

Jabiru Service Bulletin: Jabiru Engine Through Bolts			JABIRU AIRCRAFT PTY LTD P.O. Box 5186 Bundaberg West Queensland, Australia. Phone:+61 7 4155 1778 Fax:+61 7 4155 2669 Email: info@jabiru.net.au		
JSB 031-2	Release Date: 9th August 2013	Effective Date: 10th Sept 2013	Affected Models: See Applicability	S/No. Range: See Applicability	Page 1 of 4

SERVICE BULLETIN: JSB 031-2

Issue: 2

Subject: Jabiru Engine Through Bolts

Release Date: 9th August 2013

Effective Date: 10th Sept 2013

Affected Models: Jabiru 2200 and 3300 Engines

Affected S/No: 2200A S/No. 1707 to 3483
2200B S/No. 001 to 282
2200C S/No. 001 to 018
2200J S/No. Depends on configuration. See notes.
3300A S/No. 637 to 2391
3300L S/No. 001 to 096

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2 General

2.1 2200J Engines:

- This bulletin is applicable to any 2200J engine built or overhauled between 2004 and 2011.

2.2 JSB031 Issue 1:

- Jabiru Engines are assembled using a combination of Through-Bolts and Studs – as shown in Figure 1 below. The number of through-bolts varies depending on which engine model is considered but there are always 6 studs (not all with the same part number). The through-bolts and studs hold the cylinders in place and the halves of the crankcases together.
- There have been some cases of these bolts failing in service, leading to engine failure.
- In April 2011 JSB031 Issue 1 was issued. This bulletin detailed then-current inspections and alterations required to correct this potential unsafe condition with the through-bolt hardware of certain Jabiru 2200 and 3300 engines.
- JSB031 Issue 1 allowed certain amounts of time for the corrective actions to be taken: These have all since expired. Therefore it is assumed that all engines within the applicable range comply with the requirements of JSB031 Issue 1 or later data approved by Jabiru Aircraft Australia. **Any engine for which this is not the case is subject to the requirements detailed in Section 3.3.**
- Issue 1 of JSB031-1 has been superseded by this bulletin and must not be used as approved data to carry out inspections or alterations to engines.

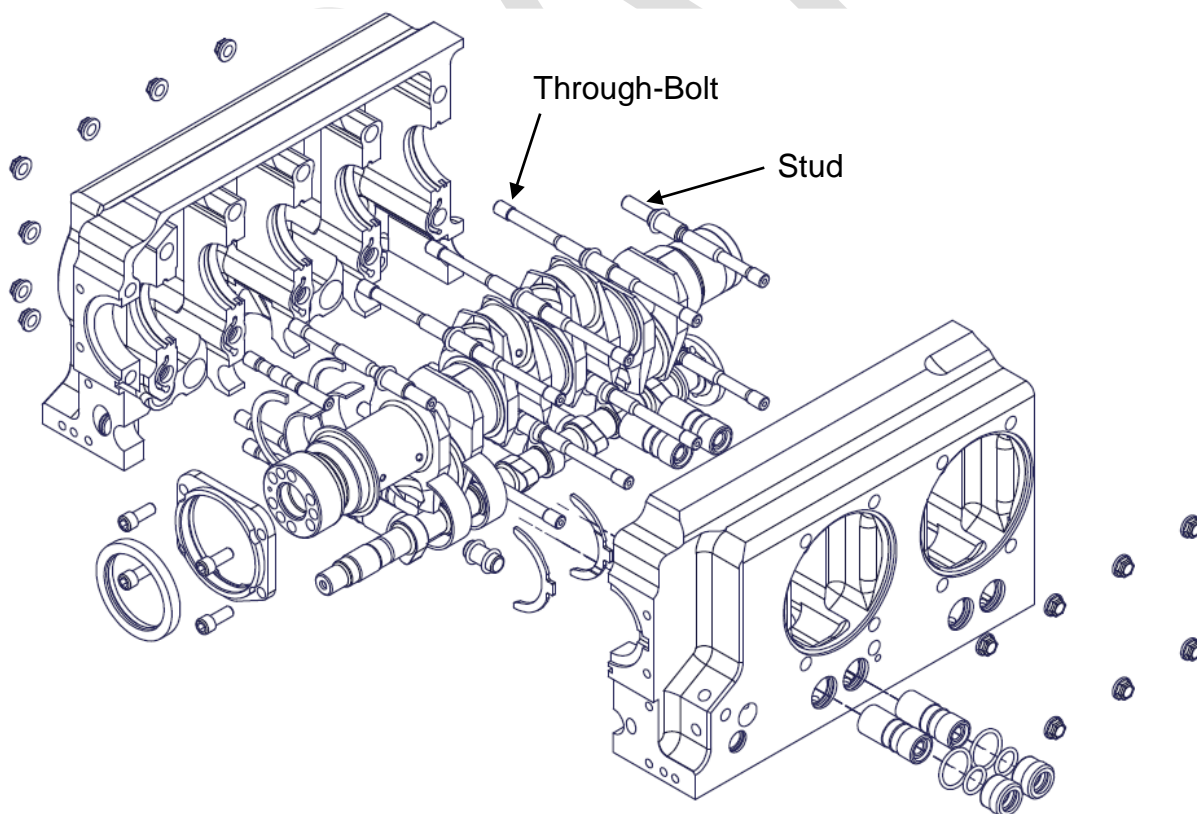


Figure 1 – General Engine Layout

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2.3 JSB031 Issue 2:

- This bulletin is applicable to the Jabiru 2200 and 3300 engines listed on Page 1.
- This bulletin is equivalent to a Manufacturer's Safety Direction.
- This bulletin has not been mandated (as an AD or similar) by any National Airworthiness Authority at the time of writing.

3 Requirements:

3.1 Any Engine Meeting JSB031 Issue 1 Requirements

- The requirements of JSB031 Issue 1 were for 1-off alterations. Engines which were altered in accordance with JSB031-1 are now subject to routine maintenance as detailed in the current Jabiru 2200 / 3300 Engine Maintenance Manual (Document JEM0002-1 or later approved issue). **No additional work on these engines is required by this bulletin.**

3.2 Any Engine at Overhaul or Major Maintenance

- Any engine which is being overhauled or having major maintenance carried out is to be upgraded to an approved configuration as detailed in the current Jabiru Engine Overhaul Manual, Document JEM0001 Issue 4 (or later approved issue).

3.3 Any Applicable Engine Still Equipped with MS21042 Style Nuts

- The following is required at the interval given in Section 4.1.
 - a) The existing MS21042 style nuts must be replaced.
 - b) New through-bolts and studs must be fitted. **Note that replacing studs requires that the cases be split: the scope of work is generally equivalent to an engine bulk strip.**
 - c) Cylinders must be removed, cleaned and thoroughly inspected for cracks by trained personnel using a bright light and minimum 10x magnifying glass in the region between the lower cylinder flange and the first full cylinder fin. Dye Penetrant or Magnetic Particle Inspections are also acceptable. Where no cracks are found the part may be re-fitted.
- The updated engine configuration must match an approved configuration as detailed in the current Jabiru Engine Overhaul Manual, Document JEM0001 Issue 4 (or later approved issue). An MS21042 Style nut is shown in Figure 2 for identification purposes.
- This is a one-off task. Once this work has been carried out the engine reverts to the standard maintenance requirements as detailed in Section 3.1.

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Figure 2 – MS21042 Style Nut Identification

4 Compliance:

- Where calendar time spans are given below, the start date is taken to be the effective date of this Service Bulletin - 10th Sept 2013.

4.1 Any Applicable Engine Still Equipped with MS21042 Style Nuts

- Carry out the work detailed in Section 3.3 within the next 10 hours TIS or 2 months, whichever is the sooner.

5 Procedures

- All procedures are to be as detailed in the current Jabiru Engine Overhaul Manual, Document JEM0001 Issue 4 (or later approved issue).

6 Airworthiness Note:

6.1 General

- Where required, work called for by this Bulletin must be carried out by authorised personnel only. In Australia this generally means the original builder of an Experimental-category aircraft (either RA-Aus or VH registered), an RA-Aus Level 2 holder for other RA-Aus aircraft or an Aircraft Maintenance Engineer (AME).
- On completion of the work, the authorised person must note the completion of the actions required by this bulletin in the aircraft or engine's maintenance logbook. This note should refer to the completion the requirements of this Service Bulletin, indicate the date and the identity (including licence number where appropriate) of the person carrying out the work.

6.2 General Engine Maintenance Notes

- The work detailed in this Bulletin requires extensive skills, experience and training in engine maintenance – as well as special tools and equipment. Unskilled personnel or those lacking the correct tools and training must not attempt this work. Refer to the current Jabiru Engine Overhaul Manual, Document JEM0001 Issue 4 (or later approved issue) for personnel, tool & equipment requirements.
- Always take care while working around the propeller – ensure the ignitions are turned OFF and that no-one is in the cockpit while working on the engine.

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SAFETY DIRECTIVE: JSD 031-2

Issue: 2

Subject: Jabiru Engine Through Bolts

Release Date: 9th August 2013

Effective Date: 10th Sept 2013

Affected Models: Jabiru 2200 & 3300 Engines

Affected S/No: As Detailed on Page 1 of JSB 031-2

Requirement:

- Operators of engines in the Serial Number ranges given within Light Sport Aircraft categories must comply with the requirements of Jabiru Service Bulletin JSB 031-2.

Compliance:

- The compliance details given in JSB 031-2 must be met.

Background:

- This Safety Directive has been prepared to make mandatory the requirements of JSB 031-2 for engines operating within Light Sport Aircraft Categories.