



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2025-3987; Project Identifier AD-2025-00017-R; Amendment 39-23466; AD 2026-19-01]

RIN 2120-AA64

Airworthiness Directives; MD Helicopters, LLC Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2024-23-06, which applied to certain MD Helicopters, LLC Model 369, 369A, 369D, 369E, 369F, 369FF, 369H, 369HE, 369HM, 369HS, 500N, and 600N helicopters. AD 2024-23-06 required repetitively inspecting the torque tube assembly and roller bearings, and depending on the results, replacing parts or accomplishing additional inspections. Since the FAA issued AD 2024-23-06, the FAA has determined that additional torque tube assemblies are affected by this unsafe condition. This AD continues to require the actions of AD 2024-23-06 and expands the applicability. 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].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2025-3987; 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 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: Eduardo Orozco-Duran, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: (562) 627-5264; email: eduardo.orozco-duran@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2024-23-06, Amendment 39-22885 (89 FR 91248, November 19, 2024) (AD 2024-23-06). AD 2024-23-06 applied to certain MD Helicopters, LLC Model 369, 369A, 369D, 369E, 369F, 369FF, 369H, 369HE, 369HM, 369HS, 500N, and 600N helicopters. AD 2024-23-06 was prompted by a report of a seized and damaged roller bearing assembly in the torque tube assembly of an MD Helicopters, LLC Model 369E helicopter. AD 2024-23-06 required repetitively inspecting the torque tube assembly and roller bearings, and depending on the results, replacing parts or accomplishing additional inspections.

The NPRM was published in the *Federal Register* on November 18, 2025 (90 FR 51596). The NPRM was prompted by a report that additional torque tube assemblies are affected by the same unsafe condition addressed in AD 2024-23-06 and should be included in the AD action. In the NPRM, the FAA proposed to continue to require the actions of AD 2024-23-06, and also proposed to expand the applicability to include all MD Helicopters, LLC Model 369, 369A, 369D, 369E, 369F, 369FF, 369H, 369HE, 369HM, 369HS, 500N, and 600N helicopters, regardless of the torque tube part number. The FAA is issuing this AD to prevent failure of the torque tube assembly, which, if not addressed, could result in reduced controllability and loss of control of the helicopter.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from the Citizens Rulemaking Alliance. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request to Justify Forgoing Notice and Comment or Issue an NPRM

The Citizens Rulemaking Alliance requested that, absent justification for finding good cause to bypass notice and comment procedures, the FAA either convert this action to an NPRM with a 30-day comment period or defer the effective date by 30 to 60 days while maintaining a parallel safety alert or special airworthiness information bulletin and highlighting voluntary compliance with the service information. The commenter asserted the FAA has not adequately justified use of the good cause exemption to bypass notice and comment and the 30-day delayed effective date.

The FAA notes the comment was submitted in response to an NPRM for which the FAA provided a 45-day comment period. This final rule is effective 35 days after its publication in the *Federal Register*. Therefore, the FAA did not change this AD as a result of this comment.

Request to Supplement the AD Docket with Supporting Data

The Citizens Rulemaking Alliance requested that the FAA add to the AD docket the FAA's risk assessment, the background report data, the dates of the triggering service information and any foreign authority AD, and a summary of alternatives considered and rejected for safety reasons. The commenter stated that this will allow commenters to address safety tradeoffs while preserving urgent mitigation if warranted.

The FAA has assessed and disclosed the background and basis for this rulemaking in the preamble of the NPRM, including a discussion of the previous AD, a description of the unsafe condition, and the FAA's rationale for the required actions on additional

torque tube assemblies. This information was available to the public during the 45-day comment period provided by the NPRM.

The FAA evaluated the alternative of not promulgating this AD but ultimately determined that this alternative would create a significant safety hazard. Relying on voluntary compliance or existing requirements would leave the unsafe condition unaddressed and would not ensure an acceptable level of safety. Accordingly, the FAA has determined that promulgating this AD is necessary to ensure an acceptable level of safety.

Since the FAA has assessed and disclosed the basis for this rulemaking in the preamble of the NPRM, there is no service material or foreign authority AD related to this rulemaking action, and the commenter did not provide additional safety data for the FAA to consider in its analysis, it is not necessary to provide additional information in the AD docket.

Request to Comply with the Paperwork Reduction Act (PRA)

The Citizens Rulemaking Alliance requested that the FAA revise the proposed AD to comply with the PRA if reporting is required, or remove any reporting provisions and stay enforcement until PRA requirements are satisfied. The commenter stated that the PRA requires providing the applicable Office of Management and Budget (OMB) control number(s), required PRA statements, and burden estimates in the AD and docket. If reporting is not required, the commenter requested the FAA clarify that in the AD.

The FAA notes that this AD does not require reporting. If an AD were to require reporting, the preamble of the AD would include a paragraph titled “Paperwork Reduction Act” that would provide the applicable OMB control number, required PRA statements, and the estimated time to collect the required information (burden). Any costs associated with the reporting requirement would be included in the Costs of

Compliance section in the preamble of the AD. Therefore, the FAA did not change this AD as a result of this comment.

