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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2018-0762; Product Identifier 2018-NM-033-AD; Amendment 39-19580; AD 2019-03-28]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Airbus SAS Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), Department of Transportation (DOT).

**ACTION:** Final rule.

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**SUMMARY:** We are superseding Airworthiness Directive (AD) 2016-07-23, which applied to all Airbus SAS Model A318 and A319 series airplanes; Model A320-211, A320-212, A320-214, A320-216, A320-231, A320-232, and A320-233 airplanes; and Model A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231, and A321-232 airplanes. AD 2016-07-23 required, for certain airplanes, repetitive replacements of the fixed fairing upper and lower attachment studs of both the left-hand (LH) and right-hand (RH) main landing gear (MLG); and repetitive inspections for corrosion, wear, fatigue cracking, and loose studs of each forward stud assembly of the fixed fairing door upper and lower forward attachments of both the LH and RH MLG; and replacement if necessary. AD 2016-07-23 also provided an optional terminating modification for the repetitive replacements of the fixed fairing upper and lower attachment studs. This AD retains the requirements of AD 2016-07-23 and, for certain airplanes, requires re-identification of the LH and RH MLG fixed fairing assemblies' part numbers. This AD was prompted by a determination that for some airplane configurations, associated fixed fairing assembly part numbers susceptible to fatigue cracking were not listed in certain service information required by AD 2016-07-23. In addition, we have determined that additional work is necessary to re-identify the fixed fairing assembly part number on certain airplanes. We are issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective April 15, 2019.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of April 15, 2019.

The Director of the Federal Register approved the incorporation by reference of certain other publications listed in this AD as of June 6, 2016 (81 FR 26115, May 2, 2016).

**ADDRESSES:** For service information identified in this final rule, contact Airbus SAS, Airworthiness Office–EIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France;

telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); internet <http://www.airbus.com>. You may view this referenced service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0762.

## **Examining the AD Docket**

You may examine the AD docket on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0762; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2016-07-23, Amendment 39-18468 (81 FR 26115, May 2, 2016) (“AD 2016-07-23”). AD 2016-07-23 applied to all Airbus SAS Model A318 and A319 series airplanes; Model A320-211, A320-212, A320-214, A320-216, A320-231, A320-232, and A320-233 airplanes; and Model A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231, and A321-232 airplanes. The NPRM published in the Federal Register on August 31, 2018 (83 FR 44516). The NPRM was prompted by a determination that since we issued AD 2016-07-23, for some airplane configurations, associated fixed fairing assembly part numbers susceptible to fatigue cracking were not listed in certain service information required by AD 2016-07-23. In addition, we have determined that additional work is necessary to re-identify the fixed fairing assembly part number on certain airplanes. The NPRM proposed to retain the requirements of AD 2016-07-23 and, for certain airplanes, require re-identification of the LH and RH MLG fixed fairing assemblies' part numbers. The NPRM also proposed to provide an optional terminating modification for the repetitive replacements of the fixed fairing upper and lower attachment studs. We are issuing this AD to address in-flight detachment of an MLG fixed fairing and consequent damage to the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2018-0023, dated January 26, 2018; corrected February 5, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”); to correct an unsafe condition for all Airbus SAS Model A318 and A319 series airplanes; all Airbus SAS Model A320-211, A320-212, A320-214, A320-216, A320-231, A320-232, and A320-233 airplanes; and all Airbus SAS Model A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231, and A321-232 airplanes. The MCAI states:

Several occurrences were reported of in-flight loss of main landing gear (MLG) fixed and hinged fairings. The majority of reported events occurred following scheduled maintenance activities. One result of the investigation was that a discrepancy between the drawing and the maintenance manuals was discovered. The maintenance

documents were corrected to prevent mis-rigging of the MLG fixed and hinged fairings, which could induce fatigue cracking.

Prompted by these findings, Airbus issued Service Bulletin (SB) A320-52-1083, providing instructions for a one-time inspection of the MLG fixed fairing composite insert and the surrounding area, replacement of the adjustment studs at the lower forward position and adjustment to the new clearance tolerances. That SB was replaced by Airbus SB A320-52-1100 (modification (mod) 27716) introducing a re-designed location stud, rod end and location plate at the forward upper and lower leg fixed-fairing positions. Subsequently, reports were received of post-mod 27716/post-SB A320-52-1100 MLG fixed fairing assemblies with corrosion, which could also induce cracking.

