



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0502; Project Identifier 2018-CE-043-AD; Amendment 39-21702; AD 2021-18-01]

RIN 2120-AA64

Airworthiness Directives; B-N Group Ltd. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for B-N Group Ltd. Models BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T, and BN-2T-4R airplanes. 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 identifies the unsafe condition as failure of the rudder final drive rod because of cracks in the region of the taper pins. This AD requires repetitively inspecting the rudder final drive rod assembly and replacing the rudder final drive assembly, if necessary. The FAA is issuing this AD 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 a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Britten-Norman Aircraft Limited, Commodore House, Mountbatten Business Centre, Millbrook Road East, Southampton SO15 1HY, United Kingdom; phone: + 44 20 3371 4000; fax: + 44 20 3371 4001; email: info@bnaircraft.com; website: <https://britten-norman.com/approvals-technical-publications/>. You may view this service information at

the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148. It is also available at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0502.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0502; 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 MCAI, any comments received, and other information. The address for Docket Operations 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: Penelope Trease, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 26805 E. 68th Avenue, Denver, CO 80249; phone: (303) 342-1094; email: penelope.trease@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to B-N Group Ltd. Models BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T, and BN-2T-4R airplanes. The NPRM published in the *Federal Register* on June 25, 2021 (86 FR 33576). The NPRM was prompted by MCAI originated by the European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union. EASA has issued EASA AD 2018-0153, dated July 19, 2018 (referred to after this as “the MCAI”), to address an unsafe condition on certain B-N Group Ltd. (Britten-Norman Aircraft Ltd., or “BNA”) Models BN-2, BN-2A, BN-2B, BN-2T, BN-2T-2, BN-2T-2R, and BN-2T-4R airplanes. The MCAI states:

Occurrences have been reported of failures of the rudder final drive rod, [part number] P/N NB-45-0991. Cracks were found in the region of the taper pins. There is evidence that replacing the taper pins could be a significant factor contributing to the failure of this rod.

This condition, if not detected and corrected, could lead to failure of the affected part, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, BNA issued the applicable SB [service bulletin], providing inspection instructions. Prompted by operator comments, BNA revised the applicable SB (issue 3) to introduce repetitive inspections.

For the reason described above, this [EASA] AD requires repetitive inspections of the affected part and, depending on findings, replacement. This AD also prohibits replacement of taper pins on an affected part. BNA will amend the applicable Maintenance Manuals accordingly.

You may examine the MCAI in the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0502.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs. Paragraphs (g)(3) and (4) of the NPRM have been combined into one paragraph, (g)(3) of the final rule, to make it clear that the action of paragraph (g)(4) of the NPRM is a follow-on action of paragraph (g)(3).

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI and service information referenced above. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

Related Service Information under 1 CFR Part 51

The FAA reviewed Britten-Norman Aircraft Limited Service Bulletin Number SB 363, Issue 3, dated May 23, 2018, and Service Bulletin Number SB 364, Issue 3, dated May 23, 2018. For the applicable airplane models identified on each document, this

service information contains procedures for repetitively inspecting the rudder final drive rod assembly and replacing the rudder final drive assembly, if necessary. 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 ADDRESSES.

Costs of Compliance

The FAA estimates that this AD affects 76 airplanes of U.S. registry. The FAA also estimates that inspecting the rudder final drive assembly will take about 1 work-hour. The average labor rate is \$85 per work-hour.

Based on these figures, the FAA estimates the cost of this AD on U.S. operators to be \$6,460, or \$85 per airplane, each inspection cycle.

In addition, the FAA estimates that any necessary follow-on actions to replace the rudder final drive assembly will take about 5 work-hours and require parts costing \$1,200, for a cost of \$1,625 per airplane. The FAA has no way of determining the number of airplanes 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.

The FAA is 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

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) 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.

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:

2021-18-01 B-N Group Ltd.: Amendment 39-21702; Docket No. FAA-2021-0502; Project Identifier 2018-CE-043-AD.

(a) Effective Date

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

(b) Affected ADs

None.

(c) Applicability

This AD applies to B-N Group Ltd. Models BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, BN-2B-27, BN-2T, and BN-2T-4R airplanes, all serial numbers, certificated in any category, with a rudder final drive rod part number (P/N) NB-45-0991 installed.

