

ICA-061920

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS FOR  
HARTZELL HC-C3YF-1N/NM8410(B,K)-4  
PROPELLER ON BEECHCRAFT BONANZA-SERIES AIRCRAFT  
STC SA04505CH

LOG OF REVISIONS

Revision	Revised Pages	Description of Revision	Date
IR	All	Initial Release	03/18/2021

NOTE: All changes are indicated by a black vertical line along the left margin.

**CAUTION:** DO NOT OPERATE THE DE-ICE BOOTS FOR MORE THAN 30 SECONDS WITH THE ENGINE NOT OPERATING. OVERHEATING OF THE DE-ICE BOOT CAN CAUSE DAMAGE TO THE PROPELLER BLADES.

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**APPLICABLE MODELS**

This STC propeller applies to the approved combination of airplanes and engines listed in Table 1.

<b>Model</b>	<b>Aircraft Serial Number Range</b>	<b>Engine Model</b>	<b>Engine Power/RPM Takeoff Rating</b>		
S35	D-7140 D-7310 through D-7976	IO-520-(B,BB)	285 HP @ 2700 RPM		
V35	D-7977 through D-8598				
V35A	D-8599 through D-9068				
V35B	D-9069 and up				
35-C33A	CE-1 though CE-179				
E33A	CE-180 though CE-289				
E33C	CJ-1 though CJ-25			IO-550-B	300 HP @ 2700 RPM
F33A	CE-290 and up				
F33C	CJ-26 and up				
36	E-1 through E-184				
A36	E-185 thru E-2110				
	except E-1946 and E-2104				

**Table 1. Aircraft included in this STC**

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**INTRODUCTION**

The subject STC approves replacement of the original approved propeller and spinner models listed in airplane Type Certificate Data Sheet 3A15 with a HC-C3YF-1N/NM8410(B,K)-4 on the aircraft listed in Table 1.

The information contained in these Instructions for Continued Airworthiness (ICA) supplements or supersedes the information provided in the aircraft service manuals only in those areas listed for the propeller installation. This ICA is organized to match the format of GAMA Specification No. 2 for Airplane Maintenance Manuals (AMMs).

Current ICA and service letters are maintained and distributed via [www.hartzellprop.com](http://www.hartzellprop.com).

**CHAPTER 4 – AIRWORTHINESS LIMITATIONS**

NOTE: The Airworthiness Limitations section is FAA approved and specifies maintenance required under 14 CFR §43.16 and §91.403 unless an alternative program has been FAA approved.

There are no new (or additional) airworthiness limitations associated with this equipment and/or installation.

**CHAPTER 5 – TIME LIMITS & MAINTENANCE CHECKS**

All required maintenance, inspections, time intervals, and procedures for the Hartzell HC-C3YF-1N/NM8410(B,K)-4 propeller are found in Hartzell Propeller Owner's Manual No. 145 (Manual 145). The HC-C3YF-1N/NM8410(B,K)-4 propeller's recommended time between overhaul (TBO) is detailed in Hartzell Service Letter HC-SL-61-61Y. Propeller overhaul must be accomplished by a certified propeller repair station with the appropriate rating.

All propeller inspection requirements contained in the Beechcraft Bonanza-series Airplane Maintenance Manuals remain unchanged and should be complied with as provided in Chapter 5. Procedures unique to the composite blade construction are provided in the Maintenance Practices section of Manual 145.

Due to the composite construction of the propeller blades, in the event of a lightning strike, in addition to the lightning strike inspection criteria provided in the applicable Airplane Maintenance Manual, refer to Manual 145, Chapter 5, Special Inspections - Lightning Strike, for detailed information on propeller lightning strike inspection and disposition.

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**CHAPTER 6 THRU CHAPTER 28**

NO CHANGE.

**CHAPTER 30 – ICE AND RAIN PROTECTION**

**30-00 General – Description and Operation**

This chapter and section of the Beechcraft Bonanza-series Airplane Maintenance Manual remain applicable to the noted airplane models and serial numbers with the Hartzell HC-C3YF-1N/NM8410(B,K)-4 propeller installed.

**30-60 Propellers – Description and Operation**

**Electric Propeller Deicing**

This chapter and section of the Beechcraft Bonanza-series Airplane Maintenance Manual remain applicable to the noted airplane models and serial numbers with the Hartzell HC-C3YF-1N/NM8410(B,K)-4 propeller installed.

**30-60 Propellers – Troubleshooting**

**Propeller – Troubleshooting Deicer System**

This chapter and section of the Beechcraft Bonanza-series Airplane Maintenance Manual remain applicable to the noted airplane models and serial numbers with the Hartzell HC-C3YF-1N/NM8410(B,K)-4 propeller installed.

Additional troubleshooting information can be found in the “Check” chapter of Manual 180.

**30-60 Propellers – Maintenance Practices**

**Electric Propeller Deicing**

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**CHAPTER 32 THRU CHAPTER 57**

NO CHANGE.

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**CHAPTER 61 – PROPELLERS**

**61-10 Propeller Assembly – Description and Operation**

This chapter and section of the Beechcraft Bonanza-series Airplane Maintenance Manual remain applicable to the noted airplane models and serial numbers with the Hartzell HC-C3YF-1N/NM8410(B,K)-4 propeller installed.

Additional maintenance details of the Hartzell HC-C3YF-1N/NM8410(B,K)-4 including scheduled and unscheduled maintenance, preventative maintenance, inspection, adjustment/test, and servicing can be found in Manual 145 available at [www.hartzellprop.com](http://www.hartzellprop.com).

**61-10 Propeller Assembly – Maintenance Practices**

**Propeller Removal**

This chapter and section of the Beechcraft Bonanza-series Airplane Maintenance Manual remain applicable to the noted airplane models and serial numbers with the Hartzell HC-C3YF-1N/NM8410(B,K)-4 propeller installed.

**Propeller Installation**

This chapter and section of the Beechcraft Bonanza-series Airplane Maintenance Manual remain applicable to the noted airplane models and serial numbers with the Hartzell HC-C3YF-1N/NM8410(B,K)-4 propeller installed.

**Propeller Adjustment**

This chapter and section of the Beechcraft Bonanza-series Airplane Maintenance Manual remain applicable to the noted airplane models and serial numbers with the Hartzell HC-C3YF-1N/NM8410(B,K)-4 propeller installed.

The Hartzell HC-C3YF-1N/NM8410(B,K)-4 propeller low-pitch blade angle and high-pitch blade angle are preset at the factory prior to shipping. Adjustment to these angles, if allowed, is detailed in Manual 145.

**Minor Propeller Repair**

All repair procedures for the Hartzell HC-C3YF-1N/NM8410(B,K)-4 propeller are located in Manual 145.

There is no allowable reduction to the propeller diameter.

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**61-20 Controlling – Maintenance Practices**

This chapter and section of the Beechcraft Bonanza-series Airplane Maintenance Manual remain applicable to the noted airplane models and serial numbers with the Hartzell HC-C3YF-1N/NM8410(B,K)-4 propeller installed.

**CHAPTER 71 THRU CHAPTER 91**

NO CHANGE.

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