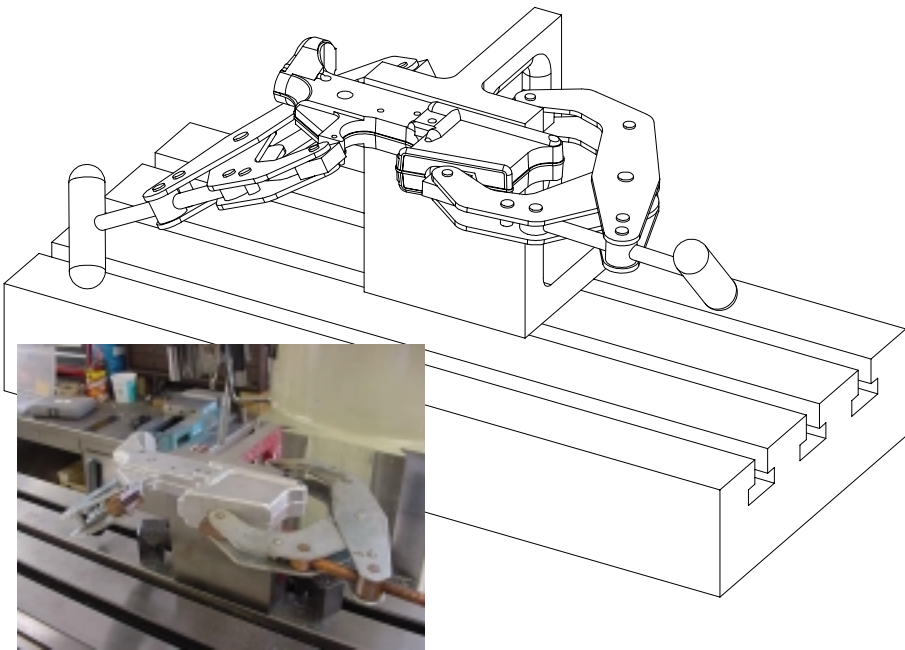


Chapter 4

The Passenger Side

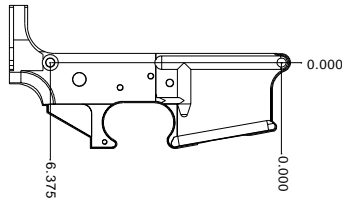
This setup is basically the same as the previous one, except that we will be putting the passenger side of the receiver up. This chapter deals with spot facing the take down pin hole, milling off the front of the pivot pin detent channel, drilling the vent hole for the pivot pin detent, finishing the magazine release, drilling the front trigger guard hole and milling the other side of the pistol grip mount.



The Setup

Workholding: As in chapter 3, clamp the forging to the angle plate (passenger side up) and indicate true the butt face using the quill.

Location: Edge find the buttface and the deck. Move 7.500-X and .250-Y (to the pivot pin location) and set this to zero-zero. Refer to drawing "PASSENGER SIDE" in the appendix for this setup.



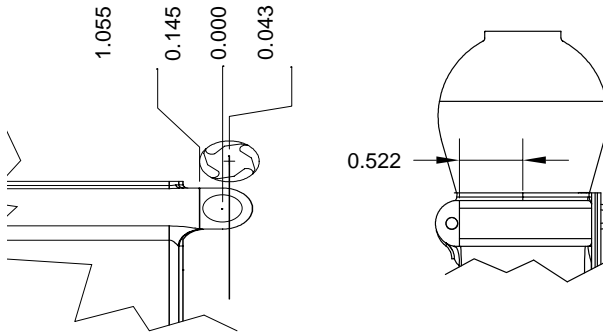
First operation is to spot face the take-down pin hole. Chuck a 7/16" dia. endmill and move over the right cheek. Set your elevation wheel at zero and bottom the cutter on the right cheek for the Z reference. Move to 6.375-0.000 and spot face to 0.411" from the centerline.

