AIRWORTHINESS BULLETIN

AWB 57-016 Issue 1 – 26 October 2017

Cessna 402C Wing Main Spar Strap Modification Non-Conformity

1. Effectivity

Cessna 402C (with HDH Engineering Order EO 006-035 “Wing Main Spar Strap Modification).

2. Purpose

To advise operators and maintenance organisations of the potential for deviation from approved design data in the installation of the Wing Main Spar Strap Modification.

3. Background

It has come to our attention that Cessna 402C aircraft modified with HDH (Hawker de Havilland Limited) EO 006-035 “Wing Main Spar Strap Modification” may have components that have not been manufactured and installed strictly in accordance with the engineering drawings approved as part of this Engineering Order.

At this stage, two aircraft have been identified as potentially non-conforming with the drawings. This is being further investigated. The main discrepancy is pictured in photograph 1 on page 3, which shows the engine beam/spar strap reinforcement components that do not match the approved configuration per HDH EO 006-035. The specific features that did not conform are:

1. Absence of a bend relief radius detail in the cross hatched areas shown in photograph 1 indicated by the red arrows. The non-conforming part may have no relief cutout and has a straight edge. This should be relatively easy to detect after gaining access to the area. Check against the drawing for your particular configuration. This relief radius may/may not be required depending on whether or not there is a bend in this location.

2. Missing fasteners in location as indicated by the arrows. The required number of fasteners is indicated in either drawing Issue 1 or 2, depending on what version is installed in your aircraft.

3. The use of issue 1 of the installation drawing on a particular aircraft when only issue 2 was approved for use on that aircraft.

An additional discrepancy (Photograph 2) was discovered in the fabrication of other parts (P/N 006-57-10-056-001/002) in the engine beam area to Issue 1 of the drawings instead of Issue 2.

Note: Because the 402, 402A and 402B models have a different configuration for this modification, they are not affected by this non-conformity.

4. Recommendations

CASA recommends that registered operators, through their maintenance organisation, review the modification records and physical configuration of their aircraft and obtain the following information:

- Whether or not the aircraft is modified per HDH EO 006-035. If so:

  (i) Determine if this modification was carried out in conformance to and using the correct revision of the approved data. In order to achieve this, it is recommended, for modified aircraft, that the Left and Right hand engine beam area be inspected as soon as practically possible and a visual verification of the strap configuration be made against the approved data as defined in HDH EO 006-035 Issue 1 or Issue 2 (See appendix A to this AWB for a list of applicable drawings). <u>There are only two approved configurations for this modification.</u>

  (ii) If the modification is not in conformance with the approved data, do not operate the aircraft and contact a CASR 21M authorised person for further advice on the effect that operation in a non-approved configuration may have had on wing spar fatigue life and damage tolerance inspection intervals. Carry out any remedial action required before further flight.

  (iii) Inspect the modification and surrounding structure for defects, including missing or loose fasteners.

  (iv) Report the results of any defects or non-conformance to CASA.

5. Reporting

Submit requested information via the CASA Defect Reporting Service.

