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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-2143; Project Identifier MCAI-2023-00088-A; Amendment 39-22718; AD 2024-06-13]

RIN 2120-AA64

Airworthiness Directives; Diamond Aircraft Industries GmbH Airplanes

AGENCY:

Federal Aviation Administration (FAA), DOT.

ACTION:

Final rule.

SUMMARY:

The FAA is superseding Airworthiness Directive (AD) 2022-21-15 for certain Diamond Aircraft Industries GmbH (DAI) Model DA 42, DA 42 NG, and DA 42 M-NG airplanes. AD 2022-21-15 required replacing the rudder T-yoke axle with an improved rudder T-yoke axle. Since the FAA issued AD 2022-21-15, the European Union Aviation Safety Agency (EASA) superseded its mandatory continuing airworthiness information (MCAI) to correct an unsafe condition on these products. This AD requires, for certain airplanes, inspecting the rudder steering bracket edge distance and depending on the inspection results, inspecting the T-yoke bolt hole for wear and play, and corrective action if necessary. For certain airplanes this AD requires replacing the rudder T-yoke bolt (axle) with a serviceable part, installing a new self-locking nut, and applying torque seal marks on the rudder T-yoke bolt head and self-locking nut. For all airplanes this AD requires repetitively inspecting the torque seal marks on the rudder T-yoke bolt head for proper alignment and the self-locking nut for proper installation and corrective action if necessary. This AD also prohibits the installation of affected parts. The FAA is issuing this AD to address the unsafe condition on these products.

DATES:

This AD is effective May 28, 2024.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of May 28, 2024.

ADDRESSES:

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA-2023-2143; 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.

Material Incorporated by Reference:

- For service information contact Diamond Aircraft Industries GmbH, N.A. Otto-Straße 5, A-2700 Wiener Neustadt, Austria; phone: +43 2622 26700; email: airworthiness-austria@diamondaircraft.com; website: diamondaircraft.com.
- 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 (817) 222-5110. It is also available at *regulations.gov* under Docket No. FAA-2023-2143.

FOR FURTHER INFORMATION CONTACT:

Penelope Trease, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; 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](#) to supersede AD 2022-21-15, Amendment 39-22214 ([87 FR 67541](#), November 9, 2022) (AD 2022-21-15). AD 2022-21-15 applied to certain DAI Model DA 42, DA 42 NG, and DA 42 M-NG airplanes.

AD 2022-21-15 was prompted by MCAI originated by EASA, which is the Technical Agent for the Member States of the European Union. EASA issued EASA AD 2019-0302, dated December 13, 2019 (EASA AD 2019-0302) to correct an unsafe condition on DAI Model DA 42, DA 42 NG, and DA 42 M-NG airplanes. EASA AD 2019-0302 described the unsafe condition as reports of a loose rudder T-yoke axle nut on DAI Model DA 42 airplanes and the need for new inspections for correct installation of the self-locking nut to the rudder T-yoke standard bolt LN 9037 (dimensions M6x90), and depending on findings, accomplishment of applicable corrective action(s) and replacement of the self-locking nut. EASA AD 2019-0302 also provided an optional terminating action for the repetitive inspections. This condition, if not detected and corrected, could lead to vertical movement of the bolt, possibly resulting in reduced rudder control of the airplane.

AD 2022-21-15 required replacing the rudder T-yoke axle with an improved rudder T-yoke bolt. The FAA issued AD 2022-21-15 to prevent movement of the T-yoke bolt.

The NPRM published in the **Federal Register** on November 8, 2023 ([88 FR 77060](#)). The NPRM was prompted by EASA AD 2023-0013, dated January 18, 2023 (EASA AD 2023-0013) (also referred to as the MCAI) for all Model DA 42, DA 42 M, DA 42 NG, and DA 42 M-NG airplanes. EASA AD 2023-0013 superseded EASA AD 2019-0302.

