



Notification of a proposal to issue an Airworthiness Directive

PAD No.: 15-151

Issued: 08 December 2015

Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Community, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name:

AIRBUS

Type/Model designation(s):

A318, A319, A320 and A321 aeroplanes

Effective Date: [standard: 14 days after AD issue date]

TCDS Number(s): EASA.A.064

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2015-0021 dated 13 February 2015.

ATA 71 – Powerplant – Aft Engine Mount Retainers – Inspection / Replacement

Manufacturer(s):

Airbus (formerly Airbus Industrie)

Applicability:

Airbus A318-111, A318-112, A319-111, A319-112, A319-113, A319-114, A319-115, A320-211, A320-212, A320-214, A320-215, A320-216, A321-111, A321-112, A321-211, A321-212, and A321-213 aeroplanes, all manufacturer serial numbers

Reason:

During in-service inspections, several aft engine mount retainers, fitted on aeroplanes equipped with CFM56-5A/5B engines, have been found broken. The results of the initial investigations highlighted that two different types of surface finish had been applied (respectively bright and dull material finishes), and that dull finish affects the strength of the retainer with regard to fatigue properties of the part. The pins which attach the engine link to the aft mount are secured by two nuts, which do not have a self-locking feature; this function is provided by the retainer brackets. In case of failure of the retainer bracket, the locking feature of the nuts of the inner and outer pins is lost; as a result, these nuts could subsequently become loose.



In case of full loss of the nuts, there is the potential to also lose the pins, in which case the aft mount link will no longer be secured to the aft engine mount. The same locking feature is used for the three link assemblies of the aft mount.

This condition, if not detected and corrected, could lead to in-flight loss of an aft mount link, possibly resulting in damage to the aeroplane and/or injury to persons on the ground.

To address this potential unsafe condition, EASA issued AD 2013-0050 to require a detailed inspection (DET) of the aft engine mount retainers and the replacement of all retainers with dull finish with retainers having a bright finish. Since that AD was issued, inspection results showed that the main cause of crack initiation remains the vibration dynamic effect that affects both retainers, either with "dull" or "bright" surface finishes. The non-conforming "dull" surface's pitting is an aggravating factor. Consequently, EASA issued AD 2015-0021, retaining the requirements of EASA AD 2013-0050, which was superseded, and requiring repetitive DET of all aft engine mount retainers and, depending on findings, their replacement.

Since that AD was issued, a production quality deficiency was identified by Airbus and UTAS (formerly Goodrich Aerostructures, the engine mount retainer manufacturer) on the delivery of the inner retainer brackets, Part Number (P/N) 238-0252-505, installed in the three Link assemblies of the engine mount fitted on CFM56-5A/5B engines.

For the reasons described above, this AD retains the requirements of EASA AD 2015-0021, which is superseded, and in addition requires the identification and replacement of all non-conforming aft engine mount retainers.

This AD is still considered to be an interim action, pending development and availability of a final solution.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

Restatement of the requirements of EASA AD 2015-0021:

- (1) Within 3 months after the 19 March 2013 [the effective date of EASA AD 2013-0050], accomplish a DET of the aft engine mount retainers in accordance with the instructions of Airbus Alert Operators Transmission (AOT) A71N001-12 Revision 01.
- (2) If, during the DET as required by paragraph (1) of this AD, any installed dull finish aft engine mount retainer is found without cracks and not failed, within 25 flight cycles (FC), repeat the DET as required by paragraph (1) of this AD and, within 50 FC after the first DET as required by paragraph (1) of this AD, replace all dull finish retainers in accordance with the instructions of Airbus AOT A71N001-12 Revision 01.
- (3) If, during the DET as required by paragraph (1) of this AD, any installed aft engine mount retainer is found cracked or failed, before next flight, replace all affected aft engine mount retainers in accordance with the instructions of Airbus AOT A71N001-12 Revision 01.



- (4) Aeroplanes from MSN 4942 and higher have been delivered by Airbus with “bright” finish aft engine mount retainers. These aeroplanes are not affected by the requirements of paragraph (1) of this AD, provided it is determined that no engine and/or no aft engine mount retainer has been removed from the aeroplane since Airbus date of manufacture.
A review of aeroplane maintenance records is acceptable to make this determination, provided those records can be relied upon for the purpose of this requirement.
- (5) From 19 March 2013 [the effective date of EASA AD 2013-0050], do not install any dull finish aft engine mount retainer on an aeroplane. The instructions of Airbus AOT A71N001-12, or those of Goodrich Service Bulletin (SB) RA32071-146, can be used to verify the correct finish of the part.
- (6) Within the compliance time as specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 12 months, accomplish a DET of the aft engine mount retainers in accordance with the instructions of Airbus SB A320-71-1060, or Goodrich Aerostructures SB RA32071-160.

