Driver Bearing Replacement
AS40 Conveyors

WARNING

SEVERE HAZARD! LOCK OUT POWER before removing guards or performing maintenance. Exposed moving parts can cause serious injury.

Overview

QC Industries' instructions for driver bearing replacement are important to review to assure the conveyor you are servicing will perform to its designed capability. In some cases, if the directions are not followed, the end user can find themselves in a repetitive pattern of bearing replacement at very short intervals. In order to ensure this is not the case, QC Industries recommends the following procedure when either replacing the entire driver assembly or when replacing just the bearings.

Drive Assembly Replacement Instructions

Steps 1-10 below are for all new parts. Steps 11-27 are when the existing driver is to be used and new bearing plate assemblies have been ordered.

Step 1 – Remove the drive package from the conveyor. Release tension on the belt by depressing the buttons and lifting the Tension Release Tail.

Step 2 - Remove the belt on the drive end. The belt does not need to be completely removed.

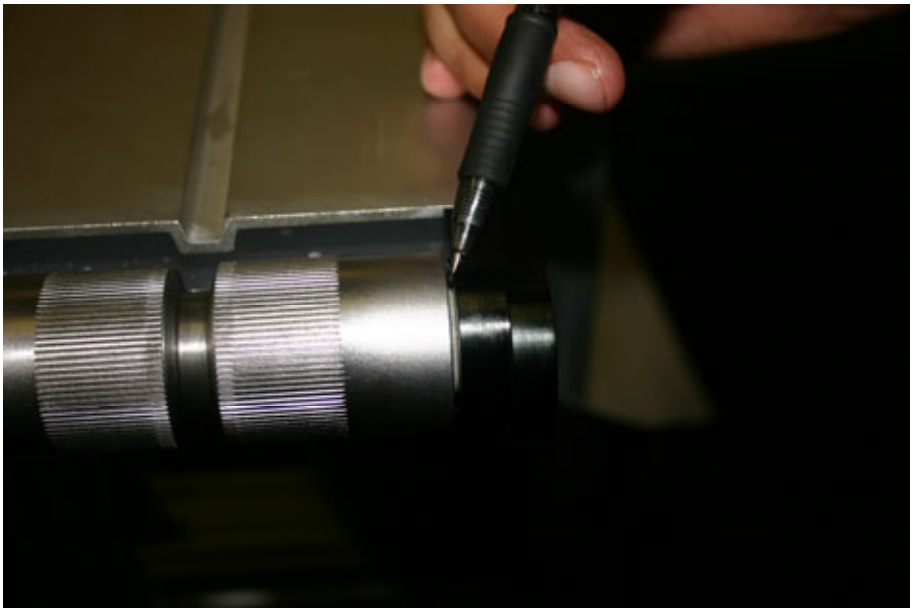
Step 3 – Loosen the six M6 x 10mm length socket head cap screws with a 4mm allen wrench.

Step 4 – Slide the driver assembly out of the t-slot frame. For complete drive replacement continue to step 5. For bearing replacement that uses the existing drive pulley proceed to step 11.

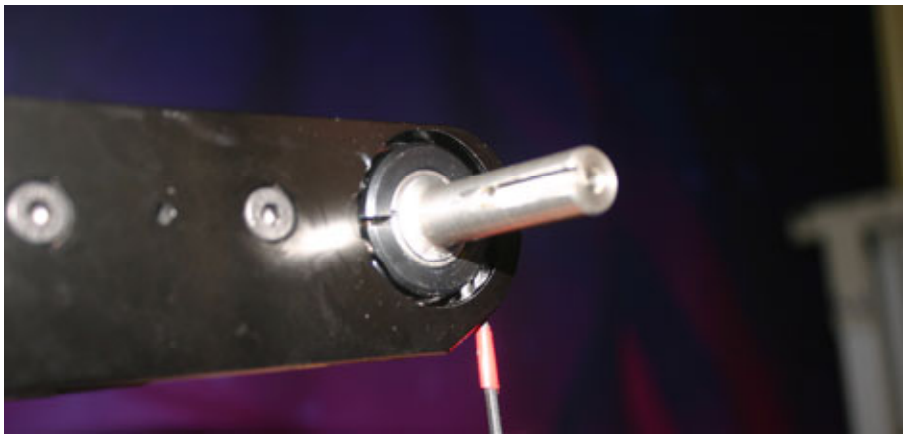
Step 5 – Slide new driver assembly into frame t-slots.

Step 6 – Replace the six M6 x 10 mm length socket head cap screws using the 4 mm allen wrench to 8 ft pounds (10.8 Nm).

Step 7 – Center the drive pulley on the frame. Equally space each side of drive pulley so the gap between the bearing plate and pulley are equal as shown.



