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# SERVICE BULLETIN: JSB 009-1

Issue: 1

Date: 4th April 2005

Subject: Alternate Propeller Mount System

**1. Applicability:**

All Jabiru aircraft.

**2. Background:**

Over time the thickness of Jabiru wooden propellers can vary at the mounting point due to changes in humidity, temperature etc. These thickness changes can sometimes cause the propeller fastening bolts to become loose, leading to damage to the propeller and engine. To avoid this, Jabiru Maintenance Manuals typically demand inspections of the propeller bolt tensions after the initial 25 hours of engine running and every 50 hours thereafter.

Jabiru aircraft have developed an alternate propeller mounting system to allow an increase in inspection intervals for propeller mount bolts. This system is applicable only when using Jabiru 2-bladed wooden propellers. When using this propeller mounting system the propeller bolts should be checked after the initial 25 hours of engine running, then annually thereafter.

**3. Recommendations:**

It is recommended that owners upgrade to the new system as it provides a more tolerant system of maintaining propeller bolt tensions.

**4. Compliance:**

This modification is optional, though recommended for all owners.

The new system has been introduced as standard from the following aircraft serial numbers:

Model LSA, SP, UL: - From airframe S/No. 642 onwards.
Model J400 Family: - From airframe S/No. 240 onwards.
Model J160 Family: - From airframe S/No. 26, then 32 onwards.

**5. Procedure:**

i) Note that all work must be conducted by an authorised person, such as the kit builder or a holder of an Australian Level 2 Maintenance Authority (or equivalent under local regulations).

ii) Mark the spinner to show it's orientation relative to the propeller and backing plate(s). This step is very important to ensure simple re-assembly. Remove the spinner.

iii) While it is possible to change the bolts on some models without removing the propeller, it is recommended that the propeller be taken off to allow inspection of the propeller drive faces and drive bushes.

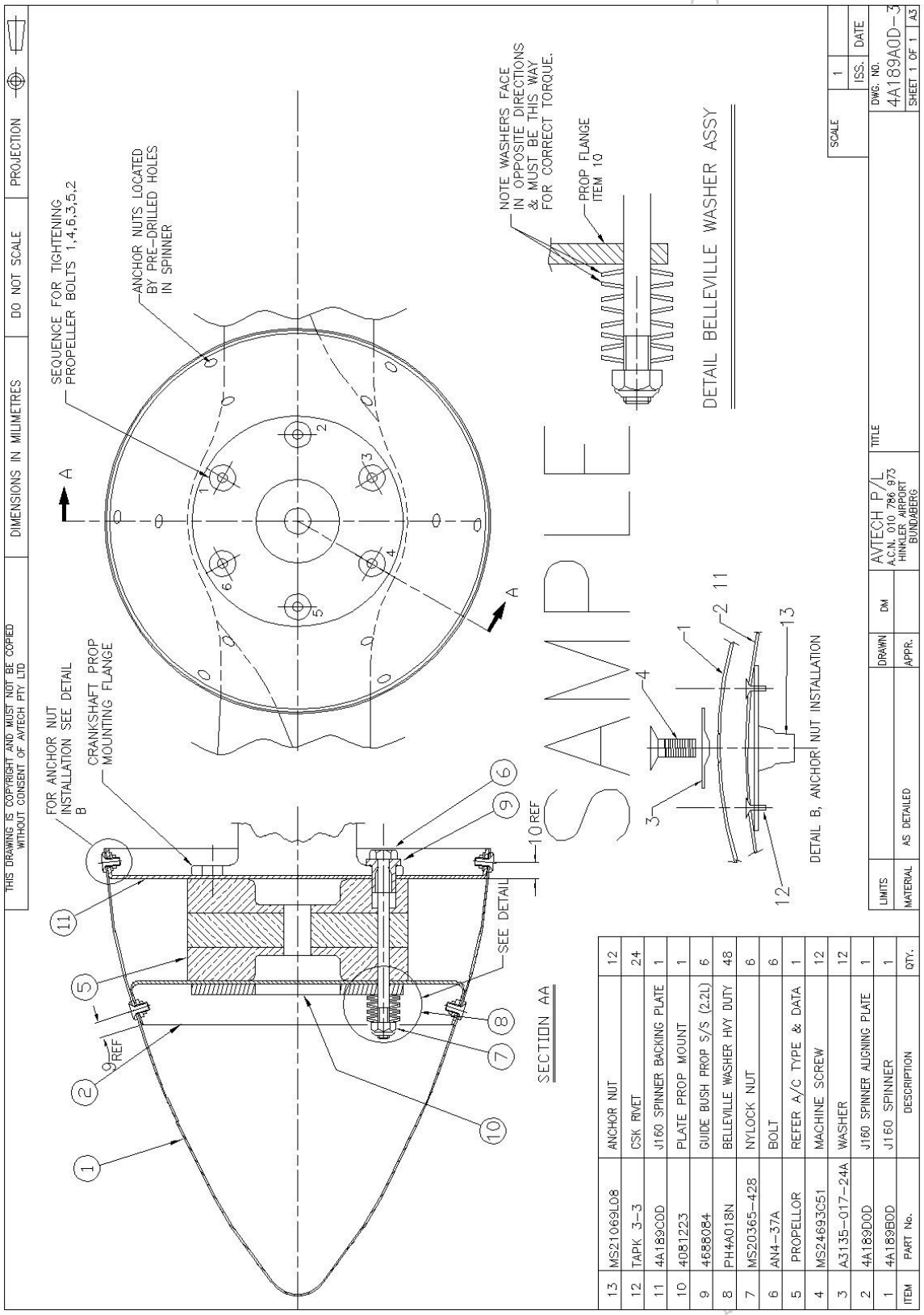
iv) Visually inspect the drive face of the propeller for damage. Slide the drive bushes into the holes in the propeller hub by hand. The bushes should be a light push fit. If the bushes are loose in the propeller they can allow it to move, which in time will damage both the propeller and the engine. If the propeller has damage to the drive face or loose drive bushes, contact Jabiru Aircraft or our local representative for a repair scheme.

