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ULTRALIGHT AIRCRAFT AIRWORTHINESS NOTICE

AIRWORTHINESS NOTICE IDENTIFICATION NUMBER 1- 2001 Issue 2

<p style="text-align: center;">WARP DRIVE PROPELLERS – DIRECT DRIVE APPLICATIONS HUB CRACKING (JABIRU ENGINE FITMENT IN PARTICULAR)</p>
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To:

Owners/Operators of all AUF Aircraft fitted direct drive engines employing Warp Drive Propellers

Background:

The AUF has been advised by Thruster UK of cracking found in 6 hubs and in the aluminium roots of two blades of Warp Drive propellers of aircraft fitted with Jabiru engines.

Initially, Thruster in the UK raised a Mandatory Service Bulletin No TAS/SB07 requiring that All Thruster aircraft fitted with Jabiru 2200A engines be visually checked before each flight and that they should not be flown with that propeller if any cracking is found. The matter was referred to The UK CAA who issued a Mandatory directive requiring compliance with the Thruster UK Bulletin.

The latest advice (and reason for issue 2) is that the UK CAA has now grounded all Jabiru/Warp Drive Vision aircraft until approved corrective action has been incorporated because all cracks are not visible to the unaided eye, their detection requiring non-destructive techniques.

As at 19 Oct, the final solution is understood to be a replacement hub based on the hub for O-200 Engines.

Because this appears to be an engine/propeller combination problem, the AUF considers that all aircraft fitted with a Jabiru/Warp Drive combination should be inspected. The problem reported by Thruster UK is on 2 bladed propellers fitted to Jabiru Engines only, but a one off inspection of two or three bladed warp drive propellers fitted to other direct drive engines would appear to be prudent also. Records show there are 4 Visions, a Carlson Sparrow and a Zenair STOL fitted with the Warp Drive/Jabiru combination.

Note that the Jabiru Engine is only supported by the manufacturer when fitted propellers manufactured by Jabiru itself.

Action Required:

Effective 19 October, upon receipt of this notice:

A. On aircraft fitted with Jabiru Engines incorporating Warp Drive Propellers:

1. Propellers with a total time of 50 hours or more are to be removed from service and are not to be reused without engineering clearance.
2. For propellers with less than 50 hours, the aluminium hub and blade roots of the Warp Drive propellers are to be visually checked for cracking before the next flight and before each successive flight until removal at 50 hours.
3. Before next flight, all propellers are to be checked for correct torquing in accordance with manufacturer's specifications.

4. If there is any sign of cracking, the propeller is to be withdrawn from service before further flight and the AUF advised of the nature of cracking, the engine/propeller combination and the cumulative time in service of the propeller on that and any other engines to which it may have been fitted.
5. The initial inspection and any findings are to be recorded in the Aircraft Log Book quoting this Airworthiness Notice AN 1-2001

B. On all other aircraft with direct drive engines fitted with any type of Warp Drive Propeller:

1. Before the next flight, the aluminium hub and blade roots are to be visually checked for cracking.
2. All Propellers are to be checked for correct torqueing in accordance with manufacturer's specifications.
3. Warp Drive propellers *which may have been fitted to Jabiru Engines at any stage of their lives* are to be inspected for cracking at each DAILY inspection as required by para 1 above pending closure of the problem.
4. If there is any sign of cracking, the propeller is to be withdrawn from service before further flight and the AUF advised of the nature of cracking, the engine/propeller combination and the cumulative time in service of the propeller on that and any other engines to which it may have been fitted.
6. The initial inspection and any findings are to be recorded in the Aircraft Log Book quoting this Airworthiness Notice AN 1-2001

Reports Required:

If any indication of cracking is found, the AUF is to be advised of the:

- nature of cracking;
- details of the engine/propeller combination; and
- cumulative time in service of the propeller on the current engine and on any other engines to which it may have been fitted.



R Hewitt-Cook
Technical Manager

Defect Reporting is one of the primary ways we have in ensuring continued safety in our operations.