

Proactive Idler Wheel Upgrade: Collar Comparison

Gregory J. Arserio (garserio), 03JAN2007

If you want to upgrade your Proactive center shock idler wheels from a 12 mm wide bearing (6005) to a 15 mm wide bearing (6205), then you must make modifications to ensure the wheels are properly centered. Figure A shows the stock configuration. Figure B shows what many TY Members have done to get clearance for the larger idler wheels. However, this solution has the risk of dislodging the Pivot Arm Bushings into the gap left under the larger idler wheels. This problem can be solved by my proposed addition of a custom spacer. Figure C shows the ideal solution using a custom Collar. Page 2 of this document provides drawings for the custom parts required for each scenario. Pages 3-5 of this document show part modification tricks and pictures of my upgrade.

Figure A

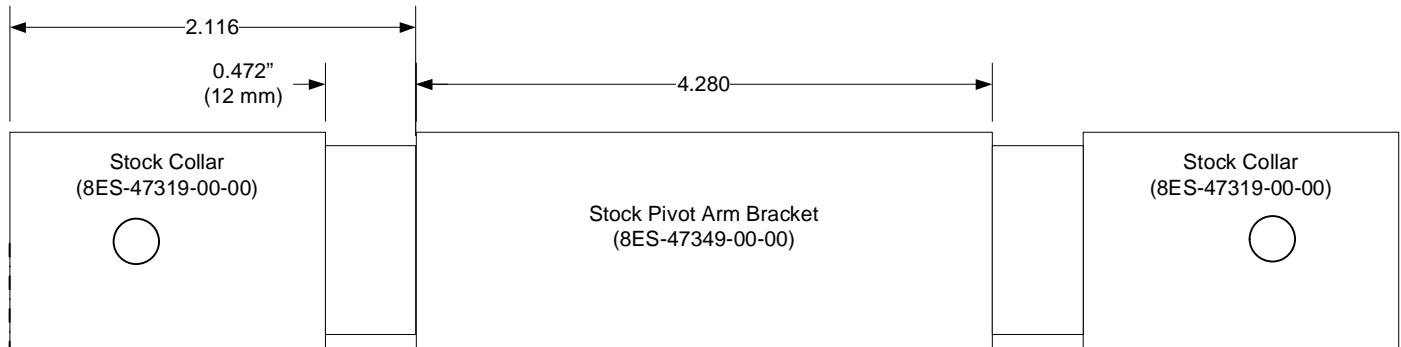


Figure B

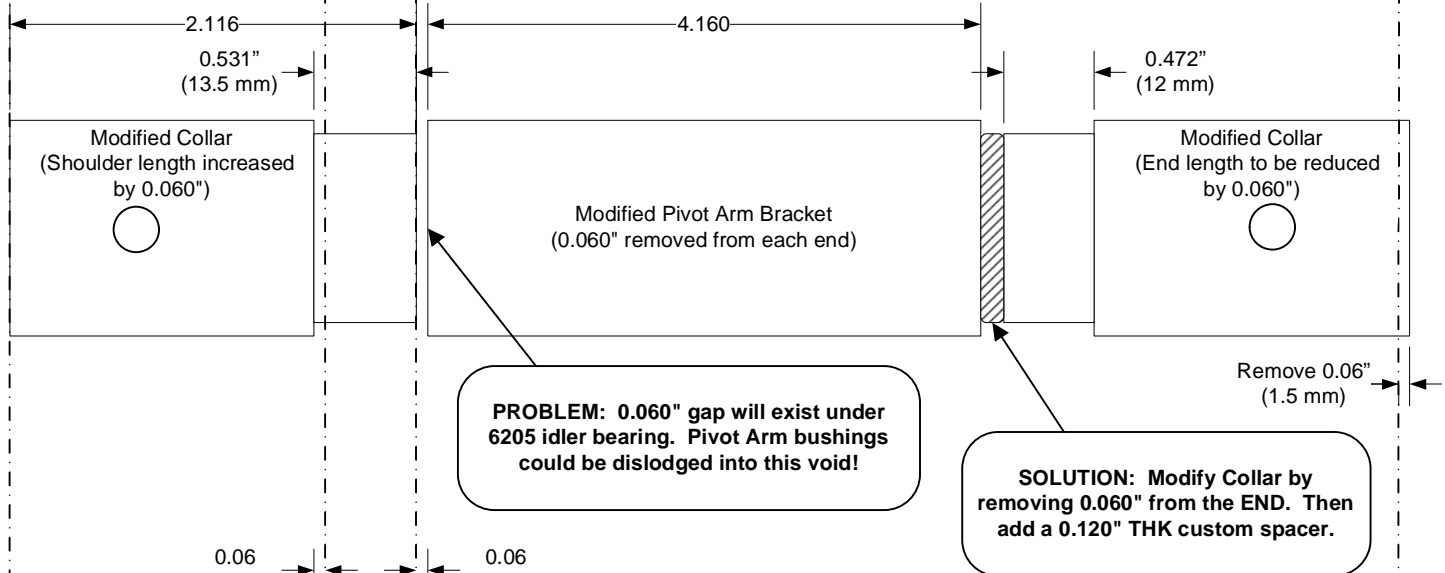
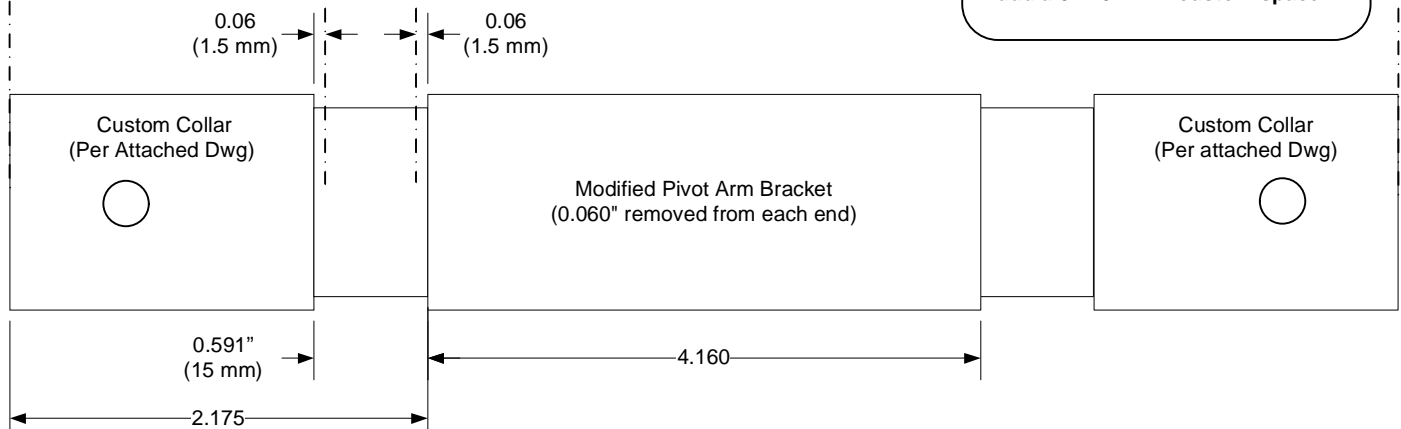


Figure C



Proactive Idler Wheel Upgrade: Custom Collar & Spacer Drawings

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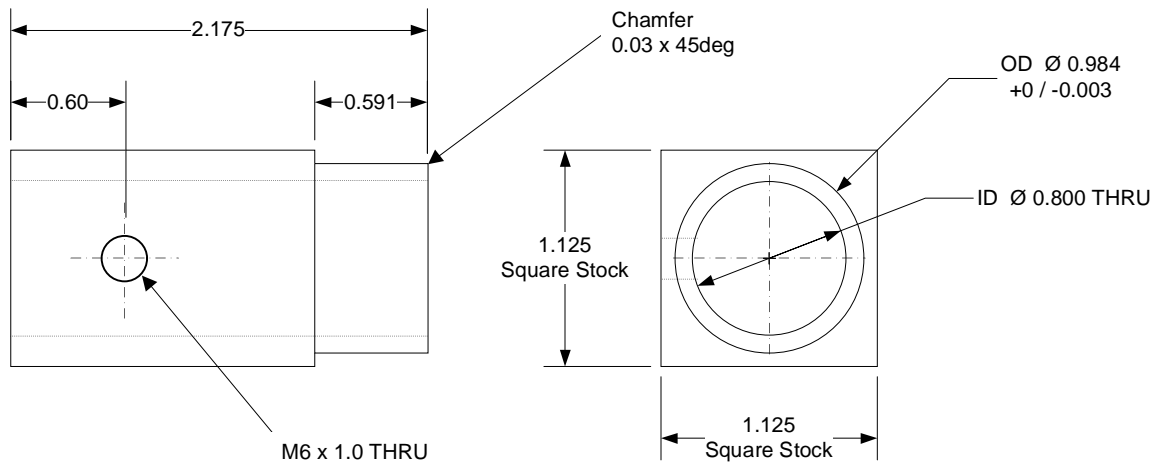
Material: 6061 Aluminum

