FILTRATION

WEAR CHECK®
Condition Monitoring Specialists

Testing and Analysis | Lubricant-Enabled Reliability |
Asset Reliability Care

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Filtration

Lubrigard

Using the correct lubrication for non-stationary machine components plays a key role in keeping equipment healthy, reliable and operating smoothly. WearCheck's LubriGard division helps customers select the correct lubricants for each component to minimise maintenance costs and maximise operational output.

The importance of correct lubrication for any piece of moving machinery is as important as healthy blood circulating through the human body.

The company's Lubrigard technicians frequently see the incorrect type and grade of lubricant being used which is often the direct cause of premature equipment failure.

COMMON PROBLEM: General purpose grease is often used as a general lubricant for machinery on plants. When greasing high speed bearings - for instance in electric motors - this can cause viscous drag that may cause higher operating temperatures and energy consumption. Grease with a lower viscosity is more efficient as bearings running at higher temperatures can destroy the additive package in the grease, and cause the grease to drain out, leaving the motor deprived of sufficient lubrication. This damages the bearings and causes premature failure.

SOLUTION: LubriGard considers all factors involved when choosing the correct lubricant, such as load conditions, a bearing's rotating speed and the environment to which the equipment is exposed. An automatic lubrication programme is developed, that is tailored to each customer's needs. Over-greasing is not a myth and can result in higher operating temperatures, premature bearing failures as well as increasing the risk of contamination ingress. An automatic lubrication programme combined with condition monitoring applications helps to eliminate these problems completely.

LubriGard recommends specialised oils and greases with more relevant additive packages, breathers and filters that keep out particles as small as five microns, which can cause exponential wear in machinery and contamination. We ensure that expensive and critical equipment stays available - this, in effect, reduces downtime.

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WearCheck's FLAC (fuels, lubricants, air and coolants) maintenance programme includes unique bypass filters which minimise contaminants, thereby extending the life of the oil and fuel.

The filters were initially trialled in 2016 at a chrome mine on three GHH machines running air-cooled motors. Once proven effective, the filters were then fitted to a further 27 machines in the same mine. After eight months, the mine's consumption of lube and filters was substantially reduced, and the oil drain period was reliably extended – this translated into a savings of R1.7 million after paying for the implementation of the WearCheck programme. The filters, designed to clean oil and fuel, function best as part of a comprehensive condition monitoring programme and have been widely installed on different machines.

Fuel typically passes through three filters – first the OEM water separator, next the OEM diesel filter, and finally WearCheck's depth filter, which is last in line, and which provides extremely fine microfiltration, screening particles between 0.5 and 1 microns in diameter.

The advantage of cleaner burning fuel means more power. With fewer by-products passing into the crank case oil, such as soot, the additive packages do not have to work so hard, so they also last longer.

Using scientific data on the oil's condition and knowing that the filters have cleaned the oil or fuel effectively, WearCheck can advise when it is feasible to extend the oil drain interval without risk, thereby saving you money.