Wind Energy

"Improve the maintenance and Reliability of your wind power equipment."

Take a sample of the fluid, with the system operating in normal conditions.

Fill in the Tribolab® form corresponding to the Test it belongs to.

Send sample to Tribolab® to be analyzed.

Tribolab® records and analysis the sample, generating an e-report.

Tribolab® sends you an email report with the results. Customer evaluates recommendations.

Response time is 24 to 48 hr. Once the sample is registered in our laboratories.

Wind energy is a type of kinetic energy produced by the effect of air currents. It is a renewable, clean, that does not pollute and that helps to replace the energy produced through fossil fuels. The global need to generate energy without emissions to the environment, has led the wind power generation market to sustained growth during the last decade. Controlling fluids in rotating systems to improve reliability in this turbine is essential to obtain the best return on investment. Wind turbine lubricants play an important role in the operation, maintenance and reliability of the equipment in a wind farm. There are various lubrication points in a wind turbine, including gearboxes, planetary multiplier boxes, rotating gear systems, hydraulics, such as generator lubrication systems. These points require various lubricants such as gear oils, hydraulic oils, and greases.

TRIBOLAB® , focuses on ensuring that 100% of the fluids meet the requirements through frequent monitoring of each fluid. Gear oil is used to lubricate gearboxes, for this we recommend applying the Tribo1 basic package. Grease is a key fluid for the best performance of wind turbines, for a routine evaluation we recommend the Tribo11test package, which gives us basic information on the grease used in relation to virgin grease. Other key fluids are hydraulic fluids used in hydraulic systems to control the pitch of the blades, in this application we recommend the Tribo2 test.

www.tribo-labs.com

For more information you can contact us via email info@tribo-labs.com

TRIBOLAB TEST PACKAGES
WIND ENERGY MARKET

Grease Lubrication System

TRIBO 11: Grease Analysis Test
Sample Volume: Syringe

- FdM (Internal Method Tribolab)
- Color (ASTM D6045)
- FTIR
- % Water by Crackle (Internal Method Tribolab)

Gear Systems

TRIBO 1: Basic Industrial Oil Analysis Test.
Sample Volume: 100 ml

- 24 Metals by ICP (ASTM D5185)
- % Water by Crackle (Internal Method Tribolab)
- Viscosity @ 40ºC or 100ºC (ASTM D445)
- Acid Number (ASTM D664)
- Oxidation / Nitration (ASTM E2412)
- ISO Particle Count (ISO4406.99)

Hydraulic Systems

TRIBO 1: Basic Industrial Oil Analysis Test.
Sample Volume: 100 ml

- 24 Metals by ICP (ASTM D5185)
- % Water by Crackle (Internal Method Tribolab)
- Viscosity @ 40ºC or 100ºC (ASTM D445)
- Acid Number (ASTM D664)
- Oxidation / Nitration (ASTM E2412)
- ISO Particle Count (ISO4406.99)

TRIBO 2: Advanced Industrial Oil Analysis Test. Sample Volume: 100 ml

- 24 Metals by ICP (ASTM D5185)
- % Water by Karl Fischer (IASTM D6304C)
- Viscosity @ 40ºC or 100ºC (ASTM D445)
- Acid Number (ASTM D664)
- Oxidation / Nitration (ASTM E2412)
- ISO Particle Count (ISO4406.99)

Standard Monitoring Frequency

The following is the standard monitoring frequency for wind turbines

Wind turbines: Every 500 hr.

"Experts recommend the ideal monitoring frequencies, depending on the industry and application. In general, the frequency shown above is set as a standard parameter".

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