This condition, if not detected and corrected, could lead to further cases of in-flight detachment of a MLG fixed fairing, possibly resulting in injury to persons on the ground and/or damage to the aeroplane.

To address this potential unsafe condition, EASA issued AD 2014-0096 to require repetitive detailed inspections (DET) of the MLG fixed fairings, and, depending on findings, accomplishment of applicable corrective actions. That [EASA] AD also prohibited installation of certain MLG fixed fairing rod end assemblies and studs as replacement parts on aeroplanes incorporating Airbus mod 27716 in production, or modified in accordance with Airbus SB A320-52-1100 (any revision) in service.

Since EASA AD 2014-0096 was issued, Airbus developed an alternative inspection programme to meet the [EASA] AD requirements. In addition, a terminating action (mod 155648) was developed, which was made available for in-service aeroplanes through Airbus SB A320-52-1165.

Consequently, EASA issued AD 2015-0001 (later revised), retaining the requirements of EASA AD 2014-0096, which was superseded, and adding an optional terminating action for the repetitive inspections. For post-mod aeroplanes, i.e. incorporating Airbus mod 155648 in production, or modified by Airbus SB A320-52-1165 in service, the only remaining requirement was to ensure that pre-mod components are no longer installed.

Since EASA AD 2015-0001R1 [which corresponds to FAA AD 2016-07-23] was issued, Airbus revised SB A320-52-1165 to include additional work, to re-identify the fairing assembly part number (P/N). During the preparation of this additional work, it was noted that several configurations and associated P/N were not listed in the original SB, which may have an impact on aeroplanes on which SB A320-52-1165 original issue or Revision (rev.) 01 was already accomplished. It has also been noticed that the instructions for reidentification of two P/N were not correct in revision 02 of this SB.

For the reasons described above, this [EASA] AD retains the requirement of EASA AD 2015-0001R1, which is superseded, but requires using the SB at rev. 03.

This [EASA] AD also requires accomplishment of additional work [re-identification of the part number for the LH and RH MLG fixed fairing assemblies] for those aeroplanes on which parts were replaced in accordance with the instructions of Airbus SB A320-52-1165 at original issue, rev. 01 or rev. 02 and correct (re)identification as applicable.

You may examine the MCAI in the AD docket on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0762.

## **Comments**

We gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Support for the NPRM**

United Airlines stated that it agreed with the intent of the NPRM.

### **Request To Refer to Revised Service Information**

United Airlines requested that paragraphs (i), (k), (l), (m) and (q) of the proposed AD be revised to refer to Airbus Service Bulletin A320-52-1163, Revision 02, dated May 11, 2018, rather than Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015. The commenter noted that Airbus made a number of updates and clarifications in Airbus Service Bulletin A320-52-1163, Revision 02, dated May 11, 2018, and that EASA AD 2018-0023 allows for use of later approved revisions of Airbus Service Bulletin A320-52-1163, Revision 01, dated June 22, 2015. In addition, the commenter pointed out that the FAA issued alternative method of compliance (AMOC) letter AIR-676-18-331, dated August 14, 2018, which permits all operators with airplanes affected by AD 2016-07-23 to use Airbus Service Bulletin A320-52-1163, Revision 02, dated May 11, 2018, instead of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015.

We disagree with the commenter's request to change the final rule to refer to Airbus Service Bulletin A320-52-1163, Revision 02, dated May 11, 2018. Airbus Service Bulletin A320-52-1163, Revision 02, dated May 11, 2018, would expand the requirements of the proposed AD because it modifies the work steps for the removal of cover plates. To change the requirements of the proposed AD would necessitate (under the provisions of the Administrative Procedure Act) reissuing the notice, reopening the period for public comment, considering additional comments subsequently received, and eventually issuing a final rule. That procedure could add unwarranted time to the rulemaking process.

However, we note that paragraph (v)(1)(ii) of this AD states that AMOCs approved previously for AD 2016-07-23 are approved as AMOCs for the corresponding provisions of this AD. This provision allows operators to utilize the AMOC included in letter AIR-676-18-331, dated August 14, 2018, for completing the applicable actions required by this AD; that AMOC identifies new revisions of the applicable service information as an appropriate source of service information.

