

Tech Tip #4 - Replacing the O-Rings in Single Line OMC Tanks

Please use common sense when working on anything involving gasoline. Practice good shop techniques and work safely and cleanly. Don't forget to visit our [DISCLAIMER](#) before you contemplate doing anything presented on this website.

The ubiquitous 6-gallon single line tanks manufactured by OMC under the Johnson, Evinrude and OMC names are an excellent design and highly useful. Due to the additives in modern oxygenated fuels many of the rubber components in older fuel systems must be replaced and these tanks are not immune to problems. If you notice leakage from an OMC single-line tank there could be several causes. The most obvious are; a hole in the tank, failed gasket on the gauge/pick-up assembly, bad hose or connectors or a leaking gas cap. If all of these items are ruled out the cause could be deteriorated o-rings in the pick-up assembly.

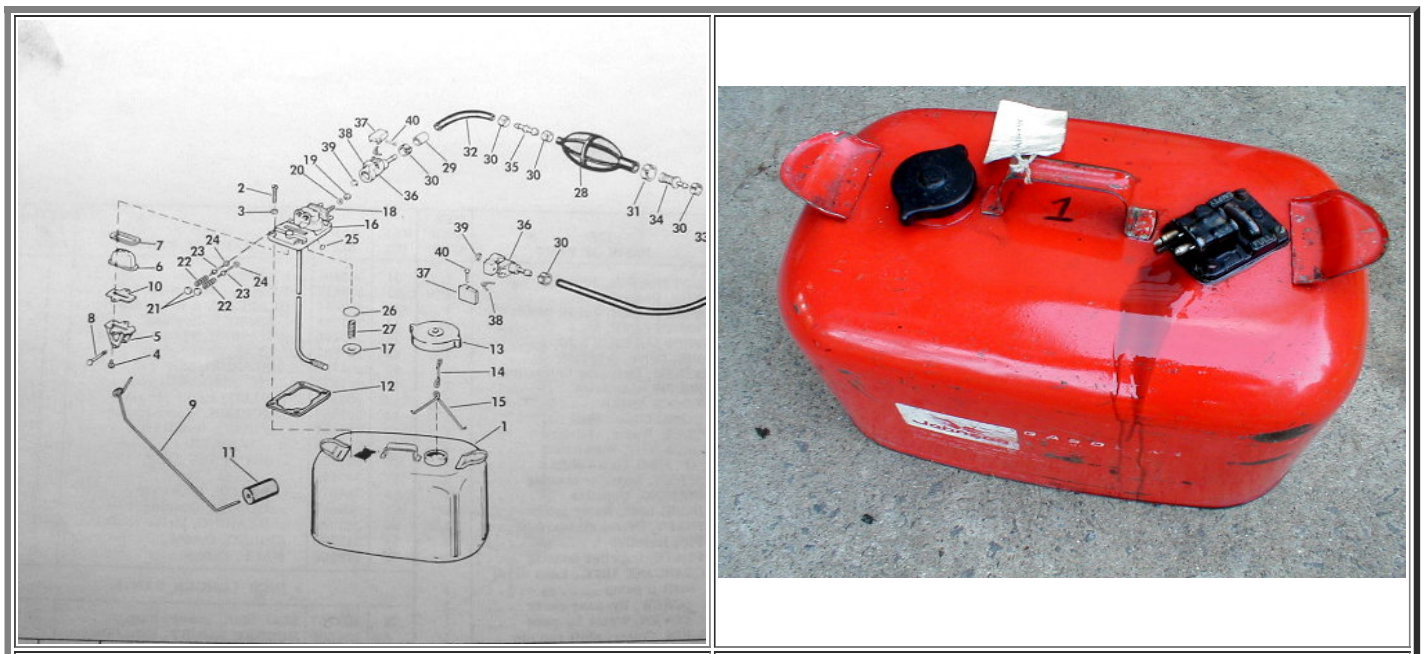
The OMC single line tanks were designed with shut-offs for both the fuel and air. These are actuated by two small pins that are directly above where the connector plugs into the gauge/pick-up assembly. When the connector is attached the pins are depressed and fuel and air can flow from the tank. With the connector off the pins spring out closing off the fuel and air vent making the tank safe to transport. These pins should be easily depressed by hand and should have a direct spring action and not feel "gummy". A sure sign of trouble is when you have leave an unconnected tank in the hot sun and come back to fuel everywhere. Also, when you have the tank connected to your fuel hose and note fuel weeping out of the pin above the fuel barb this is another telltale sign that the o-rings are going bad. If left uncorrected, tanks exposed to temperature changes can literally pump themselves dry in a few days! Due to the potential danger of leaking fuel, the high cost of fuel, not to mention the cleanup and environmental impact, a leaking tank is something that needs attention.

