604 type o-rings. ...The HWH o-ring Part #: 03-905-9N.

➔ Use a 7/8 socket with long extension (3/8" drive) and unscrew the shuttle valve. Note: It's on tight!

➔ After you unscrew the shuttle valve you will need to pull on it by hand to break the o-ring seal. Then lift off and remove.

➔ Unscrew the 90-degree-elbow off the new shuttle valve by hand -- and install the new shuttle valve in to the top of the Jack Manifold.

Note: You will need to push down on the shuttle valve real hard to start the first threads; and I even had to tap on the top of the valve to get the o-ring to seat. (I used my ratchet.)

...Then you can use your 7/8 socket to tighten the shuttle valve DOWN REAL TIGHT!

➔ Screw the new 90-degree-pipe-elbow into the new shuttle valve; and when you get it "snug" you add one more full turn.

Note: This is where you use a 7/16" wrench (positioned vertical) and then you put the screwdriver thru the closed end part of the wrench... to make a "T-Handled-Wrench" you turn like you are working on a lawn sprinkler. (See pictures.)

➔ Reattach the U-tube and make micro-adjustments so the U-Tube fits evenly over both pipe threads. Note: I found it's best to first screw the U-Tube to the new shuttle valve and then start threading the other side. You also can use blue-Loctite on the other (older) thread.

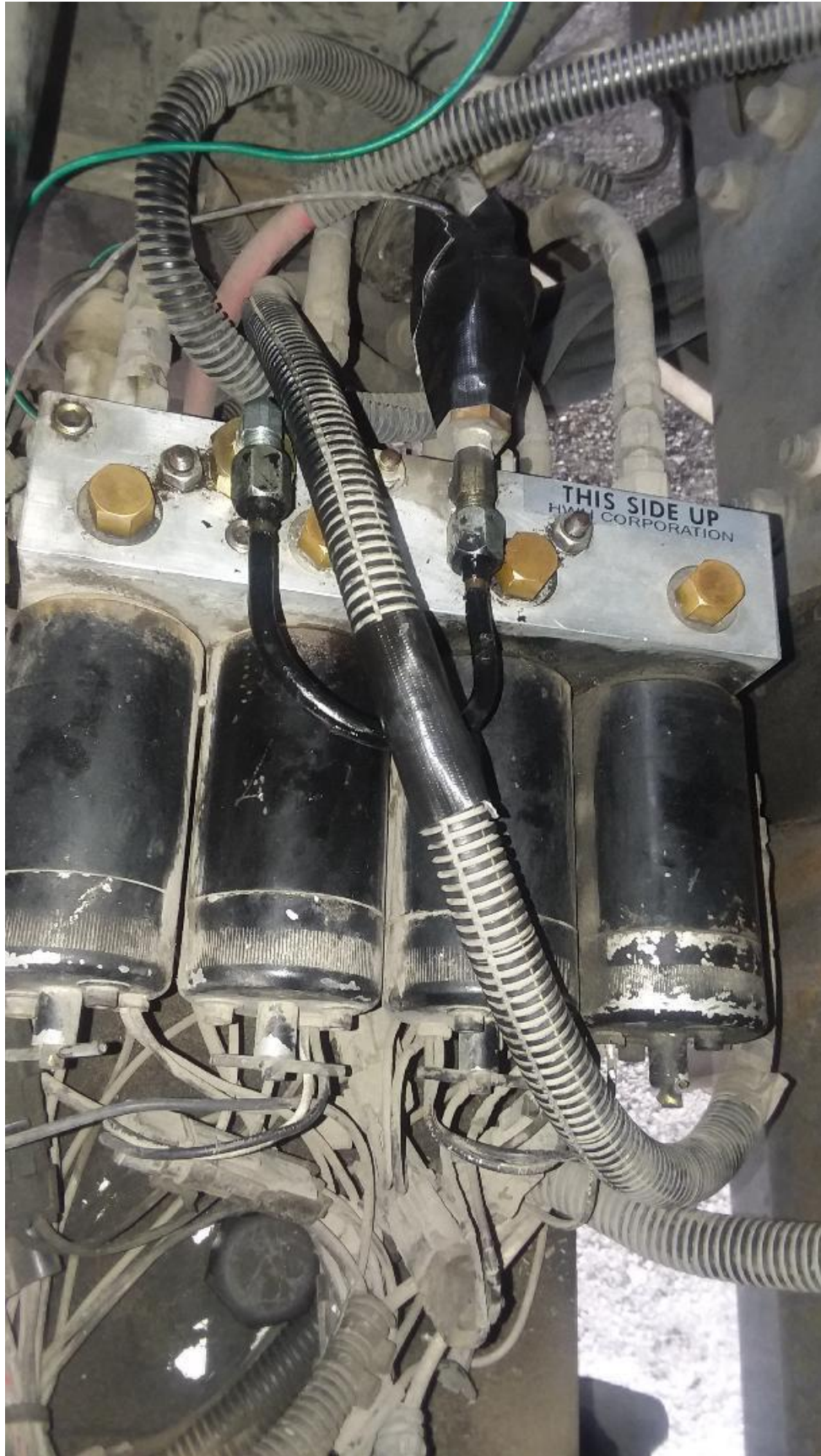
...And you are done! Easy-peasy!

Now start your engine to get a good 12V to the pump, and attempt to put our jacks down as you normally would. Note: You might find them unresponsive at first, so try the other side. This is because your new shuttle valve has not hydraulic fluid in it. So be patient and don't overwork your jack motor. I.e., let it rest every 10 seconds. ...I had to try 3 times before the jacks would go down.

OTHER TIPS

I had a lot of grime from when the previous owner overfilled the tank. So I used a biodegradable WD-Degreaser and/or a \$1 jug of "BBQ/Oven" cleaner you can get at the Dollar Store, and this stuff does a great job degreasing and it's not mineral based. Then just use a high pressure water hose to remove the grime! (WORKS GREAT!) And then I sprayed just a little WD on those Jack solenoid wire ends to keep them from rusting.

PS That WD-Degreaser product is fantastic and it's new. The only place you can get it is through Amazon, but this will change as more people discover it. I also use it to clean my Harley and it does a fantastic job cleaning chrome and calcium in your shower... without that WD smell! You really should try it.



OLD 90-DEGREE PIPE FITTING – Remove with large crescent wrench.



