LUFTFARTSVERKET
Luftfartsinspektionen

LUFTVÄRDIGHETSDIREKTIV (LVD)

A. Helikopter
Robinson
LVD Nr 2912

Sektion 2. Utlandstillverkad flygmateriel

TITEL: **Kontroll av bränsletankarnas urluftningsrör**

GÄLLER: Modell R22 S/N 0002 tom 1451 se även under compliance i FAA AD 98-21-09

ÅTGÄRD: Utför åtgärder angivna i bifogad kopia av FAA Priority Letter 98-21-09

TID FÖR ÅTGÄRD: Inom 25 flygtimmar eller 30 dagar vilket som först inträffar räknat från detta LVD's beslutsdatum, om ej tidigare utfört

UNDERLAG: FAA Priority Letter 98-21-09 och där angivet underlag

REFERENS: FAA Priority letter 98-21-09

BESLUTSDATUM: 1998-10-20

LFS 1998:68

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.

Postadress	Gatuadress	Telefonnummer	Telegram	Telex
			Civilair	
601 79 NORRKÖPING	Vikboplan 11	011-192000	Norrköping	62450

PRIORITY LETTER AIRWORTHINESS DIRECTIVE **Bilaga till LVD 2912**

REGULATORY SUPPORT DIVISION
P.O. BOX 26460
OKLAHOMA CITY, OKLAHOMA 73125-0460

U.S. Department
of Transportation
Federal Aviation
Administration

DATE: September 29, 1998
98-21-09

98 -10- 07

This Priority Letter Airworthiness Directive (AD) is prompted by an incident in which a hard landing resulted from an uncommanded engine shutdown. The pilot reported that the fuel quantity gauges indicated fuel consumption from the auxiliary fuel tank only, with the main fuel tank indication remaining at or near full. When the auxiliary fuel tank quantity gauge reached empty, the engine misfired and then stopped. An inspection revealed a kink in the flexible vent tube connecting the rigid vent tube to the main fuel tank. Two similar incidents have occurred with this single vent design. This condition, if not corrected, could result in fuel starvation, loss of engine power, and a subsequent forced landing.

The FAA has reviewed Robinson Helicopter Company (RHC) R22 Service Bulletin SB-83 (SB-83), dated March 4, 1997, which describes procedures for modifying attachment of the fuel tank vent(s); and RHC R22 Service Bulletin SB-84 (SB-84), dated September 8, 1998, which describes procedures for installing springs in the vent tubes to prevent kinks. RHC kit instructions KI-118-1 R22 Fuel Tank Vent Upgrade For Ships Without Auxiliary Tank, dated March 4, 1997, and RHC KI-118-2 R22 Fuel Tank Vent Upgrade For Ships With Auxiliary Tank, dated April 29, 1997, which describe procedures for installing fuel tank vent tube(s), part number (P/N) A731-3, are attached to SB-83. RHC kit instructions KI-140 R22 Fuel Tank Vent Upgrade For Fuel Tanks With Single Vent, dated September 3, 1998, which describes procedures for installing springs into the flexible tube leading to the main fuel tank, and, if an auxiliary fuel tank is installed, into the flexible tube leading to the auxiliary fuel tank, is attached to SB-84.

Since an unsafe condition has been identified that is likely to exist or develop on other RHC Model R22 helicopters of the same type design, this AD requires, within 25 hours time-in-service (TIS) or 30 calendar days after the effective date of this AD, whichever occurs first: installing fuel tank vent tube(s), P/N A731-3, with modified attachment to the mast tube, if not previously accomplished; installing a spring, P/N B408-2, into the flexible tube leading to the main fuel tank; and installing a spring, P/N B408-1, into the flexible tube leading to the auxiliary fuel tank, if an auxiliary fuel tank is installed.

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.

98-21-09 ROBINSON HELICOPTER COMPANY: Docket No. 98-SW-45-AD.

Applicability: Model R22 helicopters, serial numbers 0002 through 1451, inclusive, certificated in any category.

NOTE 1: This AD applies to each helicopter identified in the preceding applicability provision, regardless of whether it has been 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 use the authority provided in paragraph (c) to request approval from the FAA. This approval may address either no action, if the current configuration eliminates the unsafe condition, or different actions necessary to address the unsafe condition described in this AD. Such a request should include an assessment of the effect of the changed configuration on the unsafe condition addressed by this AD. In no case does the presence of any modification, alteration, or repair remove any helicopter from the applicability of this AD.

Compliance: Required within 25 hours time-in-service or 30 calendar days after the effective date of this AD, whichever occurs first, unless accomplished previously.

