

# JABIRU AIRCRAFT PTY LTD

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**SERVICE BULLETIN:** JSB 007-1  
**Issue:** 1  
**Date:** 29<sup>th</sup> November 2004  
**Subject:** Main Undercarriage Stub Axle

## **1. Applicability**

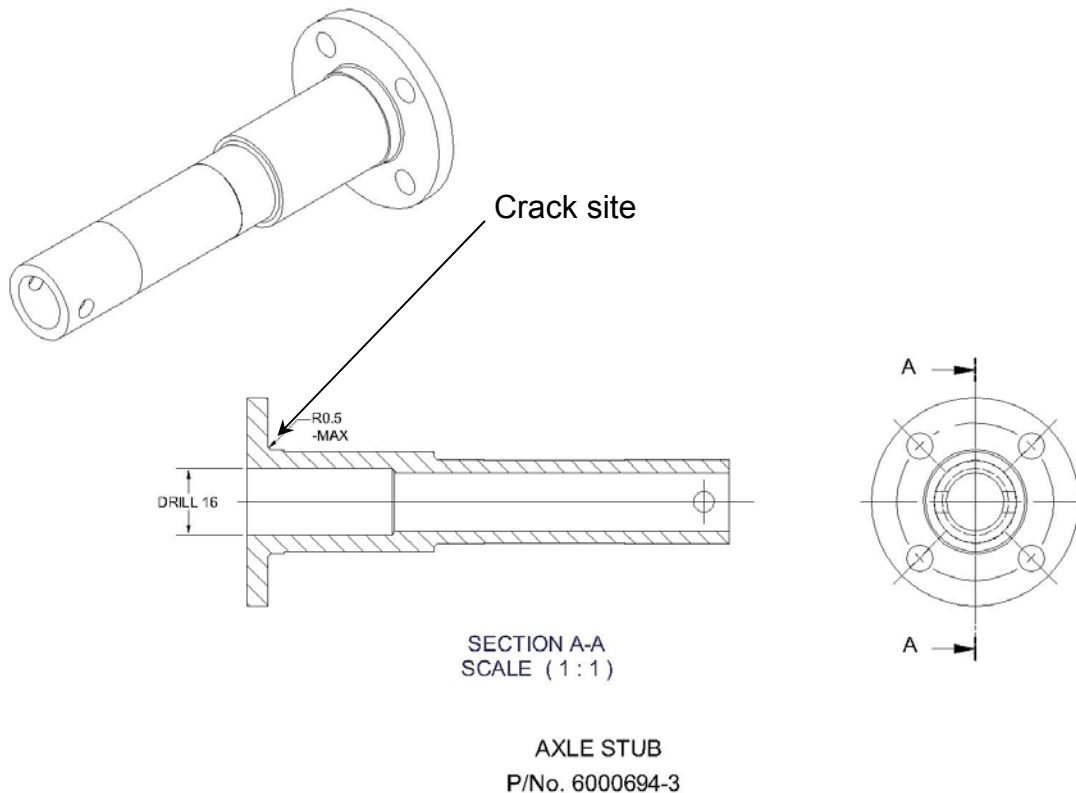
All Jabiru Aircraft.

## **2. Background**

Some failures of the main undercarriage stub axle have recently occurred in Jabiru aircraft. The failures occurred high-time training aircraft and "J Series" (models with 3-door fuselages) aircraft.

Inspection showed that the failures had been caused by fatigue cracking at the inboard end of the axle (refer to Figure 1 below.). Note that visual inspection of these parts should not be used to judge if the part is fit to remain in service; some axles which appeared sound after cleaning and inspecting with 10X magnification were tested with dye penetrant and found to have cracks.

