

## ***Hydraulic Fluid: Maintenance & Savings***

***LubeDoc 7***

Hydraulic fluid is a special kind of lubricant that can last much longer than a diesel engine lubricant.

Hydraulic oils have different properties than engine oils and must be maintained differently. Following these basic guidelines will pay you greater dividends:

Keeping hydraulic oil clean is a big factor in maintaining hydraulic oils. The fluid becoming contaminated with dirt, wear particles, and other foreign materials, causes most hydraulic failures between 75% and 85% of the time. In today's newer hydraulic systems, clearances between wear surfaces are very, very thin, making contamination controls a major concern.

Fluid leaks are a big problem in hydraulic systems. If the oil can escape, dirt and foreign particles can reenter the hydraulic system. So always find the source of the leak and make sure the repair is done quickly. Hoses and seals are much cheaper than a pump or a cylinder ram. Remember one or two drops per second can add up to 400 gallons per year. That is an environmental hazard and a very expensive leak for your company and equipment.

Always try to keep your hydraulic fluids dry. Water is a big part of hydraulic failures. Water, when mixed with air can make aeration bubbles in turn, making a small sand blaster in your hydraulic system. Water PPM shouldn't reach over 1,000 ppm... depending on the system. Water can enter through the cylinders if a seal is faulty, or just by the system heating and cooling very quickly. Auxiliary filters are one way of keeping the system dry. There are a few styles of filters that we recommend using for this type of application.

Keeping your hydraulic fluids at the right operating temperature is another big factor of maintaining your hydraulic oils. The reservoir should never exceed 140 degrees Fahrenheit at the exterior base of the reservoir. Always make sure your fluids are at a safe operating level and never run your system when the level is low. This will make the system work much harder than necessary and create a heat factor that will deplete most hydraulic fluids.