

HARTZELL PROPELLER INC.
SERVICE BULLETIN
TRANSMITTAL SHEET
HC-SB-61-165E
Propeller - Hub Inspection

December 22, 2015

This page transmits a revision to Service Bulletin HC-SB-61-165E.

- Original Issue, dated Jan 21/94
- Revision 1, dated Feb 03/14
- Revision 2, dated Dec 22/15

Propeller assemblies that have previously complied with the terminating action specified in a previous version of this Service Bulletin are not affected.

Propeller assemblies that have not previously complied with the terminating action specified in a previous version of this Service Bulletin are affected.

Changes are shown by a change bar in the left margin of the revised pages.

Revision 2 is issued to change the following in the Service Bulletin:

- Revise the description of "Option 2" in the Compliance section
- Make other language/format changes

This Service Bulletin is reissued in its entirety.

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1. Planning Information

A. Effectivity

- (1) Hartzell Propeller Inc. three blade, aluminum hub, "compact" ()HC-()3Y()-() series propellers manufactured before 1983 with serial numbers listed in Table 1, AND installed on any of the following are affected by this Service Bulletin:
 - (a) Lycoming (L)TIO-540 series engines
 - (b) Lycoming IO-540 series engines with a turbocharger
 - (c) Agricultural aircraft (regardless of engine type)
- (2) Affected propeller/applications that have NOT complied with the terminating action in a previous revision of this Service Bulletin or with the terminating action in FAA Airworthiness Directive 94-17-13 ARE affected by this Service Bulletin.
- (3) Propeller/applications that have complied with the terminating action in a previous revision of this Service Bulletin or with the terminating action in FAA Airworthiness Directive 94-17-13 are NOT affected by this Service Bulletin.
- (4) Refer to Table 2 for affected applications. Propellers may be installed on but not limited to the aircraft listed in Table 2.
- (5) During 1983, the propeller hub was redesigned to relocate the lubrication fitting holes near the hub parting line.
 - (a) There may be a few serial numbers listed in Table 1 that were manufactured with the lubrication fitting hole located at the hub parting line.
 - (b) Any hub with the lubrication fitting at the hub parting line is not affected by this Service Bulletin.
 - (c) Any hub with the lubrication fitting holes located on the shoulder of the hub must comply with the Compliance requirements in this Service Bulletin.
- (6) The parenthesis shown in the model designations throughout this Service Bulletin indicate letter(s) or number(s) that may or may not be present because of different configurations permitted on the various aircraft installations.
 - (a) Definition of propeller model designations and further details of letter(s) or number(s) that may be present are shown in Figure 1.

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Basic Propeller Model	Propeller Serial Number Range
PHC-C3YF-1R()	EE1(E) through EE1461(E)
PHC-J3YF-1R()	FP1(E) through FP37(E)
PHC-L3YF-1R()	FD1(E) through FD7(E)
HC-C3YF-1R()	EC1(E) through EC1020(E)
HC-C3YK-1()	CT1(E) through CT101(E)
HC-C3Y(K,R)-1R()	DY1(E) through DY1897(E)
HC-C3Y(K,R)-2()	CK1(E) through CK3510(E)
HC-C3Y(K,R)-4()	EL1(E) through EL67(E)
HC-E3Y(K,R)-1()	FM1(E) through FM487(E)
HC-E3Y(K,R)-2()	DF1(E) through DF79(E)
HC-E3Y(K,R)-2A()	DJ1(E) through DJ7787(E)
HC-F3Y(K,R)-1()	DB1(E) through DB137(E)
HC-F3Y(K,R)-2()	DA1(E) through DA1586(E)
HC-I3Y(K,R)-2()	FS1(E) through FS50(E)
<p>An "E" suffix letter may or may not be at the end of the hub and propeller serial number. The "E" suffix letter indicates previous compliance with eddy current inspections.</p>	
<p>NOTE: During 1983, a change was made to the design of the hub to relocate the lubrication fitting holes near the hub parting line. There may be a few serial numbers listed in Table 1 that were manufactured with the lubrication fitting hole located at the hub parting line. Any hub with the lubrication fitting at the hub parting line is not affected by this Service Bulletin. Refer to Figure 2.</p>	

Affected Serial Number Range for Affected Models
Table 1

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Propellers may be installed on but not limited to the following aircraft

Agricultural Aircraft Installations:

Fletcher FU24-950
Cessna A188 Agwagon modified by STC SA895SO
Piper PA-36-300 Pawnee
Piper PA-36 Pawnee modified by STC SA3952WE
Transavia Airtruk

Aircraft Installations with (L)TIO-540 Series Engines*:

Cessna 310 and 320 modified by Riley STC SA2082WE
Gulfstream 700 (formerly Rockwell 700, Fuji FA-300-12)
Helio H700
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
Piper PA-60-600, PA-60-601, and PA-60-602 Aerostar's modified by
Machen STC (turbocharged)
Piper PA-60-700P Aerostar 700P

* Some aircraft applications have "IO-540" series engines with a turbocharger added by the airframe manufacturer or STC holder or other FAA approved data. The intent of the Service Bulletin is that all aircraft with turbocharged 540 series engines are affected even if the engine data plate says "IO".

