SERVICE BULLETIN No. 20

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DATE: 18 May 2007

REVISION: IR

AIRCRAFT: HUSKY A-1, A-1A, A-1B

SUBJECT: Wheel Brake Mounting Bracket Weld

Engineering Data is FAA Approved

1. EFFECTIVITY

Effective for: Husky A-1, A-1A SN 1001 and up.
Husky A-1B SN 2000-2378.

All other Husky A-1B Aircraft have the larger weld and require no action concerning this bulletin.

2. PURPOSE

Increase Margin of Safety for Wheel Brake Mounting Bracket fillet weld by increasing fillet weld dimension.

3. BACKGROUND

There have been reports of fillet weld failures between the Wheel Brake Mounting Bracket and the main gear axle on Husky aircraft during hard braking on asphalt runways. The increased size of the fillet weld eradicates this problem.

4. COMPLIANCE METHODS

1-Purchase new gear from Aviat Aircraft Inc., or;

2- Complete modification at earliest convenience, but not later than next 25 hours of flight time, or;

3- Aircraft with welds equal to or exceeding the new specification described herein comply with this bulletin without any modifications.

Complete and send the Compliance Letter in any case.

5. ACCOMPLISHMENT INSTRUCTIONS

OVERVIEW

This bulletin pertains to the fillet weld on the main gear axle attaching the Wheel Brake Mounting Bracket identified in Figure 5-1.

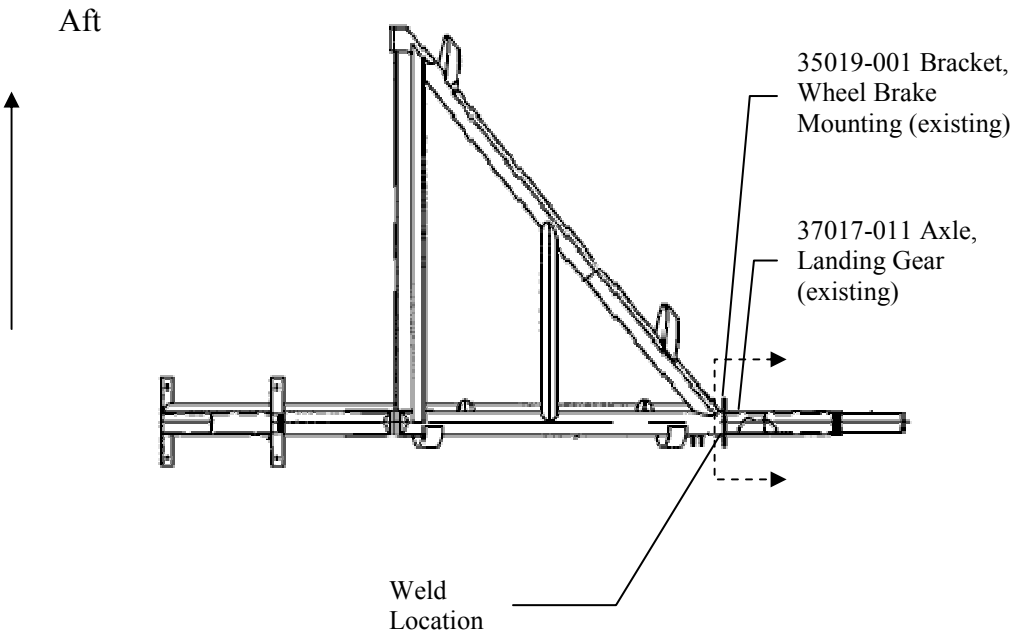

Figure 5-1 Location of Weld to be Modified-Shown on Left Landing Gear Strut Assembly (fairing removed for clarity) – Top View

The modification entails increasing the fillet weld size to 3/16 inches. On early models, the factory fillet weld was specified at 3/32 inches. This must be increased to 3/16 inches to increase the margin of safety. The running lengths of each of the 4 fillets welds per gear will remain unchanged. A detailed view of the new weld specification is contained in Figure 5-2.