Regarding the use of "or later approved" revisions of service information, we may not refer to any document that does not yet exist. In general terms, we are required by Office of the Federal Register (OFR) regulations for approval of materials incorporated by reference, as specified in 1 CFR 51.1(f), to either publish the service document contents as part of the actual AD language; or submit the service document to the OFR for approval as referenced material, in which case we may only refer to such material in the text of an AD. The AD may refer to the service document only if the OFR approved it for incorporation by reference. See 1 CFR part 51. To allow operators to use later revisions of the referenced document (issued after publication of the AD), either we must revise the AD to reference specific later revisions, or operators must request approval to use later revisions as an AMOC with this AD under the provisions of paragraph (v)(1) of this AD. We have not revised this AD in regard to this issue.

## Request To Remove Redundant Paragraphs

Delta Air Lines recommended that paragraphs (s) and (t) of the proposed AD be deleted. The commenter stated that paragraph (s) of the proposed AD appears to be redundant to paragraph (n) of the proposed AD, with the exception that it does not include references to paragraphs (h) and (j) of the proposed AD. The commenter requested clarification as to why paragraph (s) of the proposed AD is needed in addition to paragraph (n) of the proposed AD, and why paragraphs (h) and (j) of the proposed AD were not included in paragraph (s) of the proposed AD but were included in paragraph (n) of the proposed AD. Furthermore, the commenter observed that paragraph (t) of the proposed AD appears to be redundant to paragraph (p) of the proposed AD and requested why both paragraphs are needed since they appear to require the same action.

We disagree with the commenter's request to delete paragraphs (s) and (t) of this AD; however, we do agree to provide clarification. The seemingly redundant paragraphs are a result of our method for superseding an AD. To ensure the continuity of the required actions between the existing AD (the AD being superseded, in this case AD 2016-07-23) and the effective date of the new AD, we restate the pertinent requirements of the existing AD and identify the new requirements of this AD. In this AD paragraphs (g) through (q) are the restated requirements of AD 2016-07-23, and the new requirements are paragraphs (r) through (t) of this AD.

Paragraph (s) of this AD is new information regarding terminating action and is applicable starting on the effective date of this AD. Paragraphs (n)(1), (n)(2), and (n)(3) of this AD include restated requirements from AD 2016-07-23 and became effective on June 6, 2016, the effective date of AD 2016-07-23. However, in addition to the restated requirements, paragraph (n)(3) of this AD was updated to refer to the latest revision of the service information: Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017.

Paragraph (s) of this AD also refers to Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017, which was issued after the publication of AD 2016-07-23. Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017, includes, for some airplane configurations, associated fixed fairing assembly part numbers susceptible to fatigue cracking that were not listed in the retained service information referred to in paragraph (n)(3) of AD 2016-07-23. We acknowledge paragraph (n)(3) of this AD does include redundant information since it refers to Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017, in addition to the retained service information.

The reason paragraphs (h) and (j) of this AD were not referenced in paragraph (s) of this AD is because it is only necessary to identify the required actions terminated by paragraph (s) of this AD. Paragraphs (h) and (j) of this AD include the compliance times only. Once the corresponding requirements are terminated, the compliance times in paragraphs (h) and (j) of this AD are no longer relevant. However, for clarity and consistency with references in paragraph (n)(3) of this AD, we have revised paragraph (s) of this AD to refer to paragraphs (g) through (m) of this AD.

In regard to the apparent redundancy between paragraphs (p) and (t) of this AD, we agree clarification is needed. Paragraph (t) of this AD includes new information regarding the parts installation prohibition and is applicable starting on the effective date of this AD. The compliance time for the parts installation prohibition specified in paragraph (t)(2) of this AD depends on whether an airplane is in a pre- or post-Airbus Modification 155648 or pre-or post-Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017, configuration.

Paragraph (p) of this AD is the restated parts installation prohibition from AD 2016-07-23, which became effective on June 6, 2016, the effective date of AD 2016-07-23. In the restatement in paragraphs (p)(2) and (p)(4) of the proposed AD, we inadvertently did not include the effective date of June 6, 2016. We have revised paragraphs (p)(2) and (p)(4) of this AD to include the effective date of AD 2016-07-23. In addition, we have revised paragraph (p) of this AD to clarify that the prohibition specified in paragraph (p) of this AD is applicable only until the effective date of this AD

and that on the effective date of this AD, the prohibition specified in paragraph (t) of this AD must be complied with.

## Conclusion

We reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule

## Related Service Information Under 1 CFR Part 51

Airbus has issued the following service information.

