

HARTZELL PROPELLER INC.

SERVICE BULLETIN

Propellers

Propellers - Composite Blade Inspection

1. Planning Information

A. Effectivity

Hartzell composite blade propellers installed on undampened or modified Lycoming (AE)IO-360 engines.

NOTE: For the purposes of this bulletin, "modified" refers to engines that have had changes that may effect the vibratory characteristics of the engine such as, but not limited to, increased compression ratio, changes to boost horsepower, aftermarket turbo chargers, running at higher than rated RPM, and removing dampeners.

B. Concurrent Requirements

This Service Bulletin may be accomplished in conjunction with Hartzell Service Letter HC-SL-61-193.

C. Reason

(1) Hartzell composite propellers have been tested and found to have acceptable vibratory characteristics when installed on production configured, dampened (AE)IO-360 engines. Dampened engines have one sixth and one eighth order counterweight and are identified by the number 6 in the 4th suffix character. For example: (AE)IO-360-XXX6.

CAUTION: UNDAMPENED OR MODIFIED ENGINES CAN IMPOSE VIBRATORY STRESS INTO THE PROPELLER BLADES WHICH EXCEED THE DESIGN ALLOWABLES.

(2) Composite blades in a propeller installed on an undampened or modified Lycoming (AE)IO-360 engine may exhibit stress cracking or other vibration induced damage in the shank and/or counterweight area of the blade.

D. Description

This Service Bulletin introduces a recurring 50 hour visual inspection of the blade shank for cracks on propellers installed on affected engines.

E. Compliance

- (1) Initial compliance with this Bulletin is required within 25 flight hours of the effective date of this bulletin.
- (2) Following initial compliance, the inspection mandated by this bulletin must be performed at intervals not to exceed 50 flight hours.

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F. Approval

FAA approval has been obtained on technical data in this publication that affects type design.

G. Manpower

It will take approximately 1.0 man hours to accomplish the visual inspection specified in this Service Letter.

H. References

Hartzell Manual 113B (ATA 61-10-13), Compact Non-Feathering (-1) and Aerobatic (-4) Propeller Overhaul and Maintenance Manual

Hartzell Manual 135F (ATA 61-13-35), Maintenance Manual for Composite Propeller Blades

Hartzell Manual 145 (ATA 61-00-45), Propeller Owner's Manual

I. Other Publications Affected

Hartzell Manual 135F (ATA 61-13-35)

Hartzell Manual 145 (ATA 61-00-45)

2. Accomplishment Instructions

A. Inspection

- (1) Remove spinner in accordance with the Propeller Owner's Manual No. 145 (ATA 61-00-45).
- (2) Inspect (on wing) for cracks in the blade shank area as shown in Figure 1. If the blade has counterweights, inspect around the blade shank and counterweight assembly.
- (3) If no cracks are visible, reinstall spinner and make a log book entry indicating compliance with the inspection specified in this Service Bulletin and indicate when the next inspection is due.
- (4) If a crack is present:
 - (a) Disassemble the propeller in accordance with Hartzell Manual 113B.
 - (b) Retire cracked blade(s). Notify Hartzell Propeller Product Support.
 - (c) Reassemble the propeller in accordance with Hartzell Manual 113B.

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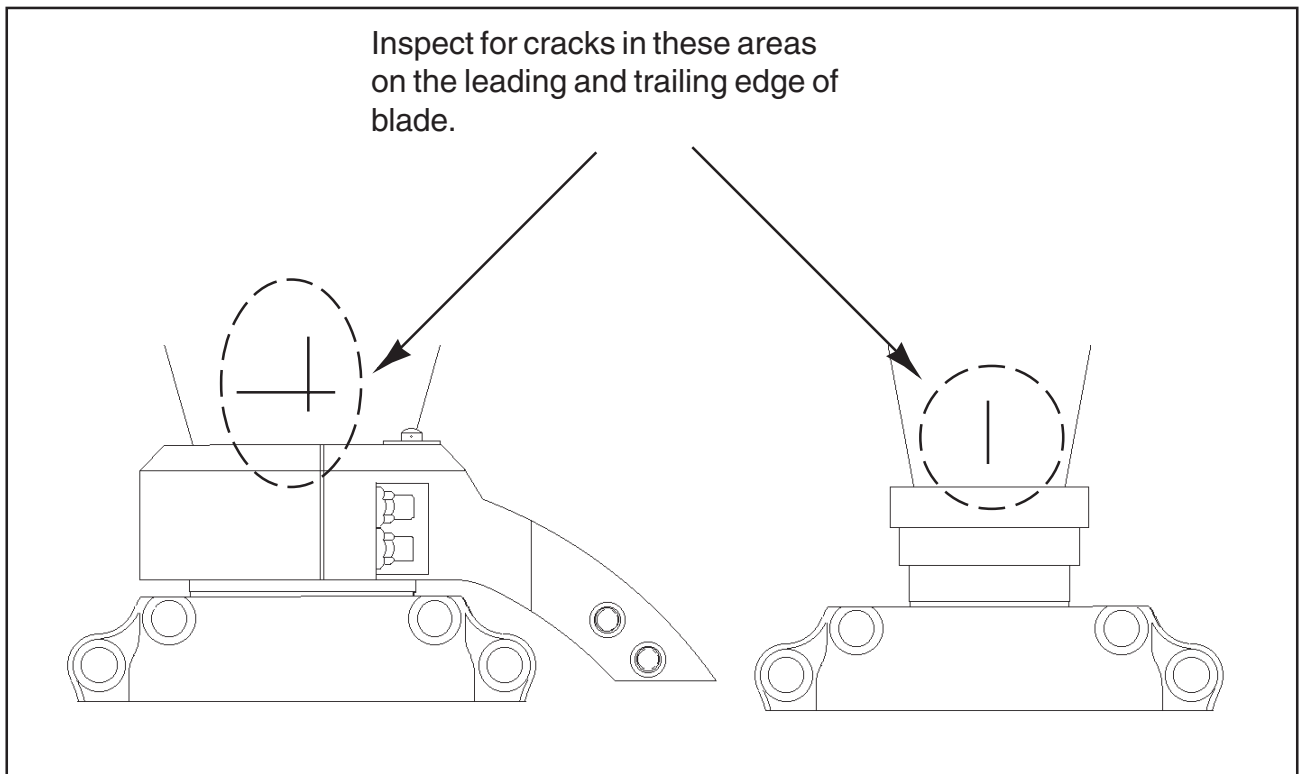


Figure 1