

Date Issued June 1971



TECHNICAL NOTE

U.S. DEPARTMENT OF THE INTERIOR – BUREAU OF LAND MANAGEMENT

GREASE TYPES

Every piece of construction machinery needs lubrication, and greasing should be done at recommended intervals, with a good quality grease. Although every manufacturer of heavy equipment recommends the type of grease to be used on a specific machine, he is not responsible for the quality of that lubricant. That's up to the supplier.

If you specify the recommended grease and deal with a reputable supplier, obtaining the right quality will be no problem. To fill you in on what makes "quality" here is a chart showing the general characteristics of commonly used soap-based greases.

Pressure fittings on chassis parts should be lubricated with a lithium or calcium complex Multi-Purpose Grease. The MPG qualities serve both plain and anti-friction bearings, and hot running parts. They also resist displacement by water and handle well at low temperatures. A content of molybdenum disulphide is good, too, because it leaves a coating that resists galling, adheres well and lasts longer.

Few things in this business are more important than proper lubrication, so remember to get the recommended grease and apply it at the recommended intervals.

GREASE TYPES

ALUMINUM

Smooth, often with "string." Water-resistant. Fair structural stability in use. Used up to 160° F. Gun grease, low speed anti-friction bearings, chassis grease.

CALCIUM (LIME)

Buttery. Water-resistant. Good structural ability. Good dispensing through guns. Used up to 170° F. Gun grease, chassis, water pump grease, cup grease.

SODIUM

Usually fibrous. Usually non-water resistant. Good structural stability. Used up to 300° F. Anti-friction bearings, wheel bearings, universal joints, general high temperature use.

LITHIUM

Buttery. Good structural stability. Water-resistant. Wide temperature range, especially on high side. Used up to 300° F. Multi-purpose automotive, aircraft grease.

BARIUM

General characteristics like those for lithium.

MIXED

Various blends of soap bases to provide one product with better characteristics of each. Calcium-lead soaps often used to form grease having calcium soap characteristics, plus the good high-load wear resistance of lead soap. Gun grease, chassis grease.

INORGANIC THICKENERS (NON-SOAPS)

Special greases where oil content is principal lubricant; limited use at present. Most are buttery. Good structural stability. Used up to 300° F. Special high-temperature uses.