

Airworthiness Directive

AD No.: 2021-0175

Issued: 22 July 2021

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

AIRBUS

Type/Model designation(s):

A318, A319, A320 and A321 aeroplanes

Effective Date: 05 August 2021

TCDS Number(s): EASA.A.064

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2020-0258 dated 18 November 2020, including its Correction dated 19 November 2020.

ATA 32 – Landing Gear – Main Landing Gear Sliding Tubes – Inspection

Manufacturer(s):

Airbus, formerly Airbus Industrie

Applicability:

Airbus A318-111, A318-112, A318-121, A318-122, A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, A319-133, A320-211, A320-212, A320-214, A320-215, A320-216, A320-231, A320-232, A320-233, A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231 and A321-232 aeroplanes, all manufacturer serial numbers.

Definitions:

For the purpose of this AD, the following definitions apply:

The SB: Airbus Service Bulletin (SB) A320-32-1461.

The initial AOT: Airbus Alert Operators Transmission (AOT) A32N022-20.

The additional AOT: Airbus AOT A32N023-21.

Affected part: Batch 1 affected parts are main landing gear (MLG) sliding tubes, having a Part Number (P/N) and serial number (s/n) as listed in Appendix 1 of this AD, that have been last overhauled between 27 October 2003 and 21 September 2009 inclusive.



Batch 2 affected parts are MLG sliding tubes, having a P/N and s/n as listed in Appendix 2 of this AD, except those that have been overhauled after 05 January 2015.

Batch 3 affected parts are MLG sliding tubes, having a P/N and s/n as listed in Appendix 3 of this AD, and MLG leg and dressings having a P/N and s/n as listed in Appendix 4 of this AD, except those that have been overhauled after 01 January 2015.

Groups: Group 1 aeroplanes are those that have an affected part (batch 1, batch 2 or batch 3) installed.

Group 2 aeroplanes are those that have an affected part (batch 2) installed.

Group 3 aeroplanes are those that have an affected part (batch 3) installed.

Group 4 aeroplanes are those that do not have an affected part installed.

Note 1: Depending on aeroplane configuration, an aeroplane could fall in one single group or multiple groups (any combination).

Reason:

During a walk-around inspection, prior to aeroplane dispatch, an A320 MLG was found collapsed. Investigation revealed that, following a magnetic particle inspection of the MLG sliding tube, performed improperly during overhaul, cracks were initiated, eventually leading to fatigue fracture. A limited number of MLG sliding tubes were identified that may have been subject to the same improper inspection during the last overhaul.

This condition, if not detected and corrected, could lead to MLG sliding tube fracture, possibly resulting in MLG collapse, damage to the aeroplane, and injury to occupants.

To address this potential unsafe condition, Airbus issued the SB, providing instructions for repetitive general visual inspections (GVI) of the affected parts (batch 1) until next overhaul, and EASA issued AD 2018-0136 to require those inspections and, depending on findings, replacement.

After that AD was issued, additional parts were identified, that may also have been subject to the same improper overhaul, and Airbus published the initial AOT, identifying the list of affected parts (batch 2). EASA issued AD 2020-0258, retaining the requirements of EASA AD 2018-0136, which was superseded, to provide instructions for inspection of the second batch.

Since that AD was issued, additional parts have been identified, that may also have been subject to an improper overhaul, and Airbus published the additional AOT, identifying the list of affected parts (batch 3).

For the reasons described above, this AD retains the requirements of EASA AD 2020-0258, which is superseded, and additionally requires those actions on affected parts (batch 3), as defined in this AD and, depending on findings, replacement.

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

Required as indicated, unless accomplished previously:



Inspection(s):

- (1) For Group 1, Group 2 and Group 3 aeroplanes: Within the compliance time specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 500 flight cycles (FC), accomplish a GVI of each affected part in accordance with the instructions of the SB or the initial or additional AOT, as applicable.

Table 1 – Initial GVI of Affected Parts

Group	Compliance Time
1	Within 500 FC after 10 July 2018 [the effective date of EASA AD 2018-0136]
2	Within 500 FC after the inspection in accordance with the instructions of Airbus AOT A32N020-20, or within 100 FC after 02 December 2020 [the effective date of EASA AD 2020-0258], whichever occurs later (see Note 1 of this AD)
3	Within 500 FC after the effective date of this AD

Note 2: For certain MLG sliding tubes, EASA AD 2020-0193 requires accomplishment of one-time inspection in accordance with the instructions of Airbus AOT A32N020-20.

