

SHERLINE
PRODUCTS
INCORPORATED 1974

Hydraulic Trailer Tongue Weight Scale

P/N LM-1000, LM-2000, LM-5000

Sherline Trailer Tongue Weight Scale Instructions to change the gauge, change the O-ring, and add hydraulic fluid

Most hydraulic leaks happen when someone lifts the Tongue Weight Scale by the piston and the piston pulls out of the body. Once this happens, you can't push the piston back into the body without getting air in the system. Because this is a closed hydraulic system (just like the brakes on your car), it does not work well or give accurate readings when there are air bubbles in the system.

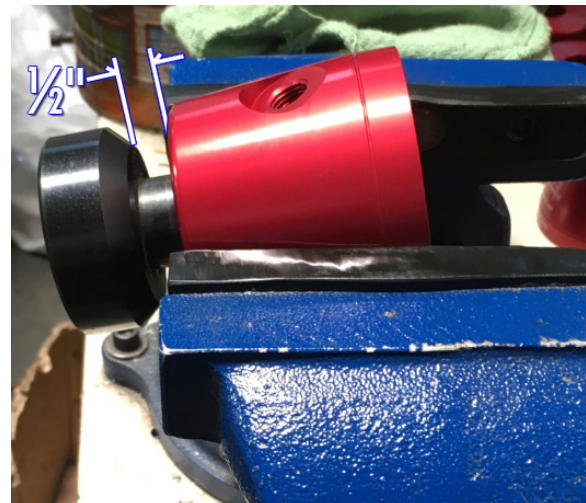
The following instructions are for how to disassemble and reassemble your Tongue Weight Scale.

1. Hold your Tongue Weight Scale in a bench vise if available as shown in Picture 1 below. In our shop we have rubber jaws on our vise so we will not damage the part. You can use a couple rags that are folded several times to place between your vise jaws and the body of the Tongue Weight Scale to accomplish the same thing.



Picture 1

2. With the body held securely in the vise and the gauge facing upward, unscrew the gauge from the body. It is best to use an open end 9/16" wrench. The base of the gauge is brass and a loose fitting wrench will round off the flats, which will make it very hard to remove the gauge without damaging the body or further damaging the gauge.
3. Once the gauge has been removed, the piston can be removed.
4. If you need to replace the O-ring(s), now is the time. Use a small flat blade screwdriver or a dental pick to remove the O-ring. Be careful not to scratch the inside of the O-ring groove. Replace the O-ring and wipe some hydraulic oil on it for ease of assembly.
5. Once the O-ring is installed and lubricated you can insert the piston back into the base. Push it gently into the hole until the O-ring gets past the top lip of the hole (some twisting motion may help). Once the piston is in the hole, push it down until there is about a 1/2" gap between the top of the base and the lower side of the piston (see picture 2).



Picture 2

6. For the assembly process, "it is critical that you have the body in the correct position."

- a. If you hold the body as shown in picture 1 with the gauge straight up at 90 degrees an air pocket will form inside cavity as shown in Figure 1 below.

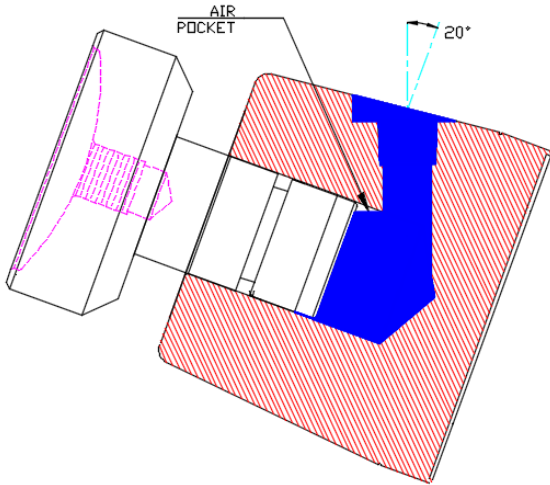


Figure 1

- b. You want to hold the base so the bottom of the base is between 90 to 95 degrees. At this angle, any air bubbles that are trapped in the cavity will escape through the gauge hole (see figure 2).

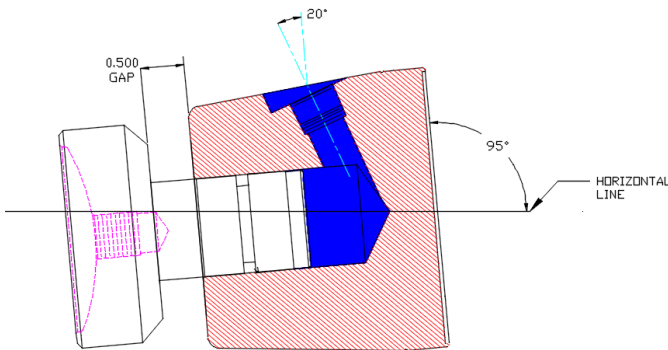


Figure 2



Picture 3

8. Now it's time to thread in the gauge (original or new). We recommend wrapping Teflon[®] tape around the threads of the gauge (about 5 or 6 wraps). As you start to screw in the gauge, the excess oil will overflow out of the hole. This should be sufficient enough to displace any air during assembly. Thread the gauge in until it starts to get tight, then using the wrench turn it one more revolution until the face of the gauge is pointing up.

You're finished.

7. With the piston in the correct position and the base at the correct angle, it is time to fill the base with Hydraulic oil. Hydraulic-jack oil is recommended, however, any light weight oil will do. When you fill the base you want to fill it until the oil overflows out of the gauge hole (see picture 3). This will allow for the least amount of air in the system.