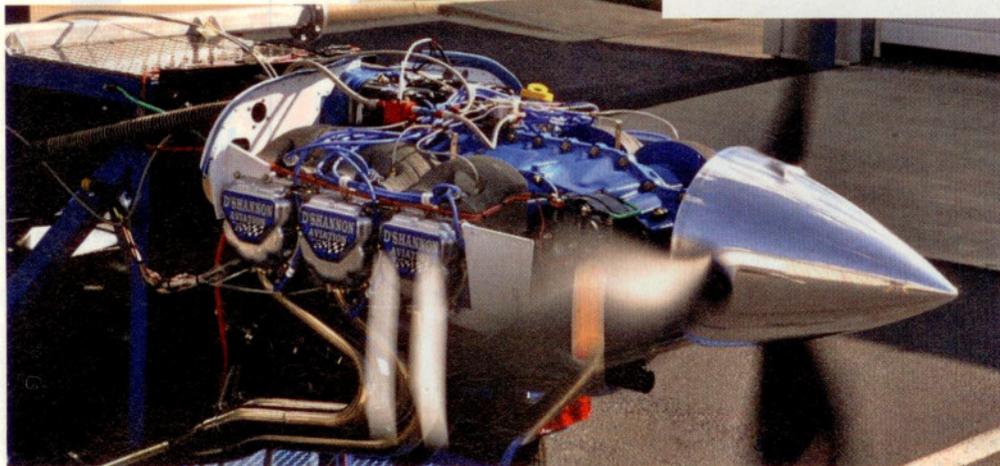




AOPA

## The Debonair Sweepstakes



A CONTINENTAL IO-550 engine undergoes dynamometer testing on Genesis Engines' test stand.



### THREE WAYS TO WIN ONE OF 76 PRIZES IN AOPA'S DEBONAIR SWEEPSTAKES

Join or renew your AOPA membership and you are entered to win in AOPA's Debonair Sweepstakes. AOPA is giving away a completely restored 1963 Beechcraft Debonair B33 with an all-new ergonomic interior, the latest avionics, and up-to-date airframe as the grand prize. You could also win one of 75 other great aviation prizes. Visit the website ([www.aopa.org/Membership/Sweeps.aspx](http://www.aopa.org/Membership/Sweeps.aspx)) to enter.

## Powering up

### The sweepstakes Debonair gets a big bump in horsepower

BY THOMAS A. HORNE

**ALL WAS NOT WELL** with the Debonair's IO-470-LCK engine. A borescope exam of the cylinders revealed pitting and corrosion, which explained the high levels of iron in the airplane's oil analyses. Basically, the engine had sat idle for so long under the previous owner that the steel cylinder walls had rusted, and that rust wore away as I flew it over the past year. Now it was showing up in the oil as tiny iron particles. Were those particles damaging the camshaft, crankshaft bearings, and other internal components? We didn't know, and didn't want to risk it.

Although Bonanza/Baron/Debonair expert Adrian Eichhorn pronounced the cylinders fit, we knew deep down that we had to do the right thing. No way were we going to give away an airplane with a questionable engine. So once again D'Shannon Aviation stepped forward with a bold solution: do away with the existing 225-horsepower engine and replace it with a 260-horsepower conversion of the IO-470. In engine designator terms, we're moving from a Teledyne Continental IO-470-LCK (the -LCK means that it started life as a -L engine

and was changed—hence the “-C”—to a -K model during its last overhaul) to a Teledyne Continental IO-470-N.

I flew N75YR to Aero Engines of Winchester, Virginia, in mid-January. Aero Engines, a renowned engine shop in its own right, will remove the bad old engine, take it to the Lake Norman Airpark (14A), then install and apply the finishing touches to the Debonair's -N upgrade.

The big news here is that all of the original cylinders will be chucked, and replaced with brand-new ECi TITAN cylinder assemblies featuring

cylinder bores with the company's Nickel+Carbide internal coatings. It'll be goodbye to rusty steel cylinder bores, and hello to more durable, longer-lasting ECi cylinders. ECi cylinders have come under fire by the FAA, which wants to slap an expensive AD on certain ECi cylinders for the Continental IO-520 and IO-550 engines and built between 2002 and 2009—a proposal that AOPA aggressively opposes. Bottom line: we're giving ECi a vote of confidence by using its -N cylinders on the Debonair.

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## D'SHANNON AND THE DEBONAIR

D'Shannon Aviation had already been involved in the Debonair project. Back in late 2012 it provided the airplane's tip tanks, new windshield and windows, and flap

and gap seals. But since then, D'Shannon has initiated a new business venture called Genesis Engines by D'Shannon. This arm of D'Shannon is exclusively devoted to engine overhauls

and upgrades. And fittingly enough, the Genesis shop is located in Mooresville, North Carolina, in the heart of Nascar country. In fact, Mooresville is called “Race City USA” because

of the prominence that so many engine- and race-related companies bring to the area. Not coincidentally, Genesis employs six technicians with Nascar experience.

—TAH