Request to Make Incorporation by reference (IBR) Materials Reasonably Available

The Citizens Rulemaking Alliance stated that the FAA's current practices for IBR frequently fail to meet the legal and regulatory standards for reasonable availability. The commenter called on the FAA to guarantee that all IBR materials are easily and freely accessible to the public and affected parties for both commenting and compliance purposes. They also requested that this access be documented in the rulemaking record. Further, the commenter requested that, if reasonable availability cannot be assured, enforcement of the incorporated by reference requirements be deferred until it is assured.

The FAA notes that this AD does not incorporate by reference any material. All required actions and compliance times are contained within the regulatory text of this AD. Therefore, the FAA did not change this AD as a result of this comment.

Request to Consider Impact on Small Entities

The Citizens Rulemaking Alliance requested that the FAA either provide the factual basis for its Regulatory Flexibility Act (RFA) certification that the AD will not have a significant economic impact on a substantial number of small entities or prepare an initial regulatory flexibility analysis and seek input from the Office of Advocacy from the Small Business Administration (SBA).

The FAA has considered the AD's impact on small businesses and provides the following analysis.

The Regulatory Flexibility Act of 1980, Public Law 96-354, 94 Stat. 1164 (5 U.S.C. 601-612), as amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (Public Law 104-121, 110 Stat. 857, Mar. 29, 1996) and the Small Business Jobs Act of 2010 (Public Law 111-240, 124 Stat. 2504, Sept. 27, 2010), requires Federal agencies to consider the effects of the regulatory action on small business and other small

entities and to minimize any significant economic impact. The term “small entities” comprises small businesses and not-for-profit organizations that are independently owned and operated and are not dominant in their fields, and governmental jurisdictions with populations of less than 50,000.

Small Entities to which this AD Applies

The FAA used the definition of small entities in the RFA for this analysis. The RFA defines small entities as small businesses, small governmental jurisdictions, or small organizations. In 5 U.S.C. 601(3), the RFA defines "small business" to have the same meaning as “small business concern” under section 3 of the Small Business Act. The Small Business Act authorizes the SBA to define "small business" by issuing regulations.

The SBA has established size standards for various types of economic activities, or industries, under the North American Industry Classification System (NAICS). These size standards generally define small businesses based on the number of employees or annual receipts. The following table provides the SBA size standards for all industries with at least one entity¹ impacted by this AD. Note that the SBA definition of a small business applies to the parent company and all affiliates as a single entity.

Small Business Size Standards

NAICS	NAICS Description	Size Standard
111199	All Other Grain Farming	\$2,500,000
111332	Citrus, Except Orange, Groves	\$4,000,000
111998	All Other Miscellaneous Crop Farming	\$2,500,000
112519	Other Aquaculture	\$3,750,000
114111	Finfish Fishing	\$25,000,000
115112	Soil Preparation, Planting, and Cultivating	\$9,500,000
115116	Farm Management Services	\$15,500,000
115210	Support Activities for Animal Production	\$11,000,000
115310	Support Activities for Forestry	\$11,500,000
212321	Construction Sand and Gravel Mining	500 Employees
213111	Drilling Oil and Gas Wells	1,000 Employees

¹ The FAA does not have entity data for, or the entity was identified as a foreign business, 45 of the 680 affected helicopters. Those helicopters are excluded from this analysis. The number of affected helicopters has been updated in this final rule to reflect the current fleet.

NAICS	NAICS Description	Size Standard
213112	Support Activities for Oil and Gas Operations	\$47,000,000
221111	Hydroelectric Power Generation	50,000 Employees
221122	Electric Power Distribution	1,100 Employees
236115	New Single-family Housing Construction	\$45,000,000
236220	Commercial and Institutional Building Construction	\$45,000,000
237110	Water and Sewer Line and Related Structures Construction	\$47,000,000
237130	Power and Communication Line and Related Structures Construction	\$45,000,000
237210	Land Subdivision	\$34,000,000
237310	Highway, Street, and Bridge Construction	\$45,000,000
238210	Electrical Contractors and Other Wiring Installation Contractors	\$19,000,000
238220	Plumbing, Heating, and Air Conditioning Contractors	\$19,000,000
238910	Site Preparation Contractors	\$19,000,000
238990	All Other Specialty Trade Contractors	\$19,000,000
321113	Sawmills	550 Employees
325920	Explosives Manufacturing	750 Employees
325998	All Other Miscellaneous Chemical Product and Preparation Manufacturing	650 Employees
332912	Fluid Power Valve and Hose Fitting Manufacturing	1,000 Employees
334413	Semiconductor and Related Device Manufacturing	1,250 Employees
336212	Truck Trailer Manufacturing	1,000 Employees
336320	Motor Vehicle Electrical and Electronic Equipment Manufacturing	1,000 Employees
336390	Other Motor Vehicle Parts Manufacturing	1,000 Employees
336411	Aircraft Manufacturing	1,500 Employees
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	1,250 Employees
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	250 Employees
423820	Farm and Garden Machinery and Equipment Merchant Wholesalers	175 Employees
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	175 Employees
423990	Other Miscellaneous Durable Goods Merchant Wholesalers	1,250 Employees
441110	New Car Dealers	200 Employees
481111	Scheduled Passenger and Cargo Airlines Serving Western Alaska	1,500 Employees
481112	Scheduled Freight Air Transportation	1,500 Employees
481211	Nonscheduled Chartered Passenger Air Transportation	1,500 Employees
481212	Nonscheduled Chartered Freight Air Transportation	1,500 Employees
481219	Other Nonscheduled Air Transportation	\$25,000,000
484110	General Freight Trucking, Local	\$34,000,000
488119	Other Airport Operations	\$40,000,000
488190	Other Support Activities for Air Transportation	\$40,000,000
488210	Support Activities for Rail Transportation	\$34,000,000
488330	Navigational Services to Shipping	\$47,000,000

