

New Hartzell "Blended Airfoil" HC-C2YR-1BF/F7496 Prop Recommended For Lycoming 360's With Electronic Ignition / FADEC Systems

Propeller vibration characteristics and stress amplitudes on a reciprocating engine installation are primarily mechanically generated by the engine. Any modification to the standard engine configuration to include high compression pistons, electronic ignition, FADEC, tuned induction and exhaust, and turbocharging or turbonormalizing have the potential to adversely effect the propeller vibration characteristics and stress amplitudes. Hartzell Propeller, therefore, does not endorse any such engine modification unless the specific engine and propeller configurations have been tested and found to be vibrationally acceptable according to FAR 23.907.

Such flight testing of a new "blended airfoil" propeller has been accomplished in accordance to FAR 23.907 to ensure compatibility with Lycoming O-360 engines and various ignition systems. As a result of this testing, Hartzell's new blended airfoil propeller, model HC-C2YR-1BF/F7496 is approved for use as described below and is the recommended propeller for use on Lycoming O-360 engines equipped with electronic ignition systems and FADEC. This propeller essentially eliminates the "no continuous operation" zone of the original HC-C2YK-1BF/F7666A -2 , -4 propeller, when operated in conjunction with the Lycoming O-360-A1A (undamped 180hp) engine. The specific approvals are indicated below:

Hartzell Propeller Model HC-C2YR-1BF/F7496 is vibrationally approved when mounted on Lycoming model O-360-A1A rated at 180 HP at 2700 RPM and equipped with magneto ignition and/or Lightspeed Plasma II or Unison LASAR electronic ignition installed in Van's Model RV-8 and similar single engine tractor aircraft with the following operating restrictions:

1. Do not operate above 22" manifold pressure below 2350 RPM.
2. Operation above 2600 RPM is limited to takeoff. As soon as practical after takeoff the RPM should be reduced to 2600 RPM or less.
3. The propeller diameter limits are 74" to 72".

Hartzell Propeller Model HC-C2YR-1BF/F7496 is vibrationally approved when mounted on Lycoming model IOF-360-A1A rated at 180 HP at 2700 RPM and equipped with Aerosance FADEC engine control installed in Van's Aircraft Model RV-8 and similar single engine tractor aircraft with the following operating restrictions.

1. Do not operate above 22" manifold pressure below 2350 RPM.
2. Maximum engine RPM must be limited to 2650 RPM.
3. The propeller diameter limits are 74" to 72".

Note:

No testing has been done, at this time, on the IO-360-A1A, AIB6 (200 hp) or other derivatives of that engine.

The HC-C2YK-1BF/F7666A-2, -4 propeller will continue to be available for those aircraft where its use has been tested and is approved.