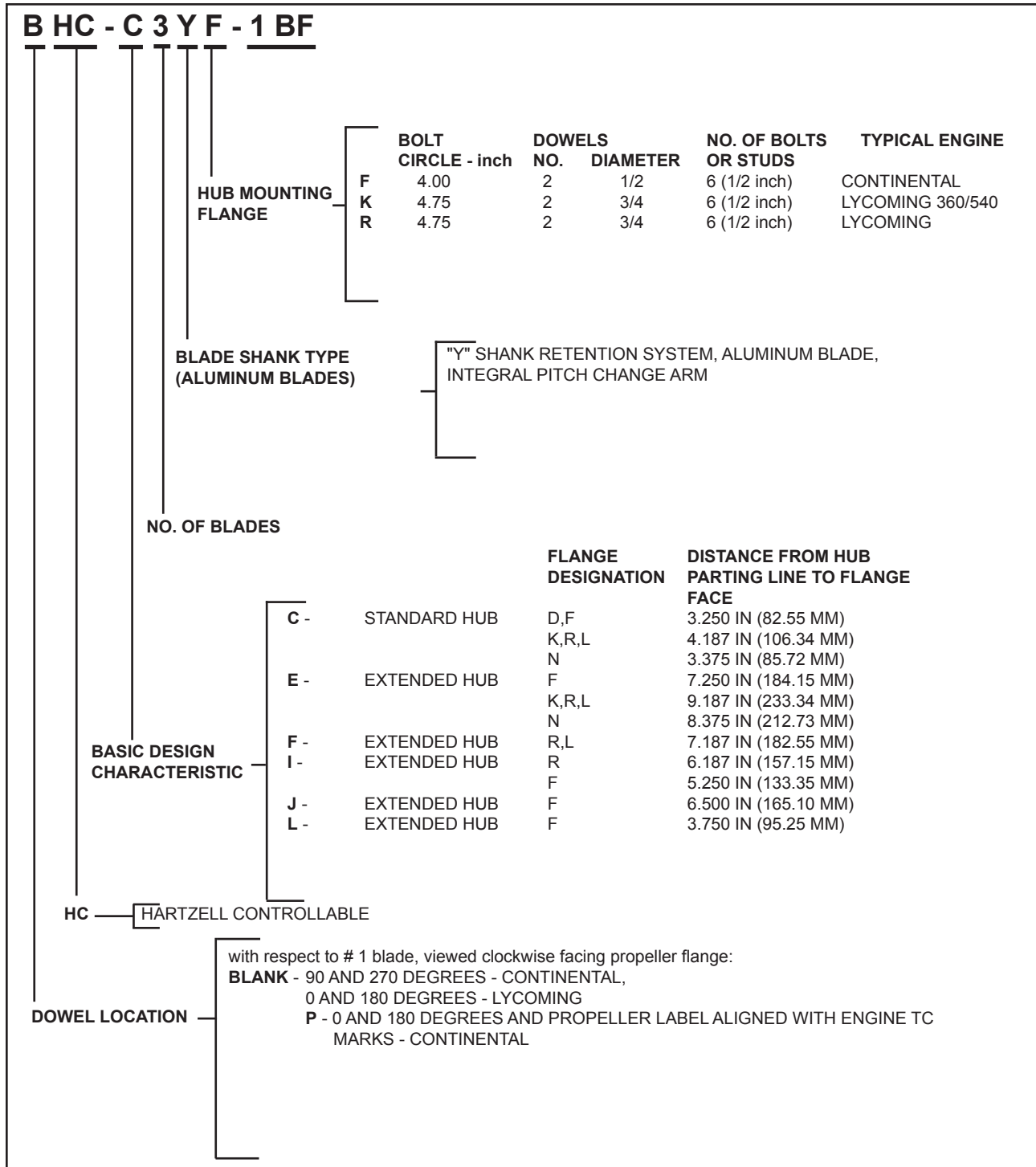
Affected Applications
Table 2

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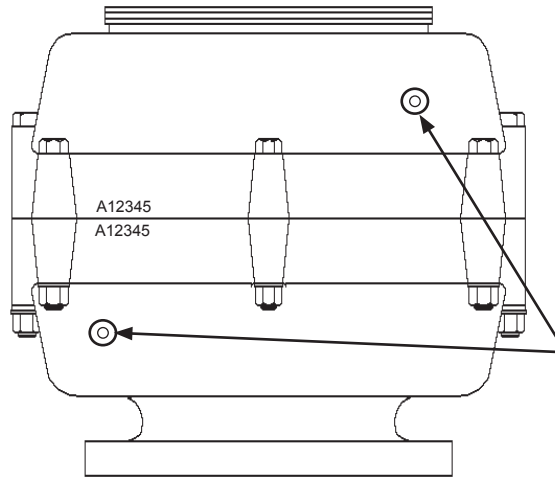
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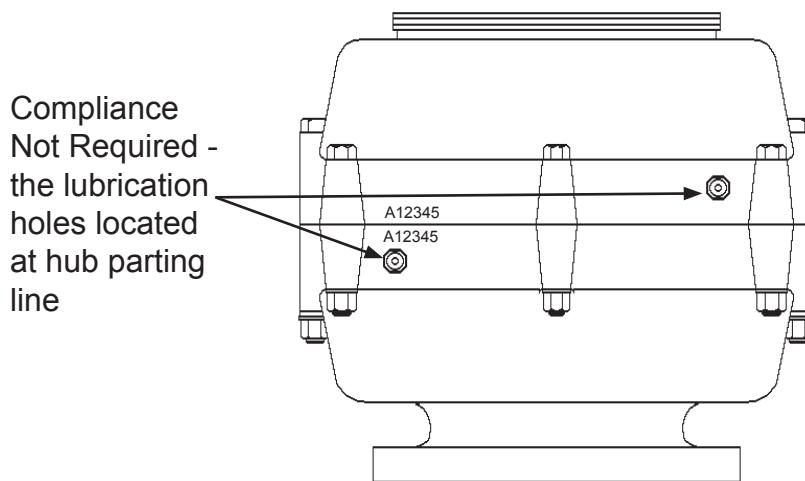
Model Designations for Aluminum Hub, Reciprocating Engine Propellers
Figure 1

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Compliance Required
- the lubrication holes
located on the shoulder

**Location of lubrication
fittings before 1983**



Compliance
Not Required -
the lubrication
holes located
at hub parting
line

**Location of lubrication
fittings after 1983**

**Hub Identification
Figure 2**

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WARNING: DO NOT USE OBSOLETE OR OUTDATED INFORMATION. PERFORM ALL INSPECTIONS OR WORK IN ACCORDANCE WITH THE MOST RECENT REVISION OF THIS SERVICE BULLETIN. INFORMATION CONTAINED IN THIS SERVICE BULLETIN MAY BE SIGNIFICANTLY CHANGED FROM EARLIER REVISIONS. FAILURE TO COMPLY WITH THIS SERVICE BULLETIN OR THE USE OF OBSOLETE INFORMATION MAY CREATE AN UNSAFE CONDITION THAT MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND/OR SUBSTANTIAL PROPERTY DAMAGE. REFER TO THE SERVICE BULLETIN INDEX FOR THE MOST RECENT REVISION LEVEL OF THIS SERVICE BULLETIN.

B. Concurrent Requirements

- (1) Additional service documents may apply to the components/propellers affected by this Service Bulletin. Compliance with additional service documents may be necessary in conjunction with the completion of the Accomplishment Instructions in this Service Bulletin. Refer to the Hartzell Propeller Inc. website at www.hartzellprop.com for a cross-reference of service documents.

C. Reason

WARNING: UNUSUAL OR ABNORMAL GREASE LEAKAGE OR VIBRATION, WHERE THE CONDITION INITIATED SUDDENLY, CAN BE AN INDICATION OF A FAILING PROPELLER BLADE OR BLADE RETENTION COMPONENT. AN INFLIGHT BLADE SEPARATION MAY RESULT IN DEATH, SERIOUS BODILY INJURY, AND/OR SUBSTANTIAL PROPERTY DAMAGE. UNUSUAL OR ABNORMAL GREASE LEAKAGE OR VIBRATION DEMANDS IMMEDIATE INSPECTION FOR POSSIBLE CRACKED HUB (FOR FURTHER INFORMATION ON THIS SUBJECT SEE HARTZELL PROPELLER INC. SERVICE LETTER HC-SL-61-165).

