

LE Introduces Advanced Formula Turbine Oil

Endure™ Turbine Oil Solves Oxidation, Varnish Problems in Gas Combustion Turbines

WICHITA, Kan. (April 10, 2018) – Lubrication Engineers has spent the past several years researching, testing and formulating to come up with a truly special gas combustion turbine oil focused on solving the problems of oxidation and varnish. The result is our new Endure Turbine Oil (6481-6482), featuring a unique blend of highly refined base oils and proprietary additive technology carefully optimized to provide superior oxidative and

thermal stability while preventing varnish and sludge formation on critical turbine surfaces.

Oxidation and thermal degradation are the primary causes of in-service turbine oil degradation, which can lead to a variety of problems that shorten the lubricant's life span and compromise equipment reliability.



As turbine oil oxidizes, byproducts form and start consuming antioxidant additives, eventually leading to varnish. To achieve longer lubricant life, competitive turbine oils over the past few decades have been formulated with higher and higher levels of base oil refinement and increasing levels of antioxidants. However, this has contributed to varnish and sludge formation in turbine systems.

To ensure that its new Endure Turbine Oil would meet the needs of gas turbine applications while preventing varnish and sludge, Lubrication Engineers developed a turbine oil varnish test. The purpose of this test was to study the oxidative behavior of new turbine oils in an accelerated oxidative environment, with each week of testing equivalent to approximately one year of real world use in a large-frame combustion turbine. Although many factors in actual use could affect oil longevity, the results were astounding – Endure Turbine Oil lasted approximately three times longer than the three other mainline turbine oils in the test.

"Endure Turbine Oil represents years of meticulous research, formulation and testing," said Wade Flemming, laboratory manager. "In all my years of industrial lubricant formulation, I have never seen a product perform this well in combating the harmful effects of oxidation and varnish. We look forward to seeing this new product help our power generation customers avoid unplanned turbine downtime and decrease their total cost of ownership."

To complement the performance of Endure Turbine Oil and safely extend drain intervals, LE further recommends the use of its Xamine™ Turbine Oil Analysis program.

Endure Turbine Oil was formulated for use in gas-powered combustion turbines and combined-cycle turbines, and it also works extremely well in centrifugal compressors. It meets or exeeds the performance requirements of DIN 51515 Part I & II, General Electric, JIS K 2213 Type 2, Siemens and Solar Turbine.

Endure Turbine Oil is available to ship worldwide through LE's vast network of U.S. consultants and international distributors.

About Lubrication Engineers

A leader in lubricants since 1951, Lubrication Engineers makes reliability easy for its customers, creating solutions for even the toughest lubrication challenges in a variety of industries worldwide. LE boosts profits through longer equipment life, extended service intervals, reduction in energy use, fewer repairs and less inventory. LE's arsenal includes highly trained consultants, technical expertise, a full complement of reliability products and services, and a comprehensive line of enhanced industrial and automotive lubricants manufactured at its plant in Wichita, Kan. The lubricants are formulated from highly refined or synthetic base oils and proprietary additives, ensuring that they exceed the performance of ordinary oils and greases. Lubrication Engineers operates under an ISO 9001 Certified Quality System.

Call 800-537-7683 or visit www.LElubricants.com for more information about this and other LE products and services, or to find an LE consultant near you.

Media Contacts

- Paul Grimes, vice president of marketing, p.grimes@le-inc.com, 316-529-6807
- Ann Walden, marketing communications manager, a.walden@le-inc.com, 316-529-6818

Lubrication Engineers: 1919 E. Tulsa / Wichita, KS 67216 / 316-529-6800 / 800-537-7683

Monolec® is a registered trademark and Endure™ is a trademark of Lubrication Engineers. All other marks are the property of their respective owners.