

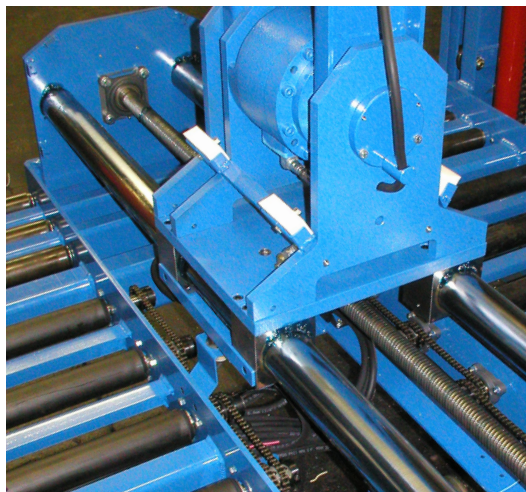
## **80252011-i - LEAD SCREW RETRO KIT** **INSTALLATION INSTRUCTIONS**

### **Tools Required:**

- Ratchet
- 3/8" & 3/4" Sockets
- 9/16" Combination wrench
- 5/32" & 5/16" Allen wrenches
- Drill
- 1/4", 13/32" & 17/32" Drill bits
- Needle nose pliers
- Hammer
- Center punch
- #2 Lithium based grease
- Loctite #242

### **Notes:**

- ① Refer to kit part # 80252011 for the complete bill of materials supplied.



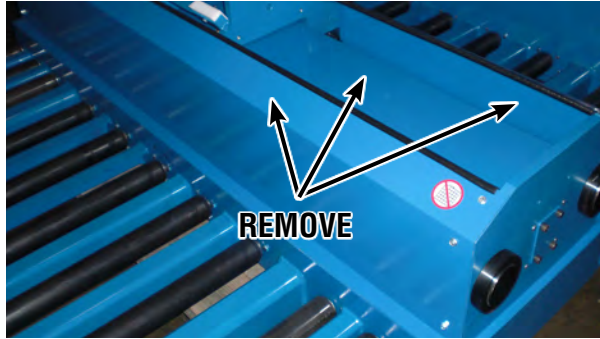
*LEAD SCREW RETRO KIT AS INSTALLED*

### **IMPORTANT:**

- **Read and understand the Safety and De-energization Procedure TP-606 before starting this procedure.**
- **Read and understand these instructions completely before starting this procedure.**

