

## Are You Using the Wrong Oil?

How do you know if the right lubricants are being used in your machinery? A lubricant specification survey, often called a lube chart, may have been performed or an individual machine maintenance manual may recommend use of current lubricants. The point is, no matter who determines the correct lubricant for a machine, it is necessary to periodically review the specifications and re-survey the plant to determine the products in use are what is or should be specified. Also, a formal management of change process should be developed to govern any changes to existing specifications.

**Change Process:** Begin this process by identifying the pieces of equipment that are using lubricants to determine the correct lubricant specifications. At the very least, oil specifications should include base oil viscosity, base oil type and an additive package. For grease, the thickener type and NLGI grade must also be specified.

**Element Bearings:** In most plants, a common lubricated component is antifriction bearings. Lube selection for these components is simple and usually require the following: Bearing dimensions, Rotational speed, Operating temperature and Current lube type. For these applications, the make and model of the unit, operating temperature and operating speed will usually suffice. For grease-lubricated bearings, the user will also want to collect information based on the existing greasing program.

**Enclosed Gearing:** For most gearboxes, the appropriate lubricant type can be determined from the maintenance literature provided by the equipment manufacturer. Some of the key requirements for lubricant specifications for gearboxes include: Make and Model of the unit, Type of gear, Lubricant method (bath or circulating), Input and Output speed, Heavy loads or Shock loading, Operating temperature and environment conditions.

**Plane Bearings:** Bearing geometry, Shaft weight, Shaft speed and Operating temperatures. Most plane bearings use hydrodynamic lubricating films, requiring only rust and oxidation (R&O) type lubricants.

**Hydraulics:** For hydraulic systems, most lubricant requirements are determined by the hydraulic pump and system pressure. Typical information needed: Pump make and model, System operating pressure, Operating temperature, Coldest start-up temperature, Type of valves and components as well as requirements for fire resistance.

**Stay on Task:** This is a brief introduction to the techniques of performing a lubrication survey. In addition to performing the survey and collecting the appropriate data, it is essential to obtain the knowledge necessary to utilize the data. This can be accomplished through training, self-directed studies, or with the assistance of a quality sales person. Remember, it is better to gather too much information rather than too little.

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