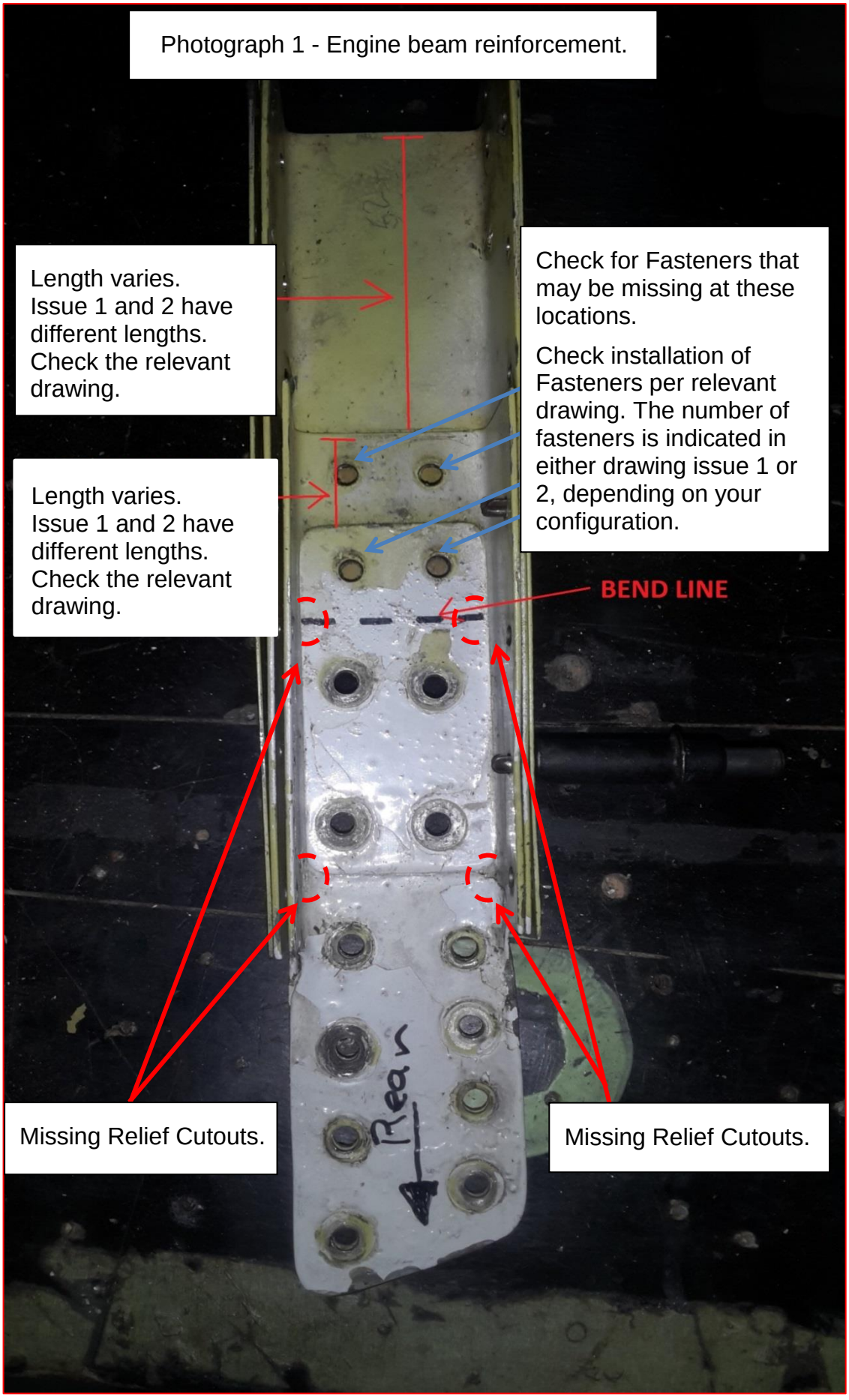
6. Enquiries

Enquiries with regard to the content of this Airworthiness Bulletin should be made via the direct link email address:

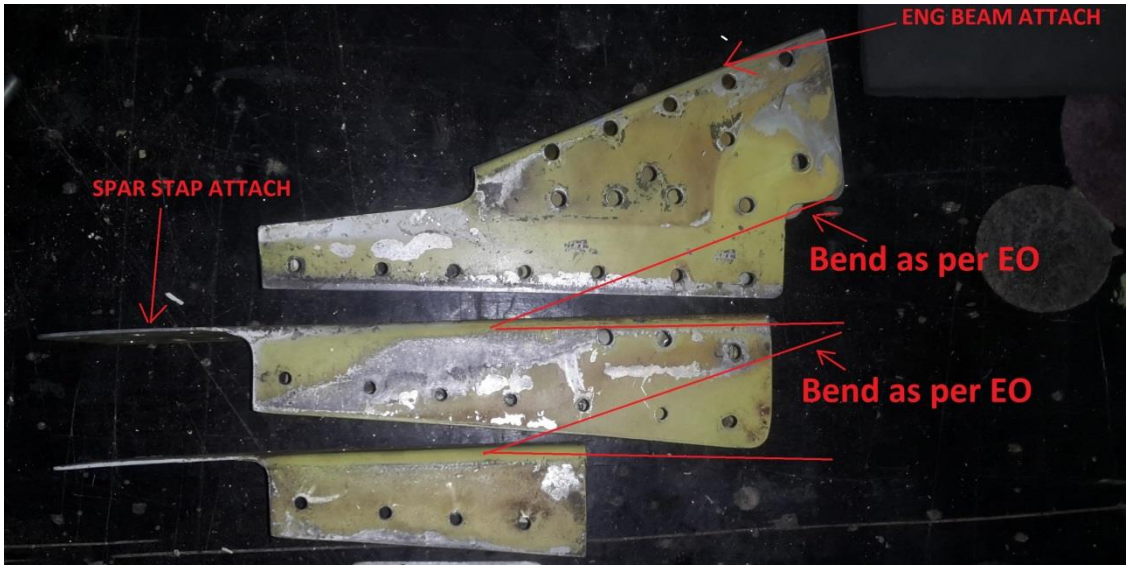
AirworthinessBulletin@casa.gov.au

or in writing, to:

Airworthiness and Engineering Standards Branch
Standards Division
Civil Aviation Safety Authority
GPO Box 2005, Canberra, ACT, 2601


Photograph 1 - Engine beam reinforcement.
Length varies.
Issue 1 and 2 have different lengths.
Check the relevant drawing.
Length varies.
Issue 1 and 2 have different lengths.
Check the relevant drawing.
Check for Fasteners that may be missing at these locations.
Check installation of Fasteners per relevant drawing. The number of fasteners is indicated in either drawing issue 1 or 2, depending on your configuration.
BEND LINE
Rear
Missing Relief Cutouts.
Missing Relief Cutouts.

Photograph 2 - Issue 1 configuration. Red lines indicate bends made for Issue 2 configuration.



Appendix A - Spar Strap Drawing List

Drawing	Title	Issue	Pre Nov. 1992 Configuration	Post Nov. 1992 Configuration
006-57-10-001	Wing Main Spar Mod Assy	1	Y	
		2		Y
006-57-10-002	Rear Outbd Cover Channel Assy	1	Y	Y
006-57-10-003	Rear Inbd Cover Channel Assy	1	Y	Y
006-57-10-004	Inner Beam Assy	1	Y	
006-57-10-005	Outer Beam Assy	1	Y	
006-57-10-006	Inboard Beam Assy	1	Y	
006-57-10-007	Outboard Beam Assy	1	Y	
006-57-10-008	Cover Plate Detail	1	Y	Y
006-57-10-009	Outer Cover Channel Assy	1	Y	
		2		Y
006-57-10-010	Inboard Cover Channel Assy	1	Y	
		2		Y
006-57-10-011	Heat Shield Fairing Assy	1	Y	Y
006-57-10-013	Main Spar Lower Reinforcing Straps	1	Y	Y
006-57-10-014	Rivet Head Collet Details	1	Y	Y
006-57-10-015	Main Spar Modification Assy	1		
006-57-10-016	Fuel Drain Packer	1	Y	
006-57-10-056	Inner Beam Assy	2		Y
006-57-10-057	Outer Beam Assy	2		Y
006-57-10-058	Inboard Beam Assy	1		Y
006-57-10-059	Outboard Beam Assy	1		Y