

SERVICE LETTER 1998-24

September 21, 1998

TO: FAA-Approved Propeller Repair Stations, Owners, Operators and Aircraft Maintenance Personnel

SUBJECT: Troubleshooting of Piston Powered Propellers with Blade Seal Leakage

MODELS AFFECTED: All C200, C300, C400, and C500 Oil Filled Propellers

SERVICE MANUALS AFFECTED: 701115, 761001, 780630, 810915

This service information is to be added to the appropriate McCauley Service Manual until the next manual revision is issued.

McCauley has received occasional reports from the field concerning blade seal leaks on propellers. The most probable cause of this problem is the momentary sticking of the blade o-ring in the hub socket. If this is the cause, cycling the propeller should free the o-ring, allowing it to "re-form" and seal again. Refer to Section 1 for instructions on cycling the propeller.

Minor leaking from blade seal area is common on new propellers and propellers recently overhauled or modified to oil filled configuration. Any initial leakage is usually seen as a minor "streaking" on the blades. If leaking occurs, cycle propeller per instructions in Section 1. This leakage should discontinue within the first 20 hours of operation.

NOTE

Leakage from any area other than blade may indicate a damaged seal (e.g. front cylinder area etc.) and requires that the propeller assembly be removed and sent to an approved propeller repair facility for inspection/repair.

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

TO OBTAIN SATISFACTORY RESULTS, PROCEDURES SPECIFIED IN THIS SERVICE INFORMATION MUST BE ACCOMPLISHED IN ACCORDANCE WITH ACCEPTED METHODS AND PREVAILING GOVERNMENT REGULATIONS. MCCAULEY PROPELLER SYSTEMS CANNOT BE RESPONSIBLE FOR THE QUALITY OF WORK PERFORMED IN ACCOMPLISHING THIS SERVICE INFORMATION.

CAUTION

Leakage from blade patch area on C201, C205, and C223 propellers (See Figure 1) requires that the propeller assembly be removed and sent to an approved propeller repair facility for inspection/repair.

SECTION 1 - Checking/Correcting Leaking Propeller

If a blade leak occurs, perform the following procedures to check the o-ring and continue operation of the propeller.

1. Clean blade of all traces of oil and dirt using a cloth dampened with mineral spirits.
2. Run engine and cycle propeller at least five times.

CAUTION

Never exceed published engine operational limits.

3. Inspect blade for continued oil leakage and clean if necessary per step 1.
4. Repeat step 2.
5. Inspect blade. Leaking should be tapering off or completely stopped.
- 6a. If leaking has stopped, no further action is required.
- b. If leaking has decreased, continue operation for up to 20 hours. If leaking continues after 20 hours, propeller must be removed from aircraft and sent to an approved propeller shop for repair.

CAUTION

Continued operation is allowed only upon verification of a blade seal leak. Leakage from blade patch or any other area requires immediate removal and repair.

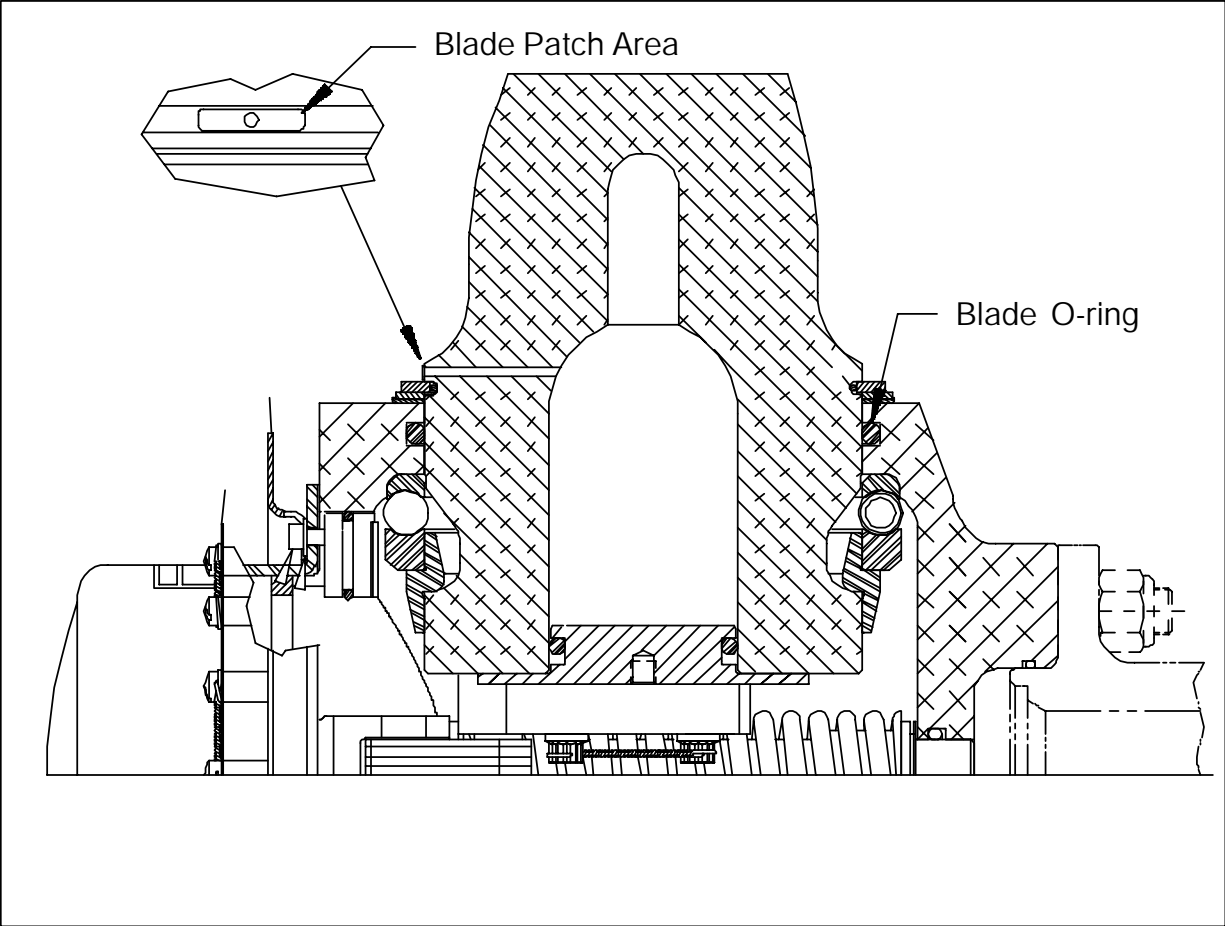


Figure 1