ÚCL

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PŘÍKAZ K ZACHOVÁNÍ LETOVÉ ZPŮSOBILOSTI

Číslo: CAA-AD-4-73/97R1

Reviduje CAA-AD-4-73/97

Datum vydání: 16. července 2003

Hartzell Propeller Inc.
( )HC-( )(2,3)(X, V)( )-( ), HA-A2V20-1B

VRTULE – DEFEKTOSKOPICKÁ KONTROLA

Týká se: vrtulí ( )HC-( )(2,3)(X, V)( )-( ) a HA-A2V20-1B, vybavených listy z hliníkových slitin, vyrobených firmou Hartzell Propeller Inc., jak je blíže uvedeno v části „Applicability" FAA AD 97-18-02R1 (příloha tohoto PZZ).

Důvod vydání: předejít oddělení listů vrtule kvůli trhlinám listů, vrtulové hlavy nebo objímek listů vrtule, což může vést ke ztrátě řiditelnosti letounu.

Datum účinnosti: 4.září 2003.

Provést v termínech:
Jak je popsáno v FAA AD 97-18-02R1 od data účinnosti tohoto PZZ.

Postup provedení prací:
Dle FAA AD 97-18-02R1

Poznámky:
- Provedení tohoto PZZ musí být zapsáno do záznamníku vrtule.
- Případné dotazy týkající se tohoto PZZ adresujte na ÚCL sekce technická – Ing. Beneš.
- Pokud to vyžaduje povaha tohoto PZZ, musí být zapracován do příslušné části dokumentace pro obsluhu, údržbu a opravy letadla.
- Tento PZZ byl vypracován na základě FAA AD 97-18-02R1, který reviduje FAA AD 97-18-02.

Ing. Pavel MATOUŠEK
ředitel

97-18-02R1 Hartzell Propeller Inc.: Amendment 39-13212. Docket No. 96-ANE-40-AD. Revises AD 97-18-02, Amendment 39-10112

Applicability: This airworthiness directive (AD) is applicable to Hartzell Propeller Inc. ( )HC-( )(2,3)(X,V)( )-( ) series and HA- A2V20-1B series propellers with aluminum blades. These propellers are installed on but not limited to the aircraft listed in the following Table 1:

Table 1.-Affected Aircraft

Manufacturer	Aircraft model
Aero Commander (Twin Commander).	500; 500A; 500B, 500S, and 500U; 520; 560; 560A, 560E; 680, 680E, 720; 680F, 680FP, 680FL, 680FLR; B1 (CALLAIR).
Aeromere	FALCO F.8.L.
Aeronautica Macchi	AL60-F5; AM-3.
Bauger	SAIL PLANE.
Beech	35 SERIES BONANZA; 35-C33 DEBONAIR; 35-C33A, E33A, F33A; 50 SERIES TWIN BONANZA; 58P, 58TC BARON; 95-55, 95-A55, 95-B55 BARON; 65, A65, 65-(B)80, 65-A80, A65-8200, 70.
Bellanca	14-13; 14-19; 14-19-2; 14-19-3; 7GCA, 7GCB, 7GCC; DW-1 EAGLE.
Camair	480.
Cessna	170; 170A; 172 SKYHAWK; 175; 180, A, B, C, D, E, F, G, H; 182, A, B, C, D, E, G, H, J, K, L, M; 210, A, B, C, 5, 5A; 310, A, B, C, D, E, F, G, H, E310H; 320, 320-1 SKYKNIGHT; 320A, 320B; 402 BUSINESSLINER; 411; WREN 460; WREN 460H, J, K, L, M.
deHavilland	DH104 DOVE; DH114 HERON.
Dornier	DO27Q-6; DO28A-1; DO28B-1.
Fuji	T-3, LM-2.
GAF-Gov't. Aircraft Factories	N22B, N24A, N22S, N22C.
Goodyear	(Loral); GA22A GOODYEAR BLIMP; GZ19, 19A GOODYEAR BLIMP.
Great Lakes	2T-1A-2.
Grumman	G44, G44A WIDGEON; G21C, D GOOSE.
Helio	H-391 COURIER; H-391B COURIER; H-395A COURIER.
Luscombe	11; 11A.
Mooney	M20.
Multitech (Temco)	D16 TWIN NAVION; D16A TWIN NAVION.
Nardi	FN-333.
Navion	NAVION B; NAVION, NAVION A.
Pacific Aerospace (Fletcher)	FU-24, FU-24A.
Piaggio	P-149D; P136-L1 ROYAL GULL; P136-L2 ROYAL GULL; P149D; P166 ROYAL GULL.
Pilatus	PC-3; PC-6; PC-6-H1, -H2 PORTER.
Piper	PA-E23-250 AZTEC; PA14 FAMILY CRUISER; PA18(A)(S)-150 SUPER CUB; PA18A-150 SUPER CUB;

	PA22-150, PA22S-150 TRIPACER; PA23 SERIES APACHE; PA23-160 APACHE; PA23-235 AZTEC; PA23-250 AZTEC; PA24-250 COMANCHE; PA24-400 COMANCHE; PA24S COMANCHE; PA28 CHEROKEE; PA28-140 CHEROKEE.
Prop Jets Inc.	200; 200A,B,C.
Republic (STOL Amphibian)	RC3 SEABEE.
Scottish Aviation (BAE)	B.206 SERIES 2 BEAGLE.
Stinson	L-5; 108, -1, -2, -3; 108-2-3.
Sud Aviation (SOCATA)	GY.80-150 GARDAN; GY.80-160 GARDAN HORIZON.
Swift	GC-1B.
Taylorcraft	20.
Texas Bullet	205.
Windecker	EAGLE.