To prevent fuel starvation, loss of engine power, and a subsequent forced landing, for helicopters overhauled by Robinson Helicopter Company (RHC) prior to January 1, 1991, which do not have a main fuel tank (only) with dual vent tubes, or, if the auxiliary fuel tank is installed, do not have a crossover vent tube between the fuel tanks, accomplish the following:

(a) Visually inspect the fuel tank vent tube(s) in the mast fairing. If each fuel tank vent tube is attached only to the mast tube at two locations, the helicopter complies with the requirements of paragraph (a) of this AD. If each fuel tank vent tube is attached to the mast tube at one location, and to the rain scupper (channel), part number (P/N) A032-16, on the fuel tank cowling at another location:

(1) For helicopters without an auxiliary fuel tank installed, remove the existing vent tube, P/N A731-1, and install an airworthy vent tube, P/N A731-3, with flexible tube, P/N A729-7, using a MS27039C0806 screw and AN960-8L washer (alternate P/N NAS1149FN816P) at the lower clamp, P/N A695-1 (see Figure 1).

(2) For helicopters with an auxiliary fuel tank installed, remove the existing main fuel tank vent tube, P/N A731-1, and auxiliary fuel tank vent tube, P/N A731-2, and install airworthy vent tubes, P/N A731-3, with flexible tube, P/N A729-7, for main tank and flexible tube, P/N A729-17, for auxiliary tank using MS27039C0807 screw and AN960-8L washer (alternate P/N NAS1149FN816P) at lower clamp, P/N A695-1 (see Figure 2).

.. Install spring, P/N B408-2, into the flexible vent tube, P/N A729-7, leading to the main fuel tank; and install spring, P/N B408-1, into the flexible vent tube, P/N A729-17, leading to the auxiliary fuel tank (if an auxiliary fuel tank is installed), in accordance with RHC kit instructions KI-140 R22 Fuel Tank Vent Upgrade For Fuel Tanks With Single Vent, dated September 3, 1998.

NOTE 2: RHC R22 Service Bulletin SB-83, dated March 4, 1997, and RHC R22 Service Bulletin SB-84, dated September 8,1998, pertain to the subject of this AD.

(c) 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.

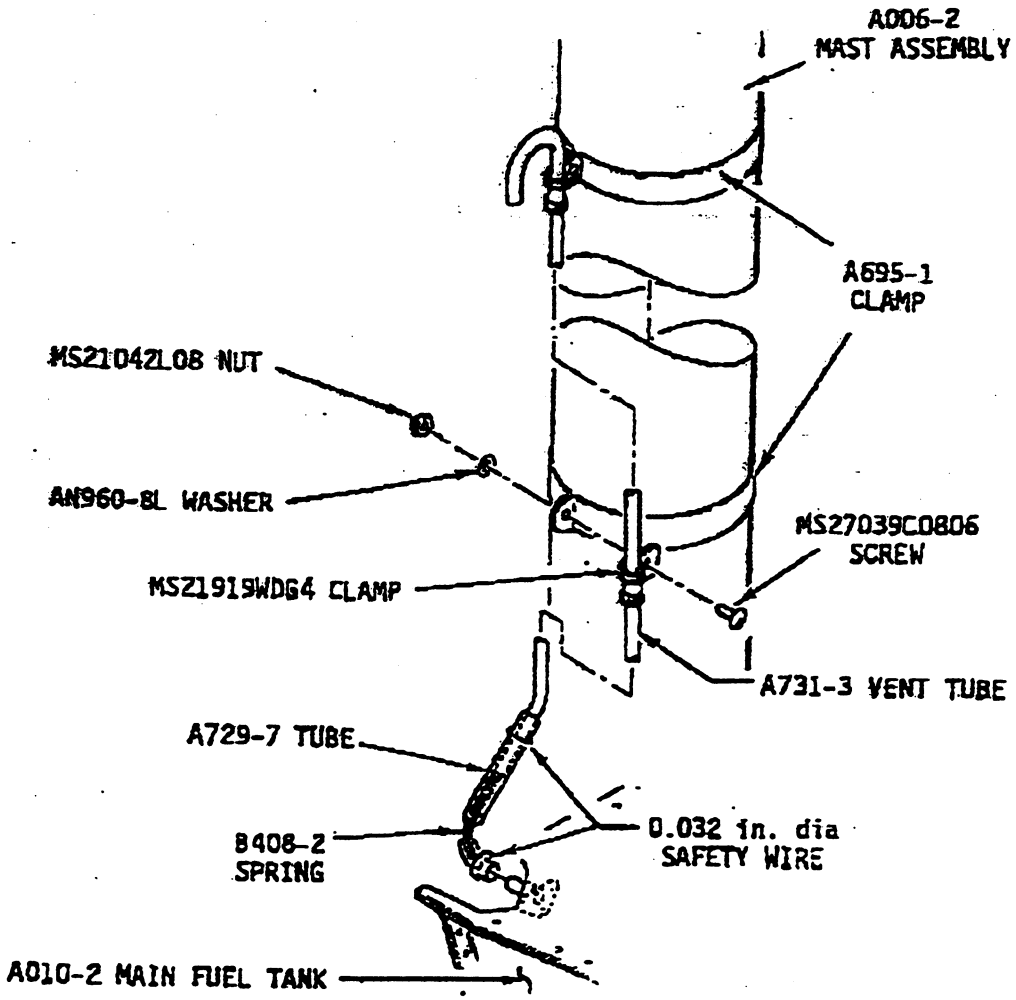
NOTE 3: Information concerning the existence of approved alternative methods of compliance with this AD, if any, may be obtained from the Los Angeles Aircraft Certification Office.