- (1) Metallurgical information increased the concern that there may be little operational time from the time that a crack becomes detectable (at the hub exterior surface) until subsequent crack growth results in blade separation.
- (2) Hartzell Propeller Inc. recognizes that such demanding inspection requirements will cause added difficulty in meeting aircraft operational commitments; however, Hartzell Propeller Inc. believes that such requirements are necessary in order to maintain flight safety.

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- (3) In Hartzell Propeller Inc. three blade "compact" aluminum hub propellers with the lubrication fitting hole located on the hub shoulder, cracks typically originate in the threads of a lubrication fitting hole on the inside of the hub. As the cracks propagate around the blade socket of the hub, the crack progression accelerates and results in failure of one hub half. Several incidents have resulted in blade separation.
- (4) This Service Bulletin imposes severe repetitive inspection requirements. The more restrictive requirements are placed on aircraft models that have a history of cracked or failed hubs. Other models, such as the PA-31 (310 hp), have had no failures but are addressed in this Service Bulletin because of their similarity to applications that have had failures. These models have a more liberal inspection requirement.
- (5) FAA Airworthiness Directive 94-17-13 was issued to address this issue.

D. Description

- (1) This Service Bulletin provides Instructions for Continued Airworthiness (ICA).
- (2) Previous revisions to this Service Bulletin, imposed a stringent compliance requirement for certain aircraft models to require repetitive eddy current inspections at 10 hour intervals.
- (3) Revision "E" of this Service Bulletin provided an alternate means of compliance, which increased the repetitive internal inspection to a one time 400 hour inspection with 100 hour intervals thereafter; however, it also required disassembly and rework of the propeller.
- (4) Revision 1 of this Service Bulletin introduced an additional optional terminating action for the affected propeller models to permit modification to an oil-filled configuration and removes the on-wing dye penetrant inspection.
- (5) Revision 2 of this Service Bulletin revises the description of "Option 2" in Compliance section for the affected propeller models.

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E. Compliance

CAUTION: A PROPELLER HUB FROM AN AIRCRAFT THAT IS AFFECTED BY THIS SERVICE BULLETIN MUST NOT BE REUSED ON ANOTHER AIRCRAFT APPLICATION THAT DOES NOT HAVE THE SAME INSPECTION REQUIREMENTS. SUCH HUB INTERCHANGEABILITY IS NO LONGER AUTHORIZED FOR THE APPLICATIONS LISTED IN EFFECTIVITY PARAGRAPH 1.A.(1). IF PROPELLER SERVICE HISTORY OR OTHER RECORDS INDICATE THAT SUCH A REPLACEMENT WAS MADE IN THE PAST, THEN THE 10 HOUR REPETITIVE INSPECTION SHOULD BE CONTINUED, REGARDLESS OF AIRCRAFT MODEL INSTALLED.

- (1) HC-E3YR-2A(L)(T)(F) installed on Piper Aircraft PA-31-325 or PA-31-350 Navajo C/R, Navajo Chieftian (T-1020);
HC-C3YR-2(L)UF installed on Aerostar Aircraft Corporation PA-60-700P;
and all Agricultural aircraft:

(a) Option 1

- 1 Within the next 10 flight hours from the last inspection in accordance with this Service Bulletin, or within 10 flight hours from the effective date of the original issue of this Service Bulletin, January 21, 1994, whichever occurs first:
 - a Perform the Hub Visual Inspection and Hub Eddy Current Inspection in accordance with the Accomplishment Instructions in this Service Bulletin.
 - b At intervals not to exceed 10 hours of operation, repeat the Hub Visual Inspection and Hub Eddy Current Inspection in accordance with the Accomplishment Instructions in this Service Bulletin.

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(b) Option 2

- 1 Within the next 10 flight hours from the last inspection in accordance with this Service Bulletin or within 10 flight hours from the effective date of the original issue of this Service Bulletin, January 21, 1994, whichever occurs first, perform the Modification of the Lubrication Fitting Holes in accordance with the Accomplishment Instructions in this Service Bulletin.
- 2 Within 400 flight hours after modification of the lubrication fitting holes, disassemble the propeller and perform the Dye Penetrant Inspection and Eddy Current Inspections in accordance with the Accomplishment Instructions in this Service Bulletin.
- 3 At intervals of 100 flight hours after the 400 flight hour inspection, disassemble the propeller and perform the Dye Penetrant Inspection and Eddy Current Inspection in accordance with the Accomplishment Instructions in this Service Bulletin.

