



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2014-0020; Directorate Identifier 2013-CE-039-AD; Amendment 39-17821; AD 2014-07-07]

RIN 2120-AA64

Airworthiness Directives; British Aerospace (Operations) Limited Airplanes

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

ACTION: Final rule.

SUMMARY: We are superseding an airworthiness directive (AD) 87-02-04 for British Aerospace (Operations) Limited Model HP.137 Jetstream MK.1, Jetstream Series 200, and Jetstream Series 3101 airplanes. This AD results from mandatory continuing airworthiness information (MCAI) issued by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as cracking of the forward main landing gear yoke pintle resulting from corrosion pits leading to stress corrosion. We are issuing this AD to require actions to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in the AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0020; or in person at the Docket Management Facility, 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 service information identified in this AD, contact BAE Systems (Operations) Ltd, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; phone: +44 1292 675207, fax: +44 1292 675704; email: RApublications@baesystems.com; Internet: <http://www.jetstreamcentral.com>.

You may view this referenced service information at the FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

FOR FURTHER INFORMATION CONTACT Taylor Martin, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4138; fax: (816) 329-4090; email: taylor.martin@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to add an AD that would apply to British Aerospace (Operations) Limited Model HP 137 Jetstream MK1, Jetstream Series 200, and Jetstream Series 3101 airplanes. The NPRM was published in the *Federal Register* on January 15, 2014 (79 FR 2593), and proposed to supersede AD 87-02-04, Amendment 39-5497 (51 FR 47211, December 31, 1986).

The NPRM (79 FR 2593, January 15, 2014) proposed to correct an unsafe condition for the specified products and was based on mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country. The MCAI states that:

Prompted by occurrences of the main landing gear (MLG) yoke pintle housing cracking, the United Kingdom Civil Aviation Authority (UK CAA) issued AD G-003-01-86 to require repetitive inspections to identify any crack in the yoke pintle housing on MLG fitted to Jetstream 3100 aeroplanes in accordance with BAE Systems (Operations) Ltd Service

Bulletin (SB) 32-A-JA851226, and depending on findings, corrective action. After that AD was issued, an occurrence of Jetstream 3100 MLG failure was reported after landing. The subsequent investigation revealed stress corrosion cracking of the MLG yoke pintle housing as a root cause of the MLG failure. Furthermore, the investigation report recommended a review of the effectiveness of UK CAA AD G-003-01-86 in identifying cracks in the yoke pintle housing on MLG fitted to Jetstream 3100 aeroplanes.

Degradation of the surface protection by abrasion can occur when the forward face of the yoke pintle rotates against the pintle bearing, which introduces corrosion pits and, consequently, stress corrosion cracking.

This condition, if not detected and corrected, could lead to structural failure of the MLG, possibly resulting in loss of control of the aeroplane during take-off or landing runs.

To provide protection of the affected area of the MLG assembly spigot housing, BAE Systems (Operations) Ltd issued SB 32-JM7862 to provide instructions for installation of a protective washer, fitted at the forward spigot on both, left hand (LH) and right hand (RH), MLG. Consequently, BAE Systems (Operations) Ltd issued SB 32-A-JA851226 at Revision 5 to provide additional accomplishment instructions for Non-destructive testing inspection (NDT) of MLG equipped with the protective washer installed in accordance with BAE Systems (Operations) Ltd SB 32-JM7862 and to introduce reference to MLG manufacturer APPH Ltd SB 32-19 at Revision 4, providing instructions for re-protection of the yoke pintle.

For the reasons described above, this AD retains the requirements of AD G-003-01-86, which is superseded, and requires implementation of revised inspection requirements, and depending on findings, corrective action. This AD introduces an optional modification, which constitutes terminating action for the inspections required by this AD.

The MCAI can be found in the AD docket on the Internet at:

<http://www.regulations.gov/#!documentDetail;D=FAA-2014-0020-0002>.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM or on the determination of the cost to the public.

Conclusion

We reviewed the relevant data and determined that air safety and the public interest require adopting the AD 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 (79 FR 2593, January 15, 2014) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

Costs of Compliance

We estimate that this AD will affect 44 products of U.S. registry. We also estimate that it would take about 14 work-hours per product to comply with the inspection requirements of this AD. The average labor rate is \$85 per work-hour.

Based on these figures, we estimate the cost of this AD on U.S. operators to be \$52,360, or \$1,190 per product.

