Installation Instructions for Turbine Slip in Model TSI-1-4.0 Spark Arrestor for 2020-2024 Sherco SE 2-stroke 250-300cc Enduro Bikes

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- Tools Required: Torx T25, T27, & 4mm Allen wrenches, drill motor, 7/32" drill bit (inc.), small punch, hammer, rubber mallet, hack saw (fine tooth blades of about 32TPI work best), vice, silicone sealant, contact cleaner, file, sharpie marker, box knife, straight edge.

Figure 1-Scoring sealant around Packing Stop Plate.

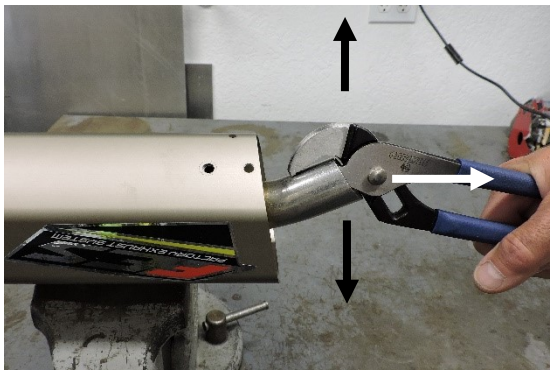

Figure 2-Pulling Packing Stop Plate out of Can.

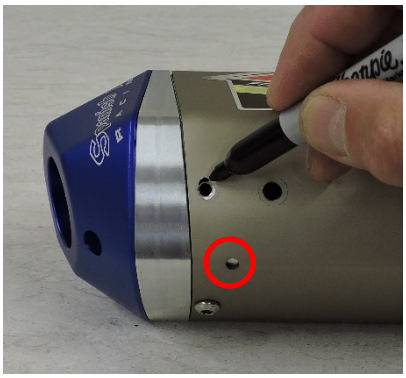

Figure 3-Marking location where Cab hole needs to be enlarged.

1) After removing the silencer from the bike, use the provided 7/32" drill bit to drill out the 6 pop rivets at the end of the silencer Can. It is O.K. to drill through the Can. Use a small punch to knock out any pop rivet material still remaining in holes, then remove the End Cap. All pop rivet holes must be at least 7/32" large to accommodate the new screws, drill out any holes smaller than the drill bit to enlarge them. DO NOT DRILL OUT THE small vent hole identified in Figure 3 with Red circle.

2) Remove the 4 Allen screws on the inlet side of the Can, then slide the inlet assembly out of the Can, the fit is usually tight and may require striking the Inlet Tube with a rubber mallet to loosen the Inlet Cap from the Can. Remove silencer Packing from the Can if it did not come out with the Perforated Tube.

3) Using a knife score the sealant around the Packing Stop Plate so it is easier to remove (Figure 1). Mount the silencer in a vice by clamping the rear silencer mounting tab. With pliers grab the Packing Stop Plate & walk it up and down while pulling to remove it from the can (Figure 2).

4) Clean any sealant or burs from the inside of the Can on the End Cap side and insert the spark arrestor into the Can to verify fit. Material may be removed from the inside of the Can or the Spark Arrestor using a file or Dremel if excessive weld penetration or burs prevent full insertion. Check the Can hole locations (Figure 3). Variability in Can hole location (they are all slightly different) may leave spark arrestor threads partially obscured & make it difficult to start the screws. Screw all 4 T25 screws into the spark arrestor, for any screws that cannot be started by hand mark where the hole in the Can must be enlarged and then using a drill, file, or Dremel tool: expand the hole so that all 4 screws can easily be threaded into the spark arrestor at the same time. Remove the spark arrestor.

5) Being careful not to crush the Perforated Tube; mount it in a vice and cut off 2" (+/-1/4") from the end (Figure 4). This rough cut will allow the spark arrestor to be installed to locate the final cut position. Round off any sharp edges on the outside of the Perforated Tube & slide the provided O-ring over the tube so it is within 1/4" of the end just cut.

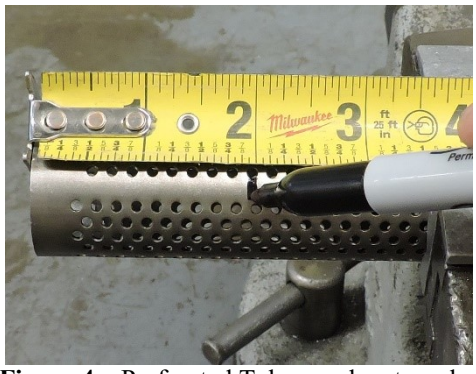

Figure 4 – Perforated Tube rough cut mark.

