

Light Plane Maintenance®

Practical maintenance advice for owners and pilots

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Changing pads is an easy process, but requires finesse and a few specialized tools to do it right



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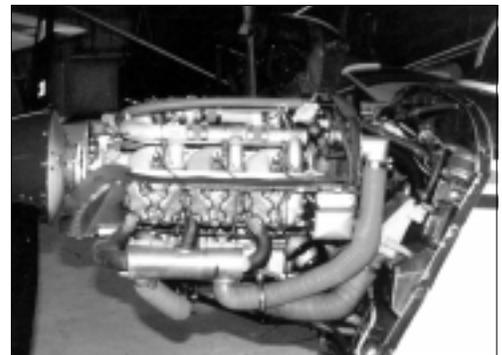
With the help of a simple tool, anyone can find a short circuit problem without cutting wires



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New Oil Filter Pleases

The Tempest "Original" oil filter marketed by Aero Accessories looks to be a winner

Last month, I commented that Aero Accessories was marketing a new oil filter called the Tempest "Original" for certificated aircraft that was based on the original Champion filter. This now gives three oil filter brands for certificated engines.

Up to this point, we liked the new Champion better than the Kelly filter, although both meet FAA standards. The Kelly tends to be a bit less expensive than the Champion.

A couple things bothered us about both the new Champion and Kelly filters. Namely that the bypass valve was not set high enough to meet the Continental IO-520 engine series data sheet requirements of 13-15 PSIG.

What a low bypass means is that it would be possible for unfiltered oil to bypass the filter for excessive amounts of time if it's set lower than Continental designed the engine for.

This is a non-issue for Lycoming engines, but for Continentals, in our opinion, it was meaningful to mini-

mize oil bypass events.

To handle the potential higher internal pressures of the higher bypass spring, the Tempest, has a thicker case with higher burst strength than the competition. Physically, the external case appears exactly as the original Champion.

Frosting

Also on our wish list was some sort of magnetic filter capability to catch ferrous particles. The Tempest filter has this covered, with a ring-shaped magnet in the top of the filter. The really neat thing is being internal, the magnetic field is shielded by the filter's own metal case—cool.

Filtering capacity appears about the same as the new Champion model, but packaging is superior to both other competitors.

Availability

The street price of the Tempest filter will fall between the Kelly and Champion. It will also be available in six-pack packaging for lower cost.

These filters seem to be the cat's meow. The magnet helps all engines and the bypass valve is just what the doctor ordered for IO-520 series Continentals. The Lycoming versions do not have built-in bypass, because the valve is already in Lycoming engines.

Info: Aero Accessories, ph 800-822-3200 or www.aeroaccessories.com. They are also available at Aircraft Spruce, ph 877-477-7823.

Top left photo, the Tempest filter is physically identical outside to the dimensions of the original Champion filter. The new Champion Dash-1 line is a bit shorter. Left, center, only the Tempest comes with a plastic shield to keep junk out during transport and storage. Left, bottom, The circular magnet is both powerful and temperature tolerant. It is a slick idea, well executed. The metal center is the inlet of the bypass. We like the Tempest a lot.

Kim Santerre