NAICS	NAICS Description	Size Standard
523910	Miscellaneous Intermediation	\$47,000,000
531110	Lessors of Residential Buildings and Dwellings	\$34,000,000
531120	Lessors of Nonresidential Buildings	\$34,000,000
531190	Real Estate Holding and Specific Asset (Aircraft) Management	\$34,000,000
531210	Offices of Real Estate Agents and Brokers	\$15,000,000
531311	Residential Property Managers	\$12,500,000
531312	Management of Nonresidential Real Estate	\$30,000,000
531320	Offices of Real Estate Appraisers	\$9,500,000
531390	Other Activities Related to Real Estate	\$19,500,000
532112	Passenger Car Leasing	\$34,000,000
532411	Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing	\$45,500,000
532412	Construction, Mining and Forestry Machinery and Equipment Rental and Leasing	\$40,000,000
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	\$40,000,000
541110	Offices of Lawyers	\$15,500,000
541211	Offices of Certified Public Accountants	\$26,500,000
541330	Engineering Services	\$25,500,000
541511	Custom Computer Programming Services	\$34,000,000
541611	Administrative Management and General Management Consulting Services	\$24,500,000
541715	Research and Development in the Physical, Engineering, and Life Sciences	1,000 Employees
541720	Research and Development in the Social Sciences and Humanities	\$28,500,000
541810	Advertising Agencies	\$22,500,000
541922	Commercial Photography	\$9,000,000
551112	Offices of Other Holding Companies	\$45,500,000
561710	Exterminating and Pest Control Services	\$17,500,000
561730	Landscaping Services	\$9,500,000
562111	Solid Waste Collection	\$47,000,000
611430	Professional and Management Development Training	\$15,000,000
611512	Flight Training	\$34,000,000
624230	Emergency and Other Relief Services	\$41,500,000
712110	Museums	\$34,000,000
713990	All Other Amusement and Recreation Industries	\$9,000,000
811210	Electronic and Precision Equipment Repair and Maintenance	\$34,000,000
813211	Grantmaking Foundations	\$40,000,000
813410	Civic and Social Organizations	\$9,500,000
921110	Executive Offices	50,000 Employees
921120	Legislative Bodies	50,000 Employees
922110	Law Enforcement	50,000 Employees

NAICS	NAICS Description	Size Standard
922120	Law Enforcement	50,000 Employees
922160	Fire & Rescue	50,000 Employees
922190	Other Justice, Public Order, and Safety Activities	50,000 Employees
924110	Government	50,000 Employees
924120	Government	50,000 Employees
926140	Government	50,000 Employees
928110	Government	50,000 Employees
928120	International Affairs	50,000 Employees

To identify small entities, the FAA first identified the primary NAICS of the entity or parent company, and then used data from different sources (e.g., company annual reports, Bureau of Transportation Statistics) to determine whether the entity meets the applicable size standard. The FAA provides the estimated number of small entities affected by this AD:

Estimated Number of Small Entities

NAICS Category	Number Entities	Number of Affected Aircraft	Small Business Entities	Percent Small Entities
All Other Grain Farming	1	1	1	100%
Citrus, except Orange, Groves	1	1	1	100%
All Other Miscellaneous Crop Farming	1	2	1	100%
Other Aquaculture	1	1	1	100%
Finfish Fishing	2	2	1	50%
Soil Preparation, Planting, and Cultivating	9	12	9	100%
Farm Management Services	1	1	1	100%
Support Activities for Animal Production	3	6	3	100%
Support Activities for Forestry	3	4	3	100%
Construction Sand and Gravel Mining	1	1	1	100%
Drilling Oil and Gas Wells	1	1	1	100%
Support Activities for Oil and Gas Operations	1	1	1	100%
Hydroelectric Power Generation	1	4	0	0%
Electric Power Distribution	1	1	1	100%
New Single-family Housing Construction	2	2	2	100%
Commercial and Institutional Building Construction	2	7	2	100%
Water and Sewer Line and Related Structures Construction	1	1	1	100%
Power and Communication Line and Related Structures Construction	1	6	0	0%
Land Subdivision	3	3	2	67%
Highway, Street, and Bridge Construction	2	2	2	100%
Electrical Contractors and Other Wiring Installation Contractors	1	11	1	100%
Plumbing, Heating, and Air Conditioning Contractors	1	1	1	100%
Site Preparation Contractors	1	1	1	100%
All Other Specialty Trade Contractors	1	1	0	0%
Sawmills	1	1	1	100%
Explosives Manufacturing	1	1	1	100%
All Other Miscellaneous Chemical Product and Preparation Manufacturing	1	1	0	0%

