

BENEFITS OF APPROPRIATE LUBRICATION PRACTICE

WHAT DOES THE APPROPRIATE LUBRICATION MEANS ???

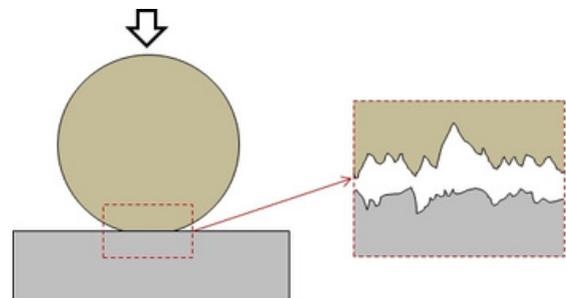


The very first thought regarding appropriate lubrication might be smooth movement of the machinery parts with the minimum amount of lubricant. However, there is much more to the story and to the functions that a lubricant serves.

Appropriate lubrication refers to the efficient use of the newly developed lubrication techniques so as to reduce the maintenance downtime and overuse of the lubricants. Let's have a look over the benefits that appropriate lubrication offers.

REDUCING FRICTION & WEAR

Lubrication can do more than just making the surface slick and slippery. It provides a coating to prevent metal to metal contact between the moving parts. Every polished and finished surface has tiny peaks called asperities when viewed at the microscopic level. These asperities might interfere with the required smooth motion and may increase the wear and also increase unnecessary heat generation due to friction and may lead to equipment failure.



Appropriate lubrication creates a layer of film between the moving parts to counter friction, thereby promoting smoother operation and increase equipment life.

PROTECTION OF EQUIPMENT FROM RUST & CORROSION

The layer formed after lubrication over the surface of the equipment helps safeguard these surfaces against external reactions like rust and corrosion which starts as the surface comes in contact with water, moisture or other corrosive substances.

Here the film after lubrication serves as a conduit that suspends and carry away the contaminants which may result in corrosion or rust formation.



IMPROVING EFFICIENCY, LIFE & RELIABILITY OF MACHINERY

Appropriately lubricated equipment runs longer and more reliably, machinery don't need to be interrupted frequently for maintenance and repair purpose. Therefore, appropriate lubrication reduces costs to maintain, repair or replace equipment parts etc. Adding to this it also minimizes operational interruption, which helps improve productivity.



Hence appropriate lubrication practice helps in increasing re-lubrication interval which in turn, reduces overall lubricant consumption and provides numerous benefits

ECONOMICAL, SAFE, ECOLOGICAL BENEFITS.

Economical-

- Long term protection of equipment.
- Increased mechanical reliability.
- Reduced maintenance costs.
- Increased profitability.



Safe-

- Remote installation for difficult or dangerous accessible lube points.
- Reduced downtime for lubrication.
- Once practised right, it is easy and safe to implement.

Ecological-

- Lubrication practice is reusable till further upgrades are in the process.
- Limitless practices once proved efficient.
- Reduced environmental impact, due to reduced consumption.
- Improved protection of equipment and its parts, etc.



OTHER POINTS TO CONSIDER IN APPROPRIATE LUBRICATION PRACTICE

Lubrication has a direct effect on equipment reliability. Hence appropriate lubrication strategy improves plants and equipment uptime. Let's consider few other important points of appropriate lubrication practice:-



- Organization and planning
- Identification, assessment / Benchmarking
- Cleanliness control
- Lubrication tools and accessories
- Contamination control
- Oil Analysis
- Environmental factors
- Information and knowledge management



RISK FACTORS ASSOCIATED WITH IMPLEMENTING APPROPRIATE LUBRICATION PRACTICE

Implementing reliability-based lubrication strategies that are successful over the long term is never an easy task. Most of the strategies fail because they are seen as projects and not as processes to change the work culture of those involved.

Effective implementation of lubrication strategies requires the existing culture within a plant to be changed so the processes are accepted, followed and sustained. While work cultures can be changed, achieving this requires an understanding of the causes of failure and how to prevent these factors from coming into play during the implementation process.

Addressing the need to change the way of work as per new work culture with appropriate lubrication strategy will provide a higher success rate for any project and ensures the new way of working will be sustainable over the long term running of the machinery and also maintains cost-effective lubrication practices.



"Next time when you walk through the plant, take a good look at your Lubrication practice"