- Airbus Service Bulletin A320-52-1100, Revision 01, dated March 12, 1999, which the Director of the Federal Register approved for incorporation by reference as of June 6, 2016 (81 FR 26115, May 2, 2016).
- Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015, which the Director of the Federal Register approved for incorporation by reference as of June 6, 2016 (81 FR 26115, May 2, 2016).
- Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017. The service information describes procedures for replacing the fixed fairing attachment stud assemblies of the MLG door assembly with new assemblies, and re-identifying the part number of the LH and RH MLG fixed fairing assemblies. The actions in this service information are an optional terminating modification.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## Costs of Compliance

We estimate that this AD affects 901 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

### Estimated Costs

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
18 work-hours × \$85 per hour = \$1,530	\$4,110	\$5,640	\$5,081,640.

### Estimated Costs For Optional Actions

Labor cost	Parts cost	Cost per product
Up to 18 work-hours × \$85 per hour = \$1,530	Up to \$4,110	Up to \$5,640.

We estimate the following costs to do any necessary replacements or re-identifications that would be required based on the results of the inspection. We have no way of determining the number of aircraft that might need these replacements or re-identifications:

## On-Condition Costs

Labor cost	Parts cost	Cost per product
Up to 20 work-hours × \$85 per hour = \$1,700	Up to \$4,110	Up to \$5,810.

According to the manufacturer, some or all of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage for affected individuals. As a result, we have included all costs in our cost estimate.

### Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

### Regulatory Findings

We determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

1. Is not a "significant regulatory action" under Executive Order 12866;
2. Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
3. Will not affect intrastate aviation in Alaska; and
4. Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### Adoption of the Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

## **PART 39—AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by removing Airworthiness Directive (AD) 2016-07-23, Amendment 39-18468 (81 FR 26115, May 2, 2016), and adding the following new AD:





**FAA**  
**Aviation Safety**

## **AIRWORTHINESS DIRECTIVE**

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)  
[www.gpoaccess.gov/fr/advanced.html](http://www.gpoaccess.gov/fr/advanced.html)

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**2019-03-28 Airbus SAS:** Amendment 39-19580; Docket No. FAA-2018-0762; Product Identifier 2018-NM-033-AD.

### **(a) Effective Date**

This AD is effective April 15, 2019.

### **(b) Affected ADs**

This AD replaces AD 2016-07-23, Amendment 39-18468 (81 FR 26115, May 2, 2016) (“AD 2016-07-23”).

### **(c) Applicability**

This AD applies to the Airbus SAS airplanes identified in paragraphs (c)(1) through (c)(4) of this AD, certificated in any category, all manufacturer serial numbers.

(1) Model A318-111, A318-112, A318-121, and A318-122 airplanes.

(2) Model A319-111, A319-112, A319-113, A319-114, A319-115, A319-131, A319-132, and A319-133 airplanes.

(3) Model A320-211, A320-212, A320-214, A320-216, A320-231, A320-232, and A320-233 airplanes.

(4) Model A321-111, A321-112, A321-131, A321-211, A321-212, A321-213, A321-231, and A321-232 airplanes.

### **(d) Subject**

Air Transport Association (ATA) of America Code 52, Doors.

### **(e) Reason**

This AD was prompted by reports of in-flight loss of fixed and hinged main landing gear (MLG) fairings, and reports of post-modification MLG fixed fairing assemblies that have wear and corrosion. This AD was also prompted by a determination that for some airplane configurations, associated fixed fairing assembly part numbers susceptible to fatigue cracking were not listed in certain service information required by AD 2016-07-23. In addition, we have determined that additional work is necessary to re-identify the fixed fairing assembly part number on certain airplanes. We are issuing this AD to prevent in-flight detachment of an MLG fixed fairing and consequent damage to the airplane.

### **(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

### **(g) Retained Repetitive Replacements, With No Changes**

This paragraph restates the requirements of paragraph (g) of AD 2016-07-23, with no changes. For airplanes in pre-Airbus Modification 27716 and pre-Airbus Service Bulletin A320-52-1100 configuration, with any of the components installed that are identified in paragraphs (g)(1) through (g)(5) of this AD: At the applicable compliance time specified in paragraph (h) of this AD, replace fixed fairing upper and lower attachment studs of both left-hand (LH) and right-hand (RH) MLG, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015. Repeat the replacements thereafter at intervals not to exceed 6,500 flight cycles.

