



TRIBOLOGIK®

NEWSLETTER

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Learn How to Extend the Useful Life of your Lubricants

A majority of enterprises change their oil according to mileage or to schedules based on the average life expectancy of their lubricants. As a result, engine oil changes are often performed more frequently than necessary.

Oil analysis programs provide early engine wear diagnostics and early warning of component problems before they become serious.

In the previous issue, we have shown how the Ruler® test could measure the remaining time of used oils. In this issue, we will introduce the numerous benefits of our oil life extension study program from all points of view: economic, environmental, operational and maintenance.

Our studies and conclusions project the extension of the useful life of the lubricants which allow for getting the most out of your oil analysis program. This is done without , risk to your vehicles.

Less frequent oil changes are synonyms to gains in productivity by keeping your fleet on the road. They help planning your maintenance and reduce your operating costs, lubricant consumption, waste oil disposal and equipment downtime.

A systematic study of your oil test reports will allow our chemists and engineers to determine the optimal oil change frequency and to what extent, in time or distance, your oil can be extended while protecting your engines against wear.

Action Items

A few action items are required should you wish to proceed with an oil life extension study, including:

- Selecting a statistical percentage of vehicles that can be easily monitored.

- Documenting the following baseline data for each vehicle (history data): oil change intervals, operating environment, maintenance or repair work for each vehicle, age of the vehicle, brand and type of oil used, oil sampling.
- Selecting test methods on a regular basis: detection of wear metals, viscosity, oxidation, nitration, soot, water, antifreeze, and total base number.

In addition to the basic tests (wear metals, viscosity and FTIR), the TBN test (total base number) is crucial because it measures the amount of active additives left in an oil sample. The TBN is useful for people who want to extend the useful life of their oil far beyond the normal range. By comparing the TBN of used oil to the TBN of the same oil in virgin condition, the user can determine the quantity of additives remaining in the oil in order to neutralize acids. The lower the TBN reading, the lower is the quantity of active additives remaining in the oil.

Based on the testing history and a regular oil analysis program on the selected vehicles, we will be able to identify trends. By closely monitoring these trends and systematically monitoring each of your vehicles, we will be able to identify the extent to which you can extend the useful life of your lubricants and thus realise substantial cost savings.

info@tribologik.com

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