8. Equipment—General—Powerplant Instruments (Compliance with §23.1305 requirements):
   a. In place of compliance with § 23.1305, the applicant will comply with the following:
      (1) The following are required powerplant instruments:
         (a) A fuel quantity indicator for each fuel tank, installed in accordance with § 23.1337(b).
         (b) An oil pressure indicator.
         (c) An oil temperature indicator.
         (d) A tachometer indicating propeller speed.
         (e) A coolant temperature indicator.
         (f) An indicating means for the fuel strainer or filter required by §23.997 to indicate the occurrence of contamination of the strainer or filter before it reaches the capacity established in accordance with § 23.997(d).
   1. No indicator is required if the engine can operate normally for a specified period with the fuel strainer exposed to the maximum fuel contamination as specified in MIL–5007D and provisions for replacing the fuel filter at this specified period (or a shorter period) are included in the maintenance schedule for the engine installation.
   (g) Power setting, in percentage.
   (h) Fuel temperature.
   (i) Fuel flow (engine fuel consumption).
5. Operating Limitations and Information—Powerplant limitations—Fuel grade or designation (Compliance with §23.1521(d) requirements):
    Instead of compliance with § 23.1521(d), the applicant must comply with the following:
    The minimum fuel designation (for diesel engines) must be established so it is not less than that required for the operation of the engines within the limitations in paragraphs (b) and (c) of § 23.1521.
10. Markings and Placards—Miscellaneous markings and placards—Fuel, oil, and coolant filler openings (Compliance with §23.1557(c)(1) requirements):
    Instead of compliance with § 23.1557(c)(1), the applicant must comply with the following:
    a. Fuel filler openings must be marked at or near the filler cover with—
       (1) For diesel engine-powered airplanes—
          (a) The words “Jet Fuel”; and
          (b) The permissible fuel designations, or references to the Airplane Flight Manual (AFM) for permissible fuel designations.
    b. A warning placard or note that states the following or similar:
       “Warning—this airplane equipped with an aircraft diesel engine, service with approved fuels only.”
       The colors of this warning placard should be black and white.
11. Powerplant—Fuel system—Fuel-freezing:
    If the fuel in the tanks cannot be shown to flow suitably under all possible temperature conditions, then fuel temperature limitations are required. These will be considered as part of the essential operating parameters for the aircraft and must be limitations.
    a. The takeoff temperature limitation must be determined by testing or analysis to define the minimum cold-soaked temperature of the fuel that the airplane can operate on.
    b. The minimum operating temperature limitation must be determined by testing to define the minimum operating temperature acceptable after takeoff (with minimum takeoff temperature established in (a) of this paragraph).
12. Powerplant Installation—Vibration levels:
    a. Vibration levels throughout the engine operating range must be evaluated and:
       (1) Vibration levels imposed on the airframe must be less than or equivalent to those of the gasoline engine; or
       (2) Any vibration level that is higher than that imposed on the airframe by the replaced gasoline engine must be considered in the modification and the effects on the technical areas covered by the following paragraphs must be investigated: 14 CFR part 23, §§ 23.251; 23.613; 23.627; 23.629 (or CAR 3.159, as applicable to various models); 23.572; 23.573; 23.574 and 23.901.
    b. Vibration levels imposed on the airframe can be mitigated to an acceptable level by use of isolators, dampers clutches, and similar provisions, so unacceptable vibration levels are not imposed on the previously certificated structure.
    c. Airframe vibration levels must be determined by testing or analysis, or by a combination of methods, that the airframe can withstand the shaking or vibratory forces imposed by the engine if a cylinder becomes inoperative. Diesel engines of conventional design typically have extremely high levels of vibration when a cylinder becomes inoperative. Data must be provided to the airframe installer/modifier so either appropriate design considerations or operating procedures, or both, can be developed to prevent airframe and propeller damage.
 14. Powerplant Installation—High Energy Engine Fragments:
    It may be possible for diesel engine cylinders (or portions thereof) to fail and physically separate from the engine at high velocity (due to the high internal pressures). This failure mode will be considered possible in engine designs with removable cylinders or other non-integral block designs. The following is required:
    a. It must be shown that the engine construction type (massive or integral block with non-removable cylinders) is inherently resistant to liberating high energy fragments in the event of a catastrophic engine failure; or
    b. It must be shown by the design of the engine, that engine cylinders, other engine components or portions thereof (fragments) cannot be shed or blown off the engine in the event of a catastrophic engine failure; or
    c. It must be shown that all possible liberated engine parts or components do not have adequate energy to penetrate engine cowlings; or
    d. Assuming infinite fragment energy, and analyzing the trajectory of the probable fragments and components, any hazard due to liberated engine parts or components will be minimized and the possibility of crew injury is eliminated. Minimization must be considered during initial design and not presented as an analysis after design completion.

