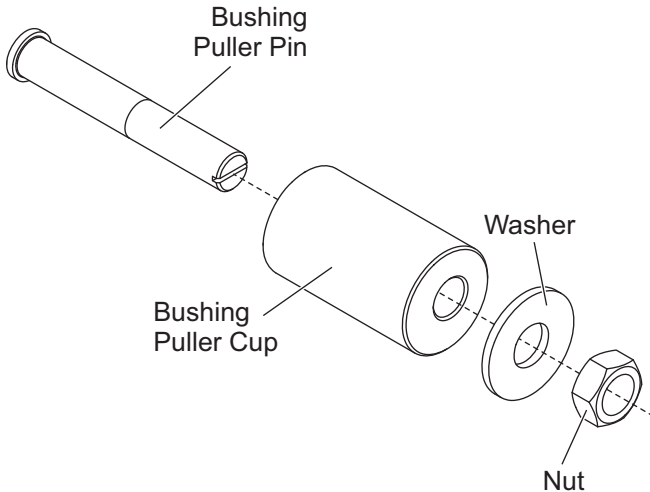
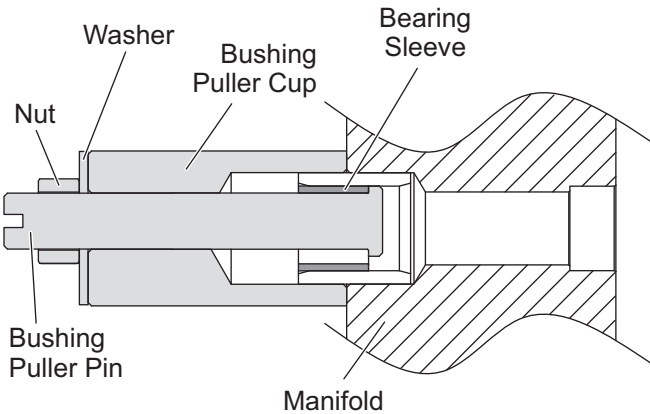


**REMOVING DAMAGED BEARING SLEEVES**

1. Remove the reservoir, pump and motor from the hydraulic manifold.
2. Insert the bushing puller pin into the bore end of the bushing puller cup, install the washer, and hand turn the nut onto the pin 2–3 full rotations.



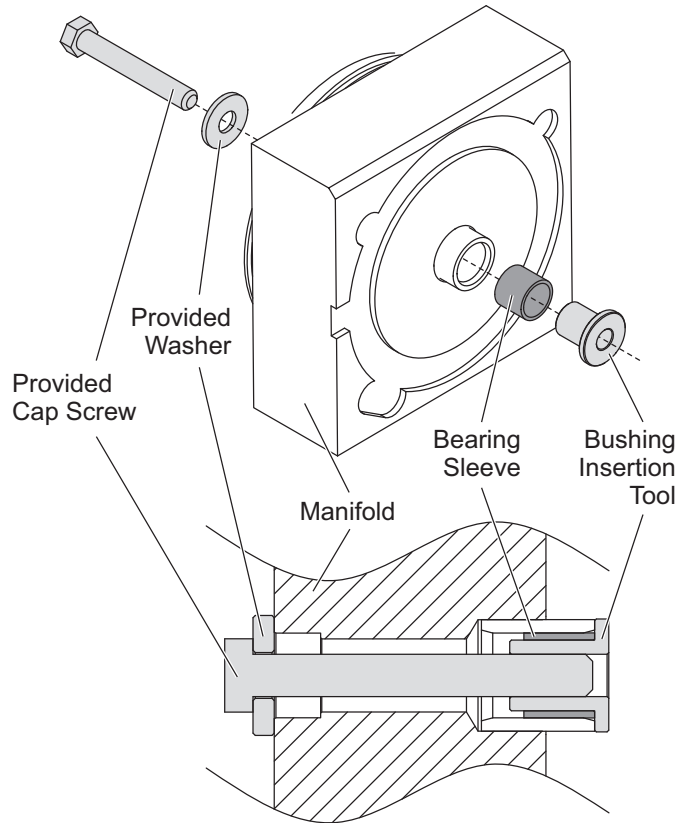
3. Insert the head of the puller pin into the bearing sleeve.



4. Turn the nut onto the bushing puller pin until the underside of the pin head is snug against the end of the bearing sleeve.
5. With a box wrench, slowly turn the nut until the bearing sleeve is removed from the aluminum bushing in the manifold. Use a flat-head screwdriver in the bushing puller pin slot to keep it from rotating during the removal of the bearing sleeve.

