



Airworthiness Information Leaflet



Jabiru SK, SP, UL & UL430/450

Main Undercarriage Bolts Inspection/Replacement/Mandatory Life

Applicability: All Jabiru SK, SP, UL & UL430/450 variants.

Compliance by: **Part 1. Inspection.**

Inspect as per 'Actions Required' in this Leaflet before the next flight after the effective date of this LAA/MOD/274/016 issue 1.

Part 2. Bolt Replacement.

Within five (5) flying hours after the effective date of LAA/MOD/274/016 issue 1. bolts must be replaced if:

1. A bolt has been in service for 500 or more hours.
2. A 5/16" (AN 5) bolt is fitted.
3. On inspection, the bolt has been found loose in-service.

Background: During August 2012, a Jabiru UL430 suffered an undercarriage collapse which led to damage to the aircraft's wing and propeller. Subsequent investigations revealed that the nut was of questionable quality, the undercarriage may have been loose in its mounting and the attachment bolt was of a smaller diameter than recommended.

During May 2013, a Jabiru UL450 suffered a main undercarriage failure where the cause was established to be the failure of a main undercarriage mounting bolt, this attachment bolt was found to be of a smaller size than recommended.

Jabiru Aircraft PTY Ltd. have issued two Service Bulletins affecting the main undercarriage on Jabiru aircraft; the first, JSB 008-1 (31st March 2005), required the replacement of 5/16" (AN5) attachment bolts on all J400 (4 seat) Jabiru aircraft fitted with 3/8" (AN6) bolts. The second Bulletin, JSB 025-2 (7th May 2009), mandated a 500 hr. life for main undercarriage bolts on all Jabiru aircraft types.

This Airworthiness Information Leaflet extends to all Jabiru types the requirement to replace any remaining 5/16" (AN5) main undercarriage attachment bolts with 3/8" (AN6) bolts and mandates a 500 hr. life for these bolts as per JSB 025-2 (7th May 2009).

It has been found that the main undercarriage bolts on all Jabiru aircraft are prone to loosening: Operators must regularly check main undercarriage legs in service; this can be achieved by getting an assistant to lift the appropriate wing-tip and check that there is no fore/aft. movement in the leg (see 2.c. overleaf).

- Actions Required:**
1. Carry out a survey of the aircraft's log book and establish the in-service total hours completed by the main undercarriage bolts. If these bolts are over, or likely, before the next service interval to go over 500 hours, they must be replaced with new bolts in accordance with JSB 025-2.
 2. Remove fairings as necessary to gain access to main undercarriage bolts then, with the help of an assistant, check for:

Continued overleaf/.....

LAA Airworthiness Information Leaflet Classifications
 Classification A - Considered Mandatory by the LAA
 Classification B - Recommended by the LAA
 Classification C - Material published for information and/or guidance

Actions Required,
Continued:

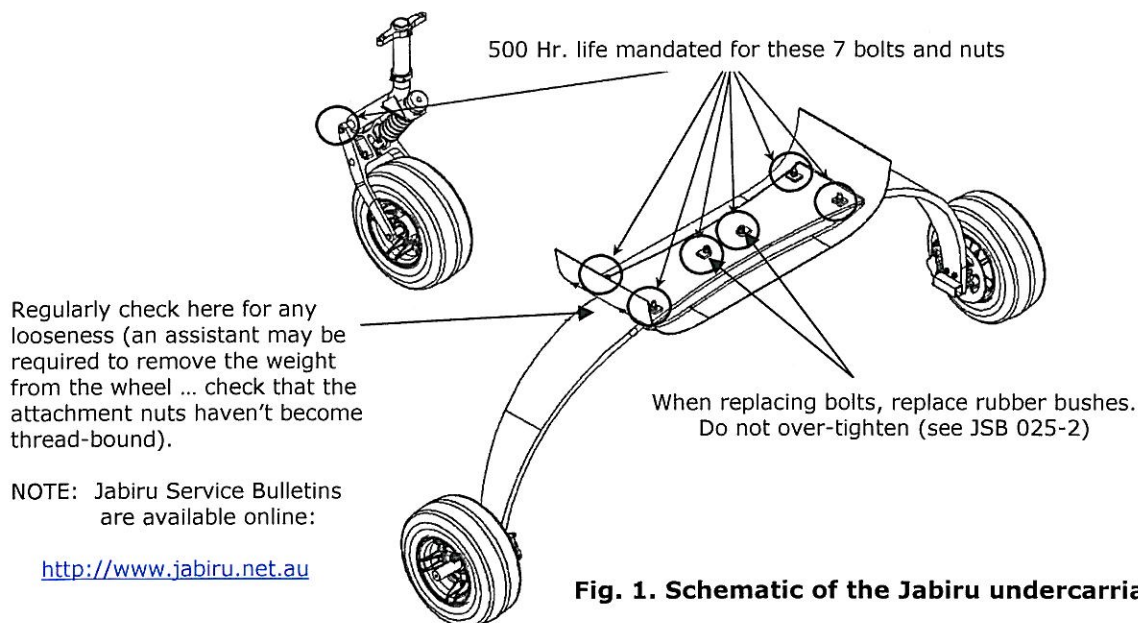
- a. **Bolt Size** – Establish the bolt's diameter; should the bolt be a 5/16" (AN5) bolt then this will need to be changed in accordance with instructions given in JSB 008-1 (31st March 2005).
- b. **Bolt Grip length** - Ensure that the nut hasn't 'bottomed-out' on the thread, washers may be used as necessary to ensure positive grip.
- c. **Fore/aft movement in the leg** – After removing the weight from the wheel there must be no relative movement between the leg and the attaching clamp, if movement is detected the attachment must be disassembled so that the leg and clamp can be fully inspected. Should a leg be found loose it is required that the attaching bolts be replaced with new bolts on re-assembly (see compliance requirements Part 2. 3. overleaf).

Certification: The LAA considers the inspections detailed in 'Actions Required' to fall within the scope of 'allowable pilot maintenance' (see LAA Technical Leaflet TL 2.05) therefore LAA Inspector involvement is not required providing:

1. That 3/8" (AN6) Bolts are fitted.
2. The Undercarriage attachment nut(s) have not bottomed out.
3. No Fore/Aft. movement is discovered in either undercarriage leg.

Should all the requirements listed above be satisfactorily met then worksheets and log book entries must be raised and signed by the pilot confirming compliance with LAA/MOD/274/016 issue 1.

Should any maintenance or replacement work need to be done, worksheets and log book entries must be raised and signed by the inspector detailing the work done and confirming compliance with LAA/MOD/274/016 issue 1.



Parts and assistance can be sourced from the UK's Jabiru Agent:

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