Table 1 – Inspection Threshold

Compliance Time (A, B or C, whichever occurs later)	
A	Within 12 months since Airbus date of manufacture of the aeroplane
B	Within 12 months after installation of new retainers
C	Within 9 months after 27 February 2015 [the effective date of AD 2015-0021]

- (7) If, during any DET as required by paragraph (6) of this AD, any aft engine mount retainer is found damaged, cracked or broken, or detected as missing, before next flight, replace the affected aft engine mount retainers of the affected engine installation in accordance with the instructions of Airbus SB A320-71-1060.
- (8) Within 30 days after any DET as required by paragraph (6) of this AD when findings are made, report the result to Airbus.

New Requirements of this AD:

- (9) Within 2 months after the effective date of this AD, identify each engine mount inner retainer in accordance with the instructions of SB A320-71-1070 and replace each part that meets any of the criteria as specified in paragraph (9.1), (9.2) or (9.3) of this AD, as applicable.
- (9.1) Part is listed in Appendix 1 of this AD.
- (9.2) Part installed on an aeroplane between the aeroplane date of manufacture or 01 March 2015 (whichever occurs later) and the effective date of this AD, and that can be identified by a Purchase Order (PO) as listed in Appendix 2 of this AD.
- (9.3) Part installed on an aeroplane between the aeroplane date of manufacture or 01 March 2015 (whichever occurs later) and the effective date of this AD, and that cannot be identified by a PO.



Use of Airbus AOT A71N011-15 or UTAS SB RA32071-165 is acceptable in lieu of Airbus SB A320-71-1070 to comply with paragraph (9) of this AD.

A review of aeroplane maintenance records is acceptable to make this identification, provided those records can be relied upon for the purpose of this requirement.

- (10) From the effective date of this AD, do not install on any aeroplane an engine mount inner retainer that meets any of the criteria as specified in paragraph (10.1), (10.2) or (10.3) of this AD, as applicable.
 - (10.1) Part delivered through a PO as listed in Appendix 2 of this AD.
 - (10.2) Part delivered through an unidentified PO.
 - (10.3) Part listed in Appendix 1 of this AD.
- (11) Replacement of retainers on an aeroplane, as required by paragraph (7) or (9) of this AD, as applicable, does not constitute terminating action for the repetitive DET as required by paragraph (6) of this AD for that aeroplane.

Ref. Publications:

Airbus AOT A71N001-12, Revision 01 dated 09 August 2012, or Revision 02 dated 27 February 2013.

Airbus AOT A71N011-15 original issue, dated 16 September 2015.

Airbus SB A320-71-1060 original issue, dated 09 October 2014.

Airbus SB A320-71-1070 original issue, dated 23 November 2015.

Goodrich Aerostructures SB RA32071-146, Revision 2 dated 26 July 2012.

Goodrich Aerostructures SB RA32071-160, original issue dated 18 September 2014.

Goodrich Aerostructures SB RA32071-165 dated 9 October 2015.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.

Remarks:

1. This Proposed AD will be closed for consultation on 05 January 2016.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – Airworthiness Office – EIAS; Fax +33 5 61 93 44 51; E-mail: account.airworth-eas@airbus.com.