**INSERTING NEW BEARING SLEEVES**

1. After the damaged bearing sleeve has been removed, install the new bearing sleeve onto the bushing insertion tool as shown, and place it into the chamfer of the aluminum bushing in the manifold.



2. Install the supplied washer onto the supplied cap screw, and hand turn the cap screw into the bushing insertion tool from the pump side of the manifold.
3. Turn the cap screw into the insertion tool until the insertion tool contacts the aluminum bushing.
4. To remove the insertion tool, turn the cap screw 3 full turns counterclockwise, then lightly tap with a hammer. Repeat until the insertion tool is free from the bearing sleeve.

**NOTE: Once this procedure has been completed, make sure that the pump shaft seal hasn't been damaged before reassembling the hydraulic unit.**

**NOTE: The bushing insertion tool sizes the ID of the bearing sleeve. Store the tool in the supplied bushing to prevent damage.**

---

**PUMP ALIGNMENT**

---

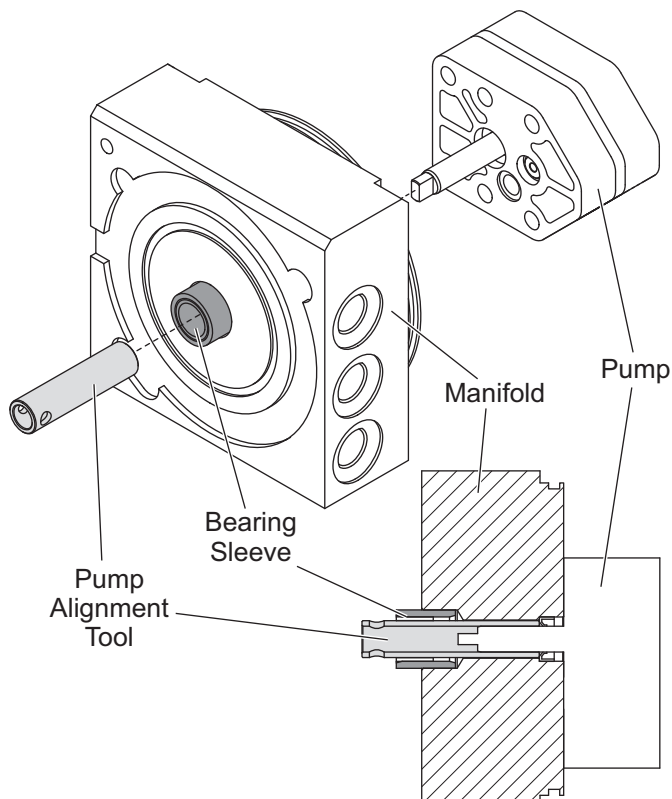
**NOTE:** Hydraulic pump may contain a .75 OD alignment ring that fits in a counter-bore around the shaft. This procedure is necessary only for hydraulic pumps that do not utilize this alignment ring (see illustration below) or if the alignment ring has been lost.

---

1. After the new bearing sleeve has been inserted, install the pump and pump fasteners, but do not tighten.
  2. Insert the pump alignment tool into the bearing sleeve and over the pump shaft.
  3. With the pump alignment tool in place, alternately tighten the pump fasteners to 150–160 in-lb.
  4. Remove the pump alignment tool.
- 

**NOTE:** If the OD of the alignment tool is marred, it will damage the motor bearing sleeve. Store the tool in the supplied rubber tubing.