(c) Hub Replacement - Terminating Action

- 1 At 400 hours TIS or no later than September 15, 1997, whichever occurs first, replace the propeller hub with a hub that has the lubrication fitting hole at the hub parting line as terminating action for this Service Bulletin.

(2) All other affected propeller models:

(a) Option 1

- 1 Within the next 50 flight hours from the last inspection in accordance with this Service Bulletin or within 50 flight hours from the effective date of the original issue of this Service Bulletin, January 21, 1994, whichever occurs first:
 - a Perform the Hub Visual Inspection and Eddy Current Inspection in accordance with the Accomplishment Instructions in this Service Bulletin.
 - b At intervals not to exceed 50 hours of operation, perform the Hub Visual Inspection and Eddy Current Inspection in accordance with the Accomplishment Instructions of this Service Bulletin.

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(b) Option 2

- 1 At 400 hours TIS or next 50 flight hours from the last inspection in accordance with this Service Bulletin or within 50 flight hours from the effective date of the original issue of this Service Bulletin, January 21, 1994, whichever occurs first, perform the Modification of the Lubrication Fitting Holes in accordance with the Accomplishment Instructions in this Service Bulletin.
- 2 At 400 hours TIS or 36 calendar months, whichever occurs first, after the modification of the lubrication fitting holes, disassemble the propeller and perform the Dye Penetrant Inspection and Eddy Current Inspection in accordance with the Accomplishment Instructions in this Service Bulletin.
- 3 At intervals of 400 flight hours, disassemble the propeller and perform the Dye Penetrant Inspection and Eddy Current Inspection in accordance with the Accomplishment Instructions in this Service Bulletin.

(c) Optional Terminating Action for all Affected Propeller Models

- 1 Replacement of the propeller hub with a hub that has the lubrication fitting hole at the hub parting is a terminating action for the inspection requirements specified in this Service Bulletin.
- 2 Modification of the affected propeller to the oil-filled configuration, in accordance with Hartzell Propeller Inc. Service Letter HC-SL-61-273, is an optional terminating action for the inspection requirements specified in this Service Bulletin.
 - a A propeller that has been modified to the oil-filled configuration in accordance with this Service Bulletin and Hartzell Propeller Inc. Service Letter HC-SL-61-273, must not be installed on any other application, including experimental.

F. Approval

- (1) This Service Bulletin is approved by the Manager, FAA, Chicago Aircraft Certification Office, ACE 115C, by approval document dated December 4, 2015 as an alternate method of compliance with Airworthiness Directive 94-17-13.

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G. Manpower

- (1) Eddy current inspection on-wing
- | | |
|---------------------------------------|----------------------|
| Eddy Current Inspection | 0.5 Man-hours |
| Spinner Dome Removal And Installation | <u>0.5 man-hours</u> |
| Total Man-Hours | 1.0 man-hours |
- (2) Propeller Hub Replacement:
- | | |
|--------------------------------|----------------------|
| Propeller Removal/Installation | 2.0 man-hours |
| Propeller Hub Replacement | <u>6.0 man-hours</u> |
| Total Man-Hours | 8.0 man-hours |

NOTE: Hub replacement, when accomplished in conjunction with propeller overhaul, requires no additional labor.

- (3) Spinner Bulkhead Modification 3.0 man-hours
(if required because of hub replacement)
- (4) Propeller Hub Modification:
- | | |
|--|-------------------------|
| Propeller Removal/Installation | 2.0 man-hours |
| Propeller Disassembly/Assembly | 4.0 man-hours |
| Propeller Hub Modification | <u>2.0 man-hours</u> |
| Total Man-Hours | 8.0 man-hours |
| If required, Teflon Removal/Installation | 1.0 man-hours per blade |

NOTE: Hub disassembly/assembly and Teflon® removal/installation do not require additional labor when accomplished in conjunction with propeller overhaul.

H. Weight and Balance

- (1) There is a 0.50 lb. (0.23 kg) increase in weight with installation of a hub with suffix letter "B" in the serial number.
- (2) There is a 1.0 lb. (0.45 kg) increase in weight with hub modification to the oil-filled configuration.