- (1) Plate–support having part number (P/N) D5284024820000.
- (2) Plate–support having P/N D5284024820200.
- (3) Stud–adjustment having P/N D5284024420000.
- (4) Rod end assembly (lower) having P/N D5284000500000.
- (5) Rod end assembly (upper) having P/N D5284000600000.

### **(h) Retained Compliance Times for the Requirements of Paragraph (g) of This AD, With No Changes**

This paragraph restates the requirements of paragraph (h) of AD 2016-07-23, with no changes. For airplanes identified in paragraph (g) of this AD, except as provided by paragraph (o) of this AD: Do the initial replacement required by paragraph (g) of this AD at the latest of the times specified in paragraphs (h)(1) through (h)(4) of this AD.

- (1) Before the accumulation of 6,500 total flight cycles since the airplane's first flight.
- (2) Within 6,500 flight cycles since the last installation of a pre-Airbus Modification 27716 stud on the airplane.
- (3) Within 1,500 flight cycles after June 6, 2016 (the effective date of AD 2016-07-23).
- (4) Within 8 months after June 6, 2016 (the effective date of AD 2016-07-23).

### **(i) Retained Repetitive Inspections, With No Changes**

This paragraph restates the requirements of paragraph (i) of AD 2016-07-23, with no changes. For airplanes in post-Airbus Modification 27716 or post-Airbus Service Bulletin A320-52-1100 configuration, with any of the components installed that are identified in paragraphs (i)(1), (i)(2), and (i)(3) of this AD: At the applicable compliance time specified in paragraph (j) of this AD, do a detailed inspection of the LH and RH MLG forward stud assemblies of the fixed fairing door upper and lower forward attachments of both LH and RH MLG for indications of corrosion, wear, fatigue cracking, and loose studs, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015. Repeat the detailed inspection thereafter at intervals not to exceed 12 months. Replacement of both LH and RH MLG forward stud assemblies on an airplane, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015, extends the interval for the next detailed inspection to 72 months; and the inspection must be repeated thereafter at intervals not to exceed 12 months.

- (1) Stud–adjustment having P/N D5285600720000.
- (2) Rod end assembly (lower) having P/N D5285600400000.
- (3) Rod end assembly (upper) having P/N D5285600500000.

### **(j) Retained Compliance Times for the Requirements of Paragraph (i) of This AD, With No Changes**

This paragraph restates the requirements of paragraph (j) of AD 2016-07-23, with no changes. For airplanes identified in paragraph (i) of this AD, except as provided by paragraph (o) of this AD: Do the initial inspection required by paragraph (i) of this AD at the latest of the times specified in paragraphs (j)(1) through (j)(4) of this AD.

- (1) Before the accumulation of 72 months since the airplane's first flight.
- (2) Within 72 months since the last installation of a post-Airbus Modification 27716 assembly or since accomplishment of the actions specified in Airbus Service Bulletin A320-52-1100.
- (3) Within 1,500 flight cycles after June 6, 2016 (the effective date of AD 2016-07-23).
- (4) Within 8 months after June 6, 2016 (the effective date of AD 2016-07-23).

### **(k) Retained Corrective Action, With Revised Service Information**

This paragraph restates the requirements of paragraph (k) of AD 2016-07-23, with revised service information. If any discrepancy (including any indication of corrosion, wear, fatigue cracking, or loose studs) of any MLG forward stud assembly is found during any inspection required by paragraph (i) of this AD, except as specified in paragraph (l) of this AD: Before further flight, replace the discrepant upper and lower fixed fairing forward stud assemblies of the LH and RH MLG, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015; or Airbus Service Bulletin A320-52-1165, Revision 01, dated October 23, 2015, excluding Appendix 01, dated November 3, 2014, and including Appendix 02, dated October 23, 2015; or Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017. As of the effective date of this AD only Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015; or Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017, may be used.

### **(l) Retained Corrective Action or Repetitive Inspections for Certain Corrosion Findings, With Revised Service Information**

This paragraph restates the requirements of paragraph (l) of AD 2016-07-23, with revised service information. If any corrosion is found during any inspection required by paragraph (i) of this AD on any MLG fixed fairing forward stud assembly (upper, lower, LH or RH), but the corroded stud is not loose: Do the action specified in paragraph (l)(1) or (l)(2) of this AD.

