CamJack Knurling tool

Do not propagate this material! If you did not get it from www.totallyscrewedmachineshop.com or http://www.hobby-machinist.com/showthread.php/3533-Camjack-Knurler you may be missing important updates!

This tool is based on this thread http://www.hobby-machinist.com/showthread.php/3533-Camjack-Knurler All credit for the design I point to Hawkeye. I simply took his info and did my usual poor job of drawing it. I am as much in need of drawing practice as I am in machine work practice. Free software was used in 3D mode so the hidden lines extend into areas where you can see them but shouldn't be able to and it makes it almost as confusing as this sentence. I filled another set of drawings so it alternates between filled being solid or filled being removed. Hopefully between the thread and the drawings you can figure it out. This is considered a joint effort and you can use these for your own non-commercial use AT YOUR OWN RISK. Separating any part of this .pdf is not permitted.

I had a couple pieces of metal on hand so this is drawn to use 3/4x1" and 1/2x 2" stock to fit a ½ inch tool holder. Certainly feel free to make changes as needed.

This exercise was done simply to aid me in making a knurler for my use and this is made public since Hawkeye does not have any issues with it.

Use the drawings with caution as they are as yet un-proven and I am sure a few errors slipped by. If they are printed with no scaling they should come out 1:1 sized there are ample dimension lines to check scaling. I tried to get enough dimensions marked to keep folks from having to measure anyhow.

*The note "Radius cut with 3/4 EM both parts separated by 3/8" is in reference to the swivel sockets on the bottom arm and cam.

Bill of material (for the way I am making mine)

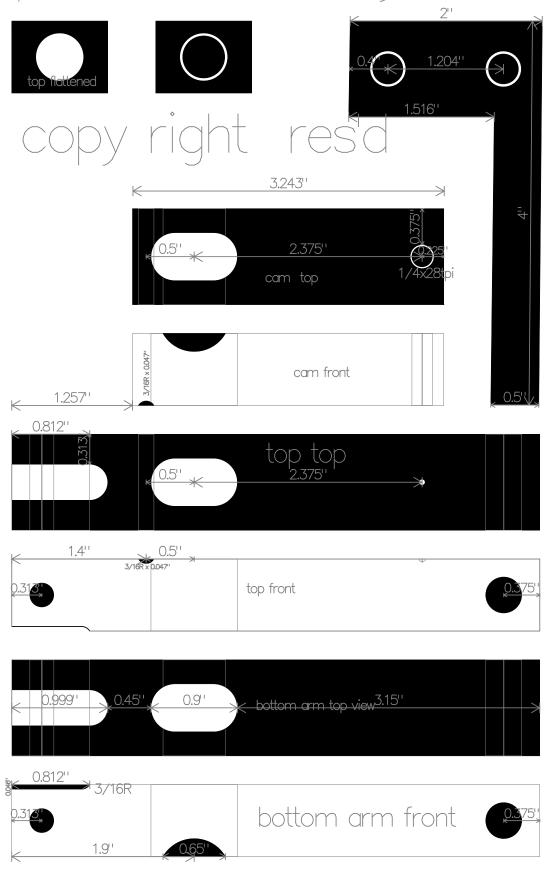
- 1. 1x3/4" flat bar ~13" for arms
- 2. 1/2x2" flat bar ~5" for mount
- 3. ¾" round bar ~2.5" pivots
- 4. 1/2x20 tpi all thread
- 5. 1/4x20 SHCS for cam jack
- 6. Temporary nut 1/2x20 so you can knurl the final adjusting nut
- 7. Material you want for a top nut (1/2") ~ couple inches depending on how close you like to work to the jaws.
- 8. 3/8x1x5/16 18tpi shoulder bolt. This changes with your choice for #1
- 9. You will need some taps or some minor setting up on a 4 jaw for single point threading. 1/2x20 & 1/4x20
- 10. Knurls I used 3/4x3/8 with $\frac{1}{4}$ " bore I had on hand many use the ones from a bump knurler
- 11. Some tools and drill rod and or other stuff

al use only 2" 1.204" 1.516'' 3.243'' ₹ 2.375'' cam top 3/16R x 0.047" cam front 1.257'' 0.5 0.812" top top 2.375'' 1.4" 3/16R × 0.047 top front 0.45" 0.9" bottom arm top view^{3.15''} 0.999'' ≯ 3/16R bottom arm front

Radius cut with 3/4 EM both parts separated by 3/8"

1.9"

personal use only



Radius cut with 3/4 EM both parts separated by 3/8"