Appendix 1 – MSN delivered with non-compliant retainers

MSN	Serial Number
6690	7833P/P ASSY
6690	7845P/P ASSY
6685	7797P/P ASSY
6685	7803P/P ASSY
6680	7812P/P ASSY
6680	7822P/P ASSY
6678	7830P/P ASSY
6678	7834P/P ASSY
6676	7823P/P ASSY
6676	7839P/P ASSY
6675	7768P/P ASSY
6675	7814P/P ASSY
6671	7844P/P ASSY
6671	7848P/P ASSY
6670	7824P/P ASSY
6670	7843P/P ASSY
6669	7821P/P ASSY
6669	7831P/P ASSY
6666	7825P/P ASSY
6666	7850P/P ASSY
6665	7805P/P ASSY
6665	7815P/P ASSY
6658	7765P/P ASSY
6658	7779P/P ASSY
6653	7772P/P ASSY
6653	7791P/P ASSY
6651	7807P/P ASSY
6651	7820P/P ASSY
6648	7764P/P ASSY
6648	7766P/P ASSY
6646	7763P/P ASSY
6646	7817P/P ASSY
6644	7757P/P ASSY
6644	7778P/P ASSY
6641	7769P/P ASSY
6641	7770P/P ASSY
6640	7756P/P ASSY
6639	7827P/P ASSY
6639	7832P/P ASSY
6637	7755P/P ASSY
6637	7773P/P ASSY
6636	7780P/P ASSY



MSN	Serial Number
6636	7783P/P ASSY
6634	7758P/P ASSY
6634	7777P/P ASSY
6633	7724P/P ASSY
6633	7742P/P ASSY
6632	7776P/P ASSY
6632	7787P/P ASSY
6629	7790P/P ASSY
6629	7794P/P ASSY
6628	7644P/P ASSY
6628	7792P/P ASSY
6627	7738P/P ASSY
6627	7741P/P ASSY
6626	7786P/P ASSY
6626	7789P/P ASSY
6622	7793P/P ASSY
6622	7788P/P ASSY
6619	7767P/P ASSY
6619	7785P/P ASSY
6617	7781P/P ASSY
6617	7784P/P ASSY
6615	7748P/P ASSY
6615	7752P/P ASSY
6608	7736P/P ASSY
6608	7743P/P ASSY
6606	7729P/P ASSY
6606	7734P/P ASSY
6605	7751P/P ASSY
6605	7753P/P ASSY
6600	7746P/P ASSY
6600	7749P/P ASSY
6598	7735P/P ASSY
6598	7740P/P ASSY
6597	7745P/P ASSY
6597	7747P/P ASSY
6596	7695P/P ASSY
6596	7717P/P ASSY
6595	7744P/P ASSY
6595	7722P/P ASSY
6592	7760P/P ASSY
6592	7761P/P ASSY
6591	7728P/P ASSY
6591	7762P/P ASSY
6590	7725P/P ASSY



MSN	Serial Number
6590	7726P/P ASSY
6588	7703P/P ASSY
6588	7710P/P ASSY
6587	7719P/P ASSY
6587	7727P/P ASSY
6585	7730P/P ASSY
6585	7732P/P ASSY
6584	7731P/P ASSY
6584	7733P/P ASSY
6582	7804P/P ASSY
6582	7826P/P ASSY
6577	7694P/P ASSY
6577	7709P/P ASSY
6572	7706P/P ASSY
6572	7714P/P ASSY
6570	7809P/P ASSY
6570	7813P/P ASSY
6568	7718P/P ASSY
6568	7721P/P ASSY
6567	7690P/P ASSY
6567	7697P/P ASSY
6564	7704P/P ASSY
6564	7708P/P ASSY
6562	7750P/P ASSY
6562	7713P/P ASSY
6561	7707P/P ASSY
6561	7711P/P ASSY
6553	7698P/P ASSY
6553	7699P/P ASSY
6552	7664P/P ASSY
6550	7701P/P ASSY
6550	7702P/P ASSY
6549	7671P/P ASSY
6548	7686P/P ASSY
6548	7689P/P ASSY
6547	7696P/P ASSY
6547	7700P/P ASSY
6546	7666P/P ASSY
6546	7668P/P ASSY
6545	7658P/P ASSY
6542	7691P/P ASSY
6542	7693P/P ASSY
6541	7657P/P ASSY
6541	7659P/P ASSY



MSN	Serial Number
6540	7754P/P ASSY
6540	7759P/P ASSY
6538	7684P/P ASSY
6536	7661P/P ASSY
6536	7660P/P ASSY
6529	7673P/P ASSY
6529	7678P/P ASSY
6526	7665P/P ASSY
6526	7670P/P ASSY
6525	7667P/P ASSY
6525	7624P/P ASSY
6524	7680P/P ASSY
6524	7681P/P ASSY
6521	7651P/P ASSY
6521	7674P/P ASSY
6519	7771P/P ASSY
6519	7782P/P ASSY
6516	7676P/P ASSY
6516	7677P/P ASSY
6515	7653P/P ASSY
6515	7675P/P ASSY
6509	7650P/P ASSY
6505	7652P/P ASSY
6505	7654P/P ASSY
6503	7655P/P ASSY
6503	7663P/P ASSY
6500	7656P/P ASSY
6500	7662P/P ASSY
6497	7737P/P ASSY
6497	7739P/P ASSY
6469	7723P/P ASSY
6466	7712P/P ASSY
6466	7715P/P ASSY
6453	7685P/P ASSY
6453	7687P/P ASSY
6442	7672P/P ASSY
6442	7705P/P ASSY
6391	7669P/P ASSY



