# **Grease Analysis**

Predictive Analysis for Industrial Systems

# Grease

WEARCHECK GREASE ANALYSIS PROVIDES A COMPREHENSIV VIEW OF THE STATE OF YOUR GREASE LUBRICATED EQUIPMENT PROVIDING PEACE-OF-MIND FOR YOUR OPERATION.

### **OVERVIEW**

- Reduction in unscheduled downtime.
- Effective maintenance scheduling.
- Improved equipment reliability.
- Reduction in maintenance costs.
- Maximization of grease service intervals.
- Minimization of installation errors.
- Reduction in machine power consumption.



#### BENEFITS

**Your primary concern as a business is to be profitable.** All too often, these days, this requires an increase in profit through a reduction in costs. A well run condition monitoring program will achieve a substantial reduction in manufacturing costs. WearCheck's grease analysis packages offer you condition monitoring for your industrial systems. A plant survey to identify essential and critical machines will allow you to assess your analysis needs. WearCheck offers three levels of analysis, from basic to advanced test kits, to meet your condition monitoring requirements.

Analysis

**WearCheck's grease analysis packages** cover all three areas of analysis. An assessment of the grease condition reveals whether the grease is ready to be changed, or if it is fit for further service. Save money by maximizing your grease servicing intervals with the confidence that condition monitoring provides. Detection of ingressed contaminants from the manufacturing environment, including process contaminants, dirt, and water alerts you in time to perform a grease service, avoiding unnecessary wear. When the grease condition is routinely monitored, system wear will be minimized. WearCheck's analysis can detect subtle changes in the levels of wear metals present in the grease. Failures due to worn out components can be avoided long before failure occurs.

A WearCheck Technical Representative will analyse your plant equipment list and recommend the proper test kits for each machine. WearCheck provides you with clear and concise directions, forms and sample bottles needed to submit samples to the WearCheck laboratory. After you have taken a small sample of gresae from the system, simply fill out an information sheet and submit it with your sample to the laboratory.

**WearCheck's grease analysis** is effectively used today for a broad range of greased systems operating in a wide variety of applications including wind turbines, industrial bearings, grease lubricated gearboxes, hubs and chassis.



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### TESTING METHODS

### GRS1 GRS2 GRS3

ICP Analysis ASTM D5185	ICP Analysis determines the parts per million (ppm) of all wear metals (iron, chromium, nickel, lead, copper), contaminants (silicon, potassium), and soap/additives (calcium, phosphorus, aluminum, magnesium, molybdenum, antimony).		
Color/Appearance SKF Method	The appearance is a very important parameter when evaluating the condition of the grease. It includes the subjective assessment of its colour, texture and odour.		
Consistency SKF Method	Changes in grease consistency may indicate mixture of incompatible thickeners, elevated levels of contamination or wear, or a high consumption of antioxidants.		
Wear Index In-house Method	PQ Analysis to provide a rapid indication of metallic debris in a grease sample. Detect ferrous wear debris that may be missed by spectrometric analysis.		
<b>Moisture</b> ASTM D6304	Determines level of moisture or water contamination in the grease using Karl Fischer (KF) titration.		
Oil Bleed SKF Method	Provides an indication of changes to the base oil viscosity and detects when a grease is drying out due to grease ageing.		
Remaining Life ASTM D7527	Measures the levels of anti-oxidants remaining in the grease. Determines the necessity for grease servicing.		
Ferrography ASTM D7690	A detailed morphological analysis of the wear debris particles embedded in the grease. Ferrography can determine the type of wear process and cause of wear in a grease lubricated system.		



WearCheck Grease Analysis includes everything to set-up a complete grease analysis program. When you purchase a WearCheck grease analysis program you will receive the necessary sample kits and sampling tools. All WearCheck grease analysis programs include laboratory testing, sample diagnosis and recommendations, sample report, and access to our patented WebCheck<sup>™</sup> system to manage your analysis program.

WearCheck offers additional programs for oil lubricated industrial machinery, mobile equipment, aviation, mining, fuels, coolants and Advanced Oil Monitoring.



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