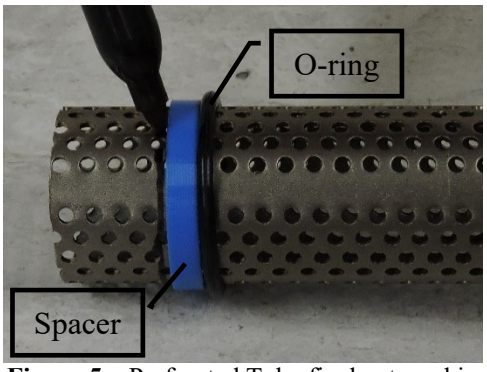

Figure 5 – Perforated Tube final cut marking.

Figure 6 – Box knife cutting of Packing.

6) Temporarily reinstall the inlet assembly (w/o packing, this may require striking with a rubber mallet) & hold in place with at least 1 of the provided T27 screws. This step fixes the inlet assembly in place so that the final cut location on the perforated tube can be marked using the O-ring.

7) Check that the Perforated Tube is centered in the can then Slide the Spark Arrestor all the way into the Can (the Perforated Tube must slide into the Spark Arrestor and may require some manipulation to line up). The spark arrestor will push the O-ring into the correct location on the Perforated Tube. Remove the Spark Arrestor and inlet assembly being careful not to move the O-ring. Slide the 5mm spacer into place up against the O-ring, then using a Sharpie mark the cut location around the entire circumference of the Perforated Tube as shown in Figure 5.

8) Again being careful not to crush the Perforated Tube, mount it in a vice & cut on the sharpie mark. Using a file round the sharp edges of the cut, both on the inside & outside of the Perforated Tube, this will ease installation later.

9) Next cut the Packing to a 14" length. Most silencer Packing is easiest to cut if you flatten it between a cutting surface and straight edge & use a box knife to cut (Figure 6).

10) Place the supplied introducer bullet tool in the end of the Perforated Tube & slide it into the Packing, then remove the introducer bullet from the Perforated Tube (put it in your tool box, it will be handy for future silencer re-packs). Verify that the silencer Packing does not extend beyond the Perforated Tube; if it does, either compress it slightly (slide it down further on the Perforated Tube) or re-cut it.

11) Apply blue Loctite to the provided 10 Torx screws. Clean the surfaces of the Can & Inlet Cap where they will join. Apply silicone sealant to the Inlet Cap lip to provide a good seal with the Can. Insert the inlet assembly with Packing into the Can, again a rubber mallet may be required. Once fully inserted, install the 4 provided T27 Torx screws but do not tighten them.

12) Clean the surfaces of the Can & spark arrestor where they will join at the end of the Can. Make sure the Perforated Tube is in the center of the Can then Slide the spark arrestor into the can approximately ½ way and install the 2 T25 screws & nuts to plug the 2 Packing Stop Plate pop rivet holes. Apply silicone sealant to the spark arrestor edge to provide a good seal with the Can & slide it all the way into the Can (the Perforated Tube must slip into the Spark Arrestor and may require some manipulation to line up). Insert and tighten the 4 T25 spark arrestor screws, then tighten the 4 T27 inlet side screws

13) Reinstall the silencer and go roost.

CLEAN OUT & MAINTENANCE: To clean out the trapped material remove & clean the spark arrestor when re-packing the silencer. To remove & clean the spark arrestor: (1) remove the 4 Torx T25 screws that hold on the end cap / spark arrestor assembly & slide the assembly ½ way out of the Can, then remove the 2 screws & nuts that cover the Packing Stop Plate holes. (2) Clean the spark arrestor & the inside of the Can with an appropriate solvent (WD40 & a tooth brush work great), then reinstall per steps 11-12.

PATENT PENDING & USFS APPROVED (REF. FILE#0880-02)
MATERIALS: CNC machined 6061 Aluminum, steel, stainless steel
WEIGHT: 626 grams (22oz) **INSTALLED WEIGHT (weight less stock parts removed/shortened):** 316grams (11oz)
APPLICATIONS: 2020-2024 Sherco SE 250-300CC 2-strokes Factory & Racing models.