In addition, we estimate that any necessary follow-on actions would take about 10 work-hours and require parts costing \$5,000, for a cost of \$5,850 per product for repairs. We have no way of determining the number of products that may need these actions.

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.

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 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.

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-2014-0020; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains the NPRM, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (telephone (800) 647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

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 Amendment 39-5497 (51 FR 47211, December 31, 1986) and adding the following new AD:

2014-07-07 **British Aerospace (Operations) Limited:** Amendment 39-17821; Docket No. FAA-2014-0020; Directorate Identifier 2013-CE-039-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

This AD supersedes AD 87-02-04, Amendment 39-5497 (51 FR 47211, December 31, 1986

(c) Applicability

This AD applies to British Aerospace (Operations) Limited Model HP.137 Jetstream Mk.1, Jetstream Series 200, and Jetstream Series 3101 airplanes, all serial numbers, certificated in any category.

(d) Subject

Air Transport Association of America (ATA) Code 32: Landing Gear.

(e) Reason

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as cracking of the forward main landing gear (MLG) yoke pintle that resulted from corrosion pits leading to stress corrosion. We are issuing this AD to prevent failure of the MLG, which could result in loss of control of the airplane during take-off or landing.

(f) Actions and Compliance

Unless already done, do the following actions specified in paragraphs (f)(1) through (f)(11) of this AD:

(1) For airplanes that were affected by AD 87-02-04, Amendment 39-5497 (51 FR 47211, December 31, 1986): At the next 1,200 MLG flight cycle repetitive inspection that would have been required by AD 87-02-04 or within the next 12 months after the last 1,200 MLG flight cycle repetitive inspection that would have been required by AD 87-02-04, whichever occurs first, and repetitively thereafter at intervals not to exceed 1,200 MLG flight cycles or 12 months, whichever occurs first, do a nondestructive testing (NDT) inspection of each MLG assembly cylinder attachment spigot housing following the Accomplishment Instructions in APPH Ltd. Service Bulletin No. 32-19, Revision 4, dated April 3, 2013, and British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 32-A-JA851226, Revision 5, dated April 30, 2013.

(2) For airplanes that were not affected by AD 87-02-04, Amendment 39-5497 (51 FR 47211, December 31, 1986): Within the next 300 MLG flight cycles after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD) or within the next 3 months after [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD) or at the next overhaul of the MLG after [INSERT DATE

35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD), whichever occurs first, and repetitively thereafter at intervals not to exceed 1,200 MLG flight cycles or 12 months, whichever occurs first, do a NDT inspection of each MLG assembly cylinder attachment spigot housing following the Accomplishment Instructions in APPH Ltd. Service Bulletin No. 32-19, Revision 4, dated April 3, 2013, and British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 32-A-JA851226, Revision 5, dated April 30, 2013.

(3) For all airplanes: Within 300 landings after a heavy or abnormal landing, conduct a NDT inspection of each MLG assembly cylinder attachment spigot following Accomplishment Instructions in APPH Ltd. Service Bulletin No. 32-19, Revision 4, dated April 3, 2013, and British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 32-A-JA851226, Revision 5, dated April 30, 2013.

(4) For all airplanes: If any crack is found during any inspection required in paragraphs (f)(1), (f)(2), or (f)(3) of this AD, before further flight, take all necessary corrective actions following the Accomplishment Instructions in APPH Ltd. Service Bulletin No. 32-19, Revision 4, dated April 3, 2013, and British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 32-A-JA851226, Revision 5, dated April 30, 2013.

(5) For all airplanes: Within 300 MLG flight cycles or 3 months, whichever occurs first after each NDT inspection required in paragraph (f)(1) or (f)(2) of this AD, as applicable, and repetitively thereafter at intervals not to exceed 300 MLG flight cycles or 3 months, whichever occurs first, do a visual inspection of each MLG following the Accomplishment Instructions in APPH Ltd. Service Bulletin No. 32-19, Revision 4, dated April 3, 2013, and British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 32-A-JA851226, Revision 5, dated April 30, 2013.

(6) For all airplanes: If any discrepancy is found during any visual inspection required in paragraph (f)(5) of this AD, before further flight, take all necessary corrective actions following the Accomplishment Instructions in APPH Ltd. Service Bulletin No. 32-19, Revision 4, dated April 3, 2013, and British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 32-A-JA851226, Revision 5, dated April 30, 2013.