Note 1: The above is not a complete list of aircraft which may contain the affected Hartzell Propeller Inc. ( )HC-( )(2,3)(X,V)( )- ( ) series and HA-A2V20-1B series propellers with aluminum blades because of installation approvals made by, for example, Supplemental Type Certificate or field approval under FAA Form 337 "Major Repair and Alteration." It is the responsibility of the owner, operator, and person returning the aircraft to service to determine if an aircraft has an affected propeller.

Note 2: The parentheses that appear in the propeller models indicate the presence or absence of additional letter(s) which vary the basic propeller hub model designation. This airworthiness directive is applicable regardless of whether these letters are present or absent on the propeller hub model designation.

Note 3: This AD applies to each propeller 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 propellers 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 (h) 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: Compliance with this AD is required as indicated, unless already done.

To prevent blade separation due to cracked blades, hubs, or blade clamps, which can result in loss of control of the airplane, accomplish the following:

Hartzell Propeller Models With Hub Models ( )HC-(1,4,5,8)(2,3)(X,V)( )- ( )

(a) On Hartzell propeller models with hub models ( )HC- (1,4,5,8)(2,3)(X,V)( )-( ) perform initial and repetitive inspections and, if necessary, replace with serviceable parts in accordance with Hartzell Propeller Inc. Service Bulletin (SB) No. HC-SB-61-217, Revision 1, dated July 11, 1997, as follows:

(1) Initially perform a fluorescent dye penetrant and eddy current inspection of the blade, an optical comparator inspection of the blade retention area, a dye penetrant inspection of the blade internal bearing bore, and a visual and magnetic particle inspection of the blade clamp and of the hub. The initial inspection is required within the following:

(i) 1,000 hours time-since-new (TSN) for propellers with less than 900 hours TSN on September 11, 1997, provided that the initial inspections are performed within 60 calendar months TSN or 24 calendar months after September 11, 1997, whichever calendar time occurs later, or

(ii) 100 hours time in service (TIS) for propellers with 900 or more hours TSN, or unknown TSN, on September 11, 1997, provided that the initial inspections are performed within 24 calendar months after September 11,

1997.

(2) Thereafter, perform repetitive fluorescent dye penetrant and eddy current inspection of the blade, an optical comparator inspection of the blade retention area, and a visual and magnetic particle inspection of the blade clamp. The repetitive inspection is required at intervals not to exceed 500 hours TIS or 60 calendar months, whichever occurs first, since last inspection.

(3) Thereafter, perform a repetitive visual and magnetic particle inspection of the hub. This repetitive hub inspection is required at intervals not to exceed 250 hours TIS or 60 calendar months, whichever occurs first, since last inspection.

(4) Thereafter, perform repetitive dye penetrant inspections of the blade internal bearing bore. This repetitive blade internal bearing bore inspection is required at intervals not to exceed 60 calendar months since last inspection.

Hartzell Propeller Models With Hub Models ( )HC-(A,D)(2,3)(X,V)( )-( ), and HA-A2V20-1B, Except HC-A3VF-7( )

(b) On Hartzell propeller models With hub models ( )HC- (A,D)(2,3)(X,V)( )-( ), and HA-A2V20-1B, except HC-A3VF-7( ), perform initial and repetitive inspections and, if necessary, replace with serviceable parts in accordance with Hartzell SB No. HC-SB-61-217, Revision 1, dated July 11, 1997, as follows:

(1) Initially perform a fluorescent dye penetrant and eddy current inspection of the blade, an optical comparator inspection of the blade retention area, a visual and magnetic particle inspection of the blade clamp, and a dye penetrant inspection of the blade internal bearing bore. The initial inspection is required within the following:

(i) 1,000 hours TSN for propellers with less than 800 hours TSN on September 11, 1997, provided that the initial inspections are performed within 60 calendar months TSN or 24 calendar months after September 11, 1997, whichever calendar time occurs later; or

(ii) 200 hours TIS for propellers with 800 or more hours TSN, or unknown TSN, on September 11, 1997, provided that the initial inspections are performed within 24 calendar months after September 11, 1997.

(2) Thereafter, perform repetitive fluorescent dye penetrant and eddy current inspection of the blade, an optical comparator inspection of the blade retention area, and a visual and magnetic particle inspection of the blade clamp. The repetitive inspection is required at intervals not to exceed 500 hours TIS or 60 calendar months, whichever occurs first, since last inspection.

(3) Thereafter, perform repetitive dye penetrant inspections of the blade internal bearing bore. This repetitive blade internal bearing bore inspection is required at intervals not to exceed 60 calendar months since last inspection.