The repair of the o-rings is a very simple job and takes only about 20 minutes. You can even do it without removing the gauge/pick-up assembly from the tank. The parts are readily available from your local Evinrude/Johnson dealer though the chances are they will need to order them. Because of this you may need to purchase all eight o-rings and core plugs since that is how they are packaged by BRP. (enough to do 4 tanks) My own local dealer, in business for almost 50 years, had never done this job!

Here is what you need:

- Two o-rings OMC/BRP part # 322598 (\$4.49ea list price 8/16 from BRP)
- Two core-plugs OMC/BRP part # 303405 (\$6.35ea list price 8/16 from BRP)
- 1/8" drill
- Set punch
- Awl (a small nail will work)
- Needle nose pliers
- 5/16 square end punch or equivalent (A 5/16" bolt works well)
- Hammer

Obviously you must do this with a 100% empty, dry, clean tank with no fuel vapor - not even near any combustables! Here's how to do it:



Illus #1. Parts manual illustration for single line OMC tank (1972 shown) Click on the above for a larger image



Illus #2. Typical evidence of a bad o-ring on the shut-off; on a warm day fuel leaking out of the nipple. What a mess! (Not to mention dangerous...)



Illus #3. Dimple the core plug with a punch then use a 1/8" drill to make a hole. You only need to go through the core plug, don't go too deep!

