

1911 Recoil Spring Tester.

The metal parts came from Menards, and the fish scale at Gander Mountain. Here is a step-by-step guide – with pictures - to making your own recoil spring tester.

3/8" x 10" galvanized pipe nipple - \$4.53

3/8" cap - \$1.47

5/16" x 8" hex cap screw - .37 cents

25 pound fish scale - \$9.99

* a few washers that I had laying around



Below are a few pictures of the new bolt and the pipe nipple. The bolt head will need to be ground-down to fit inside the pipe nipple. Here are a few pictures to show you a before and after of the bolt head and threads.





After the bolt head (and threads) are ground down, the next step is to get a few washers and stack them onto the end of the pipe nipple. (In this picture I only show 2 washers, but in the end I had to use 4 of them, add more later).



After the washers are stacked on the end of the pipe nipple, get the cap and screw it on very tightly to seat the washers onto the end of the pipe nipple. This is a very important step, as the washers must be flush with the bottom of the pipe nipple.



After you have done this step, remove the cap, and you should have the washers imbedded into the cap.



Now we take an important measurement. This measurement will be taken from the end of the pipe nipple where the cap was removed from. For a 1911 pistol (Government model), the spring must be compressed to a size of 1.625" inches when taking the measurement for the spring poundage, (As per a note found on the Brownell's website, and also another pretty good source "Wolf Springs" also supports this).

This is measured from the bottom of the pipe nipple. Then I used a center punch to mark the spot at EXACTLY 1.625". (You can see the punch spot in the picture). This point will have a small hole drilled into it, so that I can see when the spring is compressed down to this size.



Once the 1.625" spot is marked, the drilling begins. Drill a tiny pilot hole before going to a larger drill bit. There is no specific size hole that you need to drill. Just drill it large enough for you to see the bolt head and spring when it appears there.



Drilled a small hole in the threaded end of the hex bolt.



Once these holes are drilled, place the cap, with the washers inside, onto the pipe nipple. Tighten the heck out of the cap! If the washers rattle in the cap, remove the cap and add more until the rattling stops, so that the washers are tight (and flush) with the end of the pipe nipple.

Now that the cap is on tight, with the washers flush with the bottom of the pipe nipple, drill a hole in the center of the cap. This hole needs to be large enough to ensure the hex bolt will pass smoothly through the washers and cap.



Here are the finished parts of the tester.



The next 3 pictures show you how to set the recoil spring into the recoil spring tester. First you need to place the spring onto the hex bolt. Be VERY SURE to place the tightly-coiled portion of the recoil spring towards the top of the hex bolt. If you don't, the other end (the piggy tail) will slip around the bolt head when you are compressing it, and wedge itself between the bolt head and the inner walls of the pipe nipple.



Once the spring is placed onto the hex bolt, insert both of them into the pipe nipple as shown in the next picture.



Once the parts are in the pipe nipple, place a heavy duty ring into the small hole drilled onto the threaded portion of the hex bolt. Also note of the line engraved into the sides of the "window". This is the center line of the window, which is EXACTLY 1.625" inches. When the bolt head and spring reach this line, we need to stop and take our reading.



Now just hook-up the ring to the fish weighing scale and we're ready to check the spring.



Pull the gauge against the scale until bolt head reaches the window at the 1.625" mark, this is the correct compression of the spring. When the top of the spring/bolt head reaches the mark on the "window," the recoil spring is compressed to the specified 1.625" point, and the poundage on the scale is read.



Here is a close-up of the window. Look closely, and you will see the bolt head and spring, lined-up with the line on the "window".



Here is a closer look at the scale, itself. Notice that this particular spring is an 18-pounder.



For a 1911 commander model, the compression point where you take the reading from is 1.125".

For a 1911 officer's model, the compression point where you take the reading from is .700".

N.B. There are various types of fish weighing scales. Some will weigh items from 1 pound all the way to 50 pounds - which is too much. (The larger the scale variance, the less accurate the scale will be). So just purchase a scale that will cover the recoil spring poundage that you use. In my case, it was 1 to 25 pounds.