Instructions for HD-806 True Radius PRO Sear Jig

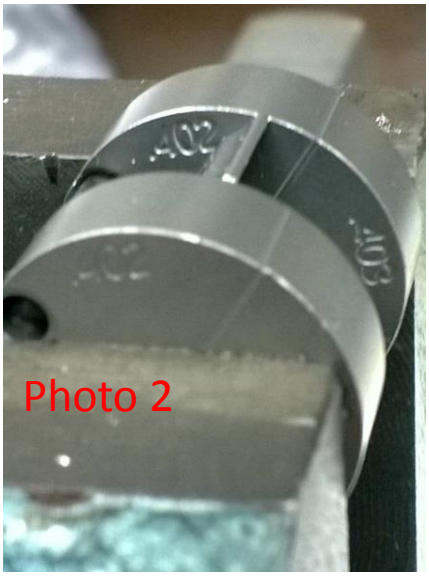
These instructions will show you how to shape and stone the nose of a 1911 sear into the True Radius profile featuring a radiused primary engagement surface and a conventional escape angle. It is assumed that you already know how to perform a 1911 trigger job and will be substituting the True Radius method for finishing the sear nose.

WARNING

Before proceeding, unload your pistol by removing the magazine, then removing ammo from the chamber. Remove all ammo to another room.

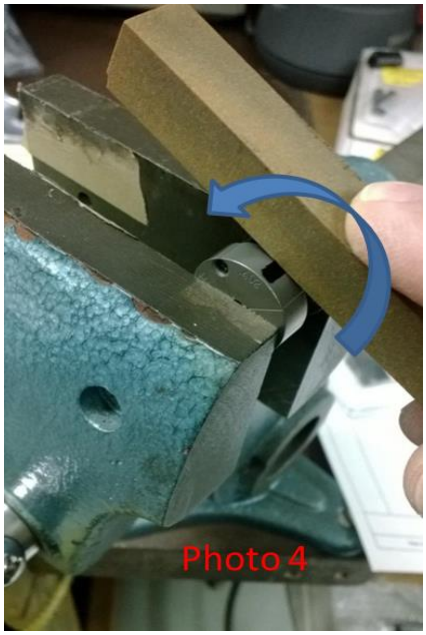
SHAPING THE PRIMARY SURFACE

1) Assemble the sear and jig as shown, placing the sear on the center pin. Stack the second disc on top, orienting both discs so that the numbers face the same direction. Align the sear nose to a segment that allows the sear nose to just stand proud of it. See Photo 1



2) Hold the assembled sear and jig in your vise. Tighten enough to hold securely, but not so much as to cause damage. Position your vise so it's aligned to let your hand and arm move naturally as you stroke the stone. See Photo 2

3) Draw a line across the sear nose and both discs with a Sharpie marker so you can see where you are stoning. As the ink wears away, occasionally color it again, so you can see the contact. See Photo 3.



4) Starting with an oiled fine India stone, stroke the stone forward in a rolling arc, following the PRO sear jig's radius to shape the sear nose into a radius. Only Roll the stone enough to shape the radius. Stoning against the discs unnecessarily will just wear it out prematurely. See Photo 4.

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Instructions for HD-806 True Radius PRO Sear Jig (cont'd)

5) You can use your thumb of your off hand to act as a guide to keep the stone centered on the sear. (not shown).

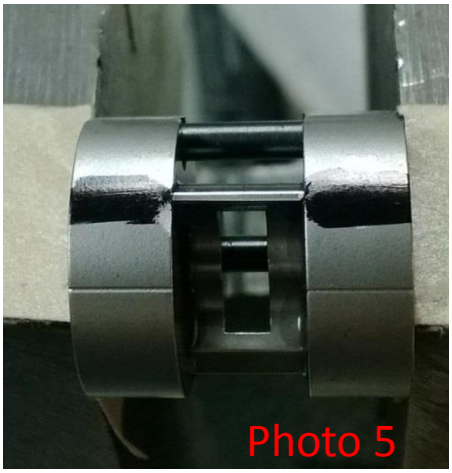
Photo 5

Stop and examine the sear nose with a 10x magnifier every 3-4 strokes of the stone, looking to see that the radius is forming evenly across and around the sear nose. It usually takes 10 strokes or less to form the nose.

When the nose is formed into a radius, change to a white Arkansas stone to clean up the stoning marks. Once the surface is cleaned up, switch to a ceramic stone to polish the radius. Use the same radial stoning stroke throughout. See Photo 5.

SHAPING THE ESCAPE ANGLE

6) The escape angle is the same short 45° bevel to the rear of the primary surface as you have always done.

To set up the sear and fixture, remove it from the vise and remove one disc. Position the sear's pivot hole over the outer pin and push the lower sear legs against the center pin, as shown in Photo 6.

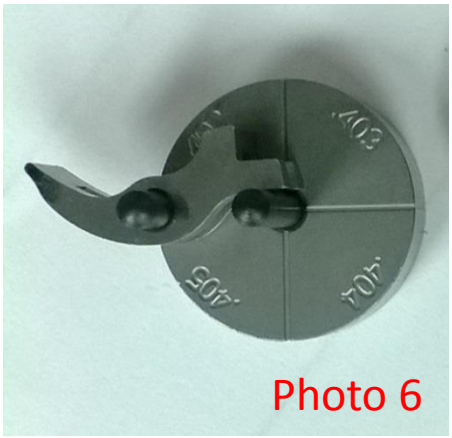

Photo 6

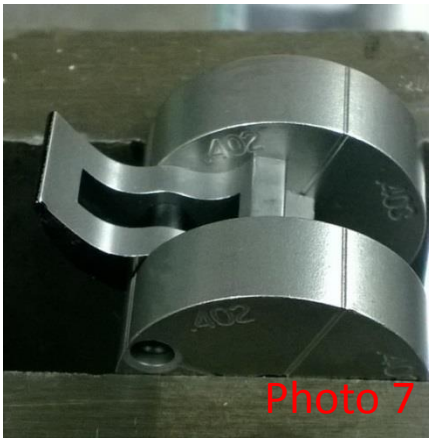

Photo 7

7) Reinstall the outer disc as shown and clamp back in vise with the sear nose and top of the disc level with the top of the vise jaws as shown in Photo 7. I add a piece of durable monofilament strapping tape over the disc so the stone can't contact the disc and stone a flat stop. See Photo 8

Photo 8

8) Stone the escape angle as shown until you have created a flat that is about ¼ to 1/3 as wide as the primary surface. I use a fine India stone and check my work about every 6 short strokes. Use a marker to check your progress See Photo 8.

When I am satisfied with the relationship of the sear nose to the hammer hooks, I will "marry" the transition of the primary surface to the escape angle by hand holding the sear nose against my finest stone and lightly wipe from the nose through the escape angle in a rolling motion to lightly smooth the joint between primary and escape surfaces. 3-4 light strokes is all you want to do. (Not Shown)

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