I. Electrical Load Data

- (1) Not Changed

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J. References

- (1) Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02)
- Volume 7, Consumable Materials is available on the Hartzell Propeller Inc. website at www.hartzellprop.com
- (2) Hartzell Propeller Inc. Propeller Owner's Manual 115 (61-00-15)
- Available on the Hartzell Propeller Inc. website at www.hartzellprop.com
- (3) Hartzell Propeller Inc. Propeller Owner's Manual 145 (61-00-45)
- Available on the Hartzell Propeller Inc. website at www.hartzellprop.com
- (4) Hartzell Propeller Inc. Compact and Lightweight Compact Non-Feathering (-1) and Aerobatic (-4) Propeller Overhaul and Maintenance Manual 113B (61-10-13)
- (5) Hartzell Propeller Inc. Compact Constant Speed and Feathering Propeller Overhaul Manual 117D (61-10-17)
- (6) Hartzell Propeller Inc. Metal Spinner Maintenance Manual 127 (61-16-27)
- Available on the Hartzell Propeller Inc. website at www.hartzellprop.com
- (7) Hartzell Propeller Inc. Service Letter HC-SL-61-273
- (8) FAA Airworthiness Directive 94-17-13

K. Other Publications Affected

None

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2. Material Information

WARNING: ADHESIVES AND SOLVENTS ARE FLAMMABLE AND TOXIC TO THE SKIN, EYES, AND RESPIRATORY TRACT. SKIN AND EYE PROTECTION ARE REQUIRED. AVOID PROLONGED CONTACT AND BREATHING OF VAPORS. USE SOLVENT RESISTANT GLOVES TO MINIMIZE SKIN CONTACT AND WEAR SAFETY GLASSES FOR EYE PROTECTION. USE IN A WELL VENTILATED AREA AWAY FROM SPARKS AND FLAME. READ AND OBSERVE ALL WARNING LABELS.

A. Consumables

<u>CM No.</u>	<u>Name</u>	<u>Description</u>	<u>Qty</u>
CM173	Acetone	Solvent	A/R
CM106	MEK	Solvent	A/R
CM219	MPK	Solvent	A/R

NOTE: All CM numbers or materials in this Service Bulletin refer to the Consumable Materials chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).

B. Parts Required

- (1) If the hub is replaced, refer to the applicable propeller overhaul manual.
- (2) Refer to Hartzell Propeller Inc. Metal Spinner Maintenance Manual 127 (61-16-27) for spinner bulkhead replacement part numbers and/or modification information.

C. Special Tooling

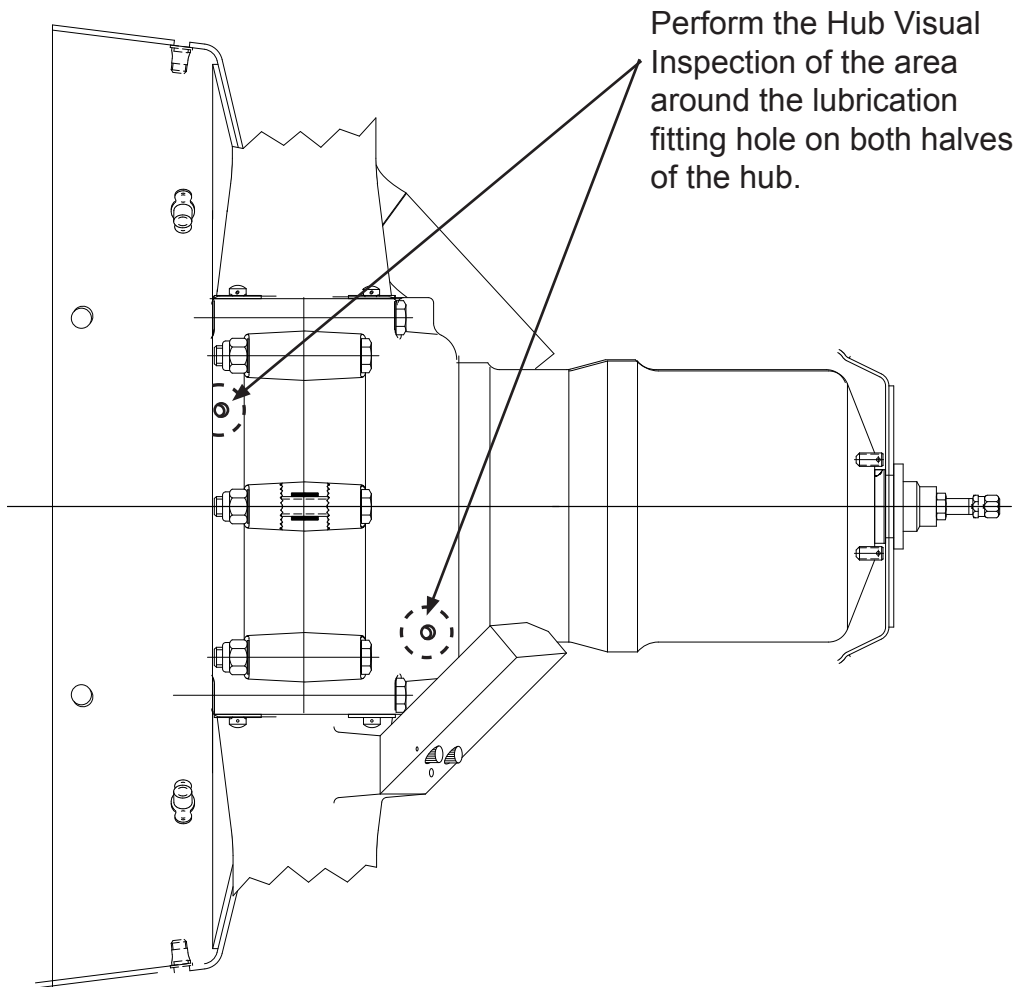
- (1) A 10X magnifying glass
- (2) Appropriate light source
- (3) An Eddy Current Instrument is required. Refer to Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02) for details.

