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Purpose

This document provides the steps to replace the roller bearings and shaft on a VX2/VXL/Solo.

Intended Use

If the roller becomes seized, or stalls frequently.

Required Material and Equipment

- Metric Allen Wrench Set (2 mm)
- SAE Allen Wrench Set (3/32")
- Roller Driver Shaft Kit (PN 1044-200-001 kit)
 - Upper Roller Assembly Bearings (2 ea.) (3/16" ID x 1/2" OD) (PN 2000-008)
 - Lower Roller Assembly Bearings (2 ea.) (5/16" ID x 1/2" OD, flanged) (PN 2000-009)
 - Roller Drive Shaft Timing Belt (PN 2000-007)
 - Roller Drive Shaft (PN 1044-200-001)
 - Roller Drive Shaft Pulley (PN 2000-092)

Note: Instruments with Serial Number lower than SN075 may require additional components due to a change in the gear ratio for the pulleys and belts in this assembly. Please contact Service@Scinomix.com to learn more.

Intended Audience

Certified Scinomix Service Technician

Prerequisites

N/A

Procedure

1. Turn off power and air to the unit.
2. Pull the unit close to the edge of the table so that the roller can be extended out over the edge with adequate area to work.

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3. Switch the run selector off of **RUN** by pushing in and turning so that **RUN** is no longer showing on top.



Figure 1.

4. Pull the stage out over the edge of the table.

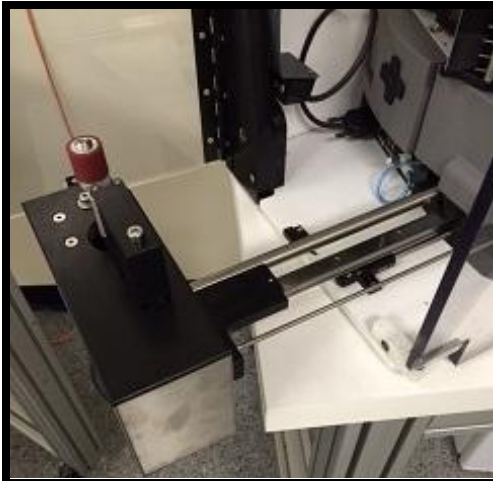


Figure 2.

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5. Remove the roller cover by removing the two screws holding it in place on the printer side using a 2mm Allen wrench.

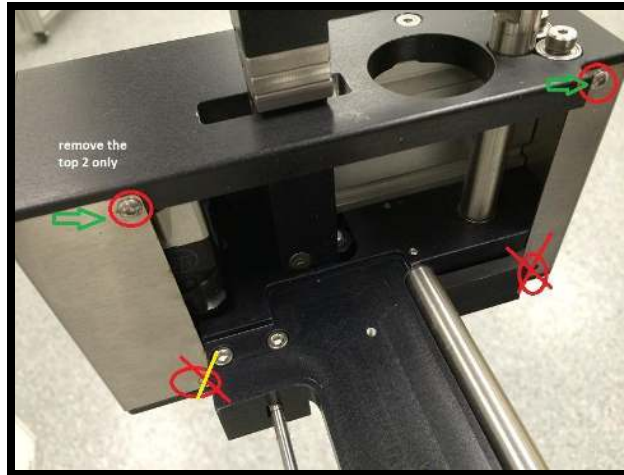


Figure 3.

6. Remove these two screws on the underside (2mm Allen), and pull the cover down and off.

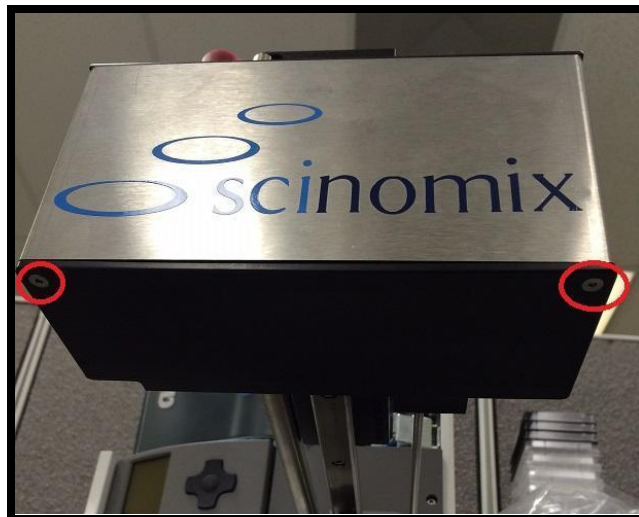


Figure 4.

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7. Unscrew the shoulder screws next to the red roller with a 3/32" Allen wrench, remove the screws and the upper roller assembly bearings.

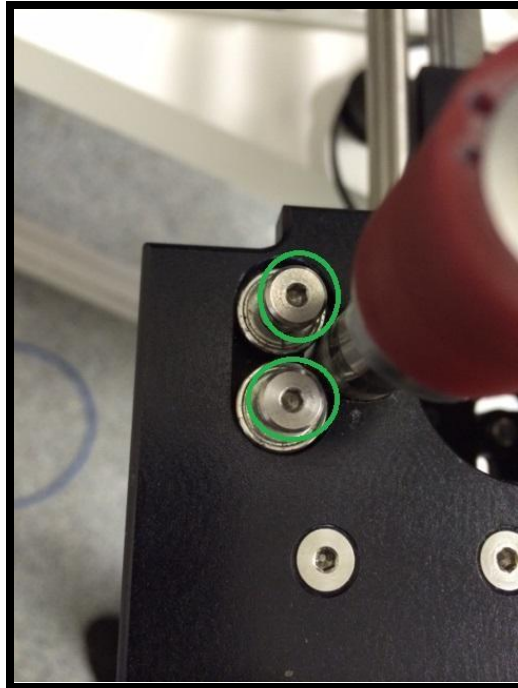


Figure 5.