NAICS Category	Number Entities	Number of Affected Aircraft	Small Business Entities	Percent Small Entities
Fluid Power Valve and Hose Fitting Manufacturing	1	1	1	100%
Semiconductor and Related Device Manufacturing	1	1	1	100%
Truck Trailer Manufacturing	1	1	0	0%
Motor Vehicle Electrical and Electronic Equipment Manufacturing	1	1	1	100%
Other Motor Vehicle Parts Manufacturing	1	1	1	100%
Aircraft Manufacturing	6	16	2	33%
Other Aircraft Parts and Auxiliary Equipment Manufacturing	3	3	3	100%
Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	1	1	1	100%
Farm and Garden Machinery and Equipment Merchant Wholesalers	1	1	0	0%
Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	3	4	3	100%
Other Miscellaneous Durable Goods Merchant Wholesalers	1	1	0	0%
New Car Dealer	1	1	1	100%
Scheduled Passenger and Cargo Airline Serving Western Alaska	1	3	1	100%
Scheduled Freight Air Transportation	2	2	2	100%
Nonscheduled Chartered Passenger Air Transportation	79	165	75	95%
Nonscheduled Chartered Freight Air Transportation	8	16	8	100%
Other Nonscheduled Air Transportation	17	35	15	88%
General Freight Trucking, Local	1	1	1	100%
Other Airport Operations	4	4	4	100%
Other Support Activities for Air Transportation	31	60	30	97%
Support Activities for Rail Transportation	1	1	1	100%
Navigational Services to Shipping	1	1	1	100%
Miscellaneous Intermediation	2	2	2	100%
Lessors of Residential Buildings and Dwellings	3	3	2	67%

NAICS Category	Number Entities	Number of Affected Aircraft	Small Business Entities	Percent Small Entities
Lessors of Nonresidential Buildings	2	2	2	100%
Real Estate Holding and Specific Asset (Aircraft) Management	1	1	1	100%
Offices of Real Estate Agents and Brokers	1	1	0	0%
Residential Property Managers	1	2	1	100%
Management of Nonresidential Real Estate	1	1	1	100%
Offices of Real Estate Appraisers	1	1	1	100%
Other Activities Related to Real Estate	3	3	3	100%
Passenger Car Leasing	1	1	1	100%
Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing	16	19	15	94%
Construction, Mining and Forestry Machinery and Equipment Rental and Leasing	1	5	1	100%
Other Commercial and Industrial Machinery and Equipment Rental and Leasing	2	2	2	100%
Offices of Lawyers	4	5	4	100%
Offices of Certified Public Accountants	1	1	1	100%
Engineering Services	3	3	3	100%
Custom Computer Programming Services	2	2	2	100%
Administrative Management and General Management Consulting Services	6	6	6	100%
Research and Development in the Physical, Engineering, and Life Sciences	1	1	1	100%
Research and Development in the Social Sciences and Humanities	1	1	1	100%
Advertising Agencies	1	1	1	100%
Commercial Photography	1	1	1	100%
Offices of Other Holding Companies	4	5	4	100%
Exterminating and Pest Control Services	3	4	0	0%
Landscaping Services	2	12	1	50%
Solid Waste Collection	1	1	0	0%

NAICS Category	Number Entities	Number of Affected Aircraft	Small Business Entities	Percent Small Entities
Professional and Management Development Training	1	1	0	0%
Flight Training	7	8	7	100%
Emergency and Other Relief Services	1	1	1	100%
Museums	3	3	2	67%
All Other Amusement and Recreation Industries	1	1	1	100%
Electronic and Precision Equipment Repair and Maintenance	1	1	1	100%
Grantmaking Foundations	1	1	1	100%
Civic and Social Organizations	1	1	0	0%
Executive Offices	4	10	0	0%
Legislative Bodies	1	1	0	0%
Law Enforcement	18	40	1	6%
Law Enforcement	10	21	1	10%
Fire & Rescue	3	7	0	0%
Other Justice, Public Order, and Safety Activities	2	6	0	0%
Government	1	1	0	0%
Government	2	2	0	0%
Government	1	1	0	0%
Government	1	45	0	0%
International Affairs	1	2	0	0%
Total	336	635	263	78%