(1) Before further flight, replace the affected assembly, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015; or Airbus Service Bulletin A320-52-1165, Revision 01, dated October 23, 2015, excluding Appendix 01, dated November 3, 2014, and including Appendix 02, dated October 23, 2015; or Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017. As of the effective date of this AD only Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015; or Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017, may be used.

(2) Within 4 months after finding corrosion, and thereafter at intervals not to exceed 4 months, do a detailed inspection for indications of corrosion, wear, fatigue cracking, and loose studs of the forward stud assembly of the affected (LH or RH) MLG, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015.

**(m) Retained Corrective Action for Inspections Specified in Paragraph (l)(2) of This AD, With Revised Service Information**

This paragraph restates the requirements of paragraph (m) of AD 2016-07-23, with revised service information. If any indication of wear, fatigue cracking, or loose studs of any forward stud assembly is found during any inspection required by paragraph (l)(2) of this AD: Before further flight, replace the affected (LH or RH) MLG fixed fairing forward stud assembly, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015; or Airbus Service Bulletin A320-52-1165, Revision 01, dated October 23, 2015, excluding Appendix 01, dated November 3, 2014, and including Appendix 02, dated October 23, 2015; or Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017. As of the effective date of this AD only Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015; or Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017, may be used.

**(n) Retained Terminating Action, With Revised Service Information**

This paragraph restates the requirements of paragraph (n) of AD 2016-07-23, with revised service information.

(1) Replacement of parts on an airplane, as required by paragraph (g), (k), (l)(1), or (m) of this AD, does not constitute terminating action for the repetitive inspections required by paragraph (i) of this AD, except as specified in paragraph (n)(3) of this AD.

(2) The repetitive replacements required by paragraph (g) of this AD may be terminated by modification of the airplane to post-Airbus Modification 27716 configuration, including a resonance frequency inspection for debonding of the composite insert and delamination of the honeycomb area around the insert, and all applicable corrective actions, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1100, Revision 01, dated March 12, 1999, provided all applicable corrective actions are done before further flight. Thereafter, refer to paragraph (i) of this AD to determine the compliance time for the next detailed inspection required by this AD.

(3) Modification of an airplane, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1165, Revision 01, dated October 23, 2015, excluding Appendix 01, dated November 3, 2014, and including Appendix 02, dated October 23, 2015; or Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017, constitutes terminating action for actions required by paragraphs (g) through (m) of this AD for the airplane on which the modification is done. As of the effective date of this AD only Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017, may be used.

**(o) Retained Exceptions to Certain AD Actions, With No Changes**

This paragraph restates the requirements of paragraph (o) of AD 2016-07-23, with no changes. An airplane on which Airbus Modification 155648 has been embodied in production is not affected by the requirements of paragraphs (g) and (i) of this AD, provided that no affected component, identified by part number as specified in paragraphs (g)(1) through (g)(5) and (i)(1) through (i)(3) of this AD, has been installed on that airplane since first flight of the airplane.

**(p) Retained Parts Installation Prohibition, With a Change to Compliance Requirements**

This paragraph restates the requirements of paragraph (p) of AD 2016-07-23, with a change to compliance requirements. Comply with this parts installation prohibition paragraph until the effective date of this AD. As of the effective date of this AD, comply with paragraph (t) of this AD.

(1) For airplanes in pre-Airbus Modification 27716 or pre-Airbus Service Bulletin A320-52-1100 configuration: No person may install a component identified in paragraphs (g)(1) through (g)(5) of this AD on any airplane after doing the actions provided in paragraph (n)(2) of this AD.

(2) For airplanes in post-Airbus Modification 27716 or post Airbus Service Bulletin A320-52-1100 configuration: As of June 6, 2016 (the effective date of AD 2016-07-23), no person may install a component identified in paragraphs (g)(1) through (g)(5) of this AD on any airplane.

(3) For airplanes in pre-Airbus Modification 155648 or pre-Airbus Service Bulletin A320-52-1165 configuration: No person may install a component identified in paragraphs (g)(1) through (g)(5) and (i)(1) through (i)(3) of this AD on any airplane after doing the actions provided in paragraph (n)(3) of this AD.

(4) For airplanes in post-Airbus Modification 155648 or post-Airbus Service Bulletin A320-52-1165 configuration: As of June 6, 2016 (the effective date of AD 2016-07-23), no person may install a component identified in (g)(1) through (g)(5) and (i)(1) through (i)(3) of this AD on any airplane.

#### **(q) Retained No Reporting Requirement, With No Changes**

This paragraph restates the requirements of paragraph (q) of AD 2016-07-23, with no changes. Although Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015, specifies to submit certain information to the manufacturer, and specifies that action as “RC” (Required for Compliance), this AD does not include that requirement.

#### **(r) New Requirement of This AD: Additional Work**

For any airplane on which, before the effective date of this AD, any part was installed or replaced, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1165, dated November 3, 2014; Revision 01, dated October 13, 2015; or Revision 02, dated February 12, 2016: Within 12 months after the effective date of this AD, accomplish the instructions identified as “additional work” in the Accomplishment Instructions of Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017, as applicable to the airplane configuration.

#### **(s) New Terminating Action**

Modification of an airplane in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017, or as specified in paragraph (r) of this AD constitutes terminating action for the requirements of paragraphs (g) through (m) of this AD for that airplane.

#### **(t) New Parts Installation Prohibition**

(1) Do not install on any airplane a component specified in paragraphs (g)(1) through (g)(5) of this AD, as required by paragraph (t)(1)(i) or (t)(1)(ii) of this AD, as applicable.

(i) For airplanes in pre-Airbus Modification 27716 or pre-Airbus Service Bulletin A320-52-1100 configuration: After completing the optional modification specified in paragraph (n)(2) of this AD.

(ii) For airplanes in post-Airbus Modification 27716 or post Airbus Service Bulletin A320-52-1100 configuration: As of the effective date of this AD.

(2) Do not install on any airplane a component specified in paragraphs (g)(1) through (g)(5) of this AD or paragraphs (i)(1) through (i)(3) of this AD, as required by paragraph (t)(2)(i) or (t)(2)(ii) of this AD, as applicable.

(i) For airplanes in pre-Airbus Modification 155648 or pre-Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017, configuration: After completion of the additional work required by paragraph (r) of this AD.

(ii) For airplanes in post-Airbus Modification 155648 or post-Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017, configuration: As of the effective date of this AD.

**(u) Credit for Previous Actions**

(1) This paragraph provides credit for optional actions provided by paragraph (n)(2) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-52-1100, dated December 7, 1998, which was not previously incorporated by reference.

(2) This paragraph provides credit for the actions required by paragraphs (g), (i), (k), (l), and (m) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-52-1163, dated February 4, 2014, which was not previously incorporated by reference.

(3) This paragraph provides credit for the actions required by paragraphs (k), (l)(1), (m), and (n)(3) of this AD if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-52-1165, Revision 01, dated October 23, 2015, excluding Appendix 01, dated November 3, 2014, and including Appendix 02, dated October 23, 2015, which was previously incorporated by reference in AD 2016-07-23.

**(v) Other FAA AD Provisions**

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Section, Transport Standards Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the International Section, send it to the attention of the person identified in paragraph (w)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov.

(i) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(ii) AMOCs approved previously for AD 2016-07-23 are approved as AMOCs for the corresponding provisions of this AD.

(2) Contacting the Manufacturer: As of the effective date of this AD, for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) Required for Compliance (RC): Except as specified by paragraph (q) of this AD: If any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator's maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

**(w) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2018-0023, dated January 26, 2018; corrected February 5, 2018; for related information. This MCAI may be found in the AD docket on the internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0762.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone and fax 206-231-3223.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (x)(5) and (x)(6) of this AD.

**(x) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(3) The following service information was approved for IBR on April 15, 2019.

(i) Airbus Service Bulletin A320-52-1165, Revision 03, excluding Appendix 01 and including Appendix 02, dated November 9, 2017.

(ii) [Reserved]

(4) The following service information was approved for IBR on June 6, 2016 (81 FR 26115, May 2, 2016).

(i) Airbus Service Bulletin A320-52-1100, Revision 01, dated March 12, 1999.

(ii) Airbus Service Bulletin A320-52-1163, Revision 01, including Appendix 01, dated June 22, 2015.

(5) For service information identified in this AD, contact Airbus SAS, Airworthiness Office—EIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; internet <http://www.airbus.com>.

(6) You may view this service information at the FAA, Transport Standards Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195.

(7) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Des Moines, Washington, on February 22, 2019.

Jeffrey E. Duven,  
Director, System Oversight Division,  
Aircraft Certification Service.