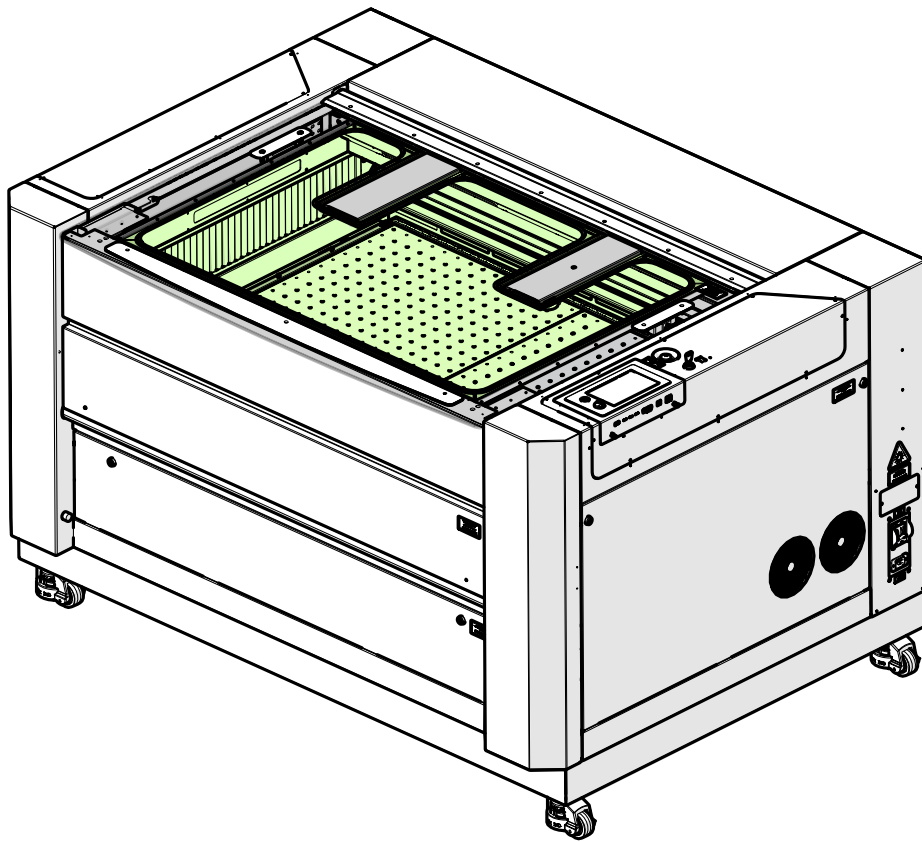


X-Axis Idler Replacement Fusion Pro 32 & 48



Parts Required

- CS0416 - Assy, Pulley, Idler, X-Axis

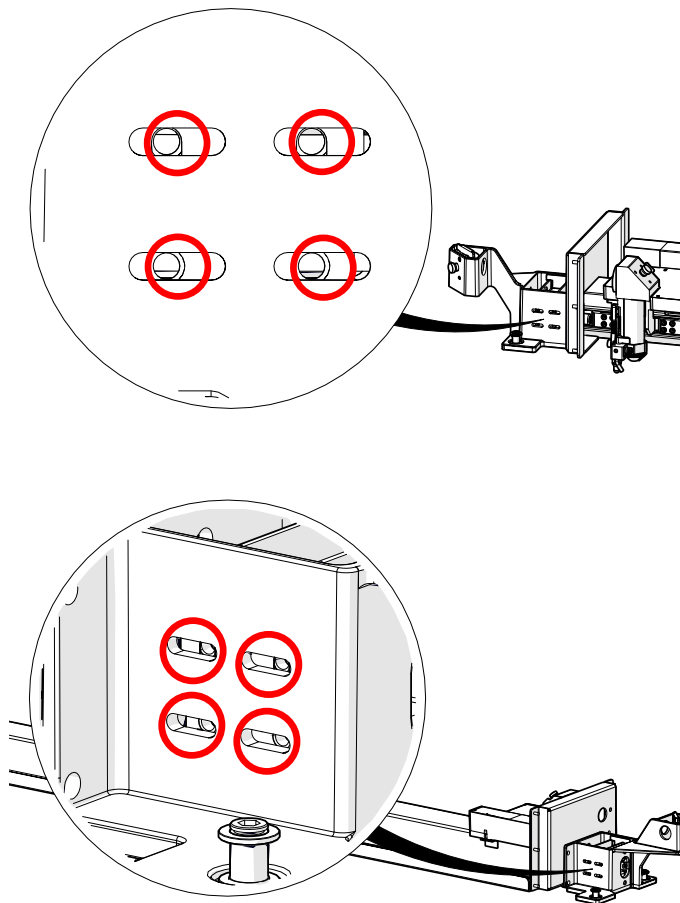
Tools/Materials Required

- 5/32", 7/64", 3/32" Allen Wrench

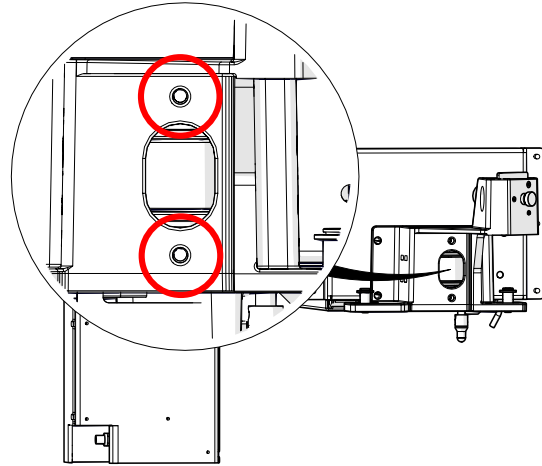
X-Axis Idler Replacement

