

**FEDERAL AVIATION ADMINISTRATION
AIRWORTHINESS DIRECTIVES**

**SMALL AIRPLANES, ROTORCRAFT, GLIDERS,
BALLOONS, & AIRSHIPS**

BIWEEKLY 2019-06

3/4/2019 - 3/17/2019



Federal Aviation Administration
Continued Operational Safety Policy Section, AIR-141
P.O. Box 25082
Oklahoma City, OK 73125-0460

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Biweekly 2019-01

2018-26-02	R 2016-25-19	Airbus Helicopters	AS350B3; EC130B4; EC130T2 helicopters
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Biweekly 2019-02

We published no ADs for the Small AD Biweekly during this period.

Biweekly 2019-03

2019-01-02		Aspen Avionics, Inc.	Evolution Flight Display (EFD) EFD1000 Primary Flight Display, EFD1000 Multi-Function Display (MFD), EFD1000 Emergency Backup Display, or EFD500 MFD units
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Biweekly 2019-04

2019-02-02		Pacific Aerospace Ltd.	FBA-2C1, FBA-2C2, FBA-2C3, and FBA-2C4 airplanes
2019-02-05	R 2013-11-03	Viking Air Limited	CL-215-1A10, CL-215-6B11 airplanes

Biweekly 2019-05

2014-05-06 R2	R 2014-05-06 R1	Airbus Helicopters Deutschland GmbH	EC135 P1, P2, P2+, T1, T2, and T2+; MBB-BK 117 C-2 helicopters
2018-21-14		Zodiac Aerotechnics	MC10 series crew oxygen mask regulators
2018-22-11		Safran Helicopter Engines	ASTAZOU XIV B and H model engines
2019-03-02		Pacific Aerospace Limited	750XL airplanes
2019-03-05		Bell Helicopter Textron Canada Limited	429 helicopters

Biweekly 2019-06

2019-03-12		Airbus Helicopters	EC225 LP helicopters
2019-05-03		Leonardo S.p.A.	AB139 and AW139; AW169 and AW189 helicopters
2019-05-04		MD Helicopters, Inc.	369A, 369D, 369E, 369FF, 369H, 369HE, 369HM, 369HS, 500N, and 600N helicopters
2019-05-05	R 97-26-03	Airbus Helicopters Deutschland GmbH	MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, and MBB-BK 117 C-1 helicopters
2019-05-06		Airbus Helicopters Deutschland GmbH	EC135P1, EC135P2, EC135P2+, EC135P3, EC135T1, EC135T2, EC135T2+, and EC135T3 helicopters



2019-03-12 Airbus Helicopters: Amendment 39-19564; Docket No. FAA-2018-0694; Product Identifier 2016-SW-068-AD.

(a) Applicability

This AD applies Airbus Helicopters Model EC225 LP helicopters with a life raft installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a jammed bellcrank in a life raft jettison inflation cylinder percussion system (bellcrank). This condition could result in failure of a life raft to release in an emergency and subsequent injury to occupants.

(c) Effective Date

This AD becomes effective April 11, 2019.

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

Before further flight, and thereafter at intervals not to exceed 6 months:

(1) Clean each bellcrank and pivot link and inspect each bellcrank hole for corrosion. If there is any corrosion in a bellcrank hole:

- (i) Remove the corrosion without exceeding a maximum depth of 0.1 millimeter (0.004 inch).
- (ii) Clean each pivot link using 400-grain abrasive paper.
- (iii) Apply corrosion protectant (Alodine 1200 or equivalent) to each bellcrank hole.

(2) Lubricate each bellcrank hole with grease before assembling the bellcrank.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to David Hatfield, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information

(1) Airbus Helicopters Emergency Alert Service Bulletin No. 05A050, Revision 0, dated July 22, 2016, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at http://www.helicopters.airbus.com/website/en/ref/Technical-Support_73.html. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2016-0200, dated October 11, 2016. You may view the EASA AD on the internet at <http://www.regulations.gov> in Docket No. FAA-2018-0694.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 2564 Life Raft.

Issued in Fort Worth, Texas, on February 15, 2019.

Lance T. Gant,
Director, Compliance & Airworthiness Division,
Aircraft Certification Service.



2019-05-03 Leonardo S.p.A.: Amendment 39-19585; Docket No. FAA-2019-0092; Product Identifier 2019-SW-022-AD.

(a) Applicability

This AD applies to the following helicopters, certificated in any category:

(1) Model AB139 and AW139 helicopters with a tail rotor (T/R) duplex bearing part number (P/N) 3G6430V00153, and serial number (S/N) 16181 through 16225, S/N 16237 through 16259, S/N 17101 through 17110, S/N 17182 through 17194, S/N 17204 through 17217, and S/N 17251 through S/N 17260; and

(2) Model AW169 and AW189 helicopters with a T/R duplex bearing P/N 4F6430V00551, and S/N 16165 through 16169, S/N 16171, and S/N 17101 through 17121.

