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ADVICE for USING SYNTHETIC LUBRICANTS



Hundreds of synthetic lubricants are available today, all designed for specific uses. Some of these fluids are not compatible with the paints, seals and gasket material found on modern machinery and equipment. Many of these lubricants are also not compatible with each other or with petroleum base oils and cannot be mixed.

In addition, some of these fluids are not compatible with the materials used by equipment manufacturers to build clutch and brake components and hydraulic hoses. Therefore, before any lubricant changes are made, it is important to become familiar with the products available, including their advantages and disadvantages, as well as to make a comparison with existing high-quality petroleum base mineral oils.

It is quite possible that a petroleum base mineral oil of a higher quality, different viscosity or service classification may solve the operational problem, thereby eliminating the need to install a more expensive synthetic oil.

Information on various petroleum base and synthetic lubricants can be obtained by contacting the technical service departments of the major oil companies, a reputable independent oil analysis laboratory or a lubrication engineer. Contrary to popular belief, equipment dealers and lubricant distributors know very little about lubricants, aside from passing on the equipment manufacturer's lubrication recommendations, and are not a reliable source of information regarding the selection of synthetic oils.

The most important thing to remember is that using a synthetic oil can only be justified if it:

- Solves an operational problem that the use of petroleum oils cannot, such as an extreme temperature or compatibility requirement.
- Reduces operating costs sufficiently to offset the high initial price.

Once a conversion to synthetic oil is carried out, the lubricant must be treated the same way as petroleum base oils would be treated. Since synthetic oils become contaminated with wear metals, carbon soot, combustion residue and fuel by-products such as acids and sulfur compounds in much the same way as petroleum base oils, it may be unreasonable to expect synthetic oils to last longer than petroleum base lubricants.

Oil levels should also be checked periodically, filters serviced or replaced on a regular basis and oil samples taken regularly and sent to a competent used oil analysis laboratory. For those who insist on extending oil drain periods when using synthetic lubricants, oil analysis is of particular importance to warn of increases in component wear metal rates, contamination levels and viscosity changes within the oil.