LUFTFARTSVERKET
Luftfartsinspektionen

LUFTVÄRDIGHETSDIREKTIV (LVD)

Propeller
Hartzell
LVD Nr 2498A
Upphäver LVD 2498

Sektion 2. Utlandstillverkad flygmateriel R1

TITEL: **Sprickundersökning av propellernav**

GÄLLER: Trebladiga propellrar HC-()3Y-() modeller med S/N och installerade på motorer och flygplan enligt bifogad kopia av FAA AD 94-17-13.

ÅTGÄRD: Utför åtgärder i enlighet med angivet underlag.

TID FÖR ÅTGÄRD: Inom 10 flygtimmar räknat från detta LVD's utgivningsdatum och därefter i intervaller angivna i FAA AD 94-17-13.

UNDERLAG: FAA AD 94-17-13
Hartzell Propeller Inc. SB nr 165E, daterad 21 januari 1994.

REFERENS: FAA AD 94-17-13

UTGIVNINGS-DATUM: 1994-10-27

LFS: 1994:38

Åtgärd enligt LVD utgör nödvändig förutsättning för ifrågavarende 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 senaste gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

L 1563-1

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AIRWORTHINESS DIRECTIVE

FLIGHT STANDARDS SERVICE
REGULATORY SUPPORT DIVISION
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U.S. Department
of Transportation
Federal Aviation
Administration

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Federal Aviation Regulations, Part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference FAR Subpart 39.3).

94-17-13 Hartzell Propeller Inc.: Docket No. 94-ANE-19. Supersedes AD 93-16-14, Amendment 39-8704.

Applicability: Hartzell Propeller Inc. HC-( )3Y( )-( ) series three-bladed propellers with model designations and serial number ranges listed as follows:

Propeller Basic Hub Model	**Propeller Serial Number Range**
PHC-C3YF-1R( )	EE1 through EE1461
PHC-J3YF-1R( )	FP1 through FP37
PHC-L3YF-1R( )	FD1 through FD7
HC-C3YF-1R( )	EC1 through EC1020
HC-C3YK-1R( ) or HC-C3YR-1R( )	DY1 through DY1897
HC-C3YK-1( )	CT1 through CT101
HC-C3YK-2( ) or HC-C3YR-2( )	CK1 through CK3510
HC-C3YK-4( ) or HC-C3YR-4( )	EL1 through EL67
HC-E3YK-1( ) or HC-E3YR-1( )	FM1 through FM487
HC-E3YK-2( ) or HC-E3YR-2( )	DF1 through DF79
HC-E3YK-2A( ) or HC-E3YR-2A( )	DJ1 through DJ7787
HC-F3YK-2( ) or HC-F3YR-2( )	DA1 through DA1586
HC-F3YK-1( ) or HC-F3YR-1( )	DB1 through DB137
HC-I3YK-2( ) or HC-I3YR-2( )	FS1 through FS32

This airworthiness directive (AD) applies to the above affected propellers when installed on any agricultural aircraft with any engine, or installed on any aircraft utilizing Textron Lycoming TIO-540 or LTIO-540 series reciprocating engines, or IO-540 series reciprocating engines that have a turbocharger added by the airframe manufacturer or have been modified by a Supplemental Type Certificate (STC) to incorporate a turbocharger, or a turbocharger retrofitted to an IO-540 engine by any other means. The known affected propellers are generally installed on, but not limited to the following aircraft:

AGRICULTURAL AIRCRAFT:
Fletcher FU24-950
Cessna A188 Agwagon modified by STC SA895SO
Piper PA-36-285 and PA-36-300 (three-bladed propellers only)
Piper PA-36-375
Piper PA-36 Pawnee modified by STC SA3952WE
Transavia Airtruk Models and PL-12/T-300 Skyfarmer

AIRCRAFT WITH TEXTRON LYCOMING TIO-540, LTIO-540, and TURBOCHARGED IO-540 SERIES ENGINES:
Cessna 310 and 320 modified by Riley STC SA2082WE
Gulfstream 700 (formerly Rockwell 700, Fuji FA-300-12)
Helio H-700
Piper PA-23-250 and PA-E23-250 (with TIO-540 only)
Piper PA-31 Navajo (with TIO-540 only)
Piper PA-31-325 Navajo C/R
Piper PA-31-350 Navajo "Chieftain"
Piper PA-31P-350 Mohave
Piper T-1020 (same as PA-31-350)
Piper PA-32(R)-301T Turbo Saratoga
Aerostar PA-60-600, PA-60-601, PA-60-601P, PA-60-602P, and PA-60-700P.

Propellers with model designations and serial number ranges listed above and installed on non-agricultural aircraft, which do **NOT** utilize Textron Lycoming TIO-540, LTIO-540, or turbocharged IO-540 series engines are exempt from this AD.

Propellers with new post-1983 hub configurations, i.e., which have the relocated grease fitting holes near the hub parting line as shown in Figure 1, page 9, of Hartzell Propeller, Inc., Service Bulletin (SB) No. 165E, dated January 21, 1994, even though the propeller model and serial number are listed above, are exempt from this AD.

