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In their quest for improved machinery reliability, many companies have rightly turned their attention to such opportunities as synthetic hydrocarbon lubricants, dry sump oil-mist lubrication and automated grease lubrication systems. To protect equipment bearings, Best-of-Class companies have taken steps to install the most advanced bearing housing protector seals. These rotating labyrinth seals are configured so as not to allow O-rings to contact the sharp edges of an O-ring groove. In some applications, Best-of-Class companies also use face-type, magnetically-closed housing seals. These are of great importance at facilities wanting to fully protect gearboxes in harsh surroundings (think: cooling tower fans), or in process plants where environmentally friendly closed-loop oil mist lubrication systems serve centrifugal pumps. All of these lube-related protective measures represent tangible, cost-justified steps in the direction of extending uptime and reducing failure risk. Nevertheless, despite the lubricant used and how a bearing housing design protects the lubricant against intrusion of external contaminants, if storage protection is ineffective—or lacking altogether—we still find dirty bearings. Frequently, dirt contamination begins with the way lubricants are transferred from storage to the equipment.

Use the right transfer method

Fig. 1: Lube oil transfer containers; the approved ones are near the right side of the photo (*Source: Oil Safe Inc., Mt. Hawthorn, Western Australia*)

[redacted]

Fig. 2: Oil mist consoles for outdoor oil mist preservation are the same in-plant consoles used for running equipment. Large and small consoles are shown here ***(Source: Lubrication Systems Inc, Houston, TX)***

[redacted]

Fig. 3: Oil mist protects machinery in this open-air equipment storage yard in a hot and humid U.S. Gulf Coast environment.

Fig. 4: This equipment storage yard is in a desert environment. ***(Note plastic tubing throughout this temporary preservation system.)***

Fig. 5: Oil mist distribution manifold and reclassifiers

Fig. 6: Plastic tubing connects from a distribution manifold and its reclassifier fittings to a small steam turbine and other skid-mounted equipment. (*Note that stainless steel tubing is used for permanently installed equipment at this plant site*)

Fig. 7. Crated pump arranged for oil mist preservation indoors or outdoors ***(Source: Lubrication Systems Company, Houston, TX)***

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