v) Re-fit the propeller to the aircraft using the longer bolts and Belleville washer stack as shown generally in Figure 1 below (contact Jabiru Aircraft or our local representative for aircraft specific details). Note that the bolts must be oriented with the threaded end facing away from the engine. Details of the variations to the propeller installation for the different Jabiru models are available from Jabiru Aircraft or our local representative.

vi) Nominal bolt tension is 6 ft-lb. Track propeller in accordance with normal Jabiru procedures, taking care not to exceed 6 ft-lb as tightening the bolts beyond this tension will flatten the washer stack completely and prevent it from moving to accommodate changes in propeller thickness.

vii) Re-fit the spinner, aligning it with the propeller and backing plates using the marks made in step i). Check the spinner tracking in accordance with the procedure outlined in the installation manual.

viii) Annotate the aircraft's maintenance log to show that Jabiru Service Bulletin JSB 009 has been carried out.




| ITEM | PART No. | DESCRIPTION | QTY. |
|---|---|---|---|
| 13 | MS21069L08 | ANCHOR NUT | 12 |
| 12 | TAPK 3-3 | CSK RIVET | 24 |
| 11 | 4A189C0D | J160 SPINNER BACKING PLATE | 1 |
| 10 | 4081223 | PLATE PROP MOUNT | 1 |
| 9 | 4688084 | GUIDE BUSH PROP S/S (2.2L) | 6 |
| 8 | PH4A018N | BELLEVILLE WASHER HVY DUTY | 48 |
| 7 | MS20365-428 | NYLOCK NUT | 6 |
| 6 | AN4-37A | BOLT | 6 |
| 5 | PROPELLOR | REFER A/C TYPE & DATA | 1 |
| 4 | MS24693C51 | MACHINE SCREW | 12 |
| 3 | A3135-017-24A | WASHER | 12 |
| 2 | 4A189D0D | J160 SPINNER ALIGNING PLATE | 1 |
| 1 | 4A189B0D | J160 SPINNER | 1 |

**Figure 1 – Sample Propeller Installation Details**