D. Material Necessary for Propeller Modification to the oil-filled configuration:

- (1) Refer to Hartzell Propeller Inc. Service Letter HC-SL-61-273 for a complete list of requirements.

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NOTE: Some propellers may have blade counterweights (shown) or different length hub extension from the engine flange.



Lubrication Fitting Hole Inspection
Figure 3

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3. Accomplishment Instructions

A. Hub Visual Inspection

- (1) Visual inspection of the lubrication fitting hole on the propeller hub may be performed on-wing without removing the propeller from the engine.
- (2) This procedure may be performed by a certified aircraft mechanic with the appropriate rating or a certified propeller repair station with the appropriate rating.
- (3) Remove the spinner dome in accordance with the applicable propeller owner's manual.
- (4) Remove the caps from the lubrication fittings. Do not remove the lubrication fittings.
- (5) Visually examine the hub surface for traces of grease before cleaning.

WARNING: ADHESIVES AND SOLVENTS ARE FLAMMABLE AND TOXIC TO THE SKIN, EYES, AND RESPIRATORY TRACT. SKIN AND EYE PROTECTION ARE REQUIRED. AVOID PROLONGED CONTACT AND BREATHING OF VAPORS. USE SOLVENT RESISTANT GLOVES TO MINIMIZE SKIN CONTACT AND WEAR SAFETY GLASSES FOR EYE PROTECTION. USE IN A WELL VENTILATED AREA AWAY FROM SPARKS AND FLAME. READ AND OBSERVE ALL WARNING LABELS.

- (6) Using solvent acetone CM173, MEK CM106, or MPK CM219 and an abrasive pad CM47 or equivalent, remove any grease or other matter that may interfere with the visual inspection.
- (7) Using a 10X magnifying glass and an appropriate light source, perform a visual inspection of the area around the lubrication fitting hole and the general area of the blade retention bearings. Refer to Figure 3.

NOTE: The Aeroshell #6 grease used in the propellers is mildly fluorescent. Although not a requirement, inspection using a Black light (as is used with dye penetrant inspection) was found to be a useful aid in performing the visual inspection.

- (a) A crack usually initiates at the lubrication fitting hole and propagates perpendicular to the blade around the blade socket.
- (b) A crack may initiate on either hub half from any of the six lubrication fittings holes.

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- (8) If paint was removed during the cleaning process, apply chemical conversion coating in accordance to Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02) to the inspection area before returning the propeller to service. Do not paint the area if paint was removed.
- (9) Make a logbook entry to indicate compliance with the Visual Inspection requirements in this Service Bulletin.

CAUTION: A VISUAL INSPECTION IS NOT CONSIDERED AN ADEQUATE FORM OF INSPECTION. AN EDDY CURRENT INSPECTION MUST ALSO BE PERFORMED.

B. Eddy Current Inspection

CAUTION: DISASSEMBLY AND ASSEMBLY THE PROPELLER MUST BE PERFORMED BY A CERTIFIED PROPELLER REPAIR STATION WITH THE APPROPRIATE RATING.

- (1) Disassemble the propeller in accordance with the applicable Hartzell Propeller Inc. propeller overhaul manual.
- (2) This Eddy Current inspection may be accomplished by either a certified aircraft mechanic or personnel from a certified propeller repair station that meet the personnel requirements specified in the Eddy Current Inspection chapter of the Hartzell Propeller Inc. Standard Practices Manual 202A (61-00-02).
- (3) Perform an eddy current inspection of the hub in accordance with the "Aluminum Hub Lubrication Fitting Hole Inspection in Eddy Current Inspection" in the Eddy Current Inspection chapter of the Hartzell Propeller Inc. Standard Practices Manual 202A (61-00-02).
- (4) If not present, using a metal impression stamp, stamp the letter "E" as a suffix letter to the propeller serial number on each half of the propeller hub.
- (5) Make a logbook entry to indicate compliance with the "Eddy Current Inspection" in this Service Bulletin.