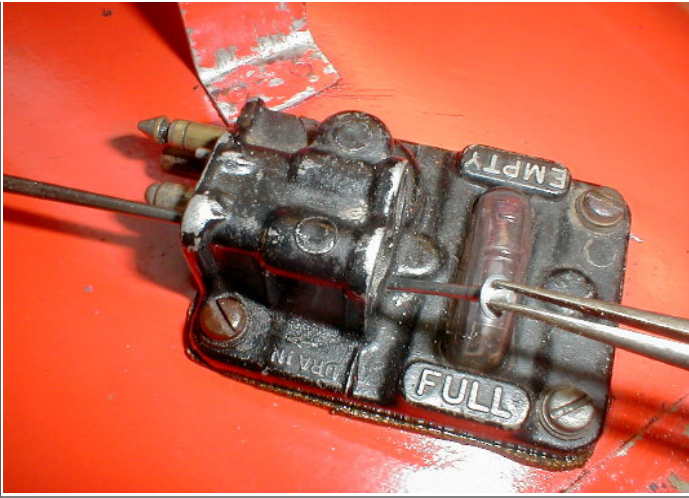


Illus #4. Use the punch to pop out the old core plug

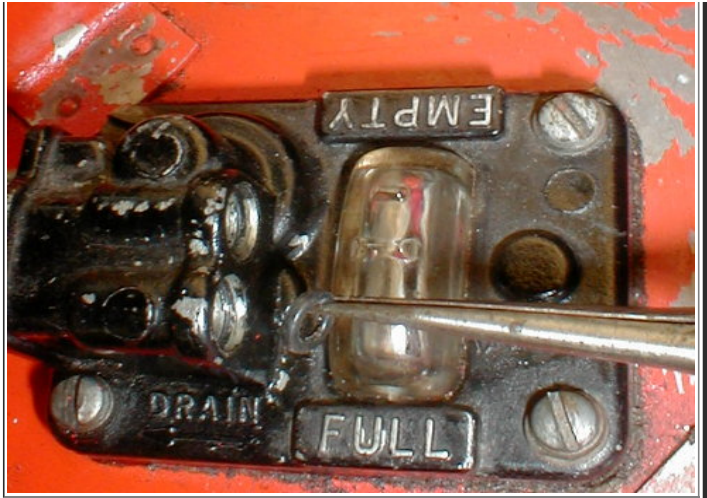


Illus #5. Remove the spring - note tapered end of spring goes in on reassembly

Illus #6. Use an awl to push the pin/seat assembly out



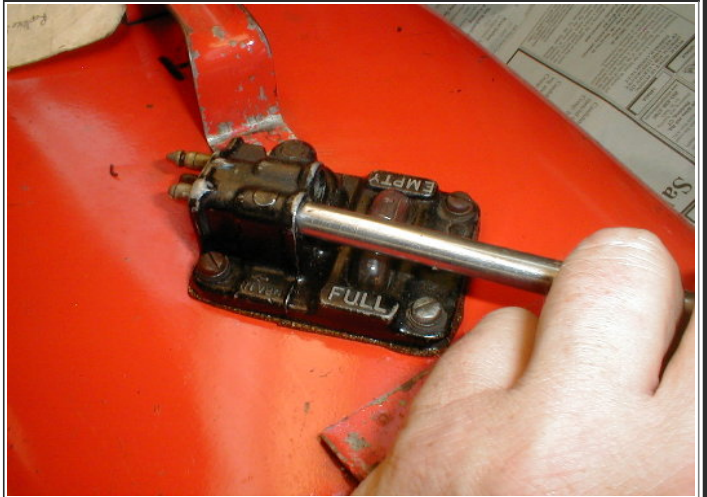
Illus #7 . Extracting the pin/seat from the gauge/pickup assembly



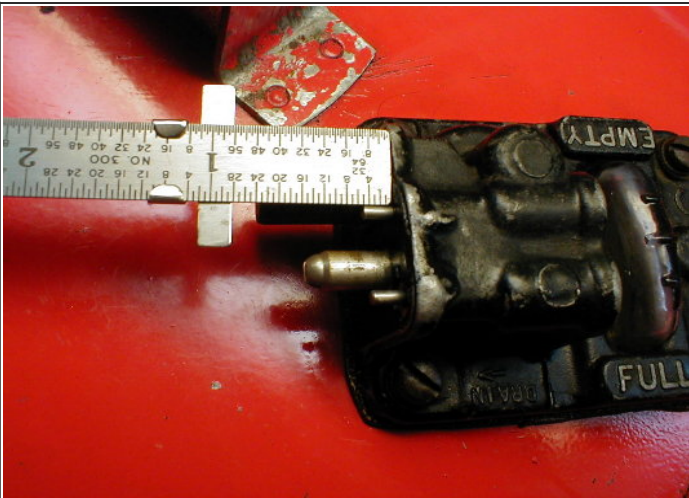
Illus #8 . Pull out the old o-ring with needle nose pliers - you may need to use the awl to work the o-ring loose, they can get melted in place!



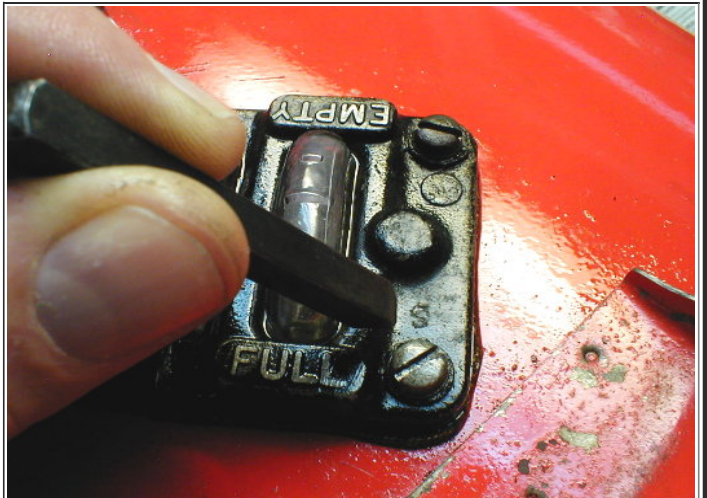
Illus #9 . Extract the core plug, pin and old o-ring from the air vent side. Clean both orifices well.



