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Ckd:	Revision: IR		Report: 55187-6
App: <i>J. Sledge</i>	<i>10-30-15</i>	INSTRUCTIONS FOR CONTINUED AIRWORTHINESS	Make/Model: American Champion Aircraft 8GCBC

INSTRUCTIONS FOR CONTINUED AIRWORTHINESS
FOR AMERICAN CHAMPION AIRCRAFT 8GCBC
EQUIPPED WITH
HARTZELL HC-C2YR-1N/NG8301-3 OR
BHC-C2YR-1N/NG8301-3 PROPELLER

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NOTES:

These Instructions for Continued Airworthiness does not incorporate a list of effective pages. Each page will indicate the latest revision letter to the entire document. The revision letter and date will be indicated on the upper left-hand side of each page.

A vertical bar along the right hand margin will indicate the latest revision(s) to the affected pages of this document.

LOG OF REVISIONS

Revision	Description	Date	Engineer
IR	Initial Release	10-30-15	J. Sledge

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1.0 Introduction

This document outlines the compliance with FAR 23.1529 "Instructions for Continued Airworthiness" for Installation of a Hartzell model HC-C2YR-1N/NG8301-3 or BHC-C2YR-1N/NG8301-3 propeller on the American Champion Aircraft models 8GCBC in accordance with STC number SA SC.

The Hartzell model number HC-C2YR-1N/NG8301-3 and BHC-C2YR-1N/NG8301-3 are two-blade, constant-speed propellers that are constructed of an aluminum hub and composite blades.

The maximum blade diameter is 80.0 inches with no cutoff allowed.

The propeller blade angle limits (measured at the 30 inch blade station) are as follows:

Low Pitch:

Aircraft equipped with Lycoming O-360-C series engines.....9.4 ° ± 0.2°

Aircraft equipped with Lycoming IO-390-A1B6 engine.....10.5° ± 0.2°

High Pitch.....30.0° ± 1.0°


The following documents form a part of this ICA.

Reference Documents

Author	Document Number	Document Title
Alamo Aerospace, LP	2801	Installation Instructions for Composite Hartzell Propeller
Hartzell Propeller, Inc.	145	Propeller Owner's Manual "Compact Models with Composite Blades"

1.3 Vendor Equipment

ITEM	VENDOR	MODEL NUMBER	COMPONENT MAINTENANCE MANUAL
Propeller	Hartzell Propeller, Inc.	HC-C2YR-1N/NG8301-3 BHC-C2YR-1N/NG8301-3	Propeller Owner's Manual No. 145

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2.0 Description

2.2 Main Components

Engine and Propeller

The HC-C2YR-1N/NG8301-3 is for use with the Lycoming O-360-C1A, -C1E and -C1G engine rated at 180 horsepower and the BHC-C2YR-1N/NG8301-3 is for use with the optional Lycoming IO-390-A1B6 engine rated at 210 horsepower.

2.3 Aircraft Specifications and Principal Dimensions

Propeller

Manufacturer	Hartzell
Model (2 Blade Constant Speed Composite)	HC-C2YR-1N/NG8301-3
TCDS	P-920

2.4 Powerplant Specifications (IO-390)

Propeller

Manufacturer	Hartzell
Model (2 Blade Constant Speed Composite)	BHC-C2YR-1N/NG8301-3
TCDS	P-920

3.0 Handling and Servicing


No changes to the basic aircraft handling and servicing instructions with the new propeller.

4.0 Airworthiness Limitations

Airworthiness Limitations

NOTE: The Airworthiness Limitations section is FAA approved and specifies maintenance required under Parts 43.16 and 91.403 of the Federal Aviation Regulations unless an alternative program has been FAA approved.

There are no new airworthiness limitations associated with the installation of this new propeller.

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5.1 Scheduled Maintenance Checks

The propeller periodic inspections and maintenance are to be performed in accordance with the Hartzell