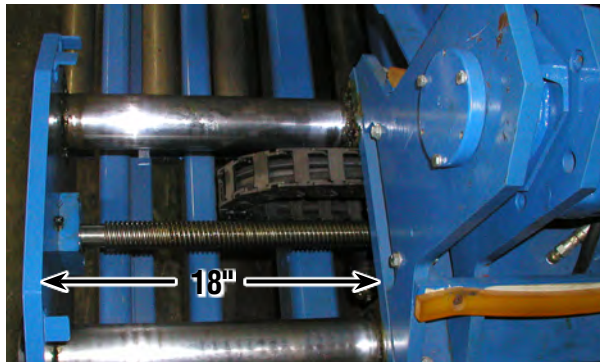
**Procedure:**

1. Remove the (3) lead screw guards on the machine. See Figure 1.



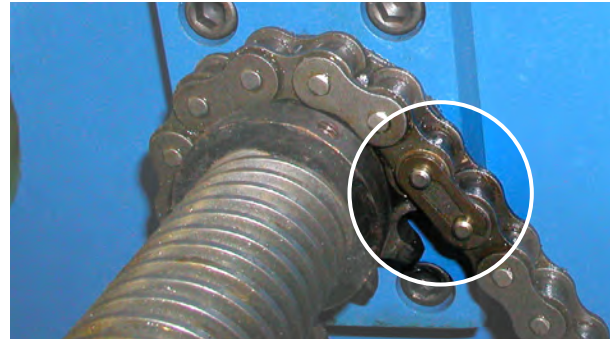
**FIGURE 1**

2. Move the extractor arm approximately 18" away from the side opposite of the lead screw motor. See Figure 2.



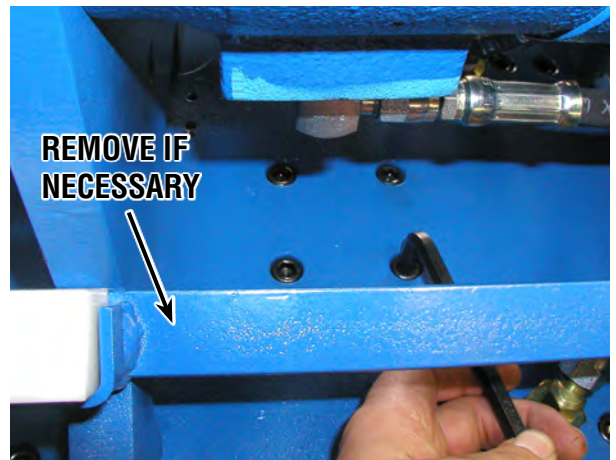
**FIGURE 2**

3. Lockout/tagout the Battery Extractor (BE) per your corporate policy.
4. De-energize the BE per BHS Safety and De-energization Procedure TP-606.
5. Remove the connecting link and lead screw drive chain. See Figure 3.

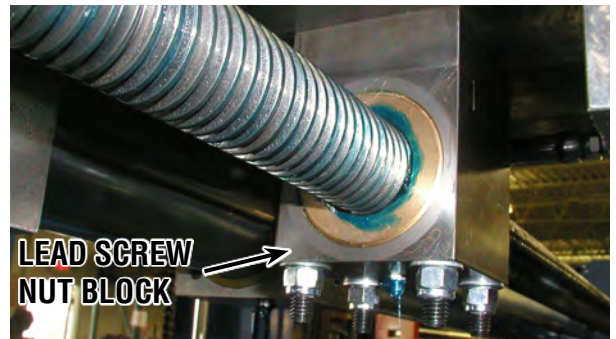


**FIGURE 3**

6. Remove the (4) bolts which mount the lead screw nut block to the extractor arm base plate. The extractor arm stop may be removed to make the area more accessible. See Figures 4 & 5.

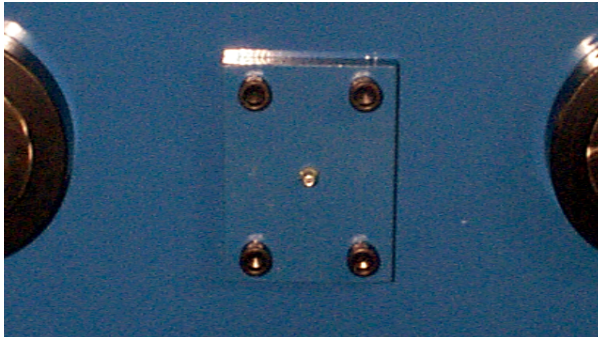


**FIGURE 4**



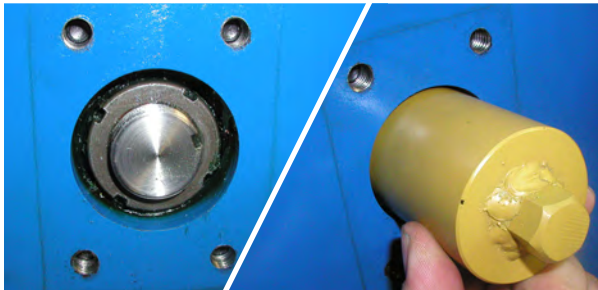
**FIGURE 5**

- Remove the bearing cover plates from both sides of the machine. See Figure 6.



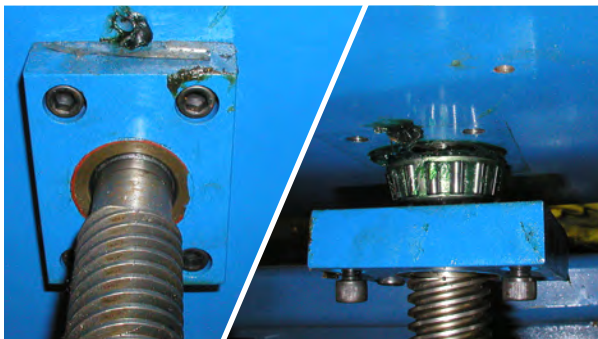
**FIGURE 6**

- Once the bearing cover plates have been removed, use the spanner wrench provided with the kit to remove the outer bearing retaining nuts. See Figure 7.



