

GT- Series Hydraulic Pump Changing Rotation Procedure

PLEASE READ BEFORE ANY MODIFICATIONS ARE MADE TO A PUMP:

ANY MODIFICATIONS TO A PUMP BY ANYONE OTHER THAN AN AUTHORIZED ALLIED SYSTEMS SERVICE TECHNICIAN WILL VOID THE WARRANTY. TO MAINTAIN THE WARRANTY, ANY UNIT REQUIRING MODIFICATION SHOULD BE RETURNED TO ALLIED SYSTEMS. PLEASE, CONTACT AN ALLIED SYSTEMS REPRESENTATIVE AT (503)-625-2560 TO ARRANGE FOR THE UNIT'S RETURN.

Changing Rotations In A Tandem

Uni-Directional GearTek Unit

PRE-MODIFICATION NOTES:

- These directions do not apply to any Bi-Rotational unit
 - The workplace should be clean and free of dirt, metal shavings and/or other possible contaminants.
 - Special care should be taken with all components of the unit to insure that they are kept clean and unscarred by improper handling procedures. Special attention should be paid to O-rings, shaft seals, and other 'soft' components that are especially vulnerable to physical handling.
1. Remove nuts and washers from the studs. Stand unit with the drive gear pointing up. Orientate the unit as shown on the attached rotation sheet, page 3, with the drive gear in either the 'higher' or 'lower' position.
 2. Slowly pull the mounting flange up and over the drive gear. Make sure that the shaft seals are NOT damaged by the keyway or spline on the drive gear.
 3. There will be two tapped holes in the back (O-ring side) of the mounting flange. Note which hole has been plugged. Remove the flange plug from the back of the mounting flange and re-install it in the other tapped hole. Plug must be below the flange surface when fully installed.
 4. Note the orientation of the pressure balance in the pressure plate. While holding down on the idler gear, pull the drive gear out with the 'top' pressure plate. While holding down on the 'bottom' pressure plate, pull the idler gear out. Do not remove the 'bottom' pressure plate.
 5. Note the orientation of the front body and bearing plate. Remove the front body and set it aside. The unit may have originally been assembled with stud

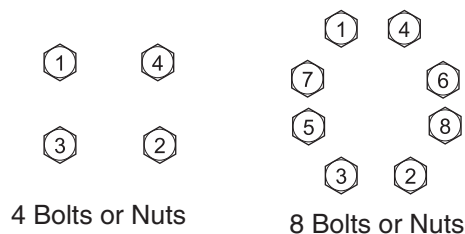
stabilizers, O-rings around the studs. If it was, these O-rings should be on the bearing plate at each stud hole. Remove the stud stabilizers. Remove the bearing plate and coupling.

6. Note the orientation of the pressure balance in the pressure plate. While holding down on the rear idler gear, pull the rear drive gear out with the 'top' pressure plate. While holding down on the 'bottom' pressure plate, pull the idler gear out. Do not remove the 'bottom' pressure plate.
7. Place the idler gear that was just removed in the gear bore opposite from where it was removed. Replace the rear drive gear in a similar manner. Re-install the 'top' pressure plate with the pressure balance facing up. Trap in pressure plate should be on the discharge (or outlet) side of unit. Make sure the pressure balance is installed in the grooves correctly. Confirm that the two dowels are installed in the body.
8. Make sure that the O-rings in the bearing plate are correctly installed in the grooves before replacing the bearing plate in its original position. Then re-install the coupling and re-install the stud stabilizers around the studs. Install dowels.
9. Replace the front body in the same position as before and install the gears to match the new rotation as before. Install the 'top' pressure plate with the pressure balance up and the trap on discharge side as before. Make sure the pressure balance is installed in the grooves correctly. Confirm that the two dowels are installed in the front body.
10. Check the O-ring in the mounting flange and rotate the mounting flange 180 degrees from original position and re-install. Replace the nuts and washers and tighten to these specifications:

C/D/HD Series: 80-90 ft./lbs.

E/F Series: 160-175 ft./lbs.