(7) For all airplanes with a MLG incorporating a microswitch hole: Within the next 10,600 MLG flight cycles since new and repetitively thereafter at intervals not to exceed 1,200 MLG flight cycles, do a NDT inspection of each MLG microswitch hole following the Accomplishment Instructions in APPH Ltd. Service Bulletin No. 32-40, Revision 1, dated February 2003, and Part C, paragraph (2)(b) of British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 32-A-JA851226, Revision 5, dated April 30, 2013.

(8) For all airplanes: If any crack is found during any NDT inspection required in paragraph (f)(7) of this AD, before further flight, take all necessary corrective actions following the Accomplishment Instructions in APPH Ltd. Service Bulletin No. 32-40, Revision 1, dated February 2003, and British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 32-A-JA851226, Revision 5, dated April 30, 2013.

(9) For all airplanes: Doing all necessary corrective actions required in paragraphs (f)(4), (f)(6), and (f)(8) of this AD does not constitute terminating action for the inspections required by this AD.

(10) For all airplanes: Modification of each MLG cylinder following Jetstream Service Bulletin 32-JA880340, original issue, dated January 6, 1989, constitutes terminating action for the inspections required by this AD for that MLG.

(11) For all airplanes: The compliance times in paragraphs (f)(2), (f)(3), (f)(5), and (f)(7) of this AD are presented in flight cycles (landings). If the total flight cycles have not been kept, multiply the total number of airplane hours time-in-service (TIS) by 0.75 to calculate the cycles. For the purposes of this AD:

- (i) 100 hours TIS X .75 = 75 cycles; and
- (ii) 1,000 hours TIS X .75 = 750 cycles.

(g) Credit for Actions Done in Accordance with Previous Service Information

This AD allows credit for the initial inspection required in paragraph (f)(7) of this AD if done before [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER] (the effective date of this AD) following APPH Ltd. Service Bulletin 32-40, at Initial Issue dated June 21, 1989.

(h) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) **Alternative Methods of Compliance (AMOCs)**: The Manager, Standards Office, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. Send information to ATTN: Taylor Martin, Aerospace Engineer, FAA, Small Airplane Directorate, 901 Locust, Room 301, Kansas City, Missouri 64106; telephone: (816) 329-4138; fax: (816) 329-4090; email: taylor.martin@faa.gov. Before using any approved AMOC on any airplane to which the AMOC applies, notify your appropriate principal inspector (PI) in the FAA Flight Standards District Office (FSDO), or lacking a PI, your local FSDO.

(2) **Airworthy Product**: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(3) Reporting Requirements: For any reporting requirement in this AD, a federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 5 minutes per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES-200.

(i) Related Information

Refer to MCAI European Aviation Safety Agency (EASA) AD No.: 2013-0208, dated September 10, 2013, for related information. The MCAI can be found in the AD docket on the Internet at: <http://www.regulations.gov/#!documentDetail;D=FAA-2014-0020-0002>. For availability information about APPH Ltd. Service Bulletin 32-40, at Initial Issue dated June 21, 1989, which is not incorporated by reference, use the contact information in paragraphs (j)(4) and (j)(5).

(j) 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 the AD specifies otherwise.

(i) APPH Ltd. Service Bulletin No. 32-19, Revision 4, dated April 3, 2013.

(ii) APPH Ltd. Service Bulletin No. 32-40, Revision 1, dated February 2003.

(iii) British Aerospace Jetstream Series 3100 & 3200 Service Bulletin 32-A-JA851226, Revision 5, dated April 30, 2013.

(iv) Jetstream Service Bulletin 32-JA880340, original issue, dated January 6, 1989.

(3) For British Aerospace (Operations) Limited and Jetstream service information identified in this AD, contact BAE Systems (Operations) Ltd, Customer Information Department, Prestwick International Airport, Ayrshire, KA9 2RW, Scotland, United Kingdom; phone: +44 1292 675207, fax: +44 1292 675704; email: RApublications@baesystems.com; Internet: <http://www.jetstreamcentral.com>.

(4) For APPH Ltd. service information identified in this AD, contact APPH Ltd. Engineering Division, Unit 1, Pembroke Court, Chancellor Road, Manor Park, Runcorn, Cheshire, WA7 1TG, England; phone: +44 01928 532600; fax: +44 01928 579626; Internet: <http://apph.com/contact-us/customer-support/>.

(5) You may view this service information at FAA, Small Airplane Directorate, 901 Locust, Kansas City, Missouri 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

(6) 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 Kansas City, Missouri, on April 4, 2014.

Earl Lawrence,
Manager, Small Airplane Directorate,
Aircraft Certification Service

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