

**FEDERAL AVIATION ADMINISTRATION  
AIRWORTHINESS DIRECTIVES**

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

**BIWEEKLY 2020-06**

*03/02/2020 - 03/15/2020*



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

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## SMALL AIRCRAFT, ROTORCRAFT, GLIDERS, BALLOONS, & AIRSHIPS

AD No.	Information	Manufacturer	Applicability
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Information Key: E – Emergency; COR – Correction; R – Replaces, A – Affects

**Biweekly 2020-01**

2019-22-08

Leonardo S.p.A

AW169 and AW189 helicopters

**Biweekly 2020-02**

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

**Biweekly 2020-03**

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

**Biweekly 2020-04**

2020-02-11      R 2015-04-04  
2020-02-17  
2020-02-23

Bell Helicopter Textron Inc.  
Sikorsky Aircraft Corporation  
Airbus Helicopters

412 and 412EP helicopters  
S-70, S-70A, S-70C, S-70C(M), and S-70C(M1) helicopters  
AS350B, AS350BA, AS350B1, AS350B2, AS350B3,  
AS350C, AS350D, and AS350D1; AS355E, AS355F,  
AS355F1, AS355F2, AS355N, and AS355NP helicopters  
SF50 airplanes

2020-03-50

Cirrus Design Corporation

**Biweekly 2020-05**

2020-03-13  
2020-03-16

Leonardo S.p.A.  
Textron Aviation Inc.

AW189 helicopters  
210G, T210G, 210H, T210H, 210J, T210J, 210K, T210K,  
210L, T210L, 210M, and T210M airplanes

**Biweekly 2020-06**

2020-04-21

Bell Helicopter Textron Canada  
Limited

429 helicopters

2020-05-11

Robinson Helicopter Company

R44 and R44 II helicopters



**2020-04-21 Bell Helicopter Textron Canada Limited:** Amendment 39-19862; Docket No. FAA-2020-0221; Product Identifier 2019-SW-042-AD.

**(a) Applicability**

This AD applies to Bell Helicopter Textron Canada Limited Model 429 helicopters, certificated in any category, with a serial number 57001 through 57343 inclusive, 57346 through 57349 inclusive, 57352 through 57356 inclusive, and 57362, with a curvic coupling part number 429-012-120-101 installed.

**(b) Unsafe Condition**

This AD defines the unsafe condition as an improperly installed curvic coupling of the tail rotor (T/R) hub and blade assembly. This condition could result in loosening of the T/R assembly, which could cause vibration and loss of drive to the outboard T/R blades, and subsequent degraded directional control.

**(c) Effective Date**

This AD becomes effective March 31, 2020.

**(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 10 hours time-in-service, using a light source, flap the inboard and outboard T/R blades to inspect for proper engagement of the inboard and outboard curvic coupling teeth with the inboard and outboard flapping bearing teeth as shown in Figure 2 of Bell Alert Service Bulletin 429-19-45, dated April 16, 2019 (ASB 429-19-45).

(i) If the teeth are not properly engaged, before further flight, remove the T/R hub and blade assembly and do the following:

Note to paragraph (e)(1)(i) of this AD: Figure 1 of ASB 429-19-45 shows an example of improperly engaged teeth.

(A) Inspect the inboard flapping bearing teeth and the curvic coupling teeth that mate to them for a crack, wear, mechanical damage, and corrosion. If there is a crack, wear, mechanical damage, or corrosion on the teeth, before further flight, replace with an airworthy part.

(B) Inspect the outboard flapping bearing teeth and the curvic coupling teeth that mate to them for a crack, wear, mechanical damage, and corrosion. If there is a crack, or wear, mechanical damage, or corrosion on the teeth, before further flight, replace with an airworthy part.

(C) With the T/R hub and blade assembly installed, perform a rigging check of the directional control system.

(ii) If the teeth are properly engaged, before further flight, inspect for axial play between both the inboard and outboard T/R hub and blade assemblies.

(A) If there is axial play, remove the T/R hub and blade assembly, and perform the actions required by paragraph (e)(1)(i)(A) through (C) of this AD.

(B) If there is no axial play, inspect for play between the teeth of the curvic coupling and both the inboard and outboard flapping bearing teeth by applying a lead/lag force to the inboard and outboard T/R hub and blade assemblies. If there is play, remove the T/R hub and blade assembly, and perform the actions required by paragraph (e)(1)(i)(A) through (C) of this AD.

(2) Within 10 days after an inspection that resulted in replacing any part as required by paragraph (e)(1) of this AD, email a description of the inspection results that includes a description of each replaced part to: [productsupport@bellflight.com](mailto:productsupport@bellflight.com). Include the following information in the email subject line: "ASB 429-19-45," the helicopter's serial number, and the operator's name.

#### **(f) Paperwork Reduction Act Burden Statement**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

#### **(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: Kristi Bradley, Aerospace 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](mailto: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, the FAA suggests 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**

The subject of this AD is addressed in the Transport Canada Emergency AD No. CF-2019-15, dated April 26, 2019. You may view the Transport Canada Emergency AD on the internet at <https://www.regulations.gov> by searching for and locating it in Docket No. FAA-2020-0221.

#### **(i) Subject**

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

**(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) Bell Alert Service Bulletin 429-19-45, dated April 16, 2019.

(ii) [Reserved]

(3) For Bell service information identified in this AD, contact Bell Helicopter Textron Canada Limited, 12,800 Rue de l'Avenir, Mirabel, Quebec J7J1R4; telephone 450-437-2862 or 800-363-8023; fax 450-433-0272; or at <https://www.bellcustomer.com>.

(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, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on March 6, 2020.

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



**2020-05-11 Robinson Helicopter Company:** Amendment 39-19863; Docket No. FAA-2019-1053; Product Identifier 2018-SW-037-AD.

**(a) Effective Date**

This AD is effective April 16, 2020.

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to Robinson Helicopter Company Model R44 and R44 II helicopters, certificated in any category, with an agricultural spray system installed by Supplemental Type Certificate (STC) SR00286BO with spray systems serial-numbered 0045 through 0178 inclusive, installed.

Note 1 to paragraph (c) of this AD: STC SR00286BO approves the installation of Simplex Manufacturing Company Model 244 spray system (spray system). Earlier models of this system have a metal flanged fitting that is not affected by this AD.

**(d) Subject**

Joint Aircraft Service Component (JASC) Code: 2551, Agricultural Spray System.

**(e) Unsafe Condition**

This AD was prompted by a report of an in-flight failure of the spray system elbow pump fitting (pump fitting). The FAA is issuing this AD to prevent failure of the pump fitting, which could result in an in-flight engine shutdown.

**(f) Compliance**

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

**(g) Required Actions**

(1) Before further flight, and thereafter before each flight, visually inspect the spray system pump fitting for signs of stress, cracking, fatigue, and evidence of leaking by following the Accomplishment Instructions, paragraphs 1. through 4., of Simplex Mfg Alert Service Bulletin ASB2017-001, Initial Release, dated March 28, 2017 (ASB2017-001). If there is any sign of stress, cracking, fatigue, or evidence of leaking, before further flight, accomplish paragraph (g)(2) of this AD.

(2) Within 3 months, unless required before further flight by paragraph (g)(1) of this AD:

(i) Replace spray system pump fitting P/N P-58-0752-40 with fitting P/N 000-123847-000 and install cushion clamp P/N 000-115571-000 and cable tie hose supports by following the Accomplishment Instructions, paragraphs 1. through 6., of Simplex Mfg Service Letter SL2017-017, Revision B, dated March 14, 2018.

(ii) Install pump outlet cover P/N 244-302056-001 by following the Accomplishments Instructions, paragraphs 1. through 7., of Simplex Mfg Service Letter SL2017-030, Initial Release, dated March 12, 2018 (SL2017-030), except refer to Figure 2 when instructed to refer to Figure 1.

Note 2 to paragraph (g)(2)(ii) of this AD: SL2017-030 includes instructions that refer to a Figure 1; however, there is no Figure 1.

(iii) Pressurize the system and determine if the new fitting is functioning correctly by visually inspecting the spray system pump fitting for signs of stress, cracking, fatigue, and evidence of leaking by following the Accomplishment Instructions, paragraphs 1. through 4. of ASB2017-001. If there is any sign of stress, cracking, fatigue, or evidence of leaking, before further flight, remove from service the fitting, cushion clamp, cable tie hose supports, and pump outlet cover and replace with a new fitting, new cushion clamp, new cable tie hose supports, and new pump outlet cover, and repeat the actions required by this paragraph.

(3) After the effective date of this AD, do not install a Simplex Model 244 spray system approved under STC SR00286BO with pump fitting P/N P-58-0752-40 on any Robinson Helicopter Company Model R44 or R44 II helicopter.

#### **(h) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle ACO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (i) of this AD. Information may be emailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

#### **(i) Related Information**

For more information about this AD, contact Chris Bonar, Aerospace Engineer, Airframe Section, FAA, Seattle ACO Branch, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3521; email: Christopher.Bonar@faa.gov.

#### **(j) Material Incorporated by Reference**

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

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

(i) Simplex Mfg Alert Service Bulletin ASB2017-001, Initial Release, dated March 28, 2017.

(ii) Simplex Mfg Service Letter SL2017-017, Revision B, dated March 14, 2018.

(iii) Simplex Mfg Service Letter SL2017-030, Initial Release, dated March 12, 2018.

(3) For Simplex Mfg service information identified in this AD, contact Simplex Manufacturing Company, 13340 NE Whitaker Way, Portland, OR 97230; phone 503-257-3511; fax 503-257-8556; internet [www.simplex.aero](http://www.simplex.aero).

(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, email [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on March 6, 2020.

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