Projected Reporting, Recordkeeping, and Other Compliance Requirements

The FAA estimates affected entities will incur an inspection cost of \$149 per inspection cycle, with an average of 7 inspection cycles per year. FAA analyzes the cost of inspection of \$1,043 as the low-case for each small entity. Based upon the results of the inspections, operators could incur up to 3 on-condition costs of \$6,024. If an operator were to incur all inspection and on-condition costs, FAA estimates each operator would incur \$7,067 per helicopter annually. The FAA has no way to determine if each helicopter will require these on-condition costs. The high-case includes both inspection and on-condition costs for each small entity. The following table presents the small entity

case burdens average percentage for compliance based on the average annual revenue by each NAICS industry.

Number of Small Entities Affected by Industry and Cost Significance

NAICS	NAICS Description	Number of Operators	Average Annual Revenue ¹	Number of Aircraft Affected	Low-Case Burden Average	High-Case Burden Average
111199	All Other Grain Farming	1	\$315,780	1	0.33%	2.24%
111332	Citrus, except Orange, Groves	1	\$286,790	2	0.73%	4.93%
114111	Finfish Fishing	1	\$600,000	1	0.17%	1.18%
115112	Soil Preparation, Planting, and Cultivating	7	\$526,180	10	0.33%	2.22%
115116	Farm Management Services	1	\$158,020	1	0.66%	4.47%
115210	Support Activities for Animal Production	3	\$356,057	6	0.92%	6.23%
115310	Support Activities for Forestry ³	2	\$625,705	3	0.30%	2.02%
212321	Construction Sand and Gravel Mining	1	\$520,000	1	0.20%	1.36%
213111	Drilling Oil and Gas Wells	1	\$1,680,000	1	0.06%	0.42%
213112	Support Activities for Oil and Gas Operations	1	\$246,800	1	0.42%	2.86%
221122	Electric Power Distribution	1	\$700,000	1	0.15%	1.01%
236115	New Single-family Housing Construction	1	\$104,160	1	1.00%	6.78%
236220	Commercial and Institutional Building Construction	2	\$575,330	7	0.54%	3.66%
237110	Water and Sewer Line and Related Structures Construction	1	\$5,580,000	1	0.02%	0.13%
237210	Land Subdivision	1	\$61,020	1	1.71%	11.58%
237310	Highway, Street, and Bridge Construction	2	\$6,138,005	2	0.69%	4.68%
238210	Electrical Contractors and Other Wiring Installation Contractors	1	\$6,410,000	11	0.18%	1.21%
238910	Site Preparation Contractors	1	\$950,000	1	0.11%	0.74%
321113	Sawmills	1	\$156,710	1	0.67%	4.51%

NAICS	NAICS Description	Number of Operators	Average Annual Revenue ¹	Number of Aircraft Affected	Low-Case Burden Average	High-Case Burden Average
325920	Explosives Manufacturing	1	\$1,210,000	1	0.09%	0.58%
334413	Semiconductor and Related Device Manufacturing	1	\$245,810	1	0.42%	2.87%
336320	Motor Vehicle Electrical and Electronic Equipment Manufacturing	1	\$163,600	1	0.64%	4.32%
336411	Aircraft Manufacturing	2	\$1,182,320	4	2.44%	16.55%
336413	Other Aircraft Parts and Auxiliary Equipment Manufacturing	2	\$235,005	2	0.95%	6.43%
423430	Computer and Computer Peripheral Equipment and Software Merchant Wholesalers	1	\$11,160,000	1	0.01%	0.06%
423860	Transportation Equipment and Supplies (except Motor Vehicle) Merchant Wholesalers	3	\$3,202,923	4	0.42%	2.84%
441110	New Car Dealer	1	\$214,510	1	0.49%	3.29%
481111	Scheduled passenger and cargo airline serving Western Alaska	1	\$6,960,000	3	0.04%	0.30%
481112	Scheduled Freight Air Transportation	1	\$260,960	1	0.40%	2.71%
481211	Nonscheduled Chartered Passenger Air Transportation	61	\$1,723,034	142	0.97%	6.56%
481212	Nonscheduled Chartered Freight Air Transportation	6	\$2,202,997	14	0.35%	2.34%
481219	Other Nonscheduled Air Transportation	8	\$465,218	13	0.57%	3.89%
484110	General Freight Trucking, Local	1	\$2,860,000	1	0.04%	0.25%
488119	Other Airport Operations	2	\$396,330	2	0.90%	6.12%
488190	Other Support Activities for Air Transportation	23	\$955,989	52	0.58%	3.90%