Appendix 2 – Customers, PO and shipping dates of Non-Compliant Retainers (see Note)

Customer	PO	Ship Date	Act Qty
A J WALTER AVIATION	3253605	24 June 2015	1
ADRIA AIRWAYS C/O AIR MEDITERRRANEE	3243590	18 June 2015	2
AER LINGUS TECHNICAL STORES	3110205	25 March 2015	12
AIR ASIA BHD	PO141015I	29 May 2015	6
AIR FRANCE INDUSTRIES	3221529	04 June 2015	5
AIR MALTA	3081337	06 March 2015	1
AIRBERLIN TECHNIK GMBH	3132348	8 April 2015	6
AIRBERLIN TECHNIK GMBH	PO966352	09 July 2015	7
AIRBUS CORPORATE JET CENTER	3251226	23 June 2015	3
ALITALIA MAINTENANCE SYSTEMS	3120942	31 March 2015	3
ALITALIA MAINTENANCE SYSTEMS	3156514	23 April 2015	3
ALITALIA SOCIETA AEREA ITALIANA S.P	P0873715KK	31 July 2015	5
ALITALIA SOCIETA AEREA ITALIANA S.P	B0028615KK	3 August 2015	10
ALITALIA SOCIETA AEREA ITALIANA SPA	3103476	20 March 2015	10
ALL NIPPON AIRWAYS CO.,LTD.	4B186A01S	12 June 2015	5
AMAC AEROSPACE AG	3224045	05-jun 2015	3
AMAC AEROSPACE AG	3263454	30 June 2015	6
BAI	P30458	27 April 2015	2
BRITISH AIRWAYS COMPONENT ENG.	3079099	05 March 2015	3
BRUSSELS AIRLINES NV/SA	3135876	10 April 2015	8
CEBU PACIFIC AIR	4600086216	17 April 2015	10
CEBU PACIFIC AIR	4400001055	25 August 2015	12
CHINA AVIA SUPP IMP & EXP CORP	3114931	31 March 2015	10
CHINA AVIATION SUPPLIES IMPORT	3251411	25 June 2015	19
CROATIA AIRLINES	3076830	04 March 2015	10
DMS ENTERPRISE GMBH	3174172	5 May 2015	5
DRUK AIR CORPORATION LTD	PO2015-72	7 August 2015	6
EMIRATES	3125431	2 April 2015	6
FL TECHNICS	T019683-15	27 May 2015	3
FLYING TIGER COMPANY	810606	31 July 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3087458	11 March 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3098994	18 March 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3112639	26 March 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3120273	31 March 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3125629	2 April 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3136081	10 April 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3149555	20 April 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3149555	20 April 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3151207	21 April 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3158279	24 April 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3178110	7 May 2015	3