Issued in Kansas City, Missouri, on October 3, 2019.

William Schinstock,
Acting Manager, Small Airplane Standards Branch, Policy and Innovation Division, Aircraft Certification Service.

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BILLING CODE 4910–13–P
or more restrictive airworthiness limitations are necessary. This AD requires revising the existing maintenance or inspection program, as applicable, to incorporate new or more restrictive airworthiness limitations. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective November 14, 2019.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of November 14, 2019.

ADDRESSES: For service information identified in this final rule, contact Airbus, Airworthiness Office—EIAS, 1 Rond Point Maurice Bellonte, 31707 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. 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. It is also available on the internet at http://www.regulations.gov.

Examining the AD Docket


The FAA gave the public the opportunity to participate in developing this final rule. The FAA received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

The FAA reviewed the relevant data and determined that air safety and the public interest require adopting this final rule as proposed, except for minor editorial changes. The FAA has 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.

Related Service Information Under 1 CFR Part 51

Airbus has issued Airbus A318/A319/A320/A321 Airworthiness Limitations Section (ALS) Part 1 Safe Life Airworthiness Limitations (SL–ALI), Revision 06, Issue 02, dated November 30, 2018. This service information describes new maintenance requirements and airworthiness limitations. 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

The FAA estimates that this AD affects 1,497 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

The FAA has determined that revising the existing maintenance or inspection program takes an average of 90 work-hours per operator, although the agency recognizes that this number may vary from operator to operator. In the past, the FAA has estimated that this action takes 1 work-hour per airplane. Since operators incorporate maintenance or inspection program changes for their affected fleet(s), the FAA has determined that a per-operator estimate is more accurate than a per-airplane estimate. Therefore, the FAA estimates the total cost per operator to be $7,650 (90 work-hours × $85 per work-hour).

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

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) Not a "significant regulatory action" under Executive Order 12866.
(2) Will not affect intrastate aviation in Alaska, and
(3) 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 adding the following new airworthiness directive (AD):

Airbus SAS: Amendment 39–19–15


(a) Effective Date
This AD is effective November 14, 2019.

(b) Affected ADs

(c) Applicability
This AD applies to the Airbus SAS airplanes identified in paragraphs (c)(1) through (4) of this AD, certificated in any category, with an original airworthiness certificate or original export certificate of airworthiness issued on or before November 30, 2018.


(d) Subject
Air Transport Association (ATA) of America Code 05, Time Limits/Maintenance Checks.

(e) Reason
This AD was prompted by a determination that new or more restrictive airworthiness limitations are necessary. The FAA is issuing this AD to address the failure of certain life-limited parts, which could result in reduced structural integrity of the airplane.

(f) Compliance
Comply with this AD within the compliance times specified, unless already done.

(g) Maintenance or Inspection Program Revision

Within 90 days after the effective date of this AD, revise the existing maintenance or inspection program, as applicable, to incorporate the information specified in Airbus A318/A319/A320/A321 Airworthiness Limitations Section (ALS) Part 1 Safe Life Airworthiness Limitations (SL–ALI), Revision 06, Issue 02, dated November 30, 2018. The initial compliance time for doing the tasks is at the time specified in Airbus A318/A319/A320/A321 Airworthiness Limitations Section (ALS) Part 1 Safe Life Airworthiness Limitations (SL–ALI), Revision 06, Issue 02, dated November 30, 2018, or within 90 days after the effective date of this AD, whichever occurs later.

(h) No Alternative Actions, Intervals

After the existing maintenance or inspection program has been revised as required by paragraph (g) of this AD, no alternative life limits may be used unless approved as an alternative method of compliance (AMOC) in accordance with the procedures specified in paragraph (i)(1) of this AD.

(i) Terminating Action for AD 2018–17–19

Accomplishing the actions required by this AD terminates all requirements of AD 2018–17–19.

(j) Other FAA AD Provisions

The following provisions also apply to this AD:

(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 (k)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. 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.

(2) Contacting the Manufacturer: 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 Union 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.

(k) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2019–0056, dated March 19, 2019; 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–2019–0497.

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

(i) 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) For service information identified in this AD, contact Airbus, Airworthiness Office—EIAS, 1 Rond Point Maurice Bellonte, 31707 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.

(4) 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.

(5) 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 September 23, 2019.

Michael Kaszycki,
Acting Director, System Oversight Division,
Aircraft Certification Service.

[FR Doc. 2019–22153 Filed 10–9–19; 8:45 am]
BILING CODE 4910–13–P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39


RIN 2120–AA64

Airworthiness Directives; The Boeing Company Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.