NAICS	NAICS Description	Number of Operators	Average Annual Revenue ¹	Number of Aircraft Affected	Low-Case Burden Average	High-Case Burden Average
488210	Support Activities for Rail Transportation	1	\$73,270	1	1.42%	9.65%
488330	Navigational Services to Shipping	1	\$267,710	1	0.39%	2.64%
523910	Miscellaneous Intermediation	2	\$120,155	2	1.02%	6.90%
531110	Lessors of Residential Buildings and Dwellings	1	\$114,980	1	0.91%	6.15%
531120	Lessors of Nonresidential Buildings	2	\$214,985	2	1.12%	7.57%
531312	Management of Nonresidential Real Estate	1	\$329,080	1	0.32%	2.15%
531320	Offices of Real Estate Appraisers	1	\$1,020,000	1	0.10%	0.69%
531390	Other Activities Related to Real Estate	2	\$120,580	2	1.13%	7.63%
532112	Passenger Car Leasing	1	\$65,270	1	1.60%	10.83%
532411	Commercial Air, Rail, and Water Transportation Equipment Rental and Leasing	11	\$434,369	14	0.37%	2.51%
532412	Construction, Mining and Forestry Machinery and Equipment Rental and Leasing	1	\$234,180	5	2.23%	15.09%
532490	Other Commercial and Industrial Machinery and Equipment Rental and Leasing	1	\$106,700	1	0.98%	6.62%
541110	Offices of Lawyers	1	\$33,720	2	6.19%	41.92%
541330	Engineering Services	3	\$206,827	3	0.61%	4.13%
541511	Custom Computer Programming	1	\$42,000	1	2.48%	16.83%
541611	Administrative Management and General Management Consulting Services	3	\$250,367	3	0.94%	6.36%
541922	Commercial Photography	1	\$326,530	1	0.32%	2.16%

NAICS	NAICS Description	Number of Operators	Average Annual Revenue ¹	Number of Aircraft Affected	Low-Case Burden Average	High-Case Burden Average
551112	Offices of Other Holding Companies	2	\$318,350	3	0.49%	3.31%
561730	Landscaping Services	1	\$133,680	1	0.78%	5.29%
611512	Flight Training	7	\$565,947	8	0.51%	3.47%
712110	History Museum & Education (501c3)	2	\$65,315	2	1.64%	11.14%
922110	Law Enforcement	1	\$116,229,610	3	0.00%	0.02%
922120	Law Enforcement	2	\$327,012,029	2	0.00%	0.00%
624230	Emergency and Other Relief Services	1	\$431,150	1	0.24%	1.64%
713990	All Other Amusement and Recreation Industries	1	\$346,990	1	0.30%	2.04%

¹ Source: Dun & Bradstreet, D&B Hoovers, retrieved April 28, 2024, app.hoovers.dnb.com; ZoomInfo, ZoomInfo Technologie Inc., retrieved April 28, 2024, zoominfo.com.

² Note: NAICS codes with only one entity equals the number of aircraft.

³ Example: NAICS 115310 has two operators with a total of three aircraft affected. Operator 1 calculations: Low Case Burden $(\$2,086/\$980,000) = 0.21\%$. Operator 2 calculations: Low Case Burden $(\$1,043/\$271,410) = 0.38\%$. The average Low Case Burden is $(0.21\% + 0.38\%)/2 = 0.30\%$. The same method was used to calculate the High Case Burden. All NAICS with multiple operators use the same method of calculation.

Significant Alternatives Considered

The FAA evaluated the alternative of not promulgating this AD but ultimately deemed that this alternative would create a significant safety hazard. Since the issuance of AD 2024-23-06, which affected certain MD Helicopters, LLC Model 369, 369A, 369D, 369E, 369F, 369FF, 369H, 369HE, 369HM, 369HS, 500N, and 600N helicopters, it has been determined that the risk of failure of the torque tube assembly extends to additional torque tube assemblies. Relying on the existing requirements would leave these additional torque tube assemblies unmonitored. By expanding the applicability, this AD addresses the unsafe condition and prevents potential failure, ensuring a level of safety that the alternative of no action could not provide.

Conclusion

The FAA reviewed the relevant data, considered any 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 minor editorial changes, replacement of the RFA certification with a final regulatory flexibility analysis, a change in the Costs of Compliance section (from 353 helicopters to 680 helicopters and corresponding cost changes), and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Costs of Compliance

The FAA estimates that this AD affects 680 helicopters of U.S. registry. The FAA estimates the following costs to comply with this AD:

Estimated Costs

Action	Labor Cost ¹	Parts Cost	Cost per product	Cost on U.S. operators
Visual inspection of torque tube and roller bearings	1 work-hour x \$85 per hour = \$85, per inspection cycle	\$0	\$85, per inspection cycle	\$57,800, per inspection cycle
Inspection of torque tube for freedom-of-movement	0.75 work-hour x \$85 per hour = \$64, per inspection cycle	\$0	\$64, per inspection cycle	\$43,520, per inspection cycle