Finish: Clear Anodize

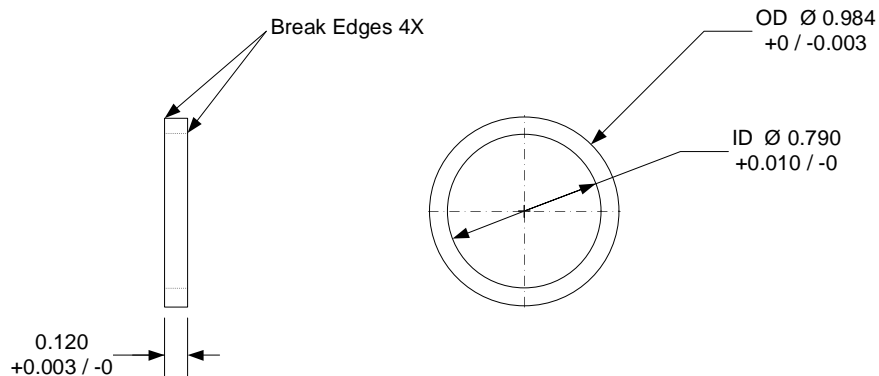
Dimension in inches unless otherwise noted

Tolerances: +/- 0.003" unless otherwise noted

Custom Collar, QTY=2 for solution shown in Figure C



Custom Spacer, QTY=2 for solution shown in Figure B



Proactive Idler Wheel Upgrade: Part Modification Tips

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To remove material from the Pivot Arm Bracket without using a lathe, use this trick:

1. Set grinding depth with a Locking Collar and a Shim. You need a 28mm ID Locking Collar and 1.125 x 1.625 x 0.062" Thk Shim. Recommend McMaster-Carr P/N's 57485K79 & 3088A473
2. Position the Locking Collar so that the Shim is flush with the top of the Pivot Arm Tube. Tighten the Locking Collar and then remove the Shim.
3. Remove the Tube material until flush with the Collar. Use any commonly available power tool. However, an angle grinder followed up with a belt sander works perfectly.
4. Repeat process on both sides and then remove the Collar.



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To remove material from the stock Collar without using a lathe, use this trick:

1. A powered miter saw with a carbide-tipped blade will cut aluminum like butter!
2. Measure 0.060" from the end per Page 1, Figure B.
3. Slowly make your cut while holding the Collar firmly against the saw's backstop.

To make the custom parts, you'll need a lathe and a mill.

1. My custom Collar is shown next to the stock Collar for comparison purposes.
2. I did not make any custom Spacers to show.



Proactive Idler Wheel Upgrade: My Modification Pictures

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To upgrade my sled, I chose the proposed ideal solution shown on Page 1, Figure C. The custom collars fit perfectly, the pivot arm modification worked perfectly, and the new Viper Idler Wheels (Yamaha P/N 8CR-47310-10-00) are perfectly centered.

Also notice in the third picture the replacement outer idler wheels with 6205 bearings. They are Yamaha's accessory wheels, P/N SMA-8EK38-01-RD (or BL, SL, YL). To upgrade the outer wheels you need to replace the stock mounting bolts with longer ones (L=85mm), Yamaha P/N 95817-10085-00

Feel free to contact me with questions. TY Member, "garserio" or garserio@rochester.rr.com