The MCAI states that since EASA AD 2019-0302 was issued, DAI published revised service information to provide additional inspection and modification instructions. The MCAI requires a one-time inspection of the rudder steering bracket for insufficient edge distance or wear, replacement of rudder T-yoke standard bolt LN 9037 (dimensions M6x90) with rudder T-yoke bolt part number (P/N) D60-5320-00-32, repetitive inspections of rudder T-yoke bolt P/N D60-5320-00-32 for correct installation, corrective actions if necessary, and prohibits installation of rudder T-yoke standard bolt LN 9037 (dimensions M6x90). The affected and serviceable parts, identified as "bolt" in EASA AD 2023-0013, were referred to as "axle" in EASA AD 2019-0302.

This condition, if not detected and corrected, could lead to blockage or loss of rudder control. You may examine the MCAI in the AD docket at *regulations.gov* under Docket No. FAA-2023-2143.

In the NPRM the FAA proposed to require, for certain airplanes, inspecting the rudder steering bracket edge distance and depending on the inspection results, inspecting the T-yoke bolt hole for wear and play, and corrective action if necessary. For certain airplanes, the NPRM proposed to require replacing the rudder T-yoke bolt (axle) with a serviceable part and applying torque seal marks on the rudder T-yoke bolt head, and self-locking nut. For all airplanes, the NPRM proposed to require repetitively inspecting the torque seal marks on the rudder T-yoke bolt head for proper alignment and the self-locking nut for proper installation and corrective action if necessary. The NPRM also proposed to prohibit the installation of affected parts.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from three commenters. The commenters were two individuals and DAI. The individuals supported the NPRM without any changes. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request To Extend the Compliance Time

DAI requested that the compliance time in the proposed AD be changed from "Within 200 hours time-in-service (TIS) or 9 months after the effective date of this AD, whichever occurs first" to "Within 200 flight hours or 12 months after the effective date of this AD, whichever occurs first." DAI explained that the pilot and passenger seats need to be removed prior to the inspection of the rudder steering bracket and the installation of the improved T-yoke bolt and that the removal of these seats is already part of an airplane's annual inspection. DAI noted that extending the compliance time from 9 months to 12 months would allow operators to align the requirements specified in the proposed AD with an airplane's scheduled annual inspection. DAI mentioned that this would avoid unnecessary financial burden for operators. DAI also noted that the formation of wear in the hole in the rudder steering bracket is related to flight time and not a specific period of time. In addition, DAI emphasized that an unnecessary maintenance action that can be avoided also avoids possible maintenance errors.

The FAA agrees with the commenter's request to extend the compliance time from 9 months to 12 months and revised paragraph (h)(1) of this AD to specify "Within 200 hours time-in-service (TIS) or 12 months after the effective date of this AD, whichever occurs first" Extending the compliance time by 3 months will not adversely affect safety and will allow the inspection of the rudder steering bracket and the installation of the improved T-yoke bolt to be performed during the annual inspection. The FAA does not agree to change "Within 200 hours time-in-service (TIS) . . ." to "Within 200 flight hours . . ." Although the MCAI compliance time specifies "flight hours" this AD requires using "hours TIS" because "TIS" is defined in FAA regulations and is used with respect to maintenance records and "flight hours" is not defined in FAA regulations.

Request To Require Entire Work Instruction Instead of Specific Steps

DAI requested that instead of referring to specific steps in the work instructions identified in paragraphs (h)(1) and (2) and paragraph (i) of the proposed AD that the entire work instruction be referred to. DAI stated that it is important to reference the entire document and include all of the steps instead of specific steps because there are additional steps that were not identified in paragraphs (h)(1) and (2) and paragraph (i) of the proposed AD that operators need to do in order to complete the required actions specified in the proposed AD. DAI provided the example that operators must do step 9, release rudder cable turnbuckles, of Diamond Aircraft Work Instruction WI-MSB 42-143 and WI-MSB 42NG-086, Revision 3, dated November 15, 2022 (issued as one document) attached to Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-143/1 and DAI MSB 42NG-086/1, dated January 25, 2022 (issued as one document) because it is important that the T-yoke bolt and self-locking nut are tightened with released rudder cable tension.