Compliance: Required as indicated, unless accomplished previously.

To prevent possible propeller hub failure due to cracks that originate in the grease fitting holes on the side of the hub, which could result in propeller blade separation and loss of the aircraft, accomplish the following:

(a) For propellers installed on Textron Lycoming TIO-540 or LTIO-540 series reciprocating engines or turbocharged IO-540 series reciprocating engines which are installed on Piper PA-31-325 Navajo C/R, PA-31-350 Navajo "Chieftain," T-1020 (same as PA-31-350), PA-60-700P, Aerostar 700P aircraft, or propellers installed on any agricultural aircraft with any engine, accomplish the following:

(1) Within 10 hours time in service (TIS) after the effective date of this AD, but not to exceed 25 hours TIS since the last inspection, whichever occurs first, and thereafter at intervals of 10 hours TIS, perform a visual inspection for presence of grease on the propeller and determine the source of this grease leakage prior to further flight. Following the visual inspection, perform an eddy current inspection (ECI) or fluorescent penetrant inspection (FPI) for cracks in accordance with Hartzell Propeller Inc. SB No. 165E, dated January 21, 1994.

NOTE: Use of a black light to inspect the suspect area can aid in determining the source of grease leakage because authorized grease contains fluorescent properties.

(i) If grease is leaking from the hub arm or wall, replace the propeller with a serviceable propeller prior to further flight.

(ii) If grease is determined to be leaking from other causes, take the appropriate corrective maintenance action and record in appropriate maintenance records.

(2) If a crack is found in a propeller hub during the inspections required in paragraph (a)(1) of this AD, replace the propeller hub prior to further flight with a new post-1983 configuration propeller hub, or with a serviceable 1983 or earlier hub that has been inspected in accordance with Hartzell Propeller Inc. SB No. 165E, dated January 21, 1994. Thereafter, perform a visual inspection, and ECI or FPI, for cracks in accordance with Hartzell Propeller Inc. SB No. 165E, dated January 21, 1994, at intervals not to exceed 10 hours TIS since the last inspection, unless a new post-1983 later style propeller hub is installed, per paragraph (d) of this AD.

(b) For propellers installed on all other aircraft models, except for the four non-agricultural models listed in paragraph (a) of this AD, and that utilize Textron Lycoming TIO-540, LTIO-540, or turbocharged IO-540 series reciprocating engines accomplish the following:

(1) Within 50 hours TIS after the effective date of this AD, but not to exceed 50 hours TIS since the last inspection, and thereafter at intervals of 50 hours TIS, perform a visual inspection for presence of grease on the propeller and determine the source of this grease leakage prior to further flight. Following the visual inspection, perform an ECI or FPI for cracks in accordance with Hartzell Propeller Inc. SB No. 165E, dated January 21, 1994.

NOTE: Use of a black light to inspect the suspect area can aid in determining the source of grease leakage because authorized grease contains fluorescent properties.

(i) If grease is leaking from the hub arm or wall, replace the propeller with a serviceable propeller prior to further flight.

(ii) If grease is determined to be leaking from other causes, take the appropriate corrective maintenance action and record in appropriate maintenance records.

(2) If a crack is found in a propeller hub during the inspections required in paragraph (b)(1) of this AD, replace the hub prior to further flight with a new post-1983 configuration propeller hub, or with a serviceable 1983 or earlier hub that has been inspected in accordance with Hartzell Propeller Inc. SB No. 165E, dated January 21, 1994. Thereafter, perform a visual inspection, and ECI or FPI, at intervals not to exceed 50 hours TIS since the last inspection, in accordance with paragraph (b)(1) of this AD, unless a new post-1983 configuration propeller hub is installed, per paragraph (d) of this AD.

(c) An alternative method of compliance in Hartzell Propeller Inc. SB No. 165E, dated January 21, 1994, describes a propeller hub modification to chamfer the inside and outside hub arm surfaces of the grease hole fitting. Performing this interim modification allows an operator to extend the initial and repetitive inspection period as required by paragraphs (a)(1) or (b)(1) of this AD, as applicable, to 400 hours TIS.

"Comments to Docket Number 94-ANE-19." The postcard will be date stamped and returned to the commenter.

The regulations adopted herein will not have substantial direct effects on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

The FAA has determined that this regulation is an emergency regulation that must be issued immediately to correct an unsafe condition in aircraft, and is not a "significant regulatory action" under Executive Order 12866. It has been determined further that this action involves an emergency regulation under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979). If it is determined that this emergency regulation otherwise would be significant under DOT Regulatory Policies and Procedures, a final regulatory evaluation will be prepared and placed in the Rules Docket. A copy of it, if filed, may be obtained from the Rules Docket at the location provided under the caption "ADDRESSES."

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of the Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (14 CFR part 39) as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. App. 1354(a), 1421 and 1423; 49 U.S.C. 106(g); and 14 CFR 11.89.

§39.13 - [AMENDED]

2. Section 39.13 is amended by removing Amendment 39-8704 (58 FR 67307, December 21, 1993), and by adding a new airworthiness directive, Amendment 39-9008, to read as follows: