



Aviation Technical Bulletin

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HOW LONG SHOULD SPARK PLUGS LAST?

From the varied answers one gets to this question, you would think the question was as impossible to answer as the question "How high is up?"

Actually, the seemingly misleading answers one gets are caused by the wide variation in engines, applications, and usage, and differences in servicing procedures and servicing periods.

For example, in air racing plugs are sometimes installed new before each event whether it be a 4-lap qualifying run or a 60 mile Reno Air Race championship event. In racing where the sharpest possible performance is a must, plugs are used for only a few minutes and then discarded. Contrast this with certain long-range airline operations where the plugs are stressed only moderately, and the spark plug life span is incredibly long; usage for up to 2000 hours or the equivalent of 300,000 miles isn't uncommon, with Champion iridium plugs.

The combustion chamber can literally be a torture chamber for the components inside — in 300 hours of general aviation use, every plug in the engine will spark about 22 million times, and operate the equivalent of about 50,000 miles.

What we've said is that a plug should last from a few minutes to over 2000 hours or from 60 miles to 300,000 miles. Our answer is factual, but admittedly isn't specific enough for your individual guidance.

We can't analyze your particular circumstances, but you as an aviation technician can. Next time you're deciding how long to run plugs, ask yourself this question — "Can I be 100% sure the plugs in question will be 100% trouble-free for an additional servicing period?" This may sound a little conservative, but it has to be in aviation which is a zero default, low risk application. By moderate increases in service period from a conservative base, you can generally increase the total plug operating period until you reach a time period that you believe is safe and economically acceptable.

You must, therefore, in your own usage and equipment determine how long a plug should last.

In our manuals we've supplied the yardstick. Your good judgment can supply the measurements.

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