Parker Hannifin Corporation
Gear Pump Division
1775 Logan Avenue
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Instructions: Change of Rotation, C102 / G102 (Dump Pump Assembly)

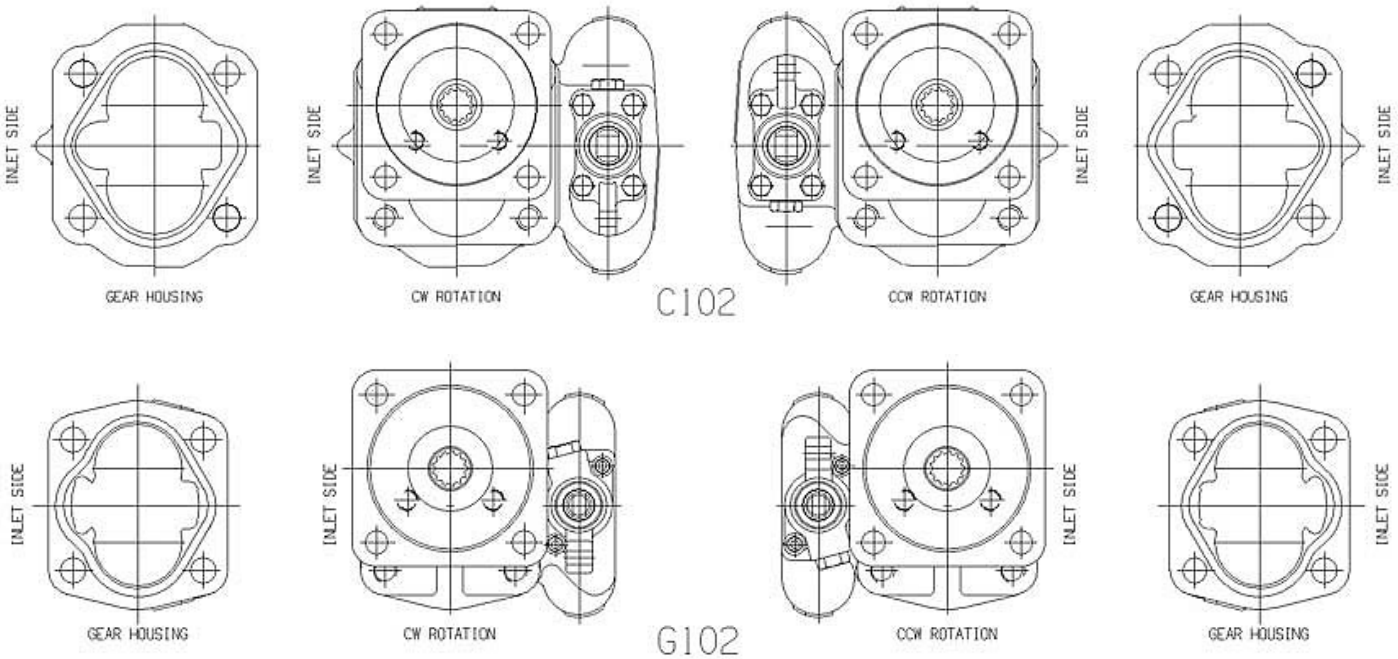
To change the rotation of a Pump, proceed as follows:

1. Remove the four fasteners holding the pump together: 9/16”-12 for the “G-Series” pumps and 5/8”-11 for the “C-Series” pumps. Fastener torque is 2400 in-lbs.
2. Remove the valve-body assembly.
3. Remove the gear housing, rotate it 180°; maintaining the same gear bore for the drive shaft, and then replace the gear housing.
4. Rotate the valve-body 180° from its original position then replace it.

   Note: For C102 assemblies, the protruding rib on the gear housing will always be on the opposite side of the assembly from the valve spool.
5. Replace the four fasteners and torque them to 2400 in-lbs using a diagonal pattern.
6. Verify the proper assembly by referring to the notes below.

Notes:

1. When viewing a **CW** assembly from the shaft-end cover; with the drive shaft on top and the idler gear on the bottom, the valve spool will be on the **RIGHT** side of the Pump.
2. When viewing a **CCW** assembly from the shaft-end cover; with the drive shaft on top and the idler gear on the bottom, the valve spool will be on the **LEFT** side of the Pump.



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Start-up Procedure for Underbody Applications: (C102, G102, G104, G105)

1. Fill the cylinder with oil prior to installing the bed on to the truck. The cylinder should be horizontal and in the retracted position.
2. During this procedure, make sure that the hydraulic hoses to the pump get filled with oil by putting the valve spool in the "Lower Position." Note that it may be necessary to crack the outlet line at the cylinder to bleed off the trapped air.
3. Operate the pump at least two minutes at zero(0) pressure at the lowest possible RPM (the best way to do this is to run the pump with the spool in the "Lower Position"). During this break in period, the unit should run free and not develop an excessive amount of heat. If the unit operates properly, proceed to Step #4.
4. Cycle the truck bed up and down two or three times to bleed off any remaining air. Check the oil level and add as needed.

Lubrication and Oil Recommendations:

Viscosity Recommendations

Optimum Operating Viscosity is considered to be about 100 SUS (20 cSt).

Minimum: approximately 50-60 SUS (7.5-10 cSt)

Maximum at startup: approximately 7500 SUS (1600 cSt)

Viscosity Grades Normally Used

ISO Grade	40°C	100°C
32	32 cSt	5 cSt
46	46 cSt	7 cSt

Viscosity in the first column may vary ±10% according to ISO standards. Column figures are also based on published information from various oil companies.

Other Desirable Properties:

Viscosity Index: 90 minimum

Additives Usually Recommended:

Rust and Oxidation (R&D) Inhibitors

Foam Depressant

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Note:

Anti-wear (AW) additives are not necessarily recommended. In some cases the presence of zinc compounds can actually be harmful to the copper, bronze, or brass components used in the system. The use of AW oil in our units is solely the responsibility of the user.

Cold Weather Operation:

Oils for use in cold weather should have a viscosity not exceeding 7500 SUS (1600cSt) at the minimum startup temperature, and a pour point of at least 20°F (11°C) below that temperature. Experience on the Alaskan North Slope has been satisfactory without using special oils or fluids. Start-up procedures must allow for a gradual warm-up and the equipment should not be operated at full pressure until the oil reaches a reasonably fluid state.

Please contact our Product Support Team at 330.746.8011 with any questions that you may have in regards to these instructions and recommendations.