INST_042805

INSTRUCTIONS FOR INSTALLATION

OF A HARTZELL HC-C2YF-1BF/F8468A-2 PROPELLER AND

C-3568-(P) SPINNER ON CESSNA 210, 210A, 210B, 210C, 210-5, and 210-5A

AIRCRAFT

STC SA02246CH-D

LOG OF REVISIONS

| Revision | Revised Pages | Description of Revision | Approved | Date |
|----------|------------------|-------------------------|----------|------|
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NOTE: All changes are indicated by a black vertical line along the left margin.

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DAS administrator Hartzell DAS-100082-CE

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APPLICABLE MODELS

(All models use Continental IO-470-() engine rated 260 Hp @ 2625 RPM)

| MODEL NUMBER | YEAR | SERIAL NUMBER |
|--------------|------|-----------------------------|
| 210 | 1960 | 618, 57001 thru 57575 |
| 210A | 1961 | 616, 21057567 thru 21057840 |
| 210B | 1962 | 21057841 thru 21058085 |
| 210C | 1963 | 21058086 thru 21058139 |
| | | 21058141 thru 21058220 |
| 210-5 | 1963 | 641, 205-0001 thru 205-0480 |
| 210-5A | 1964 | 205-0481 thru 205-0577 |

- 1. Remove the original propeller and spinner.
- 2. Install new propeller and spinner in accordance with Hartzell Owner's Manual number 115() (latest revision). Follow installation instructions for "Installation of "F" Flange Propellers" in Manual 115(). Also reference the Cessna service manual appropriate to the aircraft being modified, propeller removal and installation section.

CAUTION:

SOME OLDER STEEL HUB PROPELLERS INCORPORATE A PHENOLIC SPACER BETWEEN THE PROPELLER AND ENGINE MOUNTING FLANGE. WHEN INSTALLING THE STC PROPELLER THIS SPACER, IF PRESENT, SHOULD BE DISCARDED. THE STC PROPELLER MOUNTING O-RING IS LOCATED ON THE INSIDE DIAMETER OF THE PROPELLER HUB. THERE SHOULD NOT BE AN O-RING ON THE ENGINE FLANGE WHEN INSTALLING THE STC PROPELLER.

NOTE: When installing HC-C2YF-1BF/F8468A-2 propeller with C-3568-(P) spinner, begin installation with the two provided spacers (0.25" and 0.438") between the spinner bulkhead and propeller hub ("Area 2" as shown in Manual 115), install both washers behind the bulkhead under the nut ("Area 1") on each hub-clamping bolt (4 places). Nuts are torqued per Manual 115().

If cowling-to-spinner clearance is insufficient, place one or both of the spacers (either 0.25" and/or 0.438") under the head of each spinner mounting bolt (4 places). These spacers may be factory installed under the nut on the aft side of the propeller hub, in this case, remove spacer and relocate to under the head of the bolt on the forward side of the propeller hub.

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NOTE: When replacing Hartzell steel-hub HC-(A)2(X)F-1()/()8433-2 propellers, the governor must be replaced with a pressure-to-increase governor currently used with the McCauley propeller options.

Governors compatible with this STC include:

- Woodward/Ontic models 210657, 210345, 210415, 210452, A210680
- Any oil pressure-to-increase pitch governor with a maximum governor output pressure of 350 psi that is FAA-approved for use on the C-210() with IO-470 engines.
- 3. Attach Hartzell Propeller Inc. Airplane Flight Manual Supplement AFMS_042805 to the existing Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.
- 4. Revise weight and balance records to show:

Removal of the original propeller and spinner (and governor if applicable)

Check equipment list in Pilot's Operating Handbook and/or FAA Approved Airplane Flight Manual for appropriate Hartzell or McCauley propeller weight and moment arm.

Example:

Weight of Hartzell HC-A2XF-1/8433-2 propeller = 64 lbs Moment arm = -42 inches (forward of datum)

Weight of spinner 0752006 = 4 lbs Moment arm = -42 inches

Or

Weight of McCauley D2A34C58/90AT-8 propeller = 57.5 Moment arm = -42 inches

Weight of spinner 0752004 = 4 lbs Moment arm = -42 inches

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<u>Installation</u> of Hartzell HC-C2YF-1BF/F8468A-2 propeller and Hartzell C-3568-(P) spinner (and governor if applicable)

Weight of propeller = 55.0 pounds, Moment arm = -42 inches

Weight of spinner = 5.5 lbs Moment arm = -42 inches

- 5. Perform ground engine run for a functional and leak check of the Hartzell propeller installation.
- 6. Make the appropriate logbook entries and return aircraft to service with FAA Form 337 referencing STC.
- 7. Fly a functional check-flight using normal procedures, note maximum RPM setting and readjust governor high-RPM stop if necessary.
- 8. Post-installation dynamic balance of the propeller/engine combination is recommended, but not required, per Section 61-00-15 of Hartzell Owner's Manual 115N.