

## Grant Robinson

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**From:** Mcconnell, DAVE P <dave.p.mcconnell@lmco.com>  
**Sent:** Monday, March 19, 2018 6:13 AM  
**To:** Grant Robinson  
**Cc:** Mrazik, Philip  
**Subject:** 920146 APU Mount Repair / Shim P/Ns

**Importance:** High

Grant

Following is the CSE response to my FTR requesting mount repair procedures (if required), mount installation procedures, and clarification of the APU mount shim P/Ns needed for HTH. I took the liberty of requesting repair procedures as a Plan B in the event that a replacement mount was not going to be available in a timely manner.

Installation procedures for the mount will be sent to my DocPak. I will let you know when I receive them.

The repair procedure has a couple of critical elements to it:

- 1) The mount must be fixture during welding to ensure that the geometry of the mount feet does not change.
  - a. The forward and aft mount points are not in the same plane. The fixture must accommodate that out-of-plane condition.

Please note that my original reading of the drawings was incorrect, and that the correct shim dash numbers are -107 and -108. My apologies for the error.

Case Number: C0090343  
Customer: Thai Aviation Services Limited  
Aircraft S/N: 920146  
Aircraft Model: S-92A  
Aircraft TT: 6,120  
ATA: 49  
Part Number: 92303-02101-043  
Case Subject: APU Inboard Mount Crack-Request For Weld Repair / Shim Info

### Problem Description:

Reference

- 1) Attached JPEG images
- 2) AMM CH 49-11-01
- 3) Dwg 92303-02100 SHT 1

During repair of a cracked APU heat shield on A/C S/N 920146 maintainers noted a cracked forward mount flange on inboard engine mount P/N 92303-02101-043.

The crack is approximately 0.85 inches long and runs in the radius of the horizontal and vertical plates.

Reference to AMM CH 49-11-01, Figure 401, the callout for shims P/N 92303-02100-102 and -107, Item 40, and shims P/N 92303-02100-103 and -108, Item 50, is confusing.

There is no indication in the IPC, or anywhere else, that the -102/-103 shims are 0.064 in. thick, and the -107/-108 shims are 0.094 in. thick.

AMM Tasks 49-11-01-900-001/-002 offer no guidance to establish thickness of removed shims, or how to set up the mount installation when new shims are introduced.

TAS request the following clarification on an AOG basis:

- 1) There is no immediate indication that SCI has a mount available. In order to avoid an extended AOG, can the crack in the P/N 92303-02101-043 mount be welded? If so, please provide instructions.
- 2) Please provide guidance for mount installation when new shims are used.
- 3) Please clarify which dash number shims are applicable to A/C S/N 920146.

EoM

#### **Problem Resolution:**

Q1) There is no immediate indication that SCI has a mount available. In order to avoid an extended AOG, can the crack in the P/N 92303-02101-043 mount be welded? If so, please provide instructions.

A1) Presuming the following capabilities are met a weld repair is acceptable. Weld per Mil-STD-2219 Class B using AMS6457 Filler wire. After weld and before finish machining Heat treat to 125,00 PSI min T.S Rockwell C 26-32- Per Mil-H-6875. Also note the approximate length of part, plus an adequate holding fixture to insure APU mount point location relative to the feet remain unchanged. It is worth noting that the mounting feet of this part are not on the same plane.

Q2) Please provide guidance for mount installation when new shims are used.

A2) Procedure is being loaded 'APU shimming' into FSR Thailand DocPak

Q3) Please clarify which dash number shims are applicable to A/C S/N 920146.

A3) Shims P/N 92303-02100-**107**, Item 40, and shims P/N 92303-02100-**108** item 50 are the thicker shim and are applicable for this A/C.

This email notification is provided as the case has been reviewed and does not contain technical data in the resolution.

#### **David P. McConnell**

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