

INSTALLING A PIONEER GUN WORKS SHORT STROKE KIT

NOTE: ALTHOUGH THESE INSTRUCTIONS SHOW A MODEL 73 INSTALLATION, THE PROCESS IS THE SAME FOR A MODEL 66 OR HENRY ONCE THE SIDE PLATES ARE REMOVED

STEP 1.

On the left side of the rifle, there is a screw that holds the two side plates in place. Remove this screw and remove the two side plates. The side plates are held in place by a dovetail located at the front of each plate where they mate with the receiver. After removing the screw, insert a small punch through the screw hole so it touches the inside of the right side plate. Lightly tap the punch until the right side plate comes off. Next, remove the left side plate by tapping it from the right side of the receiver.



STEP 2.

Remove the right and left links by lifting them out of the receiver. Moving the lever while lifting on the links will help to dislodge them from the pins. After the links have been removed, remove the pin from the end of the lever.



STEP 3.

There are two screws located on the bottom of the receiver. The right side screw adjusts the tension on the lifter arm spring, and the left screw adjusts the tension on the lever spring. Loosen both screws until the springs can be rotated free of the receiver. Be sure to use a well fitting screwdriver on all screws.





STEP 4.

Remove the screw that holds the lever and lifter arm in the receiver. Pull the lever and lifter arm down through the hole that the lever passes through. The lifter arm will be more easily removed if the carrier is pushed to the top of the receiver. Next remove the carrier from the receiver by pushing it down and out the bottom of the receiver.

This is a good opportunity to clean and inspect all the internal parts, making sure that they fit well and move freely within the receiver and against their respective mating parts. Some 400-grit emery cloth can be used to smooth mating surfaces. Be sure to thoroughly clean any grit that may have gathered on any parts before reassembly.



STEP 5.

Insert carrier into the receiver and push it to the top of its travel. Lube the tip of the lifter arm where it fits into the carrier with a little bit of gun grease, and insert it up through the lever opening and into the carrier until the pivot hole on the arm lines up with the hole in the receiver where the lever screw fastens.

STEP 6.

Insert lever through the lever opening in the receiver. Align the lever hole, lifter arm hole, and the hole in the receiver, and insert the lever screw, snug in place. No need to overly tighten at this point, since it will have to be removed for fitting of the lifter arm later.



STEP 7.

Install left links, then while holding them in place, turn the rifle over and install the lever pin, then the right links. Rotate the lever spring and lifter arm spring into position, and snug the adjusting screws for these springs enough to apply slight tension on the lever and lifter arm. Do not tighten these screws, as they will have to be loosened later for fitting of the lifter arm.

STEP 8.

Turn the rifle upright, holding the rear pivot points of the links between your fingers as shown so they don't come out. Move the lever forward, looking down into the top opening of the receiver. As the bolt retracts, the carrier will rise and may make contact with the bolt, halting its travel. Note the amount of interference, and return the lever to its rear position. Loosen the two spring adjusting screws on the bottom of the receiver, and rotate the two springs outward out of the way. Remove the right links, lever pin, lever screw, lever, and lifter arm from the receiver.





STEP 9.

In order to offer a custom fit and proper timing for each individual rifle, extra material has been left on the lifter arm where it makes contact with the lever. It is the area that the pencil is pointing to in the photograph to the left. Material must be filed from this area until the rising carrier just misses the retracting bolt as the lever is moved forward. Remove material a little at a time until the carrier rises

to its full upright position. You should use a mill file that's in good condition to remove this material.

Holding the lifter arm in a small vise while filing will help you to keep the file square to the face of the surface to be filed. This surface is pointed out in the photo to the right.

Once you have removed sufficient material for the lifter arm to move freely past the bolt through its full range of motion, place a dummy round in the carrier and make sure that it misses the bolt too. If not, remove additional material from the arm until it does. It is important to adjust the lever and lifter arm spring tension screws so they apply enough pressure to the lever and arm to operate the action properly while doing this test.



One area where interference may occur is the point at which the links move past the lever and lifter arm springs while cycling. If there is interference, remove the links and lightly file the area where the links hit the springs. This will happen in a small percentage of rifles, but should be checked anyway. Also, interference may occur when the bolt is moving forward, just as the carrier starts moving downward. If this happens, file some material from the carrier where it is hitting the bolt. It's best to check for clearance between the bolt and carrier while chambering a dummy round.

When you are ready for final assembly, apply a small amount of grease to the pins on the receiver and bolt where the links pivot. Also apply some grease inside the slots in the links where the lever pin rides, and where the springs make contact with the lever and elevator arm. All other friction points should be lightly oiled as well.