**FIGURE 7**

- Remove the hardware from the bearing retainer blocks inside the extractor arm housing on both sides. This will disconnect the lead screw from the extractor. See Figure 8.

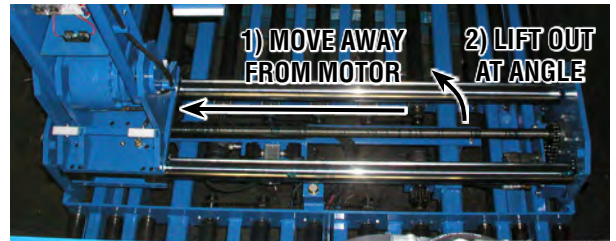


**FIGURE 8**

- Manually push the extractor arm assembly completely to the side opposite the lead screw motor. This will aid in removal of the lead screw.

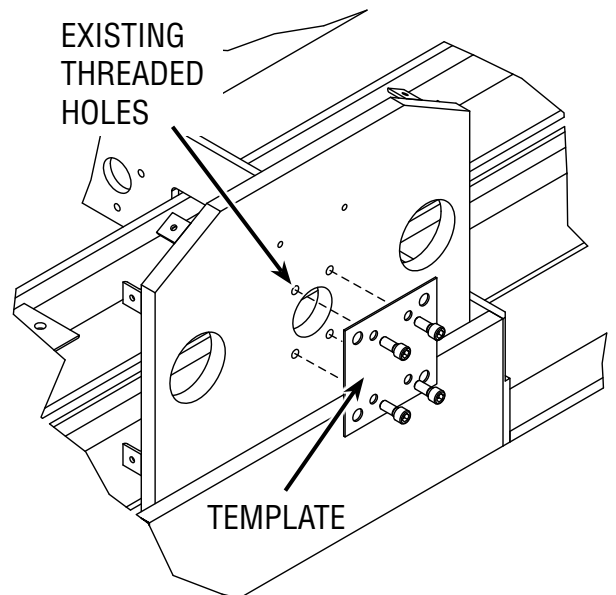
- Remove the lead screw assembly by moving it away from the lead screw motor until the sprocket end of the shaft is clear of the bearing hole. Lift the assembly out at an angle. Remove and save the lead screw nut block for reuse. See Figure 9.

ⓘ *Note: Severely worn or damaged lead screw assemblies may be cut in half using a reciprocating saw or similar device to make removal easier.*



**FIGURE 9**

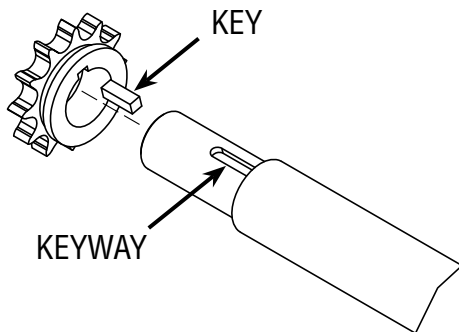
- Attach the supplied bearing template to the outside of the housing end plate using the existing end cap hardware and threaded mounting holes. See Figure 10.



**FIGURE 10**



13. Center punch the center of the (4) holes to be drilled in the side plate and remove the template.
14. Drill 1/4" pilot holes through the side plate at each center punch mark. Drill each hole to 13/32". Finish by drilling 17/32" holes.
15. Repeat Steps 12-14 on the opposite side of the machine. Discard the template after both sides have been properly drilled. Save the socket head cap screws for later use.
16. Reinstall the lead screw nut block on the new lead screw.
17. Install the new drive sprocket and key to the keyed end of the lead screw. See Figure 11.