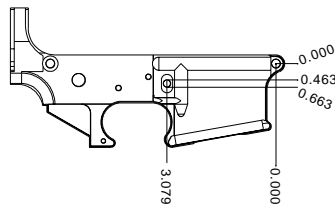
You can check the fit, but there isn't much to check for. Just see that the spot face is big enough for the pin head.





Now use a 3/8" cutter and move to 0.043 x (to the right of the pivot pin hole and mill off the face at a setting of 0.522 from the centerline. Check that the pivot pin fits nicely before moving on.





Chuck a 5/16 endmill and prepare to mill the pocket for the magazine release button. The drawing calls for this to be 0.318 wide by 0.515 long, centered on the hole at 3.079-0.563. You will mill from roughly 0.663-Y to 0.463-Y to a depth of 0.069 past the centerline. Before moving on, check the fit with the mag release button. You don't want this to be tight.

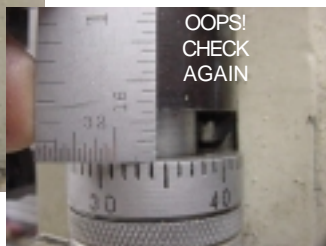
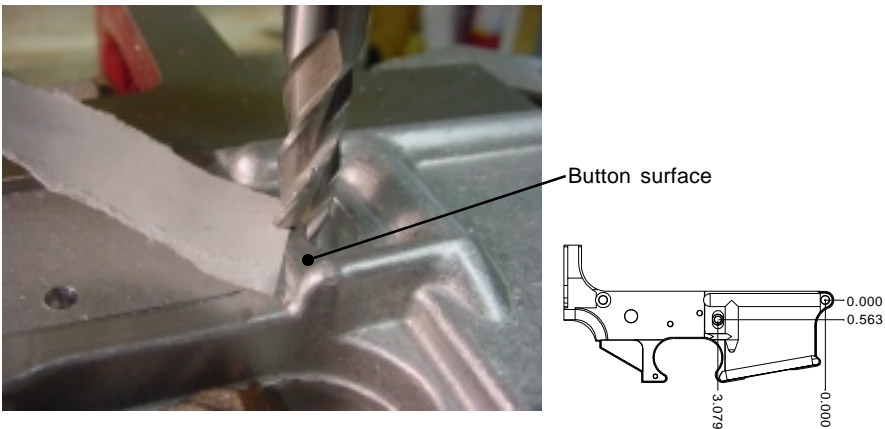


The magazine release hole needs to be relieved for the spring. You may be intimidated by cutting the mag well, but this operation is what scares me the most!

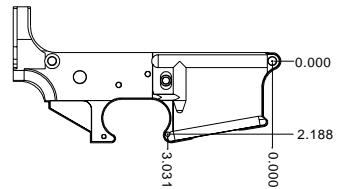
You have to cut to within 0.054" of the bar slot on the other side and here is how to do it.

Hold the mag release in the bar slot the wrong way around, measure down to it from the button surface and record your measurement. It should be close to 15/16" (0.937"). From this value subtract 0.054" and record the result.

Now chuck a 5/16" end mill and bring the quill down to the stop. Raise the table until the end mill touches off on the button surface. Set your elevation dial at zero. Raise the quill and then bring the table up by the result you recorded earlier. Position the spindle at 3.079-0.563 and with the spindle off, bring the cutter down until it bottoms on the metal to be cut. Check your quill stop, you should have about 1/4" to go. If you have more, recheck all your measurements!

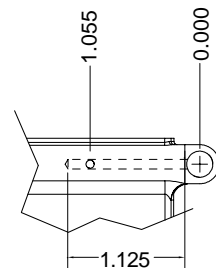


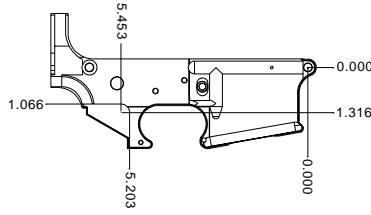
The next item in this setup is the forward trigger guard hole. Locate the spindle at 3.031 x 2.188 and drill a 1/8" hole about 1/4" deep. Don't drill it through.



