



COMMENT RESPONSE DOCUMENT

EASA PAD No. 18-091

[Published on 10 July 2018 and officially closed for comments on 07 August 2018]

Commenter 1: Lufthansa Technik – Tim Göbel – 25/07/2018

Comment # 1

The PAD 18-091 describes the introduction of a life limit of the Cross Beam PN 238-0204-501 and requires to remove Cross Beams from service when the PN and/or Manufacturing date is unknown before they reach 64.000FC, which is before 01.01.2019 - following the Airbus SB A320-71-1073 Table and assuming a date of manufacture before 04.02.1992.

- A. Lufthansa Group, including Deutsche Lufthansa (DLH) and German Wings (GWI) operate in total 106 CFM56-5A Engines and have 48 affected PN with unknown manufacturing date installed in their fleet. This would mean in total 48 engine removals before 01.01.2019. This would be a dramatical impact in Lufthansa Group flight operation! Such an impact is not acceptable considering that:
1. The time of AD announcement in combination with the mandatory removal date does not provide sufficient time (grace period) to implement the requirements without dramatical flight operation interruption.
 2. Cross Beam SN and manufacturing date were not part of the delivery documents from Airbus/UTAS at entry into service of the Aircrafts, and in addition there was never a requirement of life time tracking on those parts.
 3. With status of 17. July 2018, Airbus/UTAS are not able to provide the manufacturing date for the 48 delivered Cross Beams even though all Cross Beam SN are available.
 4. With status of 17. July 2018, the engine fleet leader of Lufthansa Group Fleet has accumulated only ~54.500FC. (The risk that during any shop visit an older Cross Beam from another operator was installed on Lufthansa Group Fleet is theoretically present, but is very unlikely. Lufthansa Group is the CFM56-5A world fleet leader in terms of accumulated FC).
 5. Material availability (with status of 17.07.2019, 30ea Spare Parts on stock at UTAS and further 80ea to be manufactured until end of 2018) is most probably not sufficient to ensure the replacements in the world fleet. Following Lufthansa Group will suffer from AOG due to lack of spare parts!

Request A: Considering the abovementioned points, Lufthansa Group request to extend the grace period to allow a staggered replacement without interruption of the flight operation and to allow to use the Lufthansa Group fleet leader FC as a worst case scenario for all Lufthansa Group Cross Beams with unknown Manufacturing date.



- B. Airbus stated that the life estimation table shown in Airbus SB A320-71-1073 is based on Airbus internal Monte Carlo values for Mounts which are less conservative than the officially published Monte Carlo values provided in the Airbus ISI Document 00.05.00002. Using the Monte Carlo values of the official Airbus ISI document results in a higher accumulated FC compared to the result shown in the table of the Airbus SB. The Monte Carlo values on which the table of the SB is based on is not available to Lufthansa Group.

Since for all Cross Beams operated by Lufthansa Group a partial life history of the Cross Beams is available, Lufthansa Group would like to combine the Airbus internal Monte Carlo values with the available history data which leads to lower accumulated FC compared to when using the more conservative official Monte Carlo values provided in the ISI document with the available Lufthansa Group history data.

Request B: Lufthansa Group request to provide the Airbus internal Monte Carlo Values with the AD and to allow the calculation based on these values as an alternative method.

- C. Lufthansa Group would like to request to implement besides the SB A320-71-1073 also SBC RA32071-168 as an alternative method of compliance for the inspection. The same is requested for SB A320-71-1076 with associated SBC RA32071-171.

Request C: Please include SBC RA32071-171 as an alternative method of compliance for modification task.

EASA response:

- A. Comment agreed: AD has been updated to provide more data based on the updated table provided by Airbus.**
- B. Refer to answer to comment A. Wording change considered at AD level. Contacting Airbus and obtaining further data when available is acceptable to comply with the requirement of this AD.**
- C. Comment not agreed: SB RA32071-171 provides instructions to modify a part on bench. It is not an action at aircraft level. Paragraph (2) has been anyway updated providing more flexibility.**

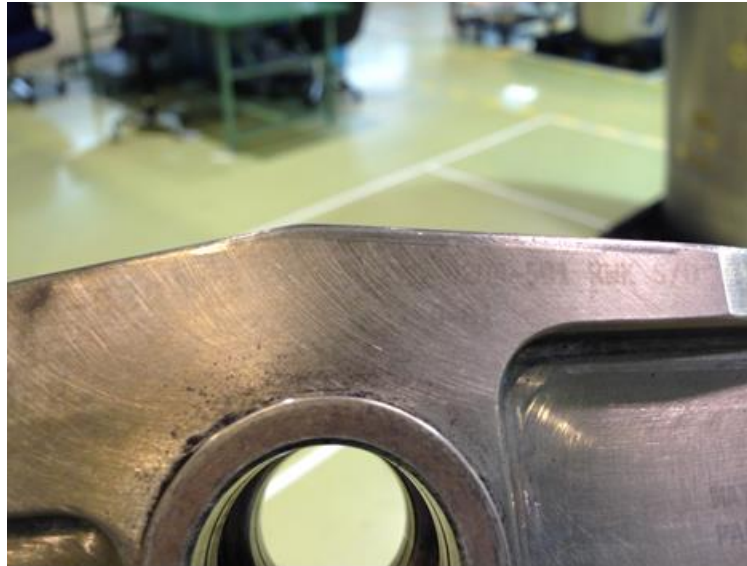
Commenter 2: All Nippon Airways – Takehiro Oga – 07/08/2018