(d) Subject

Joint Aircraft System Component (JASC) Code 2720, Rudder Control System.

(e) Unsafe Condition

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 failure of the rudder final drive rod because of cracks in the region of the taper pins. The FAA is issuing this AD to detect and correct defects on the rudder final drive rod assembly to prevent failure of the assembly. The unsafe condition, if not addressed, could result in loss of rudder control and reduced airplane control.

(f) Compliance

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

(g) Inspection and Corrective Action

(1) Inspect the rudder final drive rod assembly for loose taper pins, loose end connections, bending, and cracks within the applicable compliance times for your airplane specified in paragraph (g)(1)(i) or (ii) of this AD.

(i) For Models BN-2, BN-2A, BN-2A-2, BN-2A-3, BN-2A-6, BN-2A-8, BN-2A-9, BN-2A-20, BN-2A-21, BN-2A-26, BN-2A-27, BN-2B-20, BN-2B-21, BN-2B-26, and BN-2B-27 airplanes, within 100 hours time-in-service (TIS) after the effective date of this AD and thereafter at intervals not to exceed 1,000 hours TIS.

(ii) For Models BN-2T and BN-2T-4R airplanes, within 200 hours TIS after the effective date of this AD and thereafter at intervals not to exceed 1,000 hours TIS.

(2) If a loose taper pin, a loose end connection, any bending, or a crack is found during any inspection required by paragraph (g)(1) of this AD, before further flight, replace the rudder final drive rod assembly by following section 7, Removal and Installation Instructions for Unserviceable Units, of Britten-Norman Service Bulletin

Number SB 363, Issue 3, dated May 23, 2018 (SB 363, Issue 3) or Britten-Norman Service Bulletin Number SB 364, Issue 3, dated May 23, 2018 (SB 364, Issue 3), as applicable to your model airplane.

(3) If no loose taper pins, no loose end connections, no bending, and no cracks are found during the initial inspection required by paragraph (g)(1) of this AD, review the airplane maintenance records to determine whether any taper pins have been replaced or reworked on the rudder final drive rod assembly. If a taper pin has ever been replaced or reworked, without exceeding the initial compliance time in paragraph (g)(1)(i) or (ii) of this AD, replace the rudder final drive rod assembly by following section 7, Removal and Installation Instructions for Unserviceable Units, of SB 363, Issue 3 or SB 364, Issue 3, as applicable to your model airplane.

(4) As of the effective date of this AD, do not install a rudder final drive rod assembly P/N NB-45-0991 on any airplane unless:

- (i) The rudder final drive rod assembly is unused (zero hours TIS); or
- (ii) The taper pins in the rudder final drive rod assembly have never been replaced.

(5) As of the effective date of this AD, do not replace any taper pin on a rudder final drive rod assembly P/N NB-45-0991 installed on any airplane.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation 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 manager of the certification office, send it to the attention of the person identified in Related Information or email: 9-AVS-AIR-730-AMOC@faa.gov.

(2) 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.

(i) Related Information

(1) For more information about this AD, contact Penelope Trease, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 26805 E. 68th Avenue, Denver, CO 80249; phone: (303) 342-1094; email: penelope.trease@faa.gov.

(2) Refer to European Aviation Safety Agency (EASA) AD 2018-0153, dated July 19, 2018, for more information. You may examine the EASA AD in the AD docket at <https://www.regulations.gov> by searching for and locating it in Docket No. FAA-2021-0502.

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference 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) Britten-Norman Service Bulletin Number SB 363, Issue 3, dated May 23, 2018.

(ii) Britten-Norman Service Bulletin Number SB 364, Issue 3, dated May 23, 2018.

(3) For service information identified in this AD, contact Britten-Norman Aircraft Limited, Commodore House, Mountbatten Business Centre, Millbrook Road East, Southampton SO15 1HY, United Kingdom; phone: + 44 20 3371 4000; fax: + 44 20 3371 4001; email: info@bnaircraft.com; website: <https://britten-norman.com/approvals-technical-publications/>.

(4) You may view this service information at FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (816) 329-4148.

(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, email: fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on August 17, 2021.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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