Here is the lower being held by the alternate method in a vise. After you drill this hole, go back in with a #2 center drill and cut a nice chamfer on the edge.

One little hole that is easy to overlook is the breather for the take-down pin detent. Locate your spindle at 1.055-0.000 and drill a 5/64 (0.078) diameter hole about 1/8" deep. The hole it will be venting isn't there yet so don't go too deep.

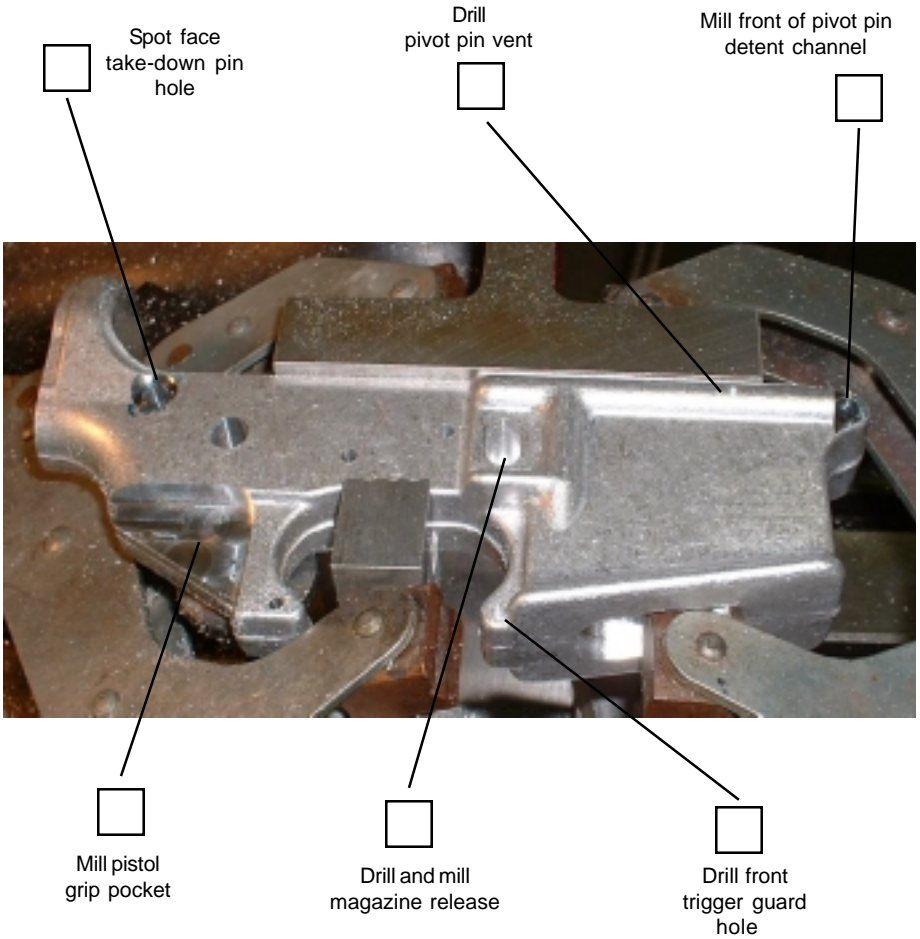




As in chapter three to cut the passenger side of the pistol grip mount chuck a 1/2" dia. cutter. No need to touch off, just take a light cut then measure the thickness and adjust from there for a finished size of 0.375".

You can set your incremental zero at 5.453-1.316 which is the corner of the pocket. Stay away by five or ten thousandths as you rough down to within 0.005" of the finished depth. Then set your finished depth and mill the sides and bottom finished in one pass. Be careful not to run into your clamp!

If you use the alternate holding method using a vise, be sure to leave the area to be milled clear of the jaws as shown above, not like on the opposite page.



Before you break your setup, check your work!