

OPPOSITE (PTO) PUMP FLOW OUT LEFT ROTATION PUMP VIEW FROM FRONT OF VEHICLE RIGHT ROTATION PUMP PUMP PUMP O FLOW = FLOW OUT CRNK (PTO) VIEW PUMP **BELLY DOWN** OPPOSITE (PTO) PUMP PUMP FLOW FLOW LEFT ROTATION PUMP VIEW FROM REAR OF VEHICLE RIGHT ROTATION PUMP PUMP PUMP LOW OUT CRNK (PTO)

PUMP ROTATION & PORT IDENTIFICATION

Use of the phrase "bi-rotational" confuses many people. Usually a single rotation hydraulic pump uses the larger of the two available ports as the inlet port, and the smaller one as the pressure side of the pump. Bi-rotational pumps are constructed so that they have the same size ports, and the single drive shaft may turn either direction.

HOW TO IDENTIFY ROTATION

To determine which port is the inlet port on the bi-rotational pump, just consider that as oil enters the pump, it must travel around the outside of the gears, rather than going through the center. As the gears "squeeze" together, they force the oil out. Determine which way the shaft will turn, and plumb accordingly.

Don't operate the pump without oil. You can destroy it in a very short time, even if it runs less than a minute.

Several features in the Muncie K and L Series hydraulic pump systems provide an array of advantages. Those features include:

- Bi-rotational construction with internal check valves to allow use as right hand (clockwise) or left hand (counterclockwise) driven pumps without any modifications.
- Four port construction provides the flexibility to use either side or rear ports to facilitate line placement. To enhance performance, critical cold weather applications wisely use the additional inlet port to avoid cold oil starvation and cavitation.
- Direct mount pumps allow both SAE "B" 2-bolt and 4-bolt mounting faces. Some of the K Series Pumps are available with a compact, short flange for direct mounting to a PTO, using the "S" Flange option on the pump and PTO.
- A high pressure seal and front seal case drain is standard on K and L Series pumps, allowing use as high speed hydraulic motors. Maximum back pressure allowed is 150 PSI. If above 150 PSI the case drain port must be connected directly back to the reservoir.