



TECH BULLETIN

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Published regarding engineering changes and improvements

SUBJECT: Lubrication of the Lo-Pressure Seals

Most CAT PUMPS are equipped with lubricating holes at the top front of the crankcase or inlet manifold for lubricating the seals (wicks when needed). If a rigid maintenance cycle is maintained, it may not be necessary to lubricate the seals. When oilers are not installed, oiler plugs (PN43138 for 25 to 68PFR) can be used in these oil holes for added dust protection. The need for lubrication will vary with the application and concern for contaminating the pumped liquid. In certain applications such as high temperature liquids, low lubricity liquids or excessive airborne particles, additional lubrication is recommended.

Piston Pumps:

In standard water applications lubrication is not required. The 3 FR, 4 FR and 10 FR piston pumps come standard with the prelubed Prrrrm-a-lube Seals. If detergents, high temperatures or other chemicals are used, the seals should be changed to the Blue Dot Seal and wick combination. **NOTE:** Do not lubricate wicks at initial start-up. Operate for 10 to 15 minutes to allow grease from LPS to penetrate the piston rod sleeve surface, then lubricate as needed. The 25 FR and 60 FR pumps come standard with the seal and wick combination.

Plunger Pumps:

In standard water applications lubrication is not required. Plunger pumps come standard with prelubed Lo-Pressure Seals. In other applications where the pumped liquid may wash out the lubricant, wicks may be added to provide additional lubrication to assure maximum seal life. **NOTE:** Do not lubricate wicks at initial start-up. Operate for 10 to 15 minutes to allow grease from LPS to penetrate the plunger surface, then lubricate as needed.

In most applications, only a small amount of lubrication is necessary to assure a smooth running surface on the plunger rod. Typically, 2-3 drops **per hole per week** (up to 15PFR models) and 4-6 drops **per hole per week** (25 to 60PFR models) is adequate, even in continuous duty applications. Adjustable oilers can be installed on the pump (PN30278 for 25 to 38PFR) and (PN30429 for 60PFR).

The type of lubricant will be determined by the application and such things as the compatibility with other system components, concern for contamination of the pumped liquid or pumped solutions which may be slightly abrasive or at the extremes of the pH range of 5-9.

In **car wash and pressure wash applications**, standard crankcase oil can be used.

In **industrial applications** with varying solutions, locations and temperatures, standard crankcase oil, standard glycerine, food grade glycerine or polyglycol-41 may be used.

In **Reverse Osmosis applications**, the lubricant is determined by the sensitivity of the membrane and whether the membrane can be cleaned. Some membranes are not affected by small amounts of oil, while others are destroyed. Consult the membrane supplier for more details.

CAT PUMPS

Technical Services Department

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