Corrective Action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD, any crack is detected, before next flight, replace the affected part in accordance with the instructions of the SB, or the initial AOT, or the additional AOT, as applicable.

Terminating Action:

- (3) For Group 1, Group 2 and Group 3 aeroplanes: Overhaul of an affected part after the date specified in Table 2 of this AD constitutes terminating action for the repetitive GVI as required by paragraph (1) of this AD for that affected part.

Table 2 – Overhaul Date

Batch	Overhauled After:
1	21 September 2009
2	05 January 2015
3	01 January 2015

- (4) For Group 1, Group 2 and Group 3 aeroplanes: Replacement of each affected part on an aeroplane with MLG sliding tubes that are not affected parts, as defined in this AD, constitutes terminating action for the repetitive GVI as required by paragraph (1) of this AD for that aeroplane, provided that, following replacement, no affected part is (re)installed on that aeroplane.

Credit:

- (5) An aeroplane on which Airbus modification 161202 or 161346 (EV MLG) has been embodied in production is not affected by the requirements of paragraphs (1) to (4) of this AD, provided it is determined that no affected part is installed on that aeroplane.



A review of aeroplane delivery and/or maintenance records is acceptable to make this determination, provided those records can be relied upon for that purpose and the P/N and s/n of the MLG sliding tube or Leg and Dressings, as applicable, can be positively identified from that review.

Parts Installation:

- (6) For Group 1, Group 2 and Group 3 aeroplanes: From the effective date of this AD, it is allowed to install on any aeroplane an affected part, or an MLG equipped with an affected part, provided that, within the last 500 FC before installation, the part passed an inspection in accordance with the instructions of the SB or the initial or additional AOT, as applicable, and that, following installation, the part is inspected as required by this AD.
- (7) For Group 4 aeroplanes: From the effective date of this AD, do not install on any aeroplane an affected part.

Ref. Publications:

Airbus SB A320-32-1461 original issue dated 11 April 2018.

Airbus AOT A32N020-20 original issue dated 17 June 2020.

Airbus AOT A32N022-20 original issue dated 15 October 2020, or Revision 01 dated 16 November 2020.

Airbus AOT A32N023-21 original issue dated 05 May 2021.

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

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.



5. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS – Airworthiness Office – IIASA; E-mail: account.airworth-eas@airbus.com.



Appendix 1 – Affected Parts (batch 1): P/N and s/n (see Note 3 of this AD)

Note 3: Any s/n starting with 'B' may, or may not include a dash '-'. This dash does not effectively alter the s/n reference in Appendix 1, 2 and 3 of this AD.

P/N	s/n	P/N	s/n	P/N	s/n
201160302	1071	201371302	B198-4649	201371304	B0544888
	1116B		B274-4849		B0751922
	73B		B225-4715		B1392028
	1309B		B228-4755		B1655066
	1024B		1801B		B1025007
	64B		4441B		B994937
201160324	B2414670	201371304	B197-4656	201371304	B019-05
	B013-4846		B210-4687		B1261991
	B235-4749		B227-4697		B123-4994
	1321B		SS4353B		B0334860
	MAL1161		SS4375		B0234843
	1057		B168-1948		B0364875
	MAL-1315		B951935		B042-1899
	12088		B003-4830		B554896
1693B	B005-4815	B0474885			
201371302	B2584800	201371304	B006-4819	201371304	B0494851
	B210-4684		B0181916		B0924936
	B196-1879		B0211889		B1064967
	B241-4668		B0311902		B1054968
	B264-4787		B026-1895		B1081962
	B265-4808		B029-1904		B013-4845
	B2564777		B006-4829		B0374865
	B2704816		B0281900		B1194983
	B196-1880		B0254853		B4675255
	B2714811		B0271893		B1111974
	B229-4729		B0321906		
	B261-4810		B003-4821		
	B2724797		B009-4818		



Appendix 2 – Affected Parts (batch 2): P/N and s/n (see Note 3 of this AD)