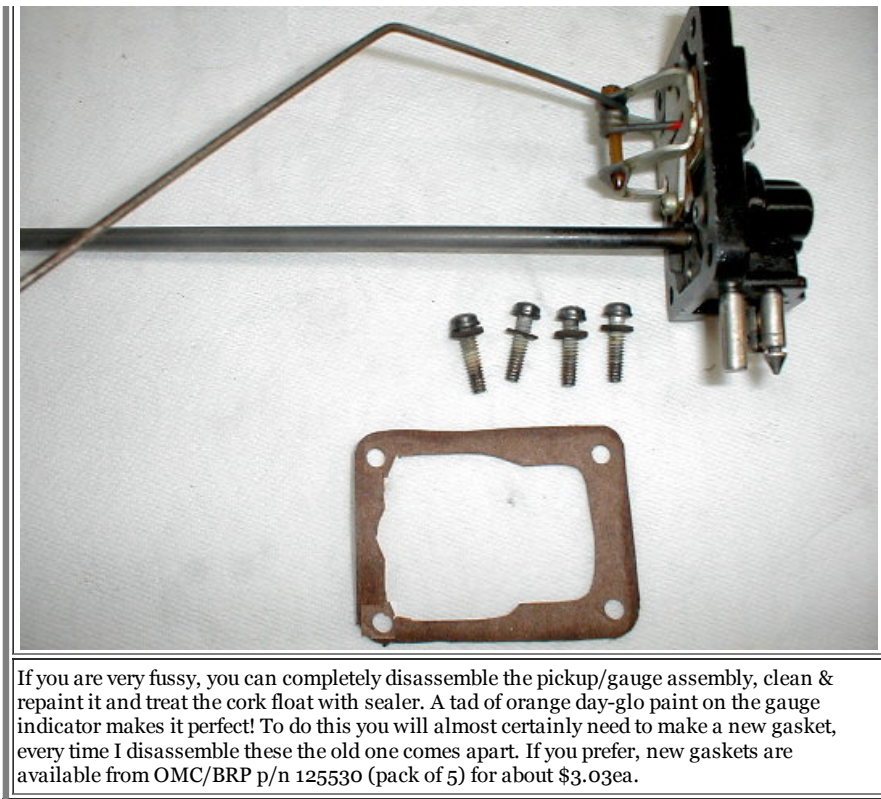
Illus #10 . Installation is the reverse of disassembly. Be sure the new o-ring seats well before you tap the new core plug in place!



Illus #11 . Pins should stick out evenly and can be depressed by hand without feeling spongy or sticking



Illus #12 . If you own several tanks be sure to mark the ones you have serviced with a punch, we use an "S". This way you can tell them apart from ones you have not gotten to yet.



Outer O-Ring Replacement

I have received several emails from people interested in replacing the outer o-ring on the fuel pin of the pickup. It's easy, when you have the pin out simply pry out the retainer with a small punch, replace the o-ring and stake the retainer back in.

The o-ring (#20 in **Illus #1** above) is part # 307858 and the BRP website is showing it available (as of this writing in 2016) with a retail of \$3.47ea. The retainer (#19) should be able to be re-used but is part # 307857 and is \$8.00 - it's also showing available. The BRP website is a good resource if you need a better diagram than what is provided above - most all of the parts books there for motors 9.9hp and up from the mid 1970s to the late 1980s have the Fuel Tank diagram. Here is the link: <http://shop2.evinrude.com/>

If your local Evinrude dealer won't help ordering these parts, you can try boats.net - or worst case Seaway Marine. One of them should have them.

Please use common sense when working on anything involving gasoline. Practice good shop techniques and work safely and cleanly. Don't forget to visit our [DISCLAIMER](#) before you contemplate doing anything presented on this website.

[Back To Tech Tips Index](#)

[Home](#) | [About Me](#) | [Outboards](#) | [Mopeds](#) | [Cars](#) | [Contact Me](#) | [Stories](#) | [Outboards in the Media](#) | [Odds & Ends](#)

The information on this website is intended for personal use only. The copying and distribution of this information for any other purpose is strictly forbidden without prior written consent.
Copyright 2005-2016 OddJob Motors All rights reserved