NOTE: When assembling a pump, air impact guns can **only** be used to run the nut or bolt down flush. They are **not** to be used to torque. Torque nuts and bolts in the sequence shown below:



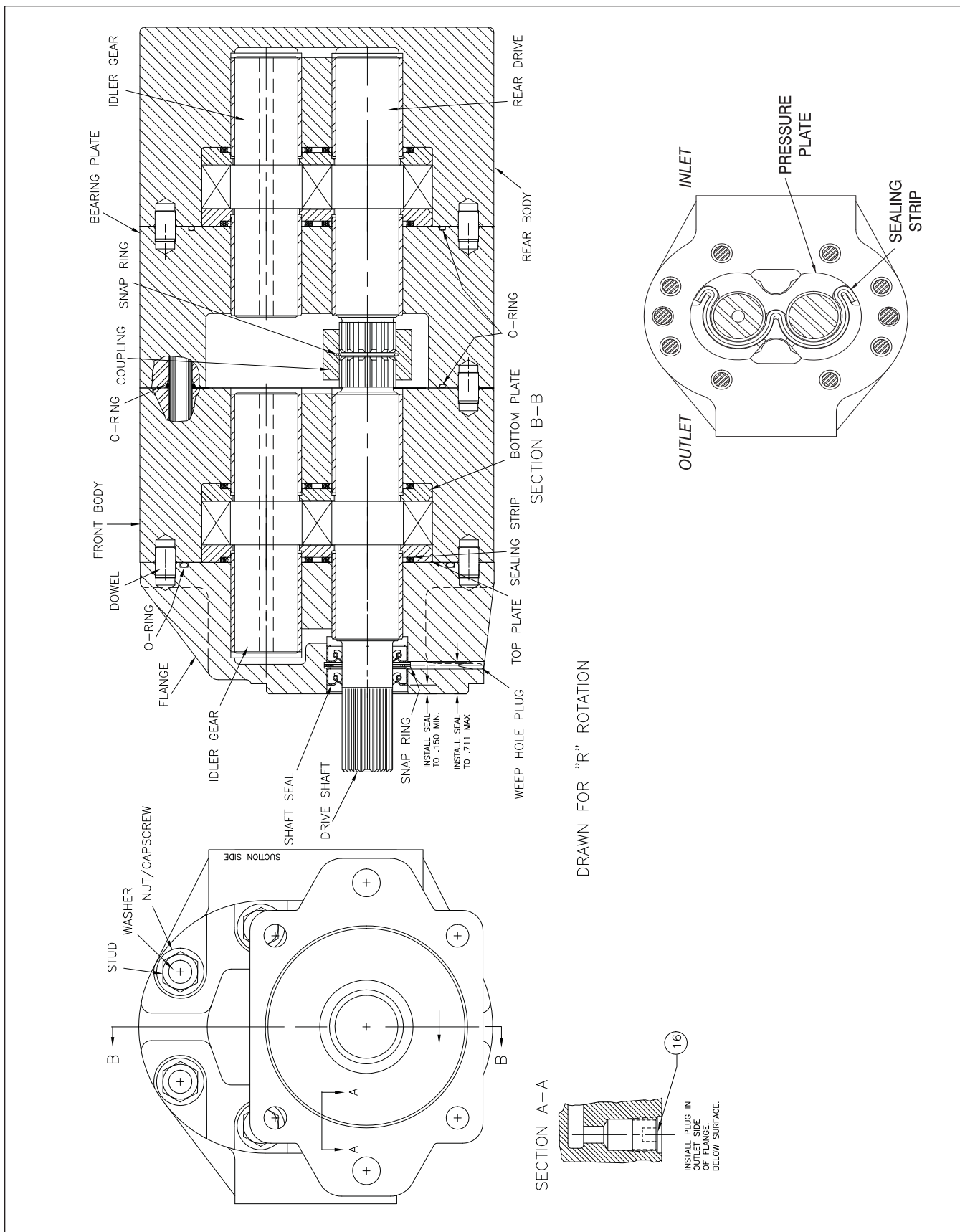


Figure 1-1: Typical Multiple-Section Pump Cross-Section

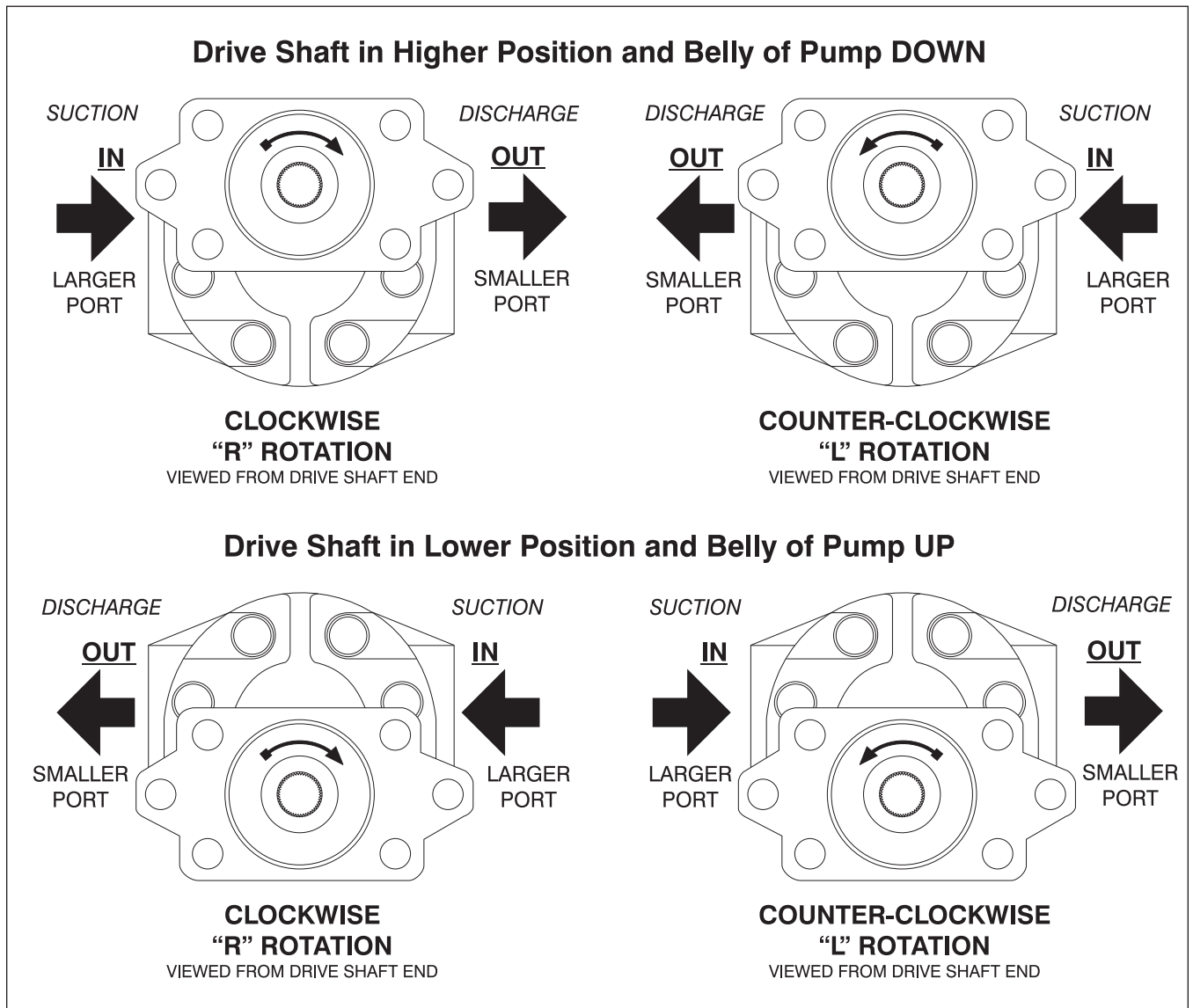


Figure 1-2: Direction of Rotation and Location of Suction and Discharge Ports