

Controlling Wear

Statistical analysis shows that Exxon Aviation Oil Elite 20W-50 is extremely effective in preventing wear in aircraft piston engines.

Oil samples taken from aircraft piston engines tell a powerful tale: For years, laboratory technicians have analyzed the chemical content of used oil as a way to gauge engine wear without having to break down the engine. But the technology can do something else, it can compare the effectiveness of different oil brands in protecting against wear.

Aircraft owners often ask, “Just how do I know how well my oil is working?” Oil analysis provides the answer.

According to an evaluation by ExxonMobil of used oil samples provided by an independent lab, one brand — Exxon Elite — is extremely effective in preventing wear in aircraft piston engines.

Reliable Comparisons

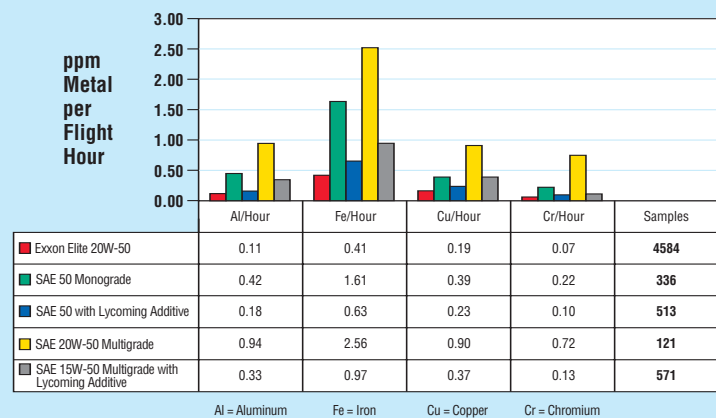
Wear in aviation piston engines is often an invisible phenomenon to an aircraft owner. Mechanics can measure the wear in various engine components, but only at TBO (time between overhaul) when the engine is normally torn down. The alternative is for an aircraft owner to pay for a premature teardown in order to take a peek. Or the owner could wait and wonder.



With oil analysis — a mechanical “blood sample” that can provide a fast and inexpensive check of the health of an engine — an aircraft owner doesn’t have to speculate. Periodic reviews of the composition of used oil also provide reliable comparisons on how different brands protect against wear.

According to an evaluation by ExxonMobil of used oil samples provided by an independent lab, one brand — Exxon Elite — is very effective in preventing wear in aircraft piston engines.

Comparison of Wear Metals Accumulation Rate for Used Ashless Dispersant Piston Engine Oils



Data analysis shows that hundreds of engines lubricated with Exxon Elite had, on average, considerably less wear metals in used oil drains, compared to engines protected by many competitive products. The differences are statistically significant.

Results of oil analysis, when taken from a wide variety of engine types operated in a wide variety of conditions by a wide variety of operators, can tell a pilot which oil is performing well in preventing wear. In its evaluation, ExxonMobil looked at several hundred real-world aircraft oil samples from a third-party lab. Wear metal analysis results were first grouped by product and averaged. Since everyone changes oil at different oil-drain intervals, ExxonMobil went one step further to divide each wear metal measurement by the number of flight hours on that particular oil sample.

The chart above tells the story best: In a statistically significant study, Exxon Elite provided excellent protection against wear.

For superior protection against wear, trust the proven performance of Exxon Elite. The oil is available at FBOs and distributors nationwide or by calling 1-800-44-Exxon (1-800-443-9966). For more information, visit www.exxonmobilaviationlubes.com.