Maximize Electric Motor Bearing Life with Best Practices

Are you getting the most out of your electric motors? Motor life depends on bearing life, and bearing life depends on proper lubrication. Many electric motor failures are bearing related, with the bearings never reaching their intended life.

According to the U.S. Department of Energy, more than 70 percent of electricity consumed in industry comes from the use of electric motors, which make up 25 percent of all rotating equipment in a plant. This means that electric motors account for nearly 25 percent of the national consumption of electricity.

What all of this means to you is that maximizing your lubrication reliability efforts with electric motors can have a dramatic impact on your uptime and costs, including repairs and replacements, labor, and energy use.

Lubrication Engineers has the lubricants, reliability products and expertise to help you put together a complete program to help maximize electric motor bearing life, minimize lubrication problems, and increase safety levels.





Components of an Effective Electric Motor Lubrication Program

Grease Selection



Asset Reliability Solutions™

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Application Method

Identify the suffering points

Move forward with proven solutions for extending equipment life

Incorrect Grease Selection

Selecting the right grease for electric motor applications can make all the difference in the protection and performance of bearings. Electric motors require lubricants with specific characteristics. Use of the wrong grease often leads to early electric motor failures.

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LE Solution: The grease consistency preferred for electric motors is normally NLGI 2 or 3, with a base oil viscosity of 100-150 cSt @ 40°C. Other characteristics to look for include good channeling characteristics, low oil bleed, oxidation resistance, anti-wear additives, and mechanical stability. A polyurea thickener system is preferred for most electric motor applications, but grease with an aluminum complex, lithium complex or calcium sulfonate thickener are also good options.



Incorrect Grease Application

Common problems include overgreasing, undergreasing, and not greasing at all – all of which can lead to premature electric motor failures. Additionally, operators often have to manually grease in hard-to-reach or unsafe areas.

LE Solution: Your LE consultant can help determine correct lubrication amounts and intervals, and then help you choose which single-point lubricator will work best in your application. These precision lubrication tools provide a closed loop system to keep out contaminants, and they take the guesswork out of maintenance by supplying the right amount of grease for the application at the right time 24/7. Suitable for indoor and outdoor applications, SPLs decrease motor failures, reduce labor time and improve safety.





Grease Cross-Contamination

It is fairly common for a busy operator to pick up a grease gun and apply the wrong grease to the electric motor. When incompatible greases are mixed, the results can be catastrophic with severe loss of grease performance leading to bearing failure.

LE Solution: If manual lubrication is preferred, clear grease guns are the solution for enabling the operator to see the grease before putting it in the application. When combined with a color identification and tagging system, clear grease guns are part of a visual chain of custody for the maintenance operator – significantly reducing human error.



LE Enhanced Lubricants

Xport Lubricant Application

HI QUINCAL

Xport Clear Grease Guns

Full Circle of Reliability

PLEX

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HI QUINCAL

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Armed with knowledge of best practices and all of the necessary tools to get the job done, your local LE lubrication consultant will help you plan and implement a world class lubrication reliability program to protect your assets.

Xport Single Point Lubricators

TAR 2

FLEX 125

Xpel Lubricant Identification

Lubrication Engineers Protect Name ec@ Extend EM Grease 1282

Xpel Lubricant ID Tags Xpert Services

> Xpert Training

Xpert Equipment Reliability & Assessment





LE's state-of-the-art manufacturing facility, technology center, warehouse and primary office is located in Wichita, KS, with regional distribution out of Knoxville, TN, and Las Vegas, NV. Additional support functions are located in Fort Worth, TX. The company's international presence includes distributors in more than 60 countries.

Does your lubricant supplier do all of this?

- Professional, onsite equipment reliability assessment
- Comprehensive lubricant line (industrial oils, engine oils and greases)
- Web-based oil analysis, with results reviewed by experts
- Storage systems, including stackable bulk units
- ✓ Visual identification, including tags, labels, color-coding and wall charts
- Handling and transfer equipment, including portable transfer containers, clear grease guns, grease pumps and lube reels
- ✓ Single- and multi-point automatic grease lubricators and lubricating systems
- Contamination exclusion and removal tools, including oil reservoir sight glasses, desiccant breathers and filtration equipment
- Local, factorytrained specialist available 24/7



Lubrication Engineers, Inc. is the total solutions provider for lubrication reliability. We work closely with our customers to learn about their specific equipment and lubrication needs, and then help them create a world class lubrication reliability program that provides equipment protection and enhanced profits.

We start with an onsite equipment assessment. A trained, local lubrication consultant provides a detailed report recommending lubricants, application methods, usage amounts, and drain or lube intervals.

LE's line of high-performance lubricants – manufactured in the U.S. and made of highly refined base oils and proprietary additives – far exceed the performance of conventional lubricants in a wide variety of industrial and automotive applications. In addition, your LE consultant can offer you several other best practice products and services to ensure the effectiveness of your program,

including solutions for oil analysis, storage, handling and transfer, contamination exclusion, contamination removal, education and training.



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