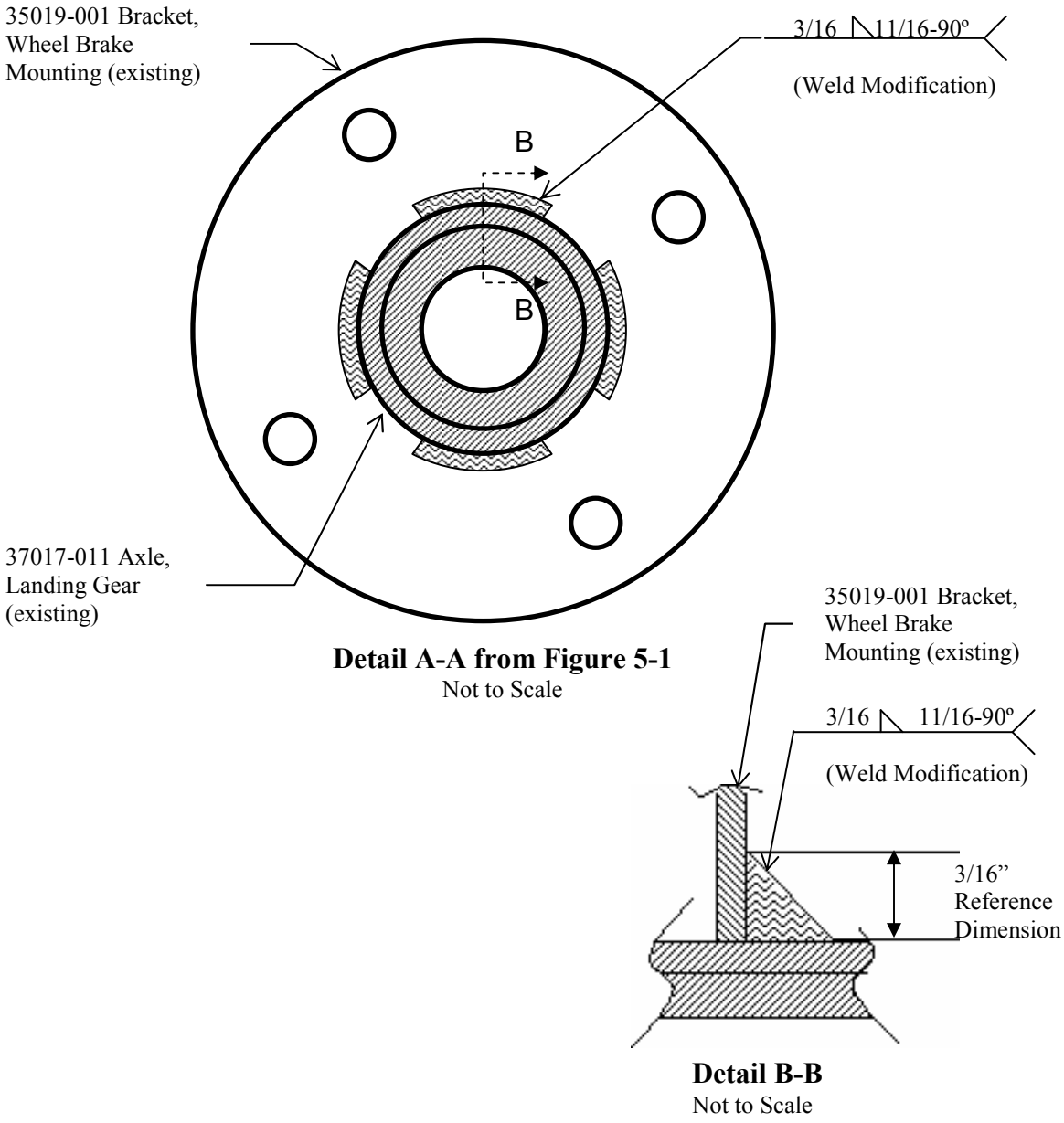

Figure 5-2 Weld Detail for Axle and Bracket

Aircraft with existing fillets welds equal to or exceeding the 3/16" size comply with this bulletin without any modifications. The existing weld size must be recorded on the Compliance Letter.

PROCEDURE

Work is to be performed on both left and right sides. All work is to be performed following guidelines in AC43.13. The following steps should be taken when performing the modification.

1. Remove the fairings from the Landing Gear Strut Assembly.
2. The aircraft must be jacked up to remove all weight from the main gear.
3. Remove the wheels, leaving only the axles.
4. Remove the brake from the Wheel Brake Mounting Bracket.
5. Remove paint in the area of the weld modification using Strip-Eeze or an equivalent product.
6. Measure the existing weld size and record on Compliance Letter.
7. Clean the area of the weld to bare metal, by such means as wire brushing.
8. During welding, there must be no weight on the axles.
9. Welding should be performed using a TIG welder and an ER70S-2 filler rod of 0.035, 0.045, or 0.0625 inch diameter. Alternatively, a MIG wirefeed welder may be used with Carbon Dioxide/Argon gas mix and a wire equivalent to the ER70S-2 filler rod.
10. The modification only entails increasing the fillet size of the existing weld; the length will stay the same. Complete the welding so the reference dimension of all welds is 3/16 inches or larger as drawn in Figure 5-2. There are four welds on each side of the aircraft.
11. After completing the welding, clean the part to bare metal once again using such means as wire brushing.
12. Paint the part using an epoxy primer.
13. Paint the part to match the existing paint scheme.
14. Remount the brakes and install the wheels on the aircraft.
15. Remove the jacks.
16. Install the fairings.

6. COMPLIANCE LETTER

Return the following Compliance Letter after the inspection and modification have been completed.

Compliance Letter

This is to certify that I have inspected the Wheel Brake Mounting Bracket weld on Husky A-1 A-1A A-1B (Circle One), Serial Number_____, Registration Number_____, in accordance with Service Bulletin No. 20 and found the following results. Additionally, modifications were performed on all welds which did not meet the new specification described in Service Bulletin No. 20.

Existing Weld Size:

Left Side: _____inches Right Side: _____inches

Weld Modified to 3/16 inch:

Left Side: Yes No (Circle One) Right Side: Yes No (Circle One)

Date: _____ Aircraft Hours:_____Hours

Signed: _____

Return completed letter to:

Engineering
Aviat Aircraft Inc.
P.O. Box 1240
Afton, WY 83110
Fax: 307-885-9674

Send copy to:

Federal Aircraft Administration
Denver Aircraft Certification Office
Attn: Roger Caldwell
26805 East 68th Avenue, Room 214
Denver, CO 80249-6361
Fax: 303-342-1088