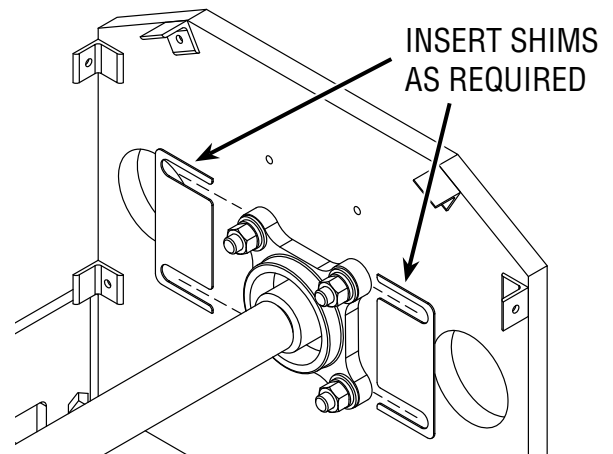
**FIGURE 11**

18. Install flange bearings at each end of the lead screw. The flat side of the bearing and the end of the lead screw should be flush. Do not tighten the bearing set screws at this time.
  19. Slide the lead screw assembly into place between the housing end plates with the grease fitting on the bearings facing down. Fasten the bearings to the plates with the supplied 1/2" hardware. See Figure 12.
- ① *Note: The new flange bearings are sealed and lubricated from the factory and do not require lubrication. Over lubrication of the bearings will damage the seals and will ultimately result in bearing failure.*



**FIGURE 12**

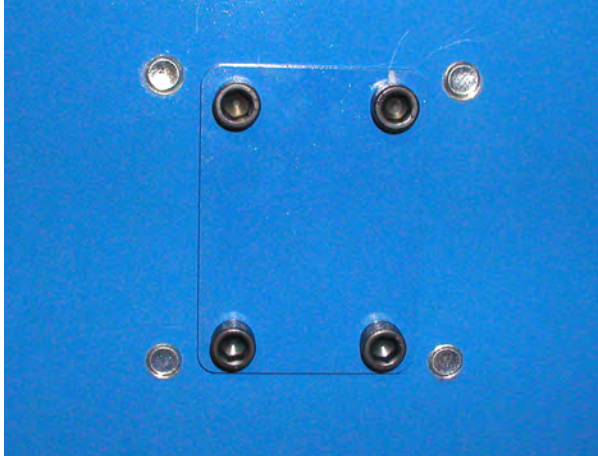
20. Due to manufacturing tolerances, shims may be required between the flange bearing and the end plate opposite the lead screw motor. To determine if shims are required, grasp the lead screw and move it side-to-side within the bearing collars. There should be no more than 1/32" of clearance between the bearing collars and the machined step of the lead screw. Use the supplied shims to obtain the proper clearance. See Figure 13.



**FIGURE 13**

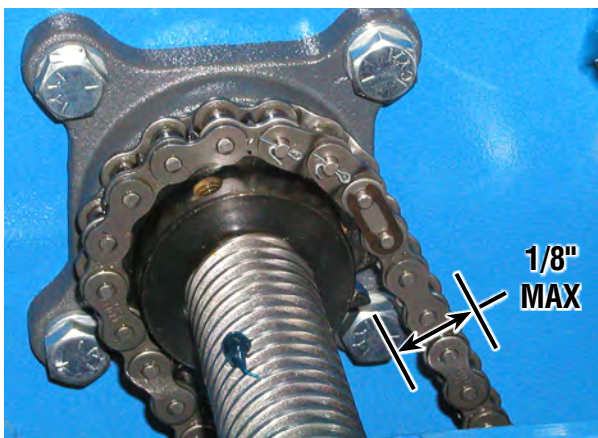
21. Apply Loctite #242 to the lead screw bearing setscrews and tighten.

22. Install the supplied bearing covers on both sides using the existing socket head cap screws previously used to attach drill template. See Figure 14.



**FIGURE 14**

23. Apply a generous amount of grease to the nut block via the grease fitting. Slide the extractor arm assembly until it is lined up over the nut block on the lead screw. Reattach the nut block using the new nut block hardware supplied. See Figures 4 & 5.
24. Reinstall and align the lead screw motor drive chain and connecting link, verifying clearances around chain and sprockets. Readjust chain tension as necessary via the slotted motor mounting plate. Apply Loctite #242 to sprocket set screws and tighten to secure in place. See Figure 15.



**FIGURE 15**

25. Apply a generous amount of grease to the entire length of the lead screw. Remove excess grease that may "fling off" when the lead screw is turned.
26. Remove lockout/tagout for the extractor.
27. Move the arm the entire travel length from side-to-side and observe the movement. Arm travel should be smooth along the entire length of the lead screw. Once proper operation is verified, reinstall the guards.