DRB 2017-SA-92-090

Weldment Assembly Repair

SIKORSKY AIRCRAFT DESIGN RECORD BOOK

Record NO: 7525

Prepared by	Kenny Welch	DRB No:	2017-SA-92-090
Title	Weldment Assembly Repair		
Start Date:	6/21/2017	Detail Dwg	92306-04102
End Date:		Assy Dwg	92306-04102-057
No. Pages:		Related Documents: (1)	(3)
Model:	S-92A	(2)	(4)
Keyword: (1)	Crack (2) Weldment	Hours:	
(3)		Model Effectivity:	920145
Supersedes:		FEM Analysis:	
Analysis Type	Repair	Charge No:	
Reason for Analysis	Field Support	Superseded By:	

Description:

Customer found chafing marks on the Weldment assy, P/No 92306-04102-057, See attached photo for details.

Customer request a welding procedure for the weldment assy.

Note: This repair is similar to DRB 2016-SA-92-149.

Results:

The repair procedure is specified in this DRB, and for FAA purposes, this repair is considered "MINOR".

6/21/17

Assigned:	Kenny Welch	Approval:	Approve Date: 6/21/2017

Background

TAS are completing a 1500 hour inspection on A/C S/N 920146

The No. 1 engine weldment assembly P/N 92306-04102-057 was found chafed by the No. 1 engine inboard expandable pin due to pin migration.

Reference attached JPEG image.

The chafed opening measures 0.625 in. long x 0.125 in. wide, and is located approximately mid-span on the tube.

A replacement weldment assembly has been on order with SCI since 10 JUN 2017. Reference RSA 003000279802.

SCI is unable to supply a replacement weldment or even provide a delivery date for a replacement.

This is the last remaining part required to return 920146 to service.

TAS request a weld repair scheme on an AOG basis.
The repair procedure is specified in this DRB, and for FAA purposes, this repair is considered "MINOR".

Note: This repair is similar to repair outlined in DRB 2016-SA-92-149

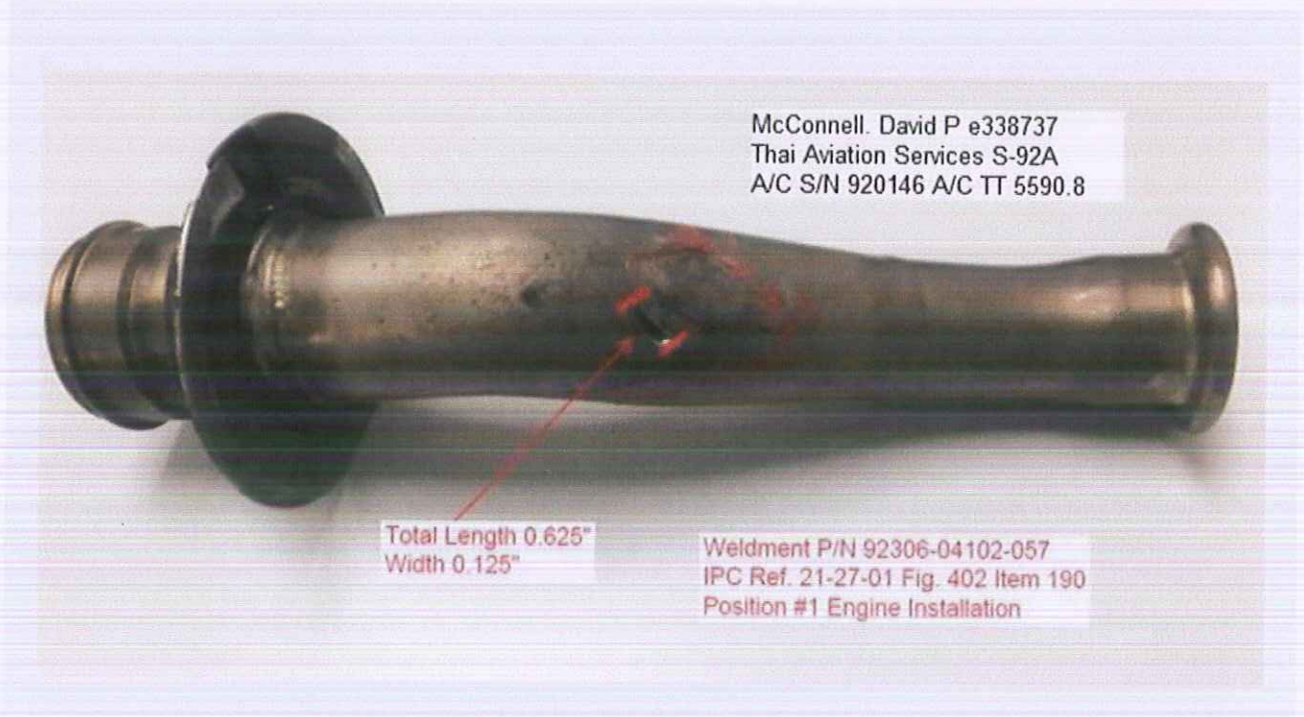

Figure 1- Reported Damage

Procedure:

Note: A complete review of this DRB is recommended before starting the repair. This repair involving sheet metal and structural parts, routine steps such as cleaning, layout and drilling, deburring, standard repairs, corrosion control, clean up after rework, chemical coating for aluminum after cutting/trimming parts, and paint touch up may not be called out herein. However, these steps and all other required routine tasks shall be done.

1. Remove the Weldment Assembly from the aircraft.
2. Repair the chafe damage by welding per MIL-STD-2219 Class B using AMS 4951 filler wire. Grind flush.
   Note: Do not cut the damaged area out - just apply a weld bead (puddle) into the chafe.
3. After welding, stress relieve per AMS-H-81200 AT 850 +/-25F FOR 2 +/- 0.25 hours.
4. Penetrant inspect ASTM-1417, no cracks allowed.
5. Upon completion of repair the unit will be pressure tested to 120 PSIG for 5 minutes. Zero leakage is allowed.
6. If any problems are encountered or if further assistance is required, please contact Service Engineering.