(b) Unsafe Condition

This AD defines the unsafe condition as failure of a T/R duplex bearing ball. This condition could result in premature degradation of the T/R duplex bearing, loss of T/R control, and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective March 28, 2019.

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

(1) Within 30 hours time-in-service, remove from service any T/R duplex bearing with a P/N and S/N listed in paragraphs (a)(1) or (a)(2) of this AD.

(2) After the effective date of this AD, do not install a T/R duplex bearing with a P/N and S/N listed in paragraphs (a)(1) or (a)(2) of this AD on any helicopter.

(f) Special Flight Permits

Special flight permits are prohibited.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: David Hatfield, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(h) Additional Information

(1) Leonardo Helicopters Service Bulletin (SB) Alert No. 139-571, Leonardo Helicopters SB Alert No. 169-134, and Leonardo Helicopters SB Alert No. 189-221, each dated February 1, 2019, which are not incorporated by reference, contain additional information about the subject of this AD. For service information identified in this AD, contact Leonardo S.p.A. Helicopters, Matteo Ragazzi, Head of Airworthiness, Viale G.Agusta 520, 21017 C.Costa di Samarate (Va) Italy; telephone +39-0331-711756; fax +39-0331-229046; or at <http://www.leonardocompany.com/-/bulletins>. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2019-0022, dated February 1, 2019, and corrected February 4, 2019. You may view the EASA AD on the internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2019-0092.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 6400, Tail Rotor System.

Issued in Fort Worth, Texas, on March 6, 2019.
Lance T. Gant,
Director, Compliance & Airworthiness Division,
Aircraft Certification Service.



2019-05-04 MD Helicopters, Inc.: Amendment 39-19586; Docket No. FAA-2018-0991; Product Identifier 2017-SW-050-AD.

(a) Applicability

This AD applies to MD Helicopters, Inc., Model 369A, 369D, 369E, 369FF, 369H, 369HE, 369HM, 369HS, 500N, and 600N helicopters, certificated in any category, with a main rotor blade (MRB) part number 369A1100, 369D21100, 369D21102, 369D21120, 369D21121, 369D21123, 500P2100, or 500P2300, all dash numbers, installed.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in an MRB. This condition could result in failure of the MRB and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective April 17, 2019.

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

Within 25 hours time-in-service, and thereafter at each 100-hour inspection or annual inspection, whichever occurs first:

- (1) Using a 10X or higher power magnifying glass and a light, inspect each MRB trim tab end at the trailing edge corner where the trim tab and MRB meet for a crack. If there is a crack, before further flight, replace the MRB.
- (2) Using a 10X or higher power magnifying glass and a light, inspect the top and bottom surface of each MRB adjacent to the inboard trim tab corner for a crack, from the trailing edge towards the leading edge. If there is a crack, before further flight, replace the MRB.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Los Angeles ACO Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Galib Abumeri, Aviation Safety Engineer, Los Angeles ACO Branch, Compliance & Airworthiness Division, FAA, 3960 Paramount Blvd., Lakewood, CA 90712; telephone (562) 627-5374; email 9-ANM-LAACO-AMOC-REQUESTS@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector,

the manager of the local flight standards district office or certificate holding district office before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information

(1) Helicopter Technology Company, LLC, Mandatory Service Bulletin Notice No. 2100-9, dated May 25, 2017, which is not incorporated by reference, contains additional information about the subject of this AD. For Helicopter Technology Company, LLC, service information identified in this AD, contact Helicopter Technology Company, LLC, 12902 South Broadway, Los Angeles, CA 90061; telephone (310) 523-2750; or at www.helicoptertech.com.

(2) MD Helicopters Service Bulletin No. SB369D-221, SB369E-119, SB369F-106, SB369H-257, SB500N-057, and SB600N-069, each dated April 2, 2018, which are not incorporated by reference, contain additional information about the subject of this AD. For MD Helicopters service information identified in this AD, contact MD Helicopters, Inc., Attn: Customer Support Division, 4555 E. McDowell Rd., Mail Stop M615, Mesa, AZ 85215-9734; telephone 1-800-388-3378; fax 480-346-6813; or at <http://www.mdhelicopters.com>.

(3) You may review a copy of this service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6210, Main Rotor Blade.

Issued in Fort Worth, Texas, on February 28, 2019.

Scott A. Horn,
Deputy Director for Regulatory Operations, Compliance & Airworthiness Division,
Aircraft Certification Service.



2019-05-05 Airbus Helicopters Deutschland GmbH (Previously Eurocopter Deutschland GmbH): Amendment 39-19587; Docket No. FAA-2017-1126; Product Identifier 2017-SW-125-AD.

(a) Applicability

This AD applies to Airbus Helicopters Deutschland GmbH (previously Eurocopter Deutschland GmbH) Model MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, and MBB-BK 117 C-1 helicopters, certificated any category, with a main rotor (M/R) mast assembly part number 4639 205 011 installed.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in an M/R mast flange. This condition could result in failure of the mast flange and subsequent loss of helicopter control.

(c) Affected ADs

This AD replaces AD 97-26-03, Amendment 39-10246 (62 FR 65750, December 16, 1997).