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C. Dye Penetrant Inspection

- (1) Perform a dye penetrant inspection in accordance with the Penetrant Inspection chapter of the Hartzell Propeller Inc. Standard Practices Manual 202A (61-00-02).
- (2) Make a logbook entry to indicate compliance with the "Dye Penetrant Inspection" in this Service Bulletin.

D. Modification of the Lubrication Fitting Holes

- (1) Disassemble the propeller in accordance with the applicable propeller overhaul manual.
- (2) Perform an Eddy Current inspection of the hub in accordance with the "Aluminum Hub Lubrication Fitting Hole Inspection" in Eddy Current Inspection chapter of the Hartzell Propeller Inc. Standard Practices Manual 202A (61-00-02).
- (3) Modify the lubrication fitting holes in accordance with the section "Chamfering of Lubrication Fitting Holes in Certain "Y" Shank Hubs" in the Aluminum Hub Overhaul chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-00-02).
- (4) Perform a dye penetrant inspection in accordance with the Penetrant Inspection chapter of the Hartzell Propeller Inc. Standard Practices Manual 202A (61-00-02). If performed before propeller overhaul, localized etching and penetrant inspection in the area of the lubrication fitting holes is permitted.
- (5) Apply a chemical conversion coating to the reworked area. Refer to the Chromic Acid Anodizing chapter of Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).
- (6) Assemble the propeller in accordance with the applicable propeller overhaul manual.
- (7) Make a logbook entry to indicate compliance with the "Modification of the Lubrication Fitting Holes" in this Service Bulletin.

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E. Terminating Actions

(1) Hub Replacement Instructions

- (a) Hub replacement must be performed by qualified personnel at a certified propeller repair station with the appropriate rating. Replacement of the existing hub with a hub that has the lubrication fitting holes located at the hub parting line is terminating action for this Service Bulletin.
- (b) A hub removed from an aircraft application or engine affected by this Service Bulletin, as defined in Effectivity, section 1.A.(1), must not be reused on another aircraft application that does not have such inspection requirements. A hub removed from an affected aircraft or engine must either be installed on another affected application or engine, or be retired from service in accordance with Hartzell Propeller Inc. Standard Practices Manual 202A (61-01-02).
- (c) For spinner bulkhead modification or replacement part numbers, refer to the Repair and Modification chapter of Hartzell Propeller Inc. Metal Spinner Maintenance Manual 127 (61-16-27).
- (d) Make an entry in the propeller logbook indicating compliance with the Hub Replacement Instructions as terminating action for this Service Bulletin.

(2) Oil-fill Modification Instructions

- (a) Modify the propeller to the oil-filled configuration in accordance with Hartzell Propeller Inc. Service Letter HC-SL-61-273.
- (b) Modification of the propeller hub to the oil-filled configuration must be performed by qualified personnel at a certified propeller repair station with the appropriate rating.
- (c) A propeller modified to the oil-filled configuration, must not be restored to the grease lubricated configuration.
- (d) Make an entry in the propeller logbook indicating compliance with the Oil-filled Modification Instructions as terminating action for this Service Bulletin.

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F. Recommended Service Facilities

- (1) Hartzell Propeller Inc. has a worldwide network of Recommended Service Facilities that are recommended for overhaul and repair of our products.
- (2) Each service facility must meet standard FAA requirements and additional Hartzell Propeller requirements before being recommended by Hartzell Propeller Inc. Each service facility is audited by Hartzell Propeller Inc. to verify the continuation of the standards.
- (3) Hartzell Propeller Inc. recommends that you use one of these service facilities when having your propeller overhauled or repaired.
- (4) For a current list of Hartzell Propeller Inc. Recommended Service Facilities, contact Hartzell Propeller Inc. Product Support or refer to the Hartzell Propeller Inc. website at www.hartzellprop.com.

G. Contact Information

Hartzell Propeller Inc.
Attn.: Hartzell Propeller Inc. Product Support
One Propeller Place
Piqua, Ohio 45356-2634 USA
Phone: (001) 937.778.4379
Fax: (001) 937.778.4215
E-mail: techsupport@hartzellprop.com

HARTZELL PROPELLER INC.
SERVICE BULLETIN
HC-SB-61-165E
Propeller - Hub Inspection

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