

LUFTVÄRDIGHETSDIREKTIV (LVD)

A Motordrivna Luftfartyg Robinson Helicopter Company LVD Nr 2-3082

Sektion 2. Utlandstillverkad flygmateriel

TITEL: Sprickkontroll av omställningsarm för styrplatta

GÄLLER: Modell R22 med installerad omställningsarm P/N A203-5.

ATGÄRD: Utför åtgärder angivna i bifogad kopia av FAA Emergency AD

2000-20-51.

TID FÖR ÅTGÄRD: Före flygning och därefter i intervaller angivna i FAA Emergency AD

2000-20-51.

UNDERLAG: Robinson Helicopter Company R22 Service Bulletin SB-88A, daterad den

13 september 2000.

REFERENS: FAA Emergency AD 2000-20-51

BESLUTSDATUM: 5 oktober 2000

LFS: 2000:120

Åtgärder enligt LVD utgör nödvändig förutsättning för ifrågavarande flygmateriels luftvärdighet. Referens BCL M 1.11.

Anteckning om åtgärd, som vidtagits i enlighet med LVD, skall införas i teknisk journal för berörd flygmateriel med hänvisning till ifrågavarande LVD-nummer. Angivet underlag refererar till senast gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

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EMERGENCY AIRWORTHINESS DIRECTIVE

REGULATORY SUPPORT DIVISION P.O. BOX 26460 OKLAHOMA CITY, OKLAHOMA 73125-0460 U.S. Department of Transportation Federal Aviation Administration

We post ADs on the internet at "av-info.faa.gov"

DATE: October 4, 2000 2000-20-51

Send to all U.S. owners and operators of Robinson Helicopter Company Model R22 helicopters.

This Emergency Airworthiness Directive (AD) is prompted by several reports of cracks in the yoke half assembly (yoke), part number (P/N) A203-5, during pre-flight inspections. The cracked yokes were still in service and functioned for an unknown duration. Several lots of the yokes were machined from 2024-T3 aluminum billet, which has poor stress corrosion properties in the transverse grain directions. Clamping the yokes in place causes a preload tension in areas that have exposed transverse grain. When these areas are exposed to a corrosive environment, such as salty air, stress corrosion causes crack formation and growth. This condition, if not corrected, could result in separation of the yokes from the main rotor drive shaft and subsequent loss of control of the helicopter.

The FAA has reviewed Robinson Helicopter Company R22 Service Bulletin SB-88A, dated September 13, 2000, which describes procedures for determining the lot number for yokes, P/N A203-5, and replacing any affected yoke with yoke, P/N A203-7.

The visual check required by this AD may be performed by an owner/operator (pilot) but must be entered into the aircraft records showing compliance with paragraph (a) of this AD in accordance with 14 CFR 43.11 and 91.417(a)(2)(v). This AD allows a pilot to perform this check because it involves only a visual check for a crack in the yoke and can be performed equally well by a pilot or a mechanic.

Since we have identified an unsafe condition that is likely to exist or develop on other Robinson Helicopter Company Model R22 helicopters of the same type design, this AD requires the following:

- Before further flight and thereafter before the first flight of each day, check the identified area of each yoke for a crack.
- If a yoke has a crack, before further flight, replace the yokes with airworthy yokes, P/N A203-7. Both yokes must be replaced with yoke, P/N A203-7.
- Before further flight after January 1, 2001, determine the lot identifier for each yoke, P/N A203-5, and replace any affected yokes, P/N A203-5, with yokes, P/N A203-7.

Determining that the installed yokes are not in the lots affected by this AD or replacing both yokes, P/N A203-5, with yokes, P/N A203-7, is terminating action for the requirements of this AD.

This rule is issued under 49 U.S.C. Section 44701 pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this emergency AD.

2000-20-51 ROBINSON HELICOPTER COMPANY: Docket No. 2000-SW-51-AD.

Applicability: Model R22 helicopters, with a yoke half assembly (yoke), Part number (P/N) A203-5, installed, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been otherwise modified, altered, or repaired in the area subject to the requirements of this AD. For helicopters that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (f) of this AD. The request should include an assessment of the effect of the modification, alteration, or repair on the unsafe condition addressed by this AD; and if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously. To prevent failure of a yoke, separation of a yoke from the main rotor drive shaft, and subsequent

loss of control of the helicopter, accomplish the following:

- (a) Before further flight and thereafter before the first flight of each day, check each yoke for a crack. See Figure A.
- (b) If a yoke is cracked, before further flight, replace the yokes with airworthy yokes, P/N A203-7. Both yokes must be replaced with yokes, P/N A203-7.
 - (c) Before further flight after January 1, 2001,

(1) Determine the Lot identifier of each yoke.

- (2) If the Lot identifier is from 24 through 43, if it is a letter code, or if it is illegible, replace yokes, P/N A203-5, with airworthy yokes, P/N A203-7. Yoke, P/N A203-7, cannot be installed with yoke, P/N A203-5.
- NOTE 2: Robinson Helicopter Company R22 Service Bulletin SB-88A, dated September 13, 2000, pertains to the subject of this AD.
- (d) The visual check required by paragraph (a) may be performed by an owner/operator (pilot) holding at least a private pilot certificate and must be entered into the aircraft records showing compliance with paragraph (a) in accordance with 14 CFR 43.11 and 91.417(a)(2)(v).

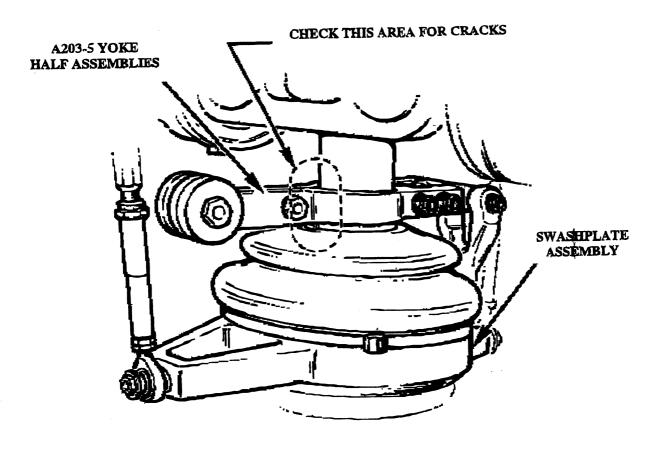


Figure A

- (e) Determining that the installed yokes, P/N A203-5, are not in the lots affected by this AD, or replacing yokes, P/N A203-5, with yokes, P/N A203-7, is terminating action for the requirements of this AD.
- (f) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Los Angeles Aircraft Certification Office, FAA. Operators shall submit their requests through an FAA Principal Maintenance Inspector, who may concur or comment and then send it to the Manager, Los Angeles Aircraft Certification Office.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles Aircraft Certification Office.

- (g) Special flight permits will not be issued.
- (h) Emergency AD 2000-20-51, issued October 4, 2000, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT: Fredrick A. Guerin, Aviation Safety Engineer, FAA, Los Angeles Aircraft Certification Office, Airframe Branch, 3960 Paramount Blvd., Lakewood, California 90712, telephone (562) 627-5232, fax (562) 627-5210.

Issued in Fort Worth, Texas, on October 4, 2000. Henry A. Armstrong, Manager, Rotorcraft Directorate, Aircraft Certification Service.