

### PROPER STORAGE OF LUBRICANTS

The main killers of a lubricant is the presence of Oxygen, Heat, Water and Contaminants.

The environmental and storage conditions have the greatest influence on the rate at which a new lubricant will degrade.

Oxidation occurs in all oils that are in contact with air, including stored lubricants. Increasing the temperature at which the lubricant is stored by 10°C (18°F) doubles the oxidation rate, which cuts the usable life of the oil in half.

The presence of water, usually introduced as a result of temperature variations, increases the rate of oxidation.

Frequent agitation of the lubricant incorporates air into the oil. This increases the surface area contact between air and the oil, increasing the rate of oxidation. Agitation also serves to emulsify water into the oil, increasing its catalytic effect on the oxidation process. The storage container itself can affect the rate of oxidation.

**Lubricant inventory levels should be set so that lubricants are used within 3 to 12 months**, depending upon the lubricant type. Set inventory levels to stay within targets. If limits are reached, verify quality of product with professional oil analysis.

- Make sure of the appropriate environment for storing lubricants.
- Estimating quarterly, semiannual or annual volume usage requirements will be helpful.
- Usage and storage methods should be “first in, first out” in your inventory system.
- Storage life limits varies for various lubricants in various storage environments.

- Labeling requirements, including blending and packaging date, delivery date, and the date the lubricant was put into service by opening the container.
- Testing the condition of expired lubricants or those that have been compromised in storage.

It’s highly recommended for oil to be in protected storage: out of sun, rain, snow; away from extremes in heat and cold.

Best practice is to store all lubricants indoors in a cool, clean and dry environment in the original sealed container.

To get the best performance, make sure there is an accurate inventory rotation program. This also provides guidelines for determining age of the product – how to determine when it was manufactured.

PRODUCT	MAXIMUM RECOMMENDED STORAGE TIME
Lithium Greases	12 Months
Calcium Complex Greases	6 Months
Lubricating Oils	12 Months
Emulsion Type Fire-Resistant Fluids	6 Months
Soluble Oils	6 Months
Custom Blended Soluble Oils	3 Months
Wax Emulsions	6 Months