



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-0034; Project Identifier AD-2023-01154-Q; Amendment 39-22662; AD 2024-01-11]

RIN 2120-AA64

Airworthiness Directives; Various Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all helicopters with certain Pacific Scientific Company rotary buckle assemblies (buckles) installed. This AD was prompted by a report of a manufacturing defect in the screws used inside the buckle. This AD requires inspecting the buckle screws and, depending on the results, reidentifying the buckle, replacing the screws and reidentifying the buckle, or replacing the buckle. This AD also prohibits installing certain buckles. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 15 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 this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0034; 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, any comments received, and other information. The street address for Docket Operations is listed above.

Material Incorporated by Reference:

- For service information identified in this final rule, contact Parker Meggitt Services, 1785 Voyager Avenue, Simi Valley, CA 93063; phone: 877-666-0712; email: TechnicalSupport@meggitt.com; website: [meggitt.com/services_and_support/customer_experience/update-on-buckle-assembly-service-bulletins](https://www.meggitt.com/services_and_support/customer_experience/update-on-buckle-assembly-service-bulletins).

- You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Parkway, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0034.

FOR FURTHER INFORMATION CONTACT: David Kim, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: (562) 627-5274; email: david.kim@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

The FAA invites you to send any written data, views, or arguments about this final rule. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2024-0034; Project Identifier AD-2023-01154-Q” at the beginning of your comments. The most helpful comments reference a specific portion of the final rule, explain the reason for any recommended change, and include supporting data. The FAA

will consider all comments received by the closing date and may amend this final rule because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this final rule.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this AD contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this AD, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this AD. Submissions containing CBI should be sent to David Kim, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: (562) 627-5274; email: david.kim@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

The FAA has received a report of a manufacturing defect in the screws used inside Pacific Scientific Company buckle part number (P/N) 1111475 (all dash numbers) and P/N 1111548-01. The screws used to fasten the load plate to the body of the buckle were found to be susceptible to hydrogen embrittlement due to improper baking during the electroplating process. This condition leads the screwhead to separate from the body of the screw when under load, which could result in the buckle failing to restrain the occupant to the seat. This issue was originally identified from a suspected lot of screws, Lot 348994-A. Since then, a buckle failed in an accident, calling into question Lot 348601-A. Lots 348601-A and 348994-A were the first two lots of screws received by

Pacific Scientific Company from a new supplier and are the only suspected lots. The suspected buckles were manufactured between January 2012 and September 2012. The FAA is issuing this AD to address the unsafe condition on these products.

The rotary buckle may be included as a component of a different part-numbered restraint system assembly. Table 1 of Parker Meggitt Service Bulletin (SB) 1111475-25-001-2023, Revision 001, dated December 1, 2023, and Parker Meggitt SB 1111548-25-001-2023, Revision 001, dated December 1, 2023 (SB 1111475-25-001-2023 Rev 001 and SB 1111548-25-001-2023 Rev 001), includes a list of these restraint system assembly P/Ns.

This AD applies to all helicopters with a Pacific Scientific Company buckle P/N 1111475 (all dash numbers) or P/N 1111548-01 installed, if the buckle was manufactured between January 2012 and September 2012, or if the date of manufacture of the buckle is unknown. These same part-numbered buckles may also be installed in airplanes; however, the FAA determined that a longer compliance time to accomplish the required actions is allowable for buckles installed in airplanes. Accordingly, the FAA plans to publish a separate notice of proposed rulemaking to address all airplanes with a Pacific Scientific Company buckle P/N 1111475 (all dash numbers) or P/N 1111548-01 installed.

FAA's Determination

The FAA is issuing this AD because the agency has determined the unsafe condition described previously is likely to exist or develop on other helicopters with a restraint system with a buckle as part of their type design.

Related Service Information under 1 CFR Part 51

The FAA reviewed SB 1111475-25-001-2023 Rev 001 for buckle P/N 1111475 and SB 1111548-25-001-2023 Rev 001 for buckle P/N 1111548-01. This service information specifies procedures for inspecting the buckle for any missing or loose screw heads and, depending on the results, replacing the buckle and sending the removed buckle to Parker Meggitt for repair or replacement. If after that first inspection, all of the screw heads are intact, this service information specifies procedures for inspecting the buckle for any Torx head screws (alloy steel) and, depending on the results, allowing the buckle assembly to remain in-service temporarily, replacing any Torx head screws (alloy

steel) with new hex head screws (stainless steel), and checking the functionality of the buckle. This service information also specifies procedures for removing a buckle from a restraint system, installing a buckle on a restraint system, and returning buckles to Parker Meggitt. If the buckle passes the specified inspections or is modified by replacing Torx head screws (alloy steel) with new hex head screws (stainless steel) screws, this service information specifies procedures for reidentifying the back of the buckle. This service information also identifies known affected restraint systems.

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.

AD Requirements

This AD requires accomplishing the actions specified in the service information already described, except as discussed under “Differences Between this AD and the Service Information.”

Differences Between this AD and the Service Information

The service information does not specify any compliance times, whereas this AD requires accomplishing the required actions within three months. This AD also prohibits installing an affected buckle on any helicopter as of the effective date of this AD.

The service information specifies sending any damaged buckles to Parker Meggitt for repair or replacement, and this AD does not. Instead, this AD requires replacing the buckle with an airworthy buckle.

The service information allows buckles with a Torx head (alloy steel) screw to remain in service temporarily and be replaced at a time convenient to the operator, and this AD does not. If a buckle has any number of Torx head (alloy steel) screws installed, this AD requires replacing all four screws with hex head screws before further flight.

If a screw head breaks off during disassembly of a buckle or if reassembly of a buckle is not possible, the service information specifies returning the buckle to Parker Meggitt, whereas this AD does not. If a screw head breaks off during disassembly, this AD requires replacing the buckle with an airworthy buckle. If reassembly of a buckle is not possible, then the buckle is not airworthy.

Justification for Immediate Adoption and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (APA) (5 U.S.C. 551 *et seq.*) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for “good cause,” finds that those procedures are “impracticable, unnecessary, or contrary to the public interest.” Under this section, an agency, upon finding good cause, may issue a final rule without providing notice and seeking comment prior to issuance. Further, section 553(d) of the APA authorizes agencies to make rules effective in less than thirty days, upon a finding of good cause.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has found that the risk to the flying public justifies forgoing notice and comment prior to adoption of this rule because in an otherwise survivable accident, hard landing, or severe turbulence, the buckle may fail to restrain the occupant. Based on the rotorcraft accident rate, coupled with not knowing the propagation rate of this unsafe condition into failure, the FAA determined that the compliance time to inspect affected buckles installed in helicopters must be within three months. Accordingly, notice and opportunity for prior public comment are impracticable and contrary to the public interest pursuant to 5 U.S.C. 553(b)(3)(B).

In addition, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days, for the same reasons the FAA found good cause to forgo notice and comment.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without prior notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects approximately 11,714 buckles installed on restraint systems in aircraft worldwide. The FAA has no way of knowing the number of helicopters of U.S. Registry that may have a restraint system with an affected buckle

installed. The estimated costs on U.S. operators reflects the maximum possible costs based on affected buckles installed on restraint systems in aircraft worldwide. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates that operators may incur the following costs in order to comply with this AD.

Inspecting a buckle will take approximately 0.1 work-hour for an estimated cost of \$9 per buckle and up to \$105,426 for the U.S. fleet. If required, replacing a set of screws (four) will take approximately 0.5 work-hour and parts will cost a nominal amount for an estimated cost of \$43 per buckle. Replacing a buckle will take approximately 0.5 work-hour and parts will cost approximately \$740 for an estimated cost of \$783 per buckle. The FAA estimates a nominal cost for reidentifying a buckle.

The FAA has included all known costs in its cost estimate. According to the manufacturer, however, some of the costs of this AD may be covered, thereby reducing the cost impact on affected operators.

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, and
- (2) Will not affect intrastate aviation in Alaska.

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:

2024-01-11 Various Helicopters: Amendment 39-22662; Docket No. FAA-2024-0034; Project Identifier AD-2023-01154-Q.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all helicopters, certified in any category, with a restraint system with a Pacific Scientific Company rotary buckle assembly (buckle) part number (P/N) 1111475 (all dash numbers) or P/N 1111548-01 installed having a date of manufacture between January 2012 and September 2012 inclusive or an unknown date of manufacture. These buckles may be installed on, but not limited to, Airbus Helicopters model helicopters, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code: 2500, Cabin Equipment/Furnishings.

(e) Unsafe Condition

This AD was prompted by a report of a manufacturing defect in the screws used inside the buckle. The FAA is issuing this AD to prevent cracking and missing screw heads when under load. The unsafe condition, if not addressed, could result in a failure of the buckle to restrain the occupant.

(f) Compliance

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

(g) Required Actions

(1) For helicopters with buckle P/N 1111475 (all dash numbers), within 3 months after the effective date of this AD, inspect each buckle screw for cracked, loose, and missing screw heads by following the Accomplishment Instructions, paragraphs B.(1) and (2), of Parker Meggitt Service Bulletin (SB) 1111475-25-001-2023, Revision 001, dated December 1, 2023 (SB 1111475-25-001-2023 Rev 001).

(i) If any screw has a cracked, loose, or missing screw head, before further flight, replace the buckle with an airworthy buckle.

(ii) If none of the four screw heads are cracked, loose, or missing, before further flight, inspect each screw to determine if any screw has a Torx head by using one of the following methods in the Accomplishment Instructions of SB 1111475-25-001-2023 Rev 001: paragraph B.(4)(a) (Magnet Test); paragraph B.(4)(b) (Inspection); or paragraphs C.(2) through (4) (removing the buckle from the restraint system) and paragraphs D.(1)(a) through (d) (disassembling the buckle).

Note 1 to paragraph (g)(1): SB 1111475-25-001-2023 Rev 001 refers to a magnifying glass as an “eye loupe.”

(A) If none of the four screws have a Torx head, before further flight, reassemble the buckle (if necessary) by following the Accomplishment Instructions, paragraphs D.(1)(f) through (l), of SB 1111475-25-001-2023 Rev 001, and reidentify the buckle with “INS. A” by following the Accomplishment Instructions, paragraph B.(6), of SB 1111475-25-001-2023 Rev 001.

(B) If at least one of the four screws has a Torx head, before further flight, with the buckle removed, replace each Torx head screw with a hex head screw, reassemble the

buckle, and reidentify the buckle with “MOD. A” by following the Accomplishment Instructions, paragraphs D.(1)(e) through (m), of SB 1111475-25-001-2023 Rev 001, except you are not required to return any parts to Parker Meggitt. If a screw head breaks off during disassembly, before further flight, replace the buckle with an airworthy buckle.

(2) For helicopters with buckle P/N 1111548-01, within 3 months after the effective date of this AD, inspect each buckle screw for cracked, loose, and missing screw heads by following the Accomplishment Instructions, paragraph B.(1), of Parker Meggitt SB 1111548-25-001-2023, Revision 001, dated December 1, 2023 (SB 1111548-25-001-2023 Rev 001).

(i) If any screw has a cracked, loose, or missing screw head, before further flight, replace the buckle with an airworthy buckle.

(ii) If none of the four screw heads are cracked, loose, or missing, before further flight, inspect each screw to determine which screws have a Torx head by using one of the following methods in the Accomplishment Instructions of SB 1111548-25-001-2023 Rev 001: paragraph B.(3)(a) (except use Figure 6 for placement of the shim tool and use Figure 5 to distinguish the screw head types) (Inspection); or paragraph C. (removing the buckle from the restraint system) and paragraphs D.(1)(a) through (c) (disassembling the buckle). Before further flight, with the buckle removed, replace each Torx head screw with a hex head screw, reassemble the buckle, and reidentify the buckle with “MOD. A” by following the Accomplishment Instructions, paragraphs D.(1)(d) through (m), of SB 1111548-25-001-2023 Rev 001, except you are not required to return any parts to Parker Meggitt. If a screw head breaks off during disassembly, before further flight, replace the buckle with an airworthy buckle.

Note 2 to paragraph (g)(2): SB 1111548-25-001-2023 Rev 001 refers to a magnifying glass as an “eye loupe.”

(3) As of the effective date of this AD, do not install a buckle identified in paragraph (c) of this AD on any helicopter unless the buckle is marked with “MOD. A” or “INS. A”.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, West Certification 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 West Certification Branch, send it to the attention of the person identified in paragraph (i) of this AD.

(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) Additional Information

For more information about this AD, contact David Kim, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: (562) 627-5274; email: david.kim@faa.gov.

(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) Parker Meggitt Service Bulletin 1111475-25-001-2023, Revision 001, dated December 1, 2023.

(ii) Parker Meggitt Service Bulletin 1111548-25-001-2023, Revision 001, dated December 1, 2023.

(3) For service information identified in this AD, contact Parker Meggitt Services, 1785 Voyager Avenue, Simi Valley, CA 93063; phone: 877-666-0712; email: TechnicalSupport@meggitt.com; website: meggitt.com/services_and_support/customer_experience/update-on-buckle-assembly-service-bulletins.

(4) You may view this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Parkway, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on January 18, 2024.

Deputy Director,
Victor Wicklund,
Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2024-01932 Filed: 1/26/2024 4:15 pm; Publication Date: 1/31/2024]