

# PREVENTATIVE MAINTENANCE

## FOR YOUR LUBE OIL SYSTEMS RESERVOIR

By Larry B. Jordan, Sr. Technical Advisor, RIG

Whitepaper

### SYNOPSIS

Lubrication contamination control technology options are explored for keeping your lube oil cleanliness at OEM specification.

### PREVENTATIVE MAINTENANCE: LUBE OIL SYSTEMS RESERVOIR

Over the past two decades we have seen lubrication contamination control technology evolve with more effective options to keeping your lube oil cleanliness at OEM specification. From the early "Bowser" systems we have evolved to centrifuges, dehydrators, air stripping, coalescing filtration, microglass filter technology and varnish mitigation. All valid options for keeping the circulating lubricants clean.

With the technologies evolution, maintenance and reliability teams have moved away from executing the basic "cleaning" of their lube oil reservoirs on regular intervals. Bypassing this step during regular scheduled inspections and maintenance. This can be a costly mistake. (See Table 1)

The lube oil reservoir still functions in the way it was designed. Dissipating heat and dropping water and particulate contamination to the bottom of the reservoir. (See Figure 1 below) Without regular cleaning of the reservoir itself the contamination can build up and find its way to the system pumps. If you are utilizing a filtration or water removal unit you can maintain cleanliness to the next scheduled outage.

The risks come when reservoir cleanings are bypassed leaving a potential of contamination build up in the reservoir making it past the filtration and to critical components. At a minimum the increased cost of filtration or running side stream oil purification units cannot be overlooked. Keep your system up and running by performing regular reservoir cleaning (See Figure 2) and oil filtration of your system. This will help prevent the long-term build-up of contamination and unwanted downtime due to lubricant based failures. (See Figure 3)

System Type	Recommended Frequency of Reservoir Cleaning	Note
Paper Machine	Annually	Paper dust, Labyrinth seals, Steam drives
Metal Working	Annually	Open systems should be cleaned as part of unit operation
Injection Mold Hyd	Annually	High temps and pressures can lead to oxidation deposits
Steam Turbines	1-2 Years	Susceptible to water contamination
Gas Turbines	Every 2 years	Low water risk – monitor varnish potential
Compressors	4-6 years	As part of major turnaround
Controls Hyd	4-6 years	As part of major turnaround
Bulk Storage Tanks	10 Years	Or any time a product change occurs

**Note:** All recommended frequencies are minimums based on average contamination - All reservoirs should be cleaned after any mechanical failures or major water ingress into system.

Table 1. Recommended Frequency of Reservoir Cleaning

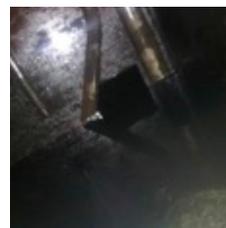


Figure 1. Contamination in Lube Oil Reservoir



Figure 2. Cleaning of Lube Oil Reservoir



Figure 3. After Cleaning of the Reservoir

For more information or to schedule oil filtration/reservoir cleaning visit [www.therigteam.com](http://www.therigteam.com) or call 800-770-4510.



Contact us for more information:

info@therigteam.com  
800-770-4510 (Domestic)  
+1 281-339-5751 (International)  
[www.TheRigTeam.com](http://www.TheRigTeam.com)

