

LUFTVÄRDIGHETSDIREKTIV (LVD)

A. Helikopter **Robinson LVD Nr 2965**

Sektion 2. Utlandstillverkad flygmateriel

TITEL:

Ändring av flyghandbok

GÄLLER:

R22 S/N 0002 t o m 2862 med installerad koppling angivet i bifogad

kopia av FAA Priority Letter 99-07-17

ÅTGÄRD:

Utför åtgärder angivna i FAA Priority Letter 99-07-17

TID FÖR ÅTGÄRD:

Före flygning om ej tidigare utfört

UNDERLAG:

FAA Priority Letter 99-07-17 och däri angivet underlag

REFERENS:

FAA Priority Letter 99-07-17

BESLUTSDATUM:

1999-03-29

LFS 1999:64

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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Bilaga till LVD 2965

PRIORITY LETTER AIRWORTHINESS DIRECTIVE REGULATORY SUPPORT DIVISION P.O. BOX 26460 OKLAHOMA 73125-0460



DATE: March 26, 1999 99-07-17

This Priority Letter Airworthiness Directive (AD) is prompted by several reports of sprag clutch assemblies, including one from wreckage of an accident that occurred within the past year, with cracked or fractured sprag ends. The sprag clutch failures, determined to be due to a change in the manufacturing process, could result in loss of main rotor revolutions-per-minute (RPM) during autorotations. The intent of this AD is to alert pilots of the potential for the sprag clutch failing to overrun during autorotation, loss of main rotor RPM, and subsequent loss of control of the helicopter.

The FAA has reviewed Robinson Helicopter Company R22 Service Bulletin SB-85, dated March 22, 1999, which describes inserting a Special Pilot Caution into the Normal Procedures section of the Rotorcraft Flight Manual (RFM). This Special Pilot Caution addresses autorotation maneuvers and a check for proper function of the sprag clutch. Inserting the Special Pilot Caution is an interim action. The FAA will issue an AD to supersede this AD and require replacing the clutch assembly when parts become available from the manufacturer.

Since an unsafe condition has been identified that is likely to exist or develop on other Robinson Helicopter Company Model R22 helicopters of the same type design, this AD requires, before further flight, inserting the Special Pilot Caution into the Normal Procedures section of the RFM.

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 priority letter.

99-07-17 ROBINSON HELICOPTER COMPANY: Priority Letter issued on March 26, 1999. Docket No. 99-SW-24-AD.

Applicability: Model R22 helicopters, serial numbers (S/N) 0002 through 2862, with sprag clutch, part number (P/N) A188-2, S/N's 3708 through 3757, 3808 through 3893, and 3908 through 4207, 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 (b) 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 before further flight, unless accomplished previously.

To alert pilots of the potential for the sprag clutch failing to overrun during autorotation due to failure of the sprags within the sprag clutch assembly, and loss of main rotor revolutions-per-minute, accomplish the following:

(a) Insert either the Special Pilot Caution, revised March 22, 1999, which is contained in Robinson Helicopter Company R22 Service Bulletin SB-85, dated March 22, 1999, or the following Special Pilot Caution paragraphs, into the Normal Procedures section of the Rotorcraft Flight Manual, between pages P.4-8 and P.4-9:

SPECIAL PILOT CAUTION

Some sprags in overrunning clutches have been found cracked in service. A broken sprag could conceivably prevent the clutch from overrunning when entering autorotation. Until the clutch in this aircraft has been replaced, <u>do not</u> enter practice autorotations by rapidly closing or "chopping" the throttle. "Chopping" the throttle could result in a sudden loss of rotor RPM if the clutch failed to disengage.

Enter autorotation by first lowering collective and then rolling off just enough throttle to produce a small visible split between the rotor and engine tachometer needles. If the clutch fails to disengage, immediately complete a power recovery. Perform hovering autos only after checking the function of the overrunning sprag clutch prior to lift-off,

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then smoothly rolling off the throttle from a low hover with the skids no more than two feet above the ground.

Be sure to perform the sprag clutch check (split tach needles) before every flight, not just the first flight of the day.

- (b) 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 a 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.
- (c) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the helicopter to a location where the requirements of this AD can be accomplished.
 - (d) Priority Letter AD 99-07-17, issued March 26, 1999, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT: Elizabeth Bumann, Aerospace Engineer, FAA, Los Angeles Aircraft Certification Office, Propulsion Branch, 3960 Paramount Blvd., Lakewood, California 90712, telephone (562) 627-5265, fax (562) 627-5210.