¹ The FAA estimated operators will incur \$85 in costs per labor hour, which is the weighted average fiscal year (FY) 2026 fully loaded wage of an aircraft mechanic (\$69.85) working 60 percent of the labor hours and a general and operations manager (\$108.15) working 40 percent of the labor hours. The FAA estimated these wages by taking the average of the FY 2024 Bureau of Labor Statistics (BLS) air transportation industry average wage for aircraft mechanics and general and operations managers (See: Occupational Employment and Wage Statistics Query System, BLS (May 2024), data.bls.gov/oes/); multiplying each wage by a fringe benefit factor of 1.42 (See: Employer Cost for Employee Compensation - December 2024, BLS (2024), bls.gov/news.release/archives/ecec_03142025.pdf); and adjusting these 2024 wages to 2026 dollars using an implicit Gross Domestic Product (GDP) Price Deflator of 2.8

percent (See: Gross Domestic Product: Implicit Price Deflator, FRED (2026) fred.stlouisfed.org/series/GDPDEF).

The FAA estimates the following costs to do any on-condition actions that would be required based on the results of the inspections. The agency has no way of determining the number of helicopters that might need these on-condition actions:

On-condition Costs

Action	Labor Cost	Parts Cost	Cost per product
Replacement of torque tube	6 work-hours x \$85 per hour = \$510	\$4,773	\$5,283
Visual inspection of roller bearings	0.25 work-hour x \$85 per hour = \$21	\$0	\$21
Replacement of roller bearing	6 work-hours x \$85 per hour = \$510	\$210	\$720

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:

- a. Removing Airworthiness Directive 2024-23-06, Amendment 39-22885 (89 FR 91248, November 19, 2024); and
- b. Adding the following new airworthiness directive:

MD Helicopters, LLC: Docket No. FAA-2025-3987; Project Identifier AD-2025-00017-R.

(a) Effective Date

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

(b) Affected ADs

This AD replaces AD 2024-23-06, Amendment 39-22885 (89 FR 91248, November 19, 2024) (AD 2024-23-06).

(c) Applicability

This AD applies to all MD Helicopters, LLC Model 369, 369A, 369D, 369E, 369F, 369FF, 369H, 369HE, 369HM, 369HS, 500N, and 600N helicopters, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 6700, Rotorcraft flight control.

(e) Unsafe Condition

This AD was prompted by a report of a seized and damaged roller bearing assembly in the torque tube assembly. The FAA is issuing this AD to prevent failure of the torque tube assembly. The unsafe condition, if not addressed, could result in reduced controllability and loss of control of the helicopter.