Comment # 2

- A. How to find out PN of the crossbeam: According to the latest Airbus SB A320-71-1073 or GOODRICH VSB RA32071-168, we must check for the PN marked on the crossbeam. However on the many of the crossbeam, PN worn away and can't be read or is highly difficult to be read in our experiences. Please see attached photo. Therefore operators can't exactly obey forthcoming AD instructions without alternate means.



Fortunately geometry of the PN 642-2002-503 and PN 238-0204-501 is totally different and can be differentiated from these appearances. ANA strongly hope Airbus and GOODRICH will revise their SB's (both) accordingly since Airbus said they are coordinating such revisions before AD issuance. If they won't, AMOC to allow us to identify the PN from the parts appearance will be required.



- B. Crossbeam Modification Procedures: According to GOODRICH VSB RA32071-171, we need to place the bushing fully into liquid nitrogen during bushing replacement on the forward mount assembly. However ANA believes enough chilling of the bushing to fit the mount bore can be obtained with dry ice. So ANA'd like to request GOODRICH to revise their VSB to include "dry ice" method before AD issuance. If they won't, we'd like to ask EASA to issue AMOC on this issue. Anyway ANA will ask GOODRICH at first for both of SB and AMOC.

EASA response:

- A. Comment noted: AIRBUS confirms revision of the SB. No changes have been made to the Final AD in response to this comment.***
- B. Comment not agreed: "dry ice" method is not considered by Goodrich and Airbus as alternative solution. Should ANA want to use this method, ANA has to do application to their local NAA (JCAB) for agreement. EASA may provide technical position on JCAB request only. No changes have been made to the Final AD in response to this comment.***



Commenter 3: Delta Air Lines – Mazen Hammoud – 07/08/2018**Comment # 3**

In response to the invitation for operators to share comments about the proposed AD PAD 18-091 pertaining to forward mount life limits, Delta Air Lines proposes the following modifications to the PAD:

Current PAD Language:

Modification:

(2) Modification of an aeroplane in accordance with the instruction of Airbus SB A320-71-1076 is acceptable to comply with the requirements of paragraph (1) of this AD, provided that, following modification, no affected crossbeam is installed on that aeroplane.

Parts Installation:

(3) From the effective date of this AD, except as required by paragraph (1) of this AD, it is allowed to install on any aeroplane an affected crossbeam having P/N 238-0204-501, provided it has accumulated less than 64 000 FC since first installation on an aeroplane.

(4) From the effective date of this AD, do not install on any aeroplane an affected crossbeam having unknown life, or a crossbeam where the P/N cannot be identified.

Delta Air Lines Proposed Language:

Modification:

(2) Modification of an aeroplane in accordance with the instruction of Airbus SB A320-71-1076 is acceptable to comply with the requirements of paragraph (1) of this AD, provided that, following modification, ~~no affected crossbeam is installed on that aeroplane.~~

Parts Installation:

(3) From the effective date of this AD, except as required by paragraph (1) of this AD, it is allowed to install on any aeroplane an affected crossbeam having P/N 238-0204-501, provided it has accumulated less than 64 000 FC since first installation on an aeroplane.

(4) From the effective date of this AD, do not install on any aeroplane an affected crossbeam having unknown life, or a crossbeam where the P/N cannot be identified.

Delta Air Lines Rationale: The parts installation paragraph states that if the affected crossbeam life is known, it can be installed onto an airplane provided it has less than 64000 FC since first installation. The modification paragraph does not allow the installation of an affected main beam following the modification of the airplane in accordance with the SB. These paragraphs are in conflict.

Delta Air Lines supports the permission to use affected main beams at any time if the accumulated cycles are known to be less than 64000 FC.



EASA response:

Comment not agreed. The alternative method of paragraph (2) concerns replacement of an 'affected' P/N crossbeam with a P/N 642-2002-503 crossbeam, which is the new production line standard. The intent of the statement in paragraph (2) is that, once post-mod, the aeroplane must not be de-modified to a pre-mod configuration. Please note that for aeroplanes subject to paragraph (1), this is NOT aeroplane modification, as it concerns installation of a new P/N 238-0204-501 (same P/N) crossbeam. Paragraph (3) still allows installation of an affected crossbeam on those aeroplanes subject to paragraph (2).

No changes have been made to the Final AD in response to this comment.

However, paragraph (3) of the Final AD has been amended to correct the wrong reference to §(1) – which may have lead to confusion – into a correct reference to §(2).