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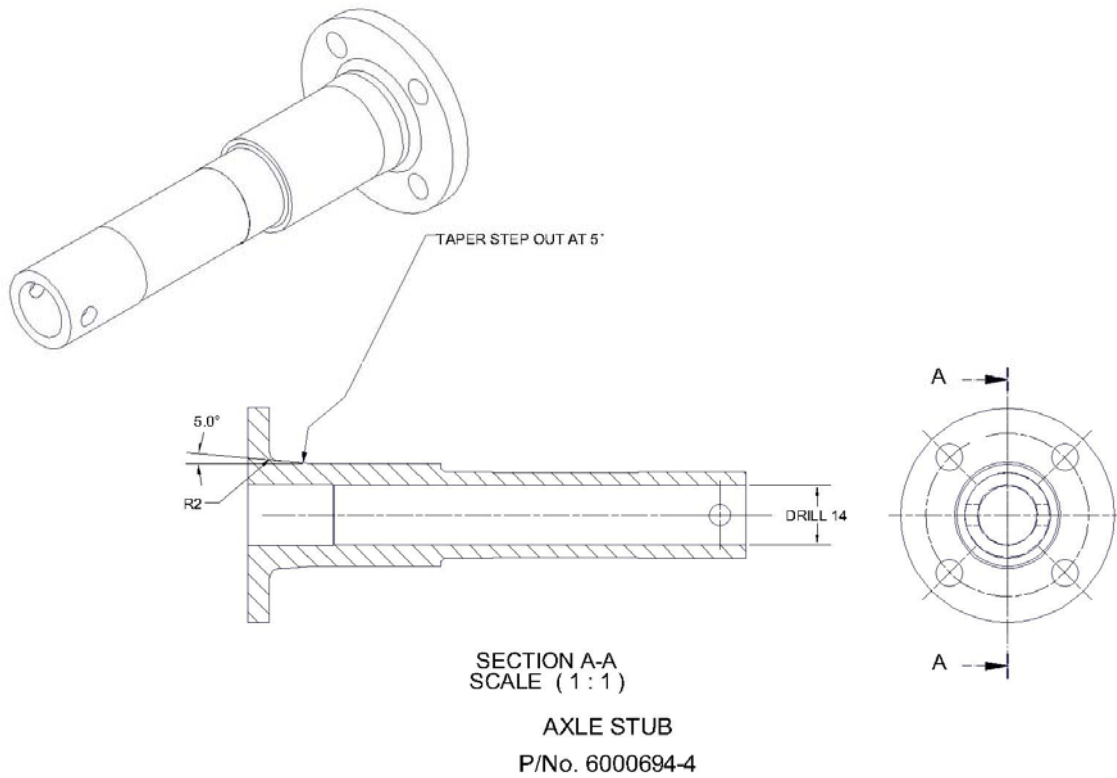
**Figure 1. Original Stub Axle**

### 3. Recommendations

Replace the original axles with new type axles (refer to Figure 2 below). This is a one-time replacement – once the new axles are fitted, they need not be replaced. Note that due to the fillet radius machined into the root of the new stub axles, the brake caliper mounting plate must also be modified or replaced.

- Axles fitted to 2 door fuselages (UL, SP, LSA, J160 models etc) should be replaced at or before reaching 2500 hours.
- Axles fitted to 3 door fuselages (J400, J430, J450 and J200 family models) should be replaced at or before reaching 250 hours.