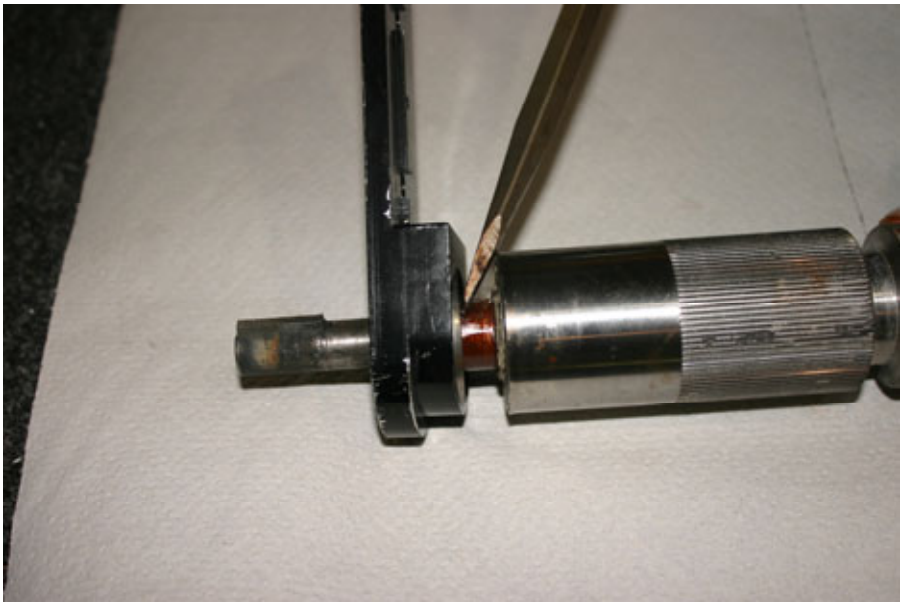
Step 8 – Tighten the two M3 x 8 mm socket head lock collar screws to 2.1 newton meters (18.5 in-lbs) through the access holes in the bearing plates using a 2.5 mm allen wrench.



Step 9 – Replace the belt onto the conveyor.

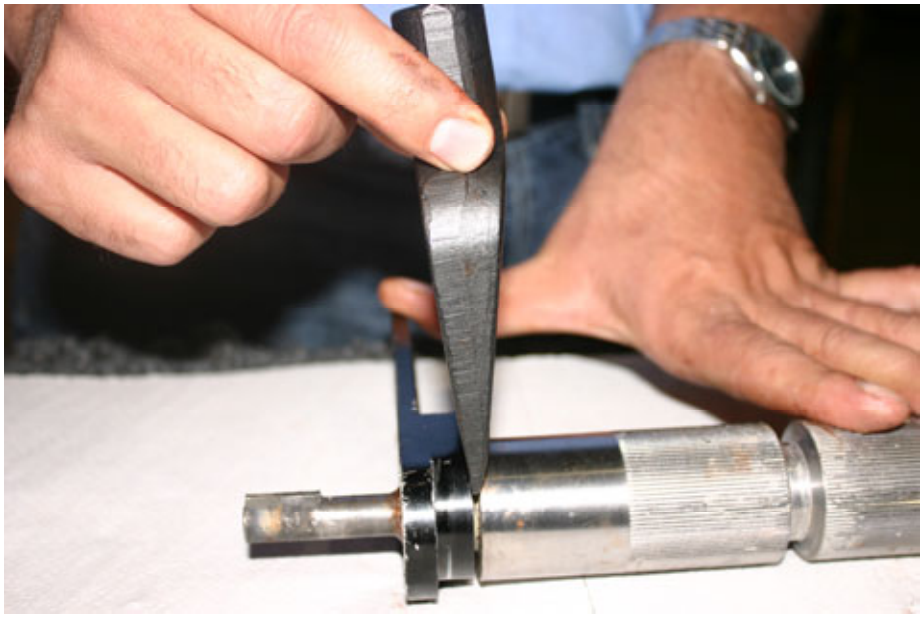
Step 10 – Push the Tension Release Tail back down to its locked position. Reassemble the drive package and track the conveyor belt. Stop here for if you replaced the complete drive assembly.

Step 11 – For bearing replacement that uses existing pulleys use a screw driver to force the bearing off the drive pulley. If the bearing does not release then a separator tool must be used as in steps 12-16.



Step 12 – Typical separator tool shown. For reference the part shown below is Sears Craftsman Model #30308.

Step 13 – Position the tool with the straight edge of the tool to the bearing side and the angled edge toward the pulley side.



Step 14 – With a hammer tap the separator tool to drive the bearing off the pulley journal.

Step 15 – The separator tool will need to be driven down far enough to disengage the bearing from the pulley journal.

Step 16 – Remove the bearing plate assembly from the pulley journal. Repeat steps 13-16 for the other side.

Step 17 – The pulley journal can now be inspected for damage/wear.

Step 18 – Clean the pulley journal surface and inspect it for wear. If it shows signs of surface wear (as shown below) then it should be replaced.

Step 19 – If no wear is present, measure the journal diameter of the pulley as shown. The diameter should measure .6693/.6688 inches. If it is not to these measurements, the pulley should be replaced. Return to step 5 and proceed.

Step 20 – Locate the loose parts as shown.

Step 21 – Assemble the bearings into the bearing plates.

Step 22 – Assemble the lock collar onto the bearing flange.

Step 23 – Align the two piece lock collar with the two reliefs in the bearing flange and lightly tighten the clamp collar set screws just enough to assure the collar does not fall off the flange during assembly.

Step 24 – Locate an assembly paste such as SKF Antifret agent or equivalent.

Step 25 – Apply paste to bearing journals.

Step 26 – Slide bearing plate assemblies onto both journals.

Step 27 – Final drive assembly is now ready to be placed back on the conveyor. Return to step 5.