(d) 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.

(e) Copies of the applicable service information may be obtained from Robinson Helicopter Company, 2901 Airport Drive, Torrance, California 90505. This information may be examined at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas.

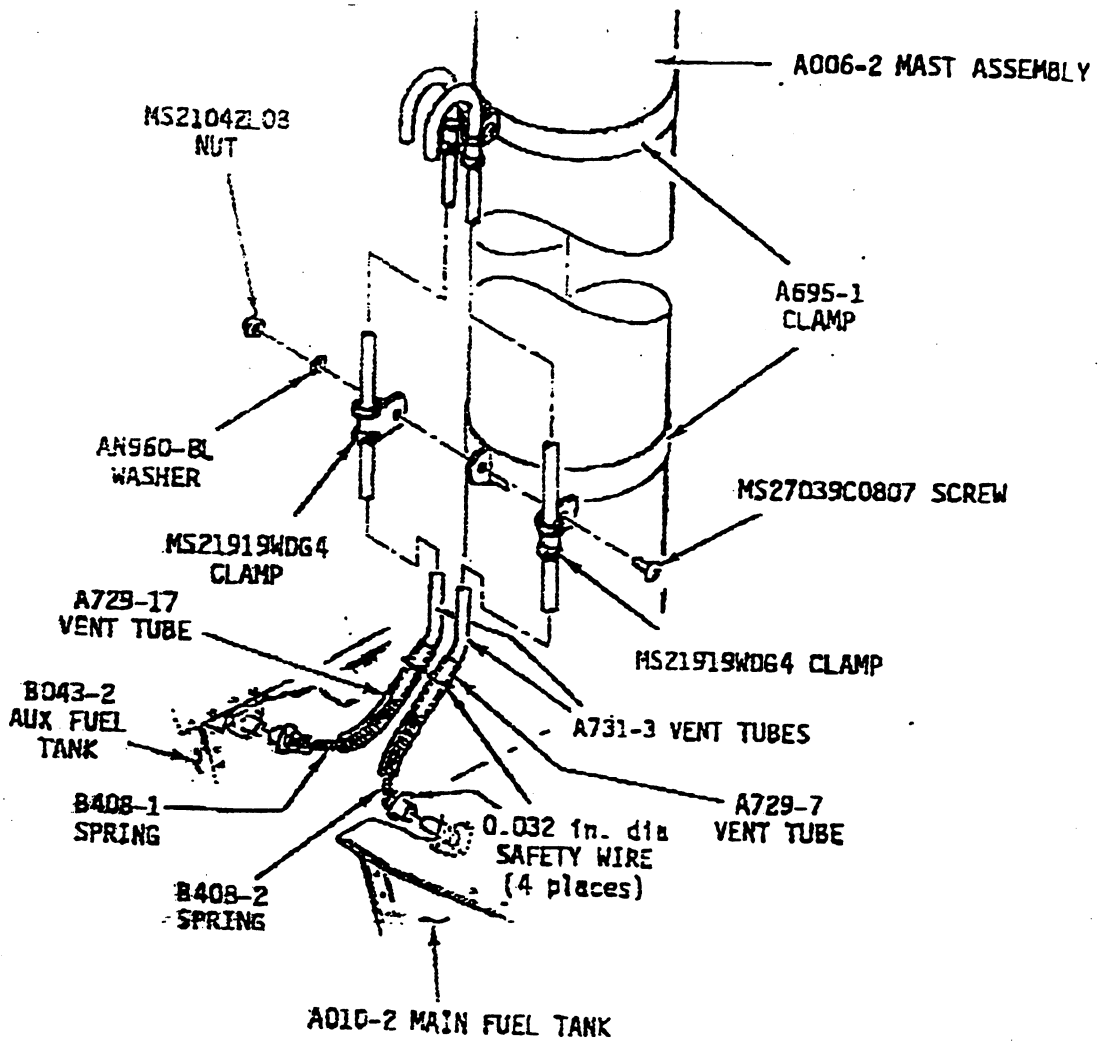
(f) Priority Letter AD 98-21-09, issued September 29, 1998, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT: Ms. 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.



HELICOPTER WITHOUT AUXILIARY FUEL TANK

FIGURE 1
AD 98-21-09



HELICOPTER WITH AUXILIARY FUEL TANK

FIGURE 2
AD 98-21-09