(f) Compliance

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

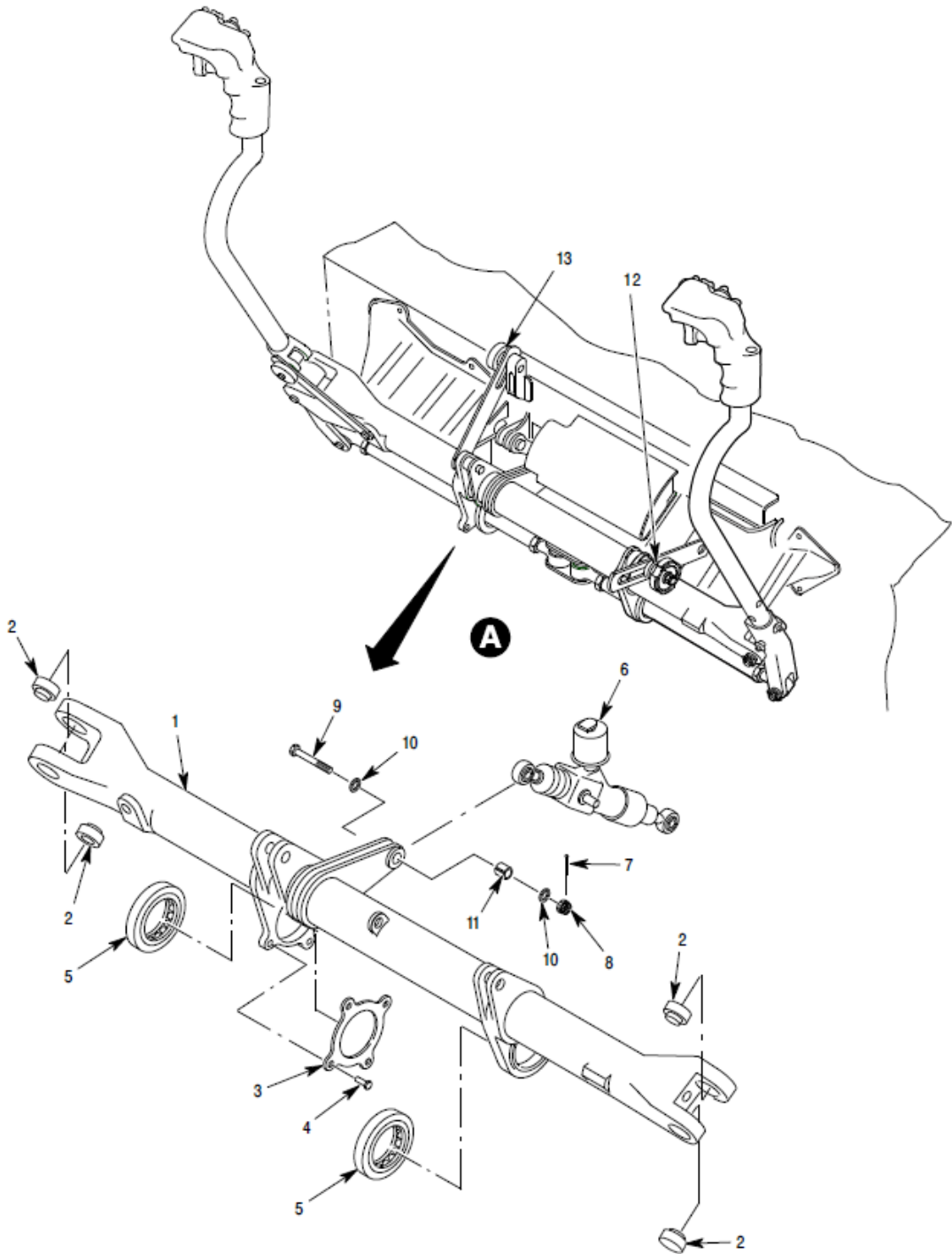
(g) Required Actions

(1) Within 100 hours time-in-service (TIS) or within 12 months after the effective date of this AD, whichever occurs first, and thereafter at intervals not to exceed 100 hours TIS, accomplish the actions required by paragraphs (g)(1)(i) and (ii) of this AD.

(i) Using a flashlight and mirror, visually inspect the torque tube for corrosion and cracks. If there is any corrosion or a crack, before further flight, remove the torque tube from service and install an airworthy torque tube.

(ii) Visually inspect each roller bearing (number 5) as depicted in Figure 1 to paragraph (g)(1) of this AD for corrosion and degradation. If a roller bearing has any corrosion or degradation, before further flight, remove the roller bearing from service and install an airworthy roller bearing.

Figure 1 to Paragraph (g)(1) - Torque Tube Assembly



(2) Before the helicopter accumulates 3,000 total hours TIS or within 100 hours TIS after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 100 hours TIS, perform a freedom-of-movement inspection on the torque tube assembly by accomplishing the actions required by paragraphs (g)(2)(i) through (v) of this AD.

(i) Disconnect the one-way lock (number 6) of the torque tube by removing the cotter pin (number 7), nut (number 8), bolt (number 9), washers (number 10), and slotted bushing (number 11) from the torque tube assembly as depicted in Figure 1 to paragraph (g)(1) of this AD.

(ii) Loosen the longitudinal cyclic friction knob (number 12 or 13) of the torque tube assembly as depicted in Figure 1 to paragraph (g)(1) of this AD.

(iii) While moving the cyclic control forward and aft to allow the torque tube assembly to rotate through its full range of motion, inspect the torque tube assembly for binding and ratcheting.

(A) If there is any binding or ratcheting as a result of the action required by paragraph (g)(2)(iii) of this AD, before further flight, inspect each roller bearing (number 5) as depicted in Figure 1 to paragraph (g)(1) of this AD for damage. For the purposes of this inspection, damage may be indicated by corrosion, lack of lubrication (dry exterior surface), or material degradation.

(B) If any roller bearing (number 5) as depicted in Figure 1 to paragraph (g)(1) of this AD has any damage, before further flight, remove the roller bearing from service and install an airworthy roller bearing.

(iv) If there is not any binding or ratcheting as a result of the action required by paragraph (g)(2)(iii) of this AD or after accomplishing the action required by paragraph (g)(2)(iii)(B) of this AD, as applicable, tighten the cyclic friction knob (number 12 or 13) as depicted in Figure 1 to paragraph (g)(1) of this AD.

(v) Connect the one-way lock (number 6) as depicted in Figure 1 to paragraph (g)(1) of this AD by accomplishing the actions required by paragraphs (g)(2)(v)(A) and (B).

(A) Install the slotted bushing (number 11), washers (number 10), bolt (number 9), nut (number 8), and new (zero total hours TIS) cotter pin (number 7) as depicted in Figure 1 to paragraph (g)(1) of this AD.

(B) Ensure the edge of the slotted bushing (number 11) protrudes 0.010 to 0.080 inch (0.25 to 2.03 millimeters) above the surface of the cyclic torque tube after the nut is tightened.

(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 responsible Flight Standards 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 and email to: 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) Additional Information

For more information about this AD, contact Eduardo Orozco-Duran, Aviation Safety Engineer, FAA, 3960 Paramount Boulevard, Lakewood, CA 90712; phone: (562) 627-5264; email: eduardo.orozco-duran@faa.gov.

(j) Material Incorporated by Reference

None.

Issued on September 11, 2026.

Hollister B. Thorson,
Acting Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.
[FR Doc. 2026-18927 Filed: 9/14/2026 8:45 am; Publication Date: 9/15/2026]