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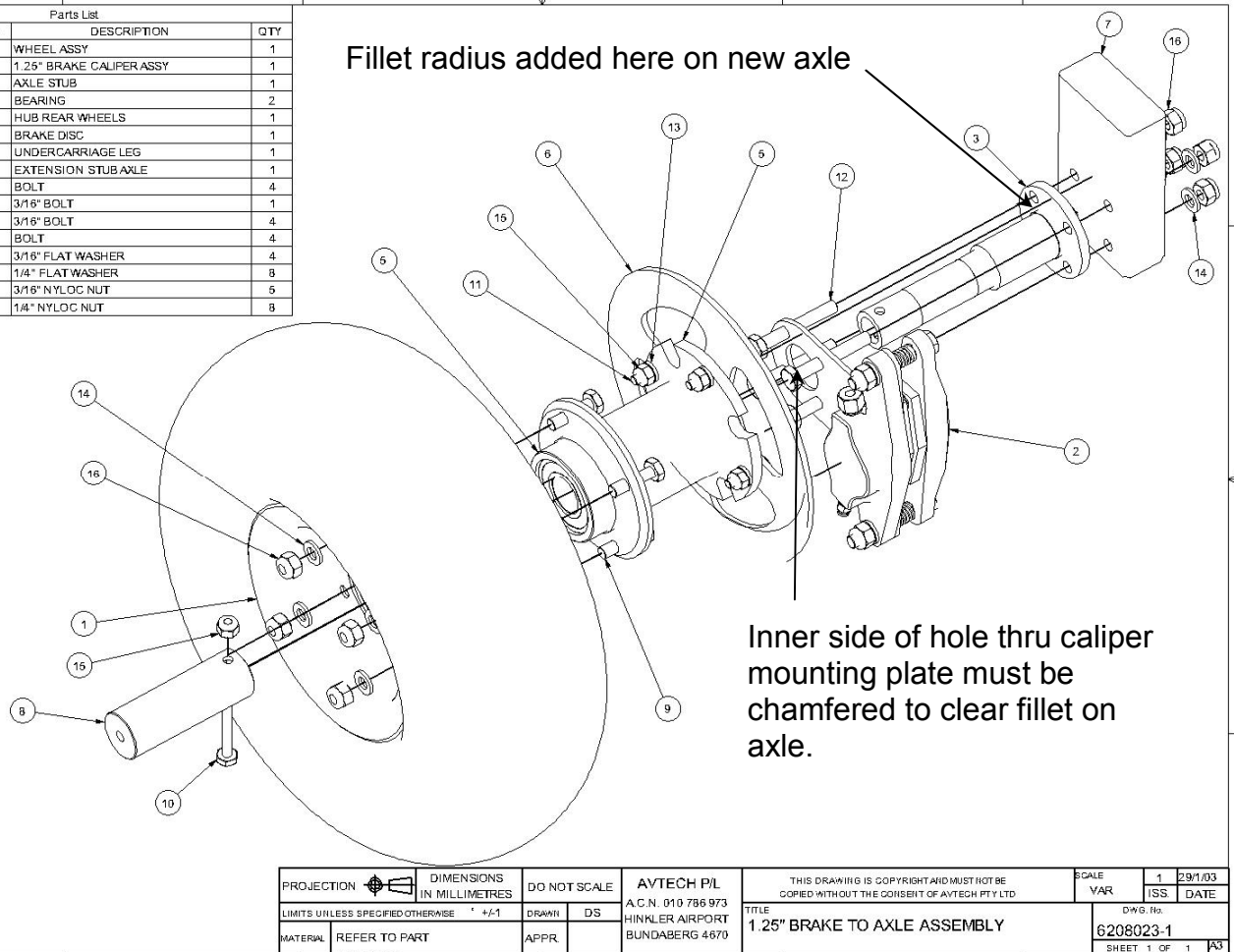


**Figure 2. New Type Stub Axle**

The new axle can be distinguished from the old by the fillet radius machined into the root, and the taper instead of a step in diameter near the root.

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Parts List			
ITEM	PART NUMBER	DESCRIPTION	QTY
1	PU0049N	WHEEL ASSY	1
2	6207023	1.25" BRAKE CALIPER ASSY	1
3	6000694	AXLE STUB	1
4	PB0029N	BEARING	2
5	6053094	HUB REAR WHEELS	1
6	6000294	BRAKE DISC	1
7		UNDERCARRIAGE LEG	1
8	6000694	EXTENSION STUB AXLE	1
9	AN4-7A	BOLT	4
10	AN3-13A	3/16" BOLT	1
11	AN3-06A	3/16" BOLT	4
12	AN4-16A	BOLT	4
13	AN960-10	3/16" FLAT WASHER	4
14	AN960-416	1/4" FLAT WASHER	8
15	MS20365-1032	3/16" NYLOC NUT	5
16	MS20365-428	1/4" NYLOC NUT	8

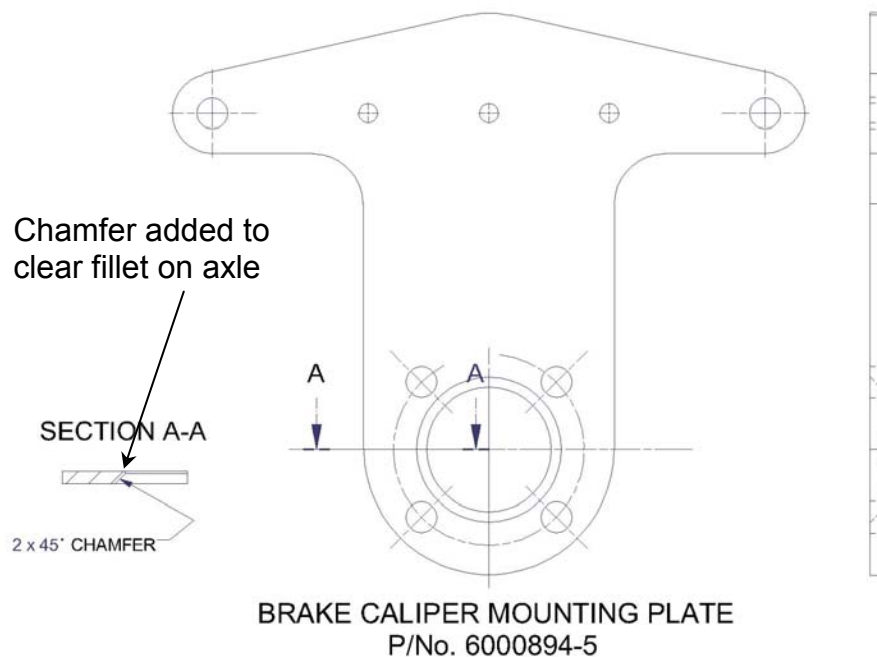


NOTE:  
RIGHT SIDE WHEEL  
SHOWN.

PROJECTION		DIMENSIONS IN MILLIMETRES	DO NOT SCALE	AVTECH P/L A.C.N. 019 796 973 HINKLER AIRPORT BUNDABERG 4670	THIS DRAWING IS COPYRIGHT AND MUST NOT BE COPIED WITHOUT THE CONSENT OF AVTECH PTY LTD	SCALE VAR	1 ISS	29/1/03 DATE
LIMITS UNLESS SPECIFIED OTHERWISE		+/-1	DRAWN DS	TITLE 1.25" BRAKE TO AXLE ASSEMBLY	DWG. No. 6208023-1			
MATERIAL	REFER TO PART	APPR.		SHEET 1 OF 1				

**Figure 3. Main Wheel & Brake Assy**

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**Figure 4. Brake Caliper Mounting Plate**

#### 4. Procedure

- i. Raise the wheel off the ground by jacking under the lower end of the fiberglass leg or by placing a support under the wing.
- ii. Remove wheel spat (if fitted).
- iii. Remove wheel from axle.
- iv. Remove the axle and brake caliper mounting plate.
- v. If the existing brake caliper mounting plate is to be modified and re-fitted, the chamfer can be cut using a die-grinder type tool or hand tools. Note that care must be taken not to notch the part, and once the bulk of material has been removed the tool marks must be removed using a fine file, then Scotch-Brite (or similar) polishing pads.
- vi. Re-fit the wheel and brake assembly, then replace the second axle using the process given above.