---

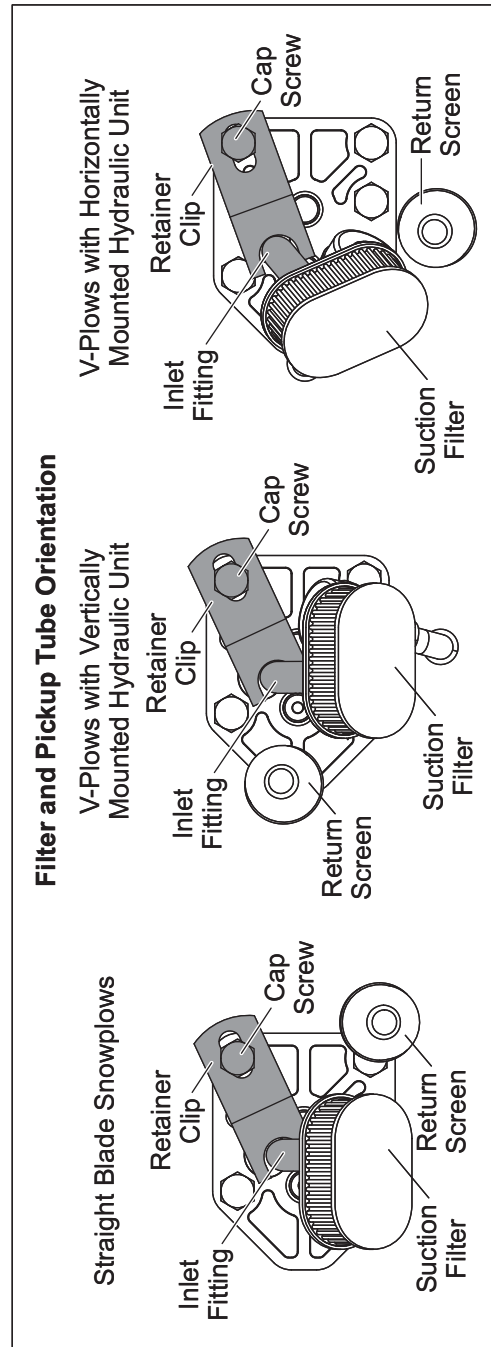
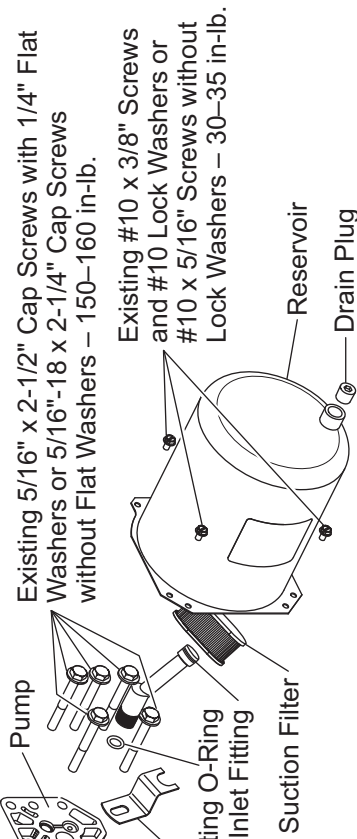
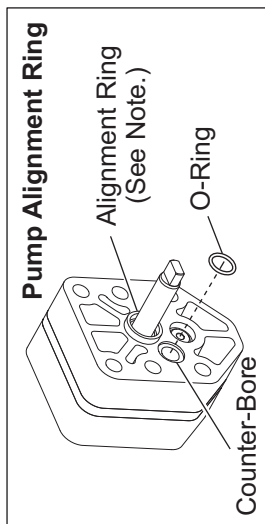
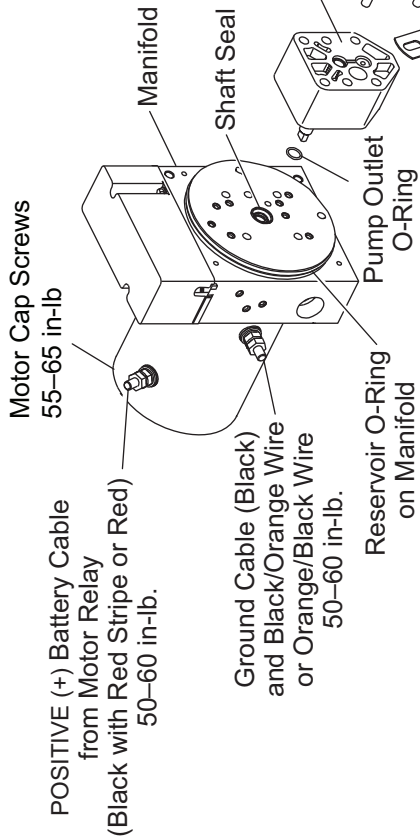
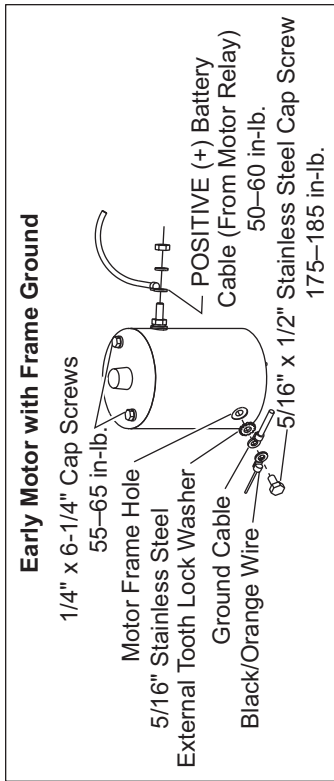


---

**NOTE:** Refer to the information on the following page for hydraulic assembly information.

---

HYDRAULIC UNIT ASSEMBLY



The company reserves the right under its product improvement policy to change construction or design details and furnish equipment when so altered without reference to illustrations or specifications used.

**Printed in U.S.A.**