X-Axis Idler Removal

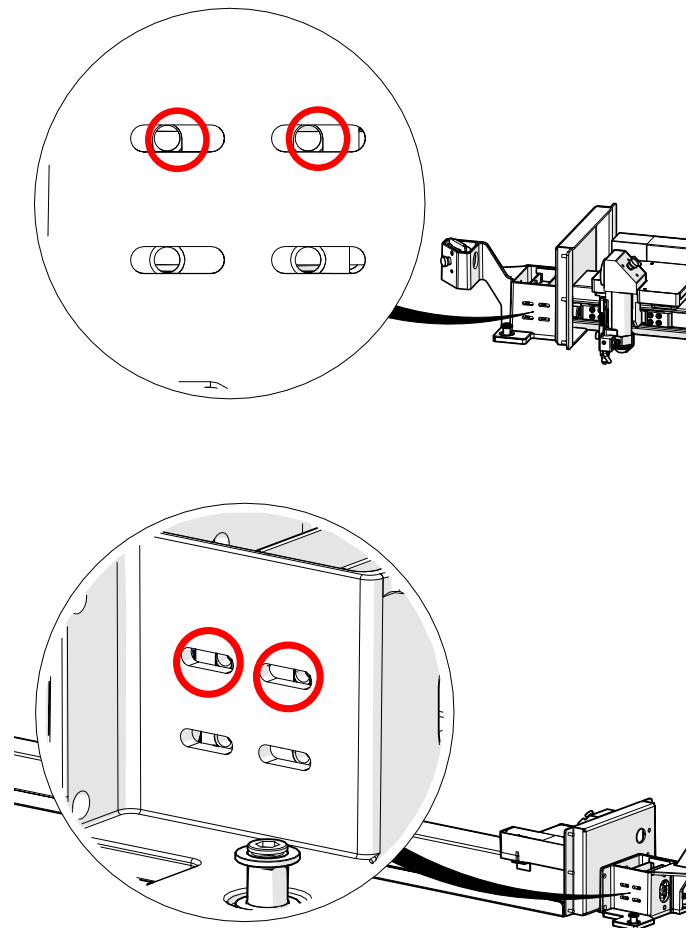
1. Turn off the engraver.
2. Disconnect engraver from power source.
3. Remove the left panel of the engraver.
4. Loosen, but do not remove, the eight (8) 7/64" idler mounting screws located on the left side of the x-axis assembly:



5. Remove the tension from the x-axis belt by loosening the two (2) 7/64" screws on the idler assembly body:

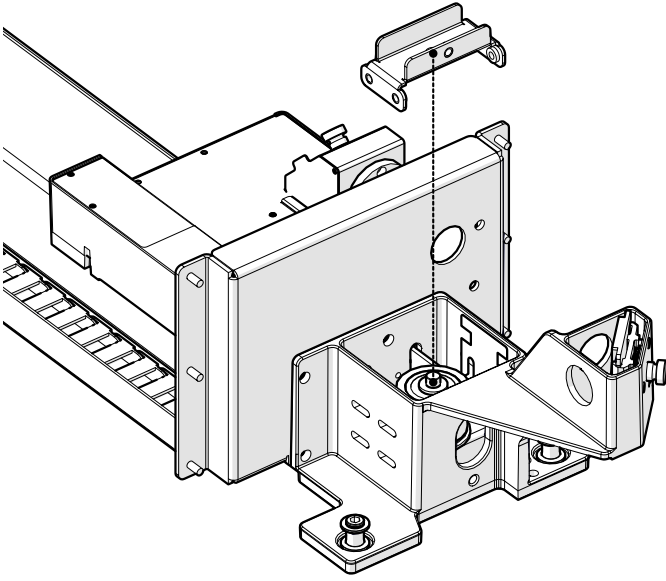


6. Remove the upper two (2) 7/64" screws from both the front and rear of the x-axis assembly:

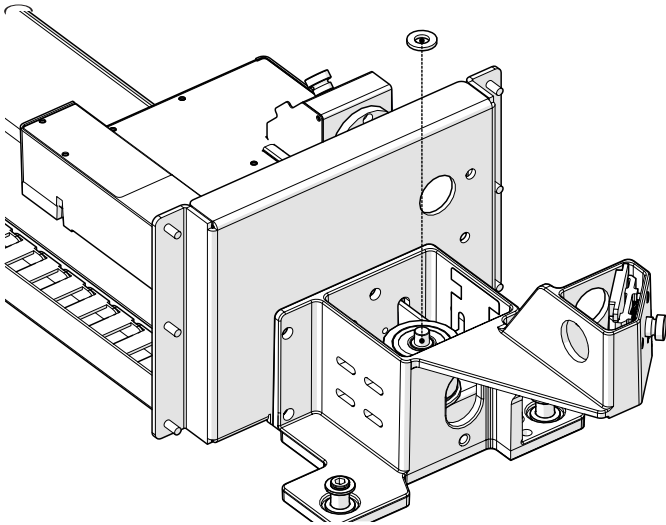


16000 - X-Idler Replacement

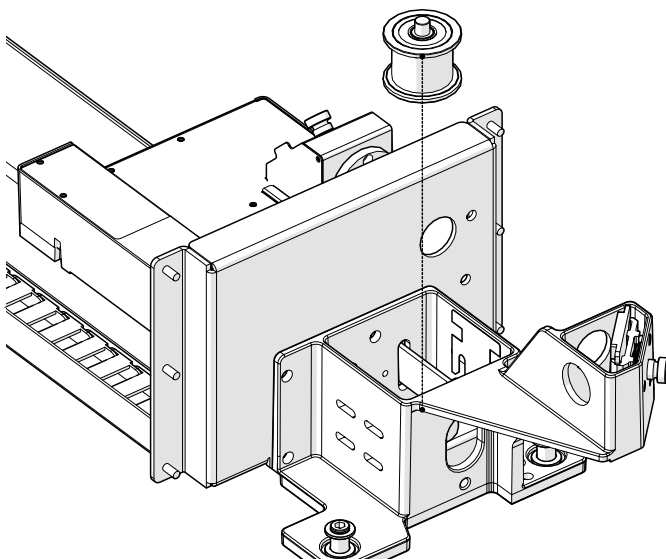
7. Remove the upper tensioner bracket:



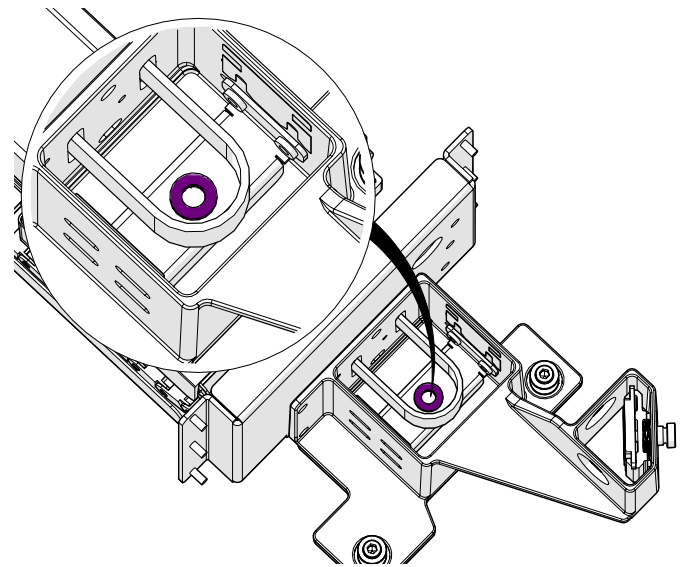
8. Remove the Delrin washer from the top of the idler pulley:



10. Remove the x-axis idler pulley:

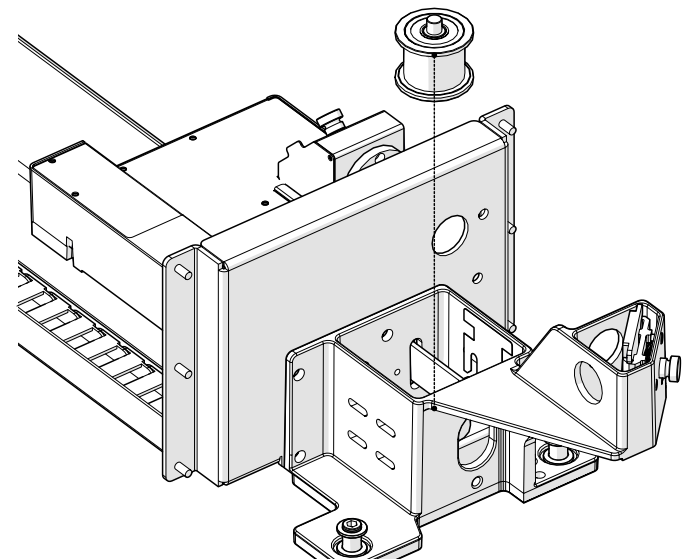


After removing the idler pulley, ensure that the lower Delrin washer remains in place:



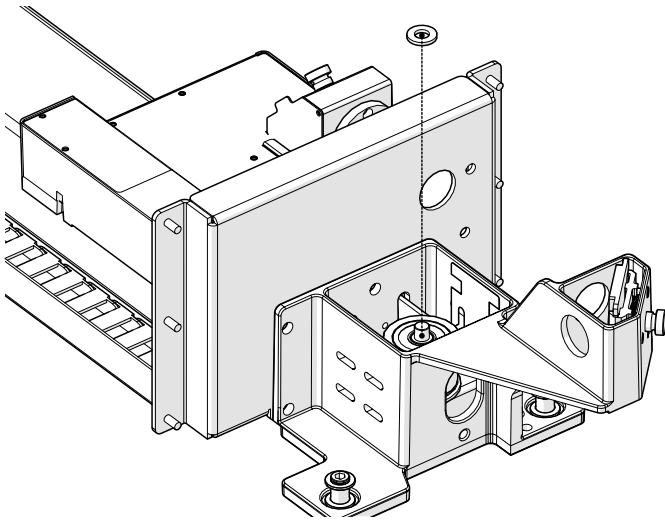
X-Axis Idler Installation

1. Install the x-axis idler pulley:

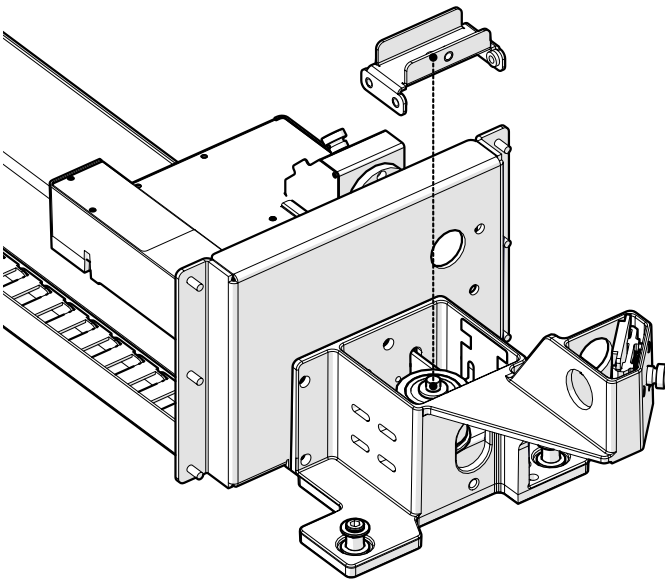


16000 - X-Idler Replacement

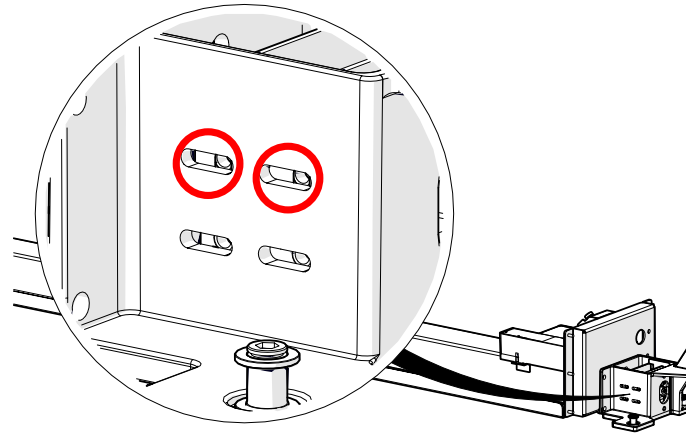
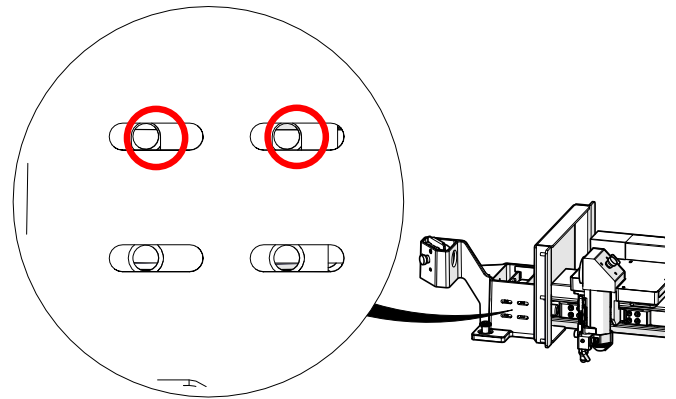
2. Install the Delrin washer on top of the idler pulley:



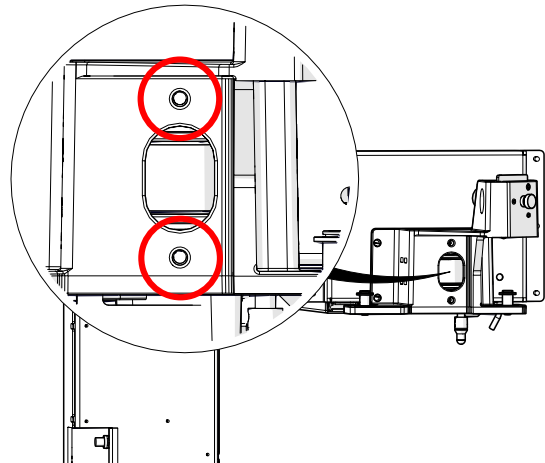
3. Install the upper tensioner bracket:



4. Install, but do not fully tighten the upper two (2) 7/64" screws on the front and rear of the x-axis assembly:



5. Apply tension to the x-axis belt via the two (2) 7/64" x-axis belt tensioning screws:



6. Remove excess slack from the x-axis belt.

16000 - X-Idler Replacement

- Once the slack is removed, reconnect to power and turn on the engraver.
- Open your preferred illustrating program and create a black, raster box on an artboard that is:
 - For Pro 48: 46" or 1100mm wide
 - For Pro 32: 30" or 800mm wide
 - Roughly 4" or 100mm tall

Print to the Software Suite or Epilog driver and assign the following settings:

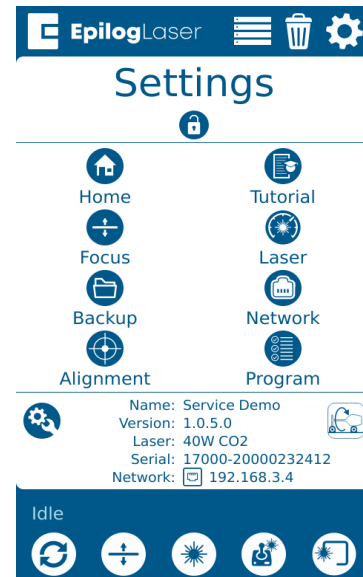
- Speed: 100
- Power: 0

Power is unimportant, as the machine will be run with the lid open for the procedure.

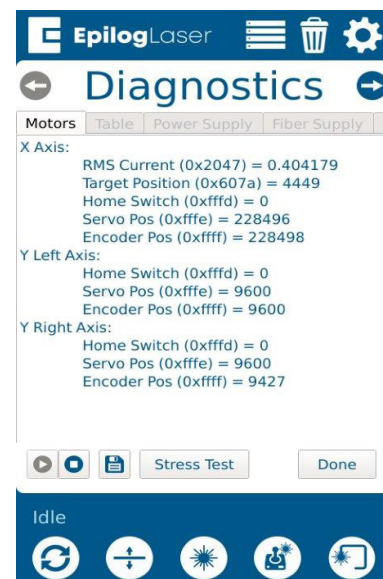
- Send the job to the engraver and start the job.
- At the display panel, press the gear icon in the upper right-hand corner of the display to open the Settings menu:



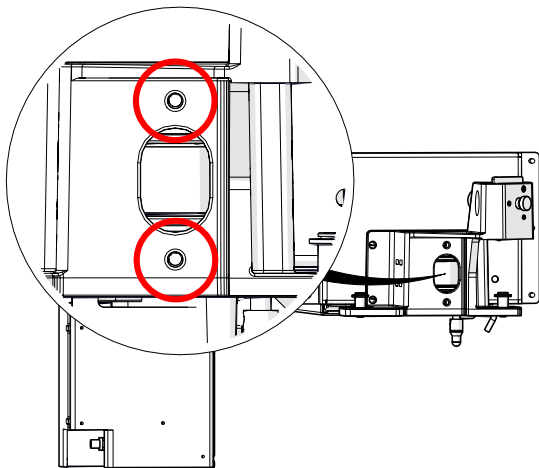
- Press and hold the word "Settings" on the touchpad to gain access to the Advanced Settings menu:



- Enter the Diagnostics menu and locate the RMS Current reading for the X-Axis Motor/Drive:



13. During the job, the x-axis motor RMS current should be between 4.5 - 6.2A.
- If the RMS current is lower than this, increase the tension on the x-axis belt by tightening the two (2) 7/64" tensioner screws on the x-axis idler assembly.
 - If the RMS current is higher than this, decrease the tension on the x-axis belt by loosening the two (2) 7/64" tensioner screws on the x-axis idler assembly:



The RMS current levels given in this procedure are given as guidelines but should not be used as the only reference when adjusting belt tension.

After tensioning the belt to an acceptable RMS current range, complete a test engraving and inspect the quality.

Engrave a line of capital "T"s using Times New Roman and inspect the serifs.