P/N	s/n
201160302	MAL1367
	1752B
	4446B
201160324	1269B
	MAL1461
	1717B
201371304	B3505136 or B350-5136
	B6302347 or B630-2347
	B5995328 or B599-5328
	B5915314 or B591-5314
	B3805234 or B380-5234
	B7292426 or B729-2426
	B8435400 or B843-5400
	B8962511 or B896-2511
	B8942512 or B894-2512
	B9852613 or B985-2613
	B21633412 or B2163-3412
	B21543372 or B2154-3372
	B1044964 or B104-4964
	B904947 or B90-4947
	B302514151 or B3025-14151
	B15162900 or B1516-2900
	B3112075 or B311-2075
	B22128152 or B2212-8152
	B22313425 or B2231-3425
	B18898063 or B1889-8063
B20693352 or B2069-3352	



Appendix 3 – Affected Parts (batch 3): P/N and s/n (see Note 3 of this AD)

P/N	s/n		
201160302	76B	1522B	MAL1323
	1012B	1549B	MAL1391
	1244B	1568B	MAL1423
	1286B	MAL1086	MAL1439
	1299B	MAL1141	SS4041
	1362B	MAL1313	
201371302	1366B		
201371304	06MDM00112	B254-5294	B594-5347
	06MDM00135	B255-5175	B622-2338
	07B4281X15128	B287-5181	B637-2272
	07B4380X15217	B288-5165	B678-2381
	07B4580X8929	B320-2173	B686-2355
	B1885058	B343-5134	B687-2351
	B1975084	B394-2208	B777-2438
	B4652242	B399-2202	B779-2440
	B136-1986	B403-5224	B794-5410
	B148-1944	B408-5246	B832-2500
	B157-5034	B438-5113	B835-2499
	B192-5102	B444-5189	B891-2533
	B194-5061	B464-2243	B903-2516
	B203-5085	B490-5307	B939-5445
	B224-2065	B492-5313	B972-2620
	B226-2057	B505-2257	B988-2601
	B230-2104	B508-2260	B995-5468
	B232-2071	B533-5272	B999-5469
	B237-2072	B578-5273	B1013-2665
	B254-5183	B585-5322	B1041-5461
	B1052-2670	B1587-5698	B2218-3431
	B1054-2672	B1591-5703	B2234-3438
	B1059-2677	B1649-3050	B2239-3443
	B1086-5495	B1662-3072	B2274-3472
	B1171-5514	B1664-3076	B2282-3506
	B1176-5474	B1673-5742	B2400-3598
	B1177-2739	B1723-3108	B2401-3599
	B1234-2769	B1726-3111	B2403-3601
	B1237-2772	B1816-5776	B2451-3610
	B1278-2681	B1874-3186	B2455-3633
B1283-2846	B1875-3187	B2458-3611	
B1299-2825	B1920-3218	B2460-3613	



P/N	s/n		
201371304 [cont'd]	B1380-2884	B1926-3199	B2477-3650
	B1383-2871	B1947-3231	B2514-3656
	B1404-2927	B1948-8082	B2602-3726
	B1488-3012	B1981-3175	B2603-3727
	B1543-2965	B2006-3261	B3372-14410
	B1564-5677	B2008-3263	B3399-14462
	B1570-2995	B2110-5764	MDMDDD0014M
	B1577-5717	B2126-8133	MDMDDD0034M
	B1581-5708	B2147-8111	MDMDDD0111M
	B1586-5697	B2191-3410	
201522353	B0282-511	B0373-0606	B0482-740
	B0289-518	B0378-623	B0489-734
	B0293-522	B0440-689	
	B0298-536	B0477-726	



Appendix 4

Affected Parts (batch 3): P/N and s/n (see Note 4 of this AD)

Aircraft type	Side	MLG leg and dressings Part Number	MLG leg and dressings Serial Number
A318/A319/A320	LH	201376001-XXX (CMM 32-11-32)	DRG1979/91
	RH	201376002-XXX (CMM 32-11-32)	DRG9413/90
	LH	201582001-XXX (CMM 32-12-24)	M-DG-0422
			MDG-0988
			M-DG-1604
			M-DG-2439
			M-DG-2611
			MDG3296
	RH	201582002-XXX (CMM 32-12-24)	M-DG-0425
			MDG-0992
			M-DG-1605
			M-DG-2440
M-DG-2612			
A321	LH	201585003-XXX (CMM 32-12-21)	M-DG-0326
			M-DG-0416
	RH	201585004-XXX (CMM 32-12-21)	M-DG-0327
			M-DG-0417

Note 4: "XXX" can be any numerical digit.