Hartzell Propeller Models with Hub Models HC-A3VF-7( )

(c) On Hartzell propeller models with hub models HC-A3VF-7( ), perform initial and repetitive inspections and, if necessary, replace with serviceable parts in accordance with Hartzell SB No. HC-SB-61-217, Revision 1, dated July 11, 1997, as follows:

(1) Initially perform a fluorescent dye penetrant and eddy current inspection of the blade, an optical comparator inspection of the blade retention area, a visual and magnetic particle inspection of the blade clamp, and a dye penetrant inspection of the blade internal bearing bore. The initial inspection is required within the following:

(i) 3,000 hours TSN for propellers that have never been overhauled and have less than 2,500 hours TSN on September 11, 1997, provided that the initial inspections are performed within 60 calendar months TSN or 24 calendar months after September 11, 1997, whichever calendar time occurs later, or

(ii) 3,000 hours TIS since last overhaul for propellers that have been overhauled but have less than 2,500 hours TIS since last overhaul on September 11, 1997, provided that the initial inspections are performed within 60 calendar months TIS since last overhaul or 24 calendar months after September 11, 1997, whichever calendar

time occurs later, or

(iii) 500 hours TIS, for propellers that have never been overhauled and have 2,500 or more hours TSN on September 11, 1997, or propellers which have been overhauled and have 2,500 or more hours TIS since last overhaul on September 11, 1997, or propellers with unknown TSN, provided that the initial inspections were performed within 24 calendar months after September 11, 1997.

(2) Thereafter, perform repetitive fluorescent dye penetrant and eddy current inspection of the blade, an optical comparator inspection of the blade retention area, and a visual and magnetic particle inspection of the blade clamp. The repetitive inspection is required at intervals not to exceed 3,000 hours TIS or 60 calendar months, whichever occurs first, since last inspection.

(3) Thereafter, perform repetitive dye penetrant inspections of the blade internal bearing bore. This repetitive blade internal bearing bore inspection is required at intervals not to exceed 60 calendar months since last inspection.

(d) The initial inspection of the internal blade bearing bore required by paragraph (a)(1), (b)(1), or (c)(1) of this AD need not be done again if previously done in accordance with page 4 of Hartzell SB No. HC-SB-61-217, Revision 1, dated July 11, 1997.

(e) If not previously done, shot peen the propeller blade shank area during the initial inspection required by paragraph (a)(1), (b)(1), or (c)(1) of this AD, as appropriate, and perform the shot peening in accordance with Hartzell SB No. HC-SB-61-217, Revision 1, dated July 11, 1997. Re-shot peening of the propeller blade shank area during the initial or repetitive inspections required by paragraph (a)(1), (b)(1), or (c)(1) or (a)(2), (b)(2), or (c)(2) of this AD, as appropriate, is required only if the propeller blade shank area has been repaired or has excessive wear or damage in accordance with Hartzell SB No. HC-SB-61-217, Revision 1, dated July 11, 1997.

Reporting Requirements

(f) Report inspection results to the Manager, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 East Devon Ave., Des Plaines, IL 60018, within 15 working days of the inspection. Reporting requirements have been approved by the Office of Management and Budget (OMB) and assigned OMB control number 2120- 0056.

Optional Terminating Action

(g) Replacement of affected propellers with, or modification to Hartzell Propeller Inc. model "MV" series propellers constitutes terminating action for the initial and repetitive inspections specified in paragraphs (a) through (e) of this AD. The Hartzell "MV" series of propellers were certified as Hartzell propeller models ( )HC-( )(2,3)MV( )-( ) and HA-A2MV20-1. Information on modifying the propellers may be found in Hartzell SB No.'s HC-SB-61- 232, dated March 20, 1998, and HC-SB-61-233, dated April 17, 1998.

Alternative Methods of Compliance

(h) 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, Chicago Aircraft Certification Office. The request should be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Chicago Aircraft Certification Office. Compliance with Hartzell SB No. HC-SB-61-217, Revision 2, dated October 7, 1999, is an alternative method of compliance to Hartzell SB No. HC-SB-61-217, Revision 1.

Note 4: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Chicago Aircraft Certification Office.

Special Flight Permits

(i) Special flight permits may be issued in accordance with §§ 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the requirements of this AD can be done.

Documents That Have Been Incorporated by Reference

(j) The inspections and replacements with serviceable parts must be done in accordance with Hartzell Propeller Inc. SB No. HC-SB-61- 217, Revision 1, dated July 11, 1997. This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51 as of September 11, 1997 (62 FR 45309). Copies may be obtained from Hartzell Propeller Inc., One Propeller Place, Piqua, OH 45356-2634, ATTN: Product Support; telephone (937) 778-4200, fax (937) 778-4321. Copies may be inspected at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the
Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

Effective Date

(k) This amendment becomes effective on July 31, 2003.

Issued in Burlington, Massachusetts, on June 19, 2003.
Robert G. Mann,
Acting Manager, Engine and Propeller Directorate,
Aircraft Certification Service.
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