Customer	PO	Ship Date	Act Qty
G.E. AIRCRAFT ENGINES (U.K.)	3184709	12 May 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3190884	15 May 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3193655	18 May 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3195410	19 May 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3207170	27 May 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3209688	28 May 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3223662	05 June 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3235037	12 June 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3237357	15 June 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3239599	16 June 2015	1
G.E. AIRCRAFT ENGINES (U.K.)	3243848	18 June 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3246096	19 June 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3250793	23 June 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	4535154517	29 June 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	3260858	29 June 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	4535154760	31 July 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	4535154822	31 July 2015	1
G.E. AIRCRAFT ENGINES (U.K.)	4535154823	31 July 2015	2
G.E. AIRCRAFT ENGINES (U.K.)	4535154945	31 July 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	4535155086	31 July 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	4535155118	31 July 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	4535155230	31 July 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	4535155821	3 August 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	4535155672	5 August 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	4535155924	5 August 2015	3
G.E. AIRCRAFT ENGINES (U.K.)	4535155799	7 August 2015	3
GA TELESIS ENGINE SERVICES LTD	3083663	09 March 2015	9
GA TELESIS ENGINE SERVICES LTD	3099361	18 March 2015	4
GA TELESIS ENGINE SERVICES LTD	3117772	30 March 2015	3
GA TELESIS ENGINE SERVICES LTD	3151371	21 April 2015	5
GA TELESIS ENGINE SERVICES LTD	3239422	16 June 2015	6
GAMECO-GUANGZHOU A/C MAINT	221504448	27 March 2015	6
GAMIT	P12378	30 June 2015	6
GE CELMA LTD	300018892	20 March 2015	3
GE CELMA LTD	300020048	12 May 2015	6
GE ENGINE SERVICES, INC. (STROTHERF)	131138234	16 April 2015	3
GE ENGINE SERVICES, INC. (STROTHERF)	131138728	7 May 2015	3
GE ENGINE SERVICES, INC. (STROTHERF)	131139291	02 June 2015	3
GOODRICH AEROSTRUCTURES SERV CTR	10459121	26 May 2015	3
GOODRICH AEROSTRUCTURES SERV CTR	10464202	03 June 2015	3
GOODRICH AEROSTRUCTURES SERV CTR	10464207	03 June 2015	3
GOODRICH AEROSTRUCTURES SERV CTR	10466808	09 June 2015	3
GOODRICH AEROSTRUCTURES SERV CTR	10469225	15 June 2015	1



Customer	PO	Ship Date	Act Qty
GOODRICH AEROSTRUCTURES SERV CTR	10470063	16 June 2015	3
GOODRICH AEROSTRUCTURES SERV CTR	10473669	23 June 2015	3
GOODRICH AEROSTRUCTURES SERV CTR	10475110	26 June 2015	3
GOODRICH AEROSTRUCTURES SERV CTR	10484491	31 July 2015	3
GOODRICH AEROSTRUCTURES SERV CTR	10485240	31 July 2015	3
GOODRICH AEROSTRUCTURES SERV CTR	10488804	31 July 2015	6
GOODRICH TOULOUSE SERVICE CENTER	3112366	26 March 2015	2
GOODRICH TOULOUSE SERVICE CENTER	3142536	15 April 2015	3
GOODRICH TOULOUSE SERVICE CENTER	3153607	22 April 2015	2
GOODRICH TOULOUSE SERVICE CENTER	3156163	23 April 2015	3
HAECO	3258455	26 June 2015	6
LUFTHANSA PHILIPPINES	3100782	19 March 2015	1
LUFTHANSA TECHNIC LOGISTIK GMBH	3085693	10 March 2015	8
LUFTHANSA TECHNIC LOGISTIK GMBH	3190886	15 May 2015	20
LUFTHANSA TECHNIC LOGISTIK GMBH	3253646	24 June 2015	12
LUFTHANSA TECHNIK AG	55101216601	4 August 2015	20
LUFTHANSA TECHNIK PHILIPPINES	3127101	3 April 2015	1
MTU MAINTENANCE ZHUHAI	26-575907	27 April 2015	18
MTU MAINTENANCE ZHUHAI	26-576704	29 May 2015	30
MTU MAINTENANCE ZHUHAI	26-577762	26 June 2015	30
PEACH AVIATION CO. LTD	23432	02 June 2015	3
QATAR AIRWAYS-TECHNICAL STORES	3182627	11 May 2015	12
SEPANG AIRCRAFT ENGINEERING	SEP 00005837	8 April 2015	6
SKY AIRLINE S.A.	7846	05 June 2015	2
SR TECHNICS SWITZERLAND	3096446	17 March 2015	4
SR TECHNICS SWITZERLAND	3114700	27 March 2015	8
SR TECHNICS SWITZERLAND	3199814	21 May 2015	5
SR TECHNICS SWITZERLAND	32505957002	09 June 2015	9
SWISS INTERNATIONAL AIR LINES LTD	3174149	5 May 2015	7
TAM-LINHAS AEREAS S/A	822373	30 April 2015	48
TOPCAST AVIATION SUPP CO LTD	151380	6 August 2015	6
TOULOUSE AIR SPARES	3094470	16 March 2015	1

Note: The “Customer” names listed in Appendix 2 are only added for easier identification of initial recipients of the material.