(d) Effective Date

This AD becomes effective April 17, 2019.

(e) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(f) Required Actions

(1) Before further flight, and thereafter at intervals not to exceed 100 hours time-in-service, visually inspect the flange in the ribbed area for cracks using a 5-power or higher magnifying glass in accordance with paragraphs 2.A.1 and 2.A.2 of the Accomplishment Instructions in Airbus Helicopters Alert Service Bulletin No. ASB-MBB-BK 117-10-114, Revision 1, dated July 28, 2017.

(2) If a crack is found as a result of the inspections specified in paragraph (f)(1) of this AD, remove the cracked M/R mast and replace it with an airworthy M/R mast.

(g) Credit for Previous Actions

Actions accomplished before the effective date of this AD in accordance with the procedures specified in AD 97-26-03, Amendment 39-10246 (62 FR 65750, December 16, 1997), are acceptable for compliance with the corresponding actions specified in paragraphs (f)(1) and (f)(2) of this AD.

(h) Special Flight Permit

A special flight permit will not be permitted.

(i) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(j) Additional Information

(1) Airbus Helicopters Alert Service Bulletin No. ASB MBB-BK 117-10-114, dated August 27, 1997, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at http://www.helicopters.airbus.com/website/en/ref/Technical-Support_73.html. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2017-0193, dated September 29, 2017. You may view the EASA AD on the internet at <http://www.regulations.gov> in Docket No. FAA-2017-1126.

(k) Subject

Joint Aircraft Service Component (JASC) Code: 6300, Main Rotor Drive System.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Airbus Helicopters Alert Service Bulletin No. ASB MBB-BK117-10-114, Revision 1, dated July 28, 2017.

(ii) [Reserved]

(3) For Airbus Helicopters service information identified in this AD, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at http://www.helicopters.airbus.com/website/en/ref/Technical-Support_73.html.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., 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 service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on March 1, 2019.
Lance T. Gant,
Director, Compliance & Airworthiness Division,
Aircraft Certification Service.



2019-05-06 Airbus Helicopters Deutschland GmbH: Amendment 39-19588; Docket No. FAA-2018-0336; Product Identifier 2017-SW-130-AD.

(a) Applicability

This AD applies to Airbus Helicopters Deutschland GmbH Model EC135P1, EC135P2, EC135P2+, EC135P3, EC135T1, EC135T2, EC135T2+, and EC135T3 helicopters, certificated in any category, with an external mounted hoist (hoist) part number (P/N) and hook assembly (hook) P/N shown in Table 1 to paragraph (a) of this AD:

Table 1 to Paragraph (a)

Hoist P/Ns	Hook P/Ns
44301-10-2	44301-420
44301-10-5	44301-420
44301-10-6	44301-420
44301-10-10	44301-423
44301-10-11	44301-423
44301-10-12	44301-423
44301-10-13	44301-423

(b) Unsafe Condition

This AD defines the unsafe condition as detachment of a hook from a hoist cable resulting in in-flight failure of the hoist, which could result in injury to persons being lifted.

(c) Effective Date

This AD becomes effective April 17, 2019.

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

Within 90 hours time-in-service (TIS) and thereafter at intervals not to exceed 180 hours TIS:

- (1) Inspect the hook and determine whether the elastomeric energy absorber has taken a permanent compression set by following the Accomplishment Instructions, paragraphs 2.A and 2.B, of Goodrich Service Bulletin No. 44301-10-17, Revision 4, dated July 26, 2017 (SB 44301-10-17). If

the elastomeric energy absorber has taken a permanent compression set, replace the elastomeric energy absorber before the next hoist operation.

(2) Replace the retaining ring by following the Accomplishment Instructions, paragraphs 2.D through 2.K, of SB 44301-10-17.

(f) Special Flight Permits

Special flight permits may be permitted provided the hoist is not used.

(g) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: David Hatfield, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(h) Additional Information

(1) Airbus Helicopters Alert Service Bulletin No. ASB EC135-85A-069, Revision 0, dated August 2, 2017, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at http://www.helicopters.airbus.com/website/en/ref/Technical-Support_73.html. You may review a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2017-0199, dated October 11, 2017. You may view the EASA AD on the internet at <http://www.regulations.gov> in Docket No. FAA-2018-0336.

(i) Subject

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

(j) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Goodrich Service Bulletin No. 44301-10-17, Revision 4, dated July 26, 2017.

Note 1 to paragraph (j)(2)(i): Goodrich Service Bulletin No. 44301-10-17, Revision 4, dated July 26, 2017, is attached to Airbus Helicopters Alert Service Bulletin No. EC135-85A-069, Revision 0, dated August 2, 2017, which is not incorporated by reference in this AD.

(ii) [Reserved]

(3) For Goodrich service information identified in this AD, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at http://www.helicopters.airbus.com/website/en/ref/Technical-Support_73.html.

(4) You may view this service information at FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, 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 service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call (202) 741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on March 1, 2019.

Lance T. Gant,
Director, Compliance & Airworthiness Division,
Aircraft Certification Service.