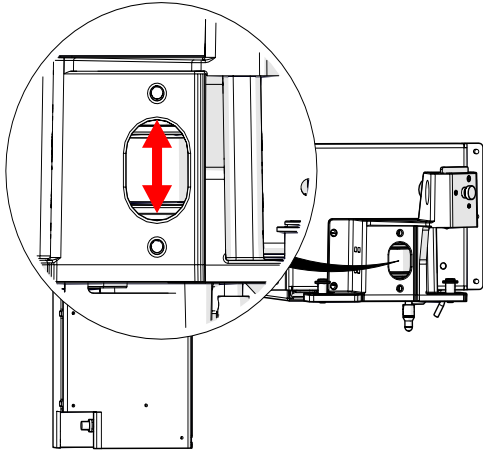
- An engraver with good x-axis belt tension will engrave the serifs with good definition.
- An engraver with loose belt tension will engrave the serifs with a doubling or skewed effect.
- An engraver with tight belt tension may produce more noise than usual and display error messages.

In certain cases where the RMS current cannot be brought above the lower limit, the belt may need to be trimmed. Use a pair of aviation or metal snips to remove two (2) teeth, and attempt the tensioning procedure again.

In certain cases where the RMS current cannot be brought below the upper limit, there may be other mechanical issues affecting the travel of the lens carriage. Ensure proper x-axis belt clamp placement, x-axis reducer belt tension, and investigate any physical obstructions or wear points.

16000 - X-Idler Replacement

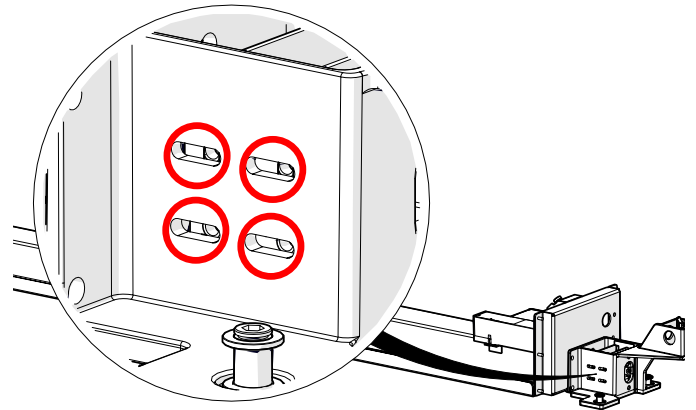
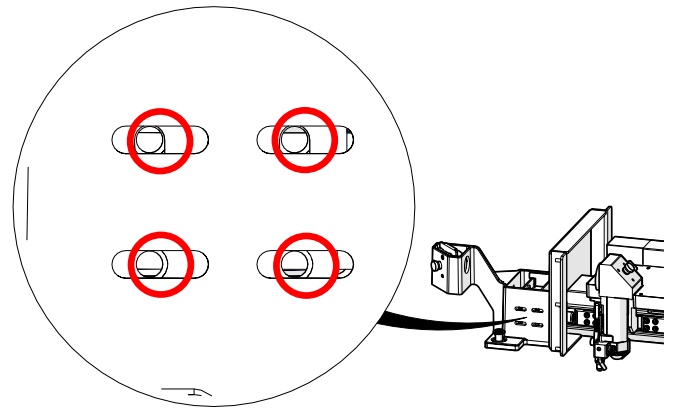
10. After tensioning the x-axis belt, ensure that the belt remains as centered as possible on the idler pulley when in motion:



11. If the x-axis belt is riding against the idler pulley flange, make equal but opposite adjustments to the two (2) 7/64" tensioner screws.

- If the x-axis belt is too high:
 - Tighten the top screw 1/4 turn
 - Loosen the bottom screw 1/4 turn
- If the x-axis belt is too low:
 - Loosen the top screw 1/4 turn
 - Tighten the bottom screw 1/4 turn

12. Repeat step 11 until the x-axis belt remains as centered as possible on the idler pulley when in motion.
13. Once the x-axis belt is centered and the optimal RMS current value has been achieved, tighten the eight (8) 7/64" idler mounting screws located on the left side of the x-axis assembly:



14. Replace the left side panel of the engraver.

If further assistance is required, contact Epilog Laser Technical Support by phone at 303-215-9171, or by email at tech@epiloglaser.com.