The FAA agrees to require additional steps from the applicable work instructions in paragraphs (h)(2) and (i) of this AD but does not agree to require compliance with the entire work instruction document. The requirements of this AD correspond with the requirements in EASA AD 2023-0013. EASA AD 2023-0013 only requires the following specific steps from the work instructions: inspecting the edge distance and

repair if required, inspecting the hole and repair if required, replacing an affected part with a serviceable part, and marking the head of the T-yoke bolt and the self-locking nut.

The FAA acknowledges that doing additional steps in the work instructions is necessary to complete the actions required by this AD, for example, removing the pilot and passenger seats prior to the inspection of the rudder steering bracket and the installation of the improved T-yoke bolt; however, to provide operators flexibility regarding how the required steps are accomplished, the FAA does not require that operators follow all of the steps in the work instructions. For example, [14 CFR part 135](#) operators could have their own maintenance program which includes instructions regarding pilot and passenger seat removal. Requiring seat removal in accordance with the work instructions would create an unnecessary burden on operators because they would have to submit an alternative method of compliance (AMOC) request to the FAA if they did not follow the process specified in the work instructions to remove the seats.

Paragraph (h)(2) of this AD was revised to add steps 9 and 10 of Diamond Aircraft Work Instruction WI-MSB 42-143 and WI-MSB 42NG-086, Revision 3, dated November 15, 2022 (issued as one document) attached to Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-143/1 and DAI MSB 42NG-086/1, dated January 25, 2022 (issued as one document), with the exception that instead of discarding a self-locking nut an operator is required to remove that part from service. Steps 9 and 10 of that work instruction specify releasing the rudder cable turnbuckles and removing and discarding the self-locking nut of the T-yoke bolt.

Paragraph (i) of this AD was revised to add steps 6 through 9 of the Instructions, Section III, in Diamond Aircraft Work Instruction WI-RSB 42-139 and WI-RSB 42NG-081, Revision 2, dated November 15, 2022 (issued as one document) attached to Diamond Aircraft Recommended Service Bulletin DAI RSB 42-139 and DAI RSB 42NG-081, dated October 21, 2019 (issued as one document), with the exception that instead of discarding a self-locking nut an operator is required to remove that part from service. Steps 6 through 9 of that work instruction are included in the "Replacement of rudder T-yoke bolt" instructions and specify procedures for accessing the rudder T-yoke bolt, which include disconnecting the nose landing gear (NLG) steering linkage at the steering cardan in the wheel well, releasing the rudder cable turnbuckles, removing the self-locking nut of the T-yoke bolt, discarding the nut, and removing the T-yoke bolt from the rudder steering bracket.

Request To Require Application of Torque Seal Marks for Group 1 Minus Group 2 Airplanes

DAI requested that the requirement to apply torque seal marks be added in paragraph (h) of the proposed AD because that action should also be done on Group 1 minus Group 2 airplanes. DAI noted that the requirement to apply torque seal marks was only included in paragraph (i) of the proposed AD and was only applicable to Group 2 airplanes.

The FAA agrees with the commenter's request but instead of revising paragraph (h) of this AD, the FAA revised paragraph (i) of this AD to change the header from "Replacement" to "Replacement and Application of Torque Seal Marks," added paragraph (i)(1) that is applicable to Group 1 airplanes that are not also Group 2 airplanes, and moved the content of paragraph (i) of the proposed AD to paragraph (i)(2) of this AD.

Request To Have Operator Contact Only DAI for Post-Inspection Instructions

DAI requested that paragraphs (h)(3) and (4) of the proposed AD be revised to require operators to contact only DAI for post-inspection instructions instead of contacting "... the Manager, International Validation Branch, FAA; the European Union Aviation Safety Agency (EASA); or Diamond's EASA Design Organization Approval (DOA)" DAI noted that depending on the extent of the inspection findings, in the case of a too large edge distance or a worn or enlarged hole on the rudder steering bracket, the rudder steering bracket could be repaired instead of being replaced. The commenter stated that the intention is to avoid the replacement of the rudder steering bracket if possible, but this has to be determined for each airplane by DAI experts.

The FAA does not agree with the commenter's request. The FAA acknowledges that not all discrepancies will result in a rudder steering bracket having to be replaced and that some rudder steering brackets can be repaired. The FAA cannot delegate repair approval authority to a single outside entity; however, the current language in paragraphs (h)(3) and (4) of this AD provides operators the option to contact DAI's EASA DOA with the inspection findings for a determination regarding if the affected rudder steering bracket can be repaired or must be replaced. The FAA has not changed this AD regarding this issue.

Request To Clarify "Proposed AD Requirements in This NPRM" Section

DAI requested clarification of the proposed requirement regarding repetitive inspections of the torque seal marks in the "Proposed AD Requirements in this NPRM" section of the NPRM. DAI stated that existing wording could be misinterpreted to mean the inspections would only apply to the torque seal marks on the T-yoke bolt head and clarification was needed to specify that the repetitive inspections are visual inspections of the torque seal marks for proper alignment on the T-yoke bolt head and the self-locking nut.

The FAA acknowledges the commenter's request and agrees that the proposed wording clarifies the requirement in this AD regarding the repetitive inspections of the torque seal marks; however, the "Proposed AD Requirements in this NPRM" section is not carried over to the final rule. The FAA has not changed this AD regarding this issue.

Conclusion

These products have been approved by the aviation authority of another country and are 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 referenced above. The FAA reviewed the relevant data, considered the comments received, 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. Except for any changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Related Service Information Under [1 CFR Part 51](#)

The FAA reviewed Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-143/1 and DAI MSB 42NG-086/1, dated January 25, 2022 (issued as one document), published with DAI Work Instruction WI-MSB 42-143 and WI-MSB 42NG-086, Revision 3, dated November 15, 2022 (issued as one document) attached. The service bulletin specifies compliance with the work instruction, which contains procedures for inspecting the hole position and condition in the rudder steering bracket.

The FAA also reviewed Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-146 and DAI MSB 42NG-087, dated November 15, 2022 (issued as one document). The service bulletin specifies the serial numbers for affected airplanes defined as Group 2 airplanes in paragraph (g)(2) of this AD.

In addition, the FAA reviewed Diamond Aircraft Recommended Service Bulletin DAI RSB 42-139 and DAI RSB 42NG-081, dated October 21, 2019 (issued as one document), published with DAI Work Instruction WI-RSB 42-139 and WI-RSB 42NG-081, Revision 2, dated November 15, 2022 (issued as one document) attached. The service bulletin specifies compliance with the work instruction, which contains procedures for replacement of the rudder T-yoke axle with an improved (additional retaining pin) rudder T-yoke axle.

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**.

Differences Between This AD and the MCAI

The MCAI applies to DAI Model DA 42 M airplanes and this AD does not because those airplanes do not have an FAA type certificate.

Paragraph (1) of the MCAI specifies a compliance time of within 200 flight hours or 9 months after the effective date of the MCAI, whichever occurs first, for measuring the distance between the edge of the rudder steering bracket hole and rear edge of the rudder steering bracket but this AD requires doing that action within 200 hours TIS or 12 months after the effective date of this AD, whichever occurs first. Extending the compliance time by three months will not adversely affect safety and will allow this action to be done during regularly scheduled maintenance. Although the MCAI compliance time specifies “flight hours” this AD requires using “hours TIS.”

Paragraph (3) of the MCAI specifies to contact the manufacturer for repair instructions and paragraph (7) of the MCAI specifies to contact the manufacturer for corrective actions if any discrepancy is found, but for both of those corrective actions, this AD requires contacting either the Manager, International Validation Branch, FAA; EASA; or Diamond's EASA DOA instead. If approved by the DOA, the approval must include the DOA-authorized signature.

Costs of Compliance

The FAA estimates that this AD affects 205 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection of rudder steering bracket edge distance	0.25 work-hour × \$85 per hour = \$21.25	\$0	\$21.25	\$4,356.25.
Replacement of rudder t-yoke bolt P/N LN 9037 with P/N D60-5320-0032	0.50 work-hour × \$85 per hour = \$42.50	82	\$124.50	\$25,522.50.
Application of torque seal marks to rudder T-yoke bolt and self-locking nut	0.75 work-hour × \$85 per hour = \$63.75	15	\$78.75	\$16,143.75.
Repetitive inspection of torque seal marks	0.25 work-hour × \$85 per hour	0	\$21.25, per inspection	\$4,356.25, per inspection.

The FAA estimates the following costs to do any necessary on-condition action that would be required based on the results of any required actions. The FAA has no way of determining the number of aircraft that might need this on-condition action:

On-Condition Costs

Action	Labor cost	Parts cost	Cost per product
Inspection of rudder steering bracket hole for wear and play, if edge distance is equal to or greater than 11 millimeters	0.50 work-hour × \$85 per hour = \$42.50	\$0	\$42.50

Since the replacement or repair instructions could vary significantly from airplane to airplane if discrepancies are found during the inspections, the FAA has no data to determine the number of airplanes that would need follow-on actions or what the cost per airplane would be.

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

The FAA has 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) 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:

- a. Removing Airworthiness Directive 2022-21-15, Amendment 39-22214 ([87 FR 67541](#), November 9, 2022); and
- b. Adding the following new airworthiness directive:

2024-06-13 Diamond Aircraft Industries GmbH: Amendment 39-22718; Docket No. FAA-2023-2143; Project Identifier MCAI-2023-00088-A.

(a) Effective Date

This airworthiness directive (AD) is effective May 28, 2024.

(b) Affected ADs

This AD replaces AD 2022-21-15, Amendment 39-22214 ([87 FR 67541](#), November 9, 2022).

(c) Applicability

This AD applies to Diamond Aircraft Industries GmbH (DAI) Model DA 42, DA 42 NG, and DA 42 M-NG airplanes, all serial numbers, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 2700, Flight Control System.

(e) Unsafe Condition

This AD was prompted by reports of a loose rudder T-yoke bolt nut, excessive wear of the hole, and insufficient hole edge margin at the rudder steering bracket. The FAA is issuing this AD to detect and correct vertical movement of the T-yoke bolt (axle). The unsafe condition, if not addressed, could lead to blockage or loss of rudder control and result in reduced control of the airplane.

(f) Compliance

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

(g) Definitions

For the purposes of this AD, the following definitions apply.

- (1) Group 1 airplanes: Airplanes with serial numbers specified in Technical Details, section I.2, of Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-143/1 and DAI MSB 42NG-086/1, dated January 25, 2022 (issued as one document), published with DAI Work Instruction WI-MSB 42-143 and WI-MSB 42NG-086, Revision 3, dated November 15, 2022 (issued as one document) attached.
- (2) Group 2 airplanes: Airplanes with serial numbers specified in Technical Details, section I.2, of Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-146 and DAI MSB 42NG-087, dated November 15, 2022 (issued as one document).
- (3) Group 3 airplanes: Airplanes that are not in Group 1 or Group 2.
- (4) Depending on the serial number, a Group 1 airplane can also be a Group 2 airplane.

(h) Inspections and Corrective Actions

For Group 1 and Group 2 airplanes: Do the inspection required by paragraph (h)(1) of this AD at the compliance time specified in paragraph (h)(1) of this AD and the applicable corrective actions specified in paragraphs (h)(2) through (4) of this AD at the applicable compliance times specified in paragraphs (h)(2) through (4) of this AD.

- (1) Within 200 hours time-in-service (TIS) or 12 months after the effective date of this AD, whichever occurs first, inspect the rudder steering bracket edge distance by measuring in accordance with step 6 of the Instructions, Section III, in Diamond Aircraft Work Instruction WI-MSB 42-143 and WI-MSB 42NG-086, Revision 3, dated November 15, 2022 (issued as one document) attached to Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-143/1 and DAI MSB 42NG-086/1, dated January 25, 2022 (issued as one document).
- (2) If, during the inspection required by paragraph (h)(1) of this AD, the measured distance is equal to or greater than 11 millimeters (mm), before further flight, inspect the hole in the rudder steering bracket for wear and play in accordance with steps 9 through 11 of the Instructions, Section III, in Diamond Aircraft Work Instruction WI-MSB 42-143 and WI-MSB 42NG-086, Revision 3, dated November 15, 2022 (issued as one document) attached to Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-143/1 and DAI MSB 42NG-086/1, dated January 25, 2022 (issued as one document). Where Diamond Aircraft Work Instruction WI-MSB 42-143 and WI-MSB 42NG-086, Revision 3, dated November 15, 2022 (issued as one document) attached to Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-143/1 and DAI MSB 42NG-086/1, dated January 25, 2022 (issued as one document) specifies to discard the self-locking nut this AD requires removing that part from service.
- (3) If, during the inspection required by paragraph (h)(1) of this AD, the measured distance is less than 11 mm, before further flight, contact the Manager, International Validation Branch, FAA; the European Union Aviation Safety Agency (EASA); or Diamond's EASA Design Organization Approval (DOA) for repair instructions, and within the compliance time specified therein, complete the repair. If approved by the DOA, the approval must include the DOA-authorized signature.
- (4) If, during the inspection required by paragraph (h)(2) of this AD, a worn or enlarged hole is found on the rudder steering bracket, or if the T-yoke bolt is found to have play, before further flight, contact the Manager, International Validation Branch, FAA; EASA; or Diamond's EASA DOA for instructions (repair or replacement of the rudder steering bracket), and within the compliance time specified therein, do the instructions. If approved by the DOA, the approval must include the DOA-authorized signature.

(i) Replacement and Application of Torque Seal Marks

- (1) For Group 1 airplanes that are not also Group 2 airplanes: Concurrently with the inspection required by paragraph (h)(1) of this AD, replace the rudder T-yoke bolt part number (P/N) LN 9037-M6x90 with rudder T-yoke bolt P/N D60-5320-00-32, and apply torque seal marks on the rudder T-yoke bolt head and self-locking nut, in accordance with steps 13 through 15 of the Instructions, Section III, in Diamond Aircraft Work Instruction WI-MSB 42-143 and WI-MSB 42NG-086, Revision 3, dated November 15, 2022 (issued as one document) attached to Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-143/1 and DAI MSB 42NG-086/1, dated January 25, 2022 (issued as one document).
- (2) For Group 2 airplanes: Concurrently with the inspection required by paragraph (h)(1) of this AD, replace the rudder T-yoke bolt part number (P/N) LN 9037-M6x90 with rudder T-yoke bolt P/N D60-5320-00-32, and apply torque seal marks on the rudder T-yoke bolt head and self-locking nut, in accordance with steps 6 through 9, 14, 15, and 18 of the Instructions, Section III, in Diamond Aircraft Work Instruction WI-RSB 42-139 and WI-RSB 42NG-081, Revision 2, dated November 15, 2022 (issued as one document) attached to Diamond Aircraft Recommended Service Bulletin DAI RSB 42-139 and DAI RSB 42NG-081, dated October 21, 2019 (issued as one document). Where Diamond Aircraft Work Instruction WI-RSB 42-139 and WI-RSB 42NG-081, Revision 2, dated November 15, 2022 (issued as one document) attached to Diamond Aircraft Recommended Service Bulletin DAI RSB 42-139 and DAI RSB 42NG-081, dated October 21, 2019 (issued as one document) specifies to discard the self-locking nut this AD requires removing that part from service.

(j) Repetitive Inspections

- (1) For Group 1 and Group 2 airplanes: Within 200 hours TIS after the inspection required by paragraph (h)(1) of this AD and, thereafter, at intervals not to exceed 200 hours TIS, inspect the torque seal marks on the T-yoke bolt head and self-locking nut for proper alignment.

Note 1 to paragraph (j)(1): This can be accomplished using DAI Maintenance Manual (AMM) Temporary Revision (TR) AMM-TR-MÄM-42-1213/a, dated June 7, 2022 (DAI AMM TR AMM-TR-MÄM-42-1213/a).

- (2) For Group 3 airplanes: Within 200 hours TIS after the effective date of this AD, and thereafter at intervals not to exceed 200 hours TIS, inspect the torque seal marks on the T-yoke bolt head and self-locking nut for proper alignment.

Note 2 to paragraph (j)(2): This can be accomplished using DAI AMM TR AMM-TR-MÄM-42-1213/a.

(3) For all airplanes: If, during any inspection required by paragraph (j)(1) or (j)(2) of this AD, it is found that the torque seal marks are not properly aligned, before further flight, contact the Manager, International Validation Branch, FAA; EASA; or Diamond's EASA DOA for approved repair instructions, and within the compliance time specified therein, accomplish those instructions accordingly. If approved by the DOA, the approval must include the DOA-authorized signature.

(k) Parts Installation Prohibition

For all airplanes: As of the effective date of this AD, do not install on any airplane a rudder T-yoke bolt P/N LN 9037-M6x90.

(l) Credit for Previous Actions

(1) You may take credit for the actions required by paragraphs (h)(1) and (2) of this AD if the actions were done before the effective date of this AD using any of the work instructions specified in paragraphs (l)(1)(i), (ii), or (iii) of this AD.

(i) Diamond Aircraft Work Instruction WI-MSB 42-143 and WI-MSB 42NG-086, Revision 0, dated December 23, 2021 (issued as one document) attached to Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-143 and DAI MSB 42NG-086, dated December 23, 2021 (issued as one document).

(ii) Diamond Aircraft Work Instruction WI-MSB 42-143 and WI-MSB 42NG-086, Revision 1, dated January 25, 2022 (issued as one document) attached to Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-143/1 and DAI MSB 42NG-086/1, dated January 25, 2022 (issued as one document).

(iii) Diamond Aircraft Work Instruction WI-MSB 42-143 and WI-MSB 42NG-086, Revision 2, dated March 10, 2022 (issued as one document) attached to Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-143/1 and DAI MSB 42NG-086/1, dated January 25, 2022 (issued as one document).

(2) You may take credit for the rudder T-yoke bolt replacement required by paragraph (i) of this AD if that action was done before the effective date of this AD using the Diamond Aircraft Work Instruction WI-RSB 42-139 and WI-RSB 42NG-081, Revision 1, dated October 24, 2019 (issued as one document) attached to Diamond Aircraft Recommended Service Bulletin DAI RSB 42-139 and DAI RSB 42NG-081, dated October 21, 2019 (issued as one document).

(m) Alternative Methods of Compliance (AMOCs)

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 International Validation Branch, send it to the attention of the person identified in paragraph (n)(2) of this AD or email to: 9-AVS-AIR-730-AMOC@faa.gov. If mailing information, also submit information by email. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(n) Additional Information

(1) Refer to EASA AD 2023-0013, dated January 18, 2023, for related information. This EASA AD may be found in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-2143.

(2) For more information about this AD, contact Penelope Trease, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (303) 342-1094; email: penelope.trease@faa.gov.

(3) Service information identified in this AD that is not incorporated by reference is available at the address specified in paragraph (o)(3) of this AD.

(o) 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) Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-143/1 and DAI MSB 42NG-086/1, dated January 25, 2022 (issued as one document), published with DAI Work Instruction WI-MSB 42-143 and WI-MSB 42NG-086, Revision 3, dated November 15, 2022 (issued as one document) attached.

(ii) Diamond Aircraft Mandatory Service Bulletin DAI MSB 42-146 and DAI MSB 42NG-087, dated November 15, 2022 (issued as one document).

(iii) Diamond Aircraft Recommended Service Bulletin DAI RSB 42-139 and DAI RSB 42NG-081, dated October 21, 2019 (issued as one document), published with DAI Work Instruction WI-RSB 42-139 and WI-RSB 42NG-081, Revision 2, dated November 15, 2022 (issued as one document) attached.

(3) For service information contact Diamond Aircraft Industries GmbH, N.A. Otto-Straße 5, A-2700 Wiener Neustadt, Austria; phone: +43 2622 26700; email: airworthiness-austria@diamondaircraft.com; website: [diamondaircraft.com](https://www.diamondaircraft.com).

(4) 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 (817) 222-5110. It is also available at *regulations.gov* under Docket No. FAA-2023-2143.

(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 March 22, 2024.

Victor Wicklund,

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

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