Kodak

Magnus VLF

Replacing the Away Side Ballscrew Bearing

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1. OVERVIEW

This procedure describes how to replace the away side ballscrew bearing housing. The replacement FRU will include the bearing housing and bearings, the ballscrew motor and pulley, and the ballscrew drive belt.

To replace the home side ballscrew bearing, see the following document: *Replacing the Carriage Ballscrew Home side Bearing*.

2. PARTS/TOOLS NEEDED

- Upgrade kit (518-02429A)
- 1-11/16 in. wrench for the ballscrew
- Ballscrew nut wrench (adjustable hinged pin wrench)
- Carriage rail leveling tool (690-00074A)—optional tool
- Torque wrench capable of 25 N m
- Belt tensioning tool (included in the upgrade kit)
- Belt tensioning gauge (any spring scale capable of measuring 10 lb)
- 1 mm Feeler gauge

3. REPLACING THE AWAY SIDE BEARING ASSEMBLY

3.1 Removing the Bearing Assembly

1. Move the carriage to the away side of the device so that it will support the ballscrew when the bearing assembly is being removed and replaced. Type
   `>>carriage moveto 2000`

Note: If the ballscrew is unable to move due to a ceased bearing, then use any other means of supporting the ballscrew on the away side so that it does not drop when the bearing assembly is removed. Alternatively, you can order the carriage rail leveling tool (690-00074A) and enough large cable ties to strap the two parts together in a cross pattern to hang the ballscrew in position.

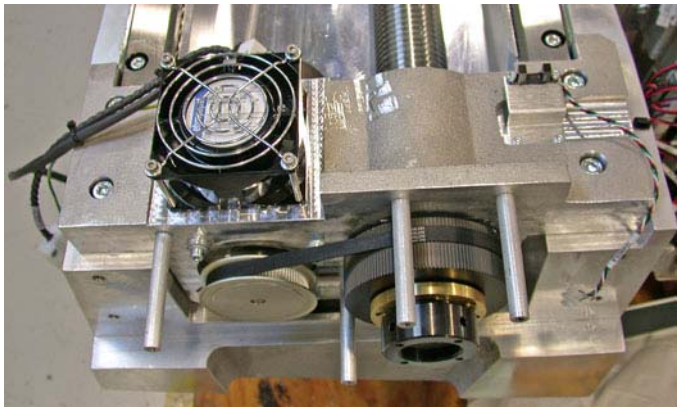
2. Turn the device's main power switch to **OFF**.
3. Remove any side panels or other assemblies to get access to the away side of the carriage ballscrew.

   For left eject devices, you can pull the SSR bin out and lower the drop down panel to allow light to enter.

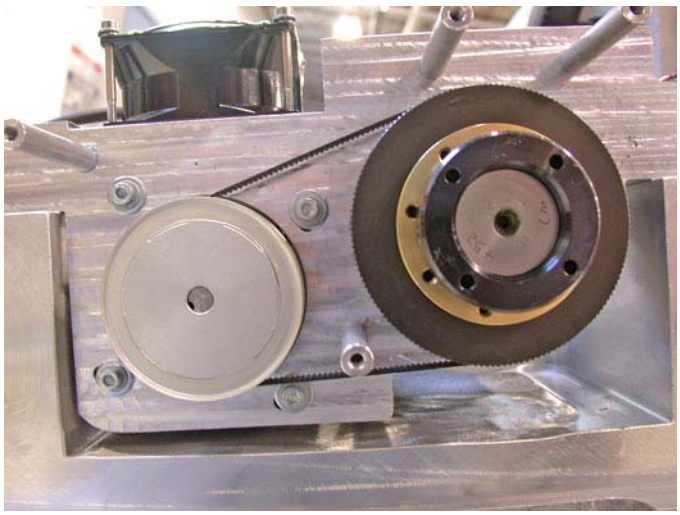
For right eject devices, you can raise the bridge panel and remove the device side panel.

4. Remove the yellow carriage belt cover.

5. Disconnect the limit switch cables, motor cables, and fan cables that connect to the bearing block.



6. Loosen the ballscrew motor mounting screws (4) and pivot the motor pulley towards the ballscrew pulley so that the carriage belt can be removed from the pulleys.



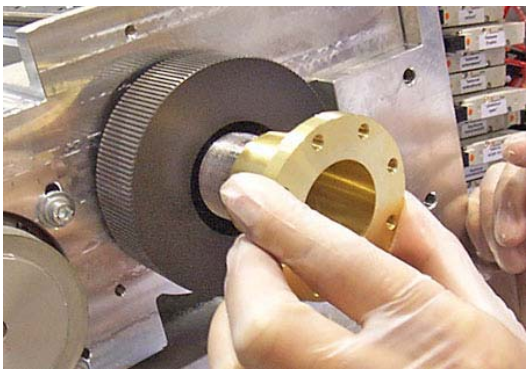
7. Loosen the setscrews on the ballscrew nut.



8. Loosen the ballscrew nut using a ballscrew nut wrench and a 1-11/16 in. wrench on the ballscrew.



9. Remove the pulley taper lock (left photo) and wave spring (right photo) from the ballscrew.





10. Remove the four bolts that secure the bearing assembly to the engine casting and slide the bearing assembly off the ballscrew.

3.2 Installing the New Bearing Assembly

1. Apply NBU 15 grease to the ballscrew bearing before installing the bearing block assembly on the device. The new assembly will have the ballscrew motor and cooling fan already installed.

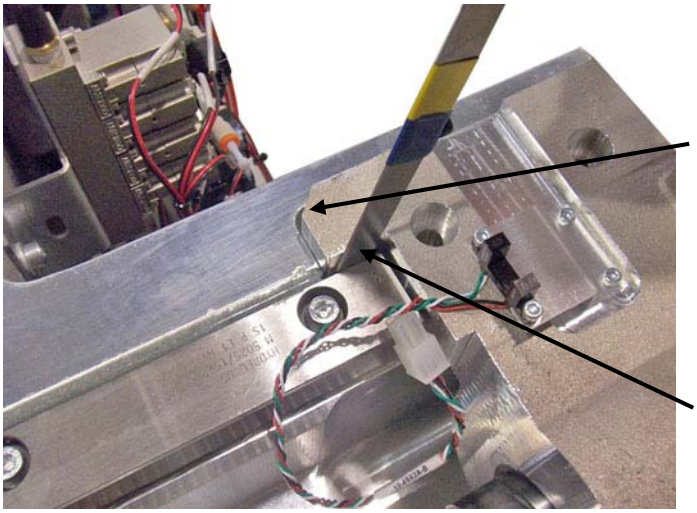
2. Slide the assembly onto the ballscrew and insert the four bolts that secure it in place—do not tighten the bolts yet.

3. Position the bearing assembly:

   Push the bearing assembly towards the home side of the device so that it butts up against the casting.

   Use a 1 mm feeler gauge to adjust the gap on the drum side of the casting.

Tighten the bolts and torque to 25 N m.



4. In this order, install the wave spring, the ballscrew pulley, the pulley taper lock, and the ballscrew nut onto the ballscrew.
5. Tighten the ballscrew nut and lock it in place with the setscrews—apply Loctite 242 to the setscrews.
6. Loosen the four ballscrew motor mounting bolts and install a new belt over the pulleys. To tension the belt, see the following procedure on TechPlanet: *Replacing the Carriage Belt*.
7. Transfer the limit switches from the old bearing assembly to the new one.
8. Connect the limit switch cables, the motor cables, and the fan cables.
9. Turn the ballscrew by hand (or use a drill with the special adaptor) and check that the ballscrew turns freely and that the carriage moves smoothly along the carriage tracks.
10. Install the carriage belt cover.
11. Install any other panels or components that were removed to gain access to the bearing assembly.
12. Turn the device's main power switch to **ON** and run a test plot to test the functionality of the new ballscrew away side bearing.