8. Unscrew the set screw on the black pulley on the underside of the shaft with a 2mm Allen wrench, and pull down on the pulley to remove it from the shaft. (The belt comes off with it).

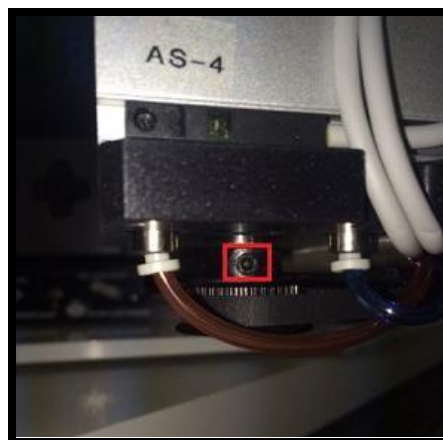


Figure 6.

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9. The two lower roller assembly bearings are found at the bottom of the shaft. Pull up on the shaft to free it from these bearings. Figure 7 below is a before and after of what you will see:

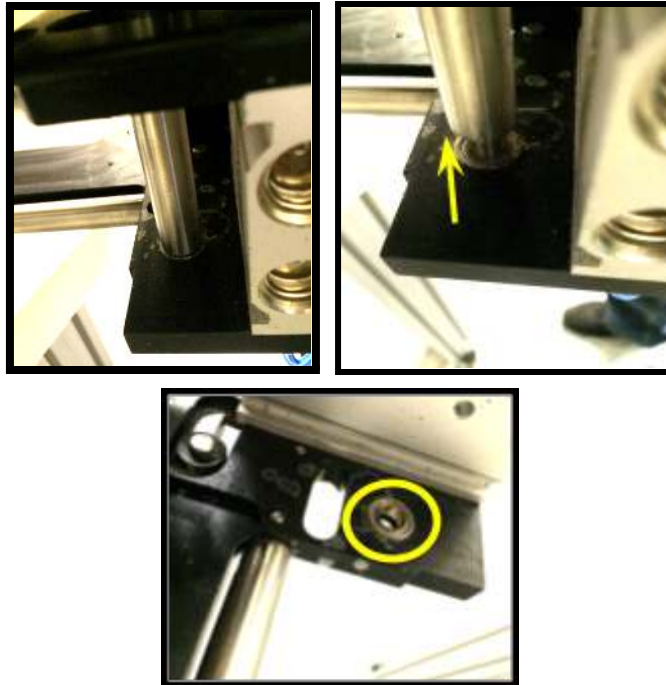


Figure 7. No shaft, with the bearings exposed

10. Remove the lower roller assembly bearings.
 - a. Insert a 4mm Allen wrench into the bearings at an angle so the end is touching the inside lip of the bottom bearing.
 - b. Tap out the bottom bearing using the shaft with the red roller like a mallet against the top of the 4mm Allen wrench.
 - c. Move the 4mm Allen wrench to the bottom of the roller assembly and tap up to free the top bearing.
11. Clean the area where the shaft and bearings were pulled with alcohol wipes.
12. Install the new lower roller assembly bearings.
13. Install the new shaft through the lower roller assembly bearings.
14. Install the new upper roller assembly bearings next to the red urethane roller (using the original shoulder screws).
15. Place the belt on the black pulley, and slide the other end over the pulley attached to the motor shaft.

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16. Attach the black pulley to the roller shaft, tighten the set screw onto the flat part of the shaft, and secure the belt travel around the guide roller as shown below.

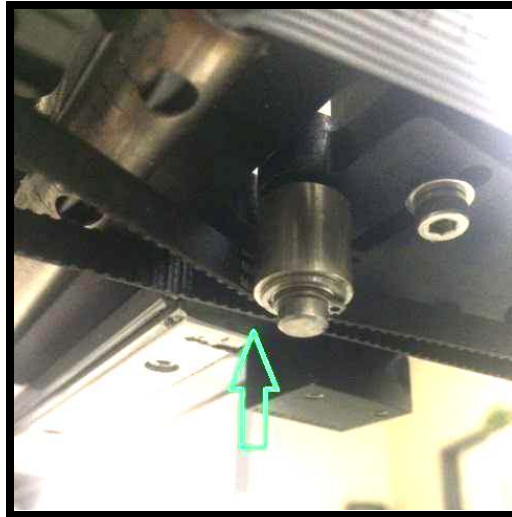


Figure 8. Note: Ensure the guide roller spins freely. If not, a replacement is required.

17. Reinstall the cover and push the stage back into the printer.
18. Reset the run selector back to run, and test the roller using the utility menu.

If you need additional assistance, please call our service department at 314-298-9800 or email service@scinomix.com.

Definitions

N/A

Revision History

Version:	Change:	Effective Date:	Approved by:
A	NEW	APR-13-2020	B. Petti
B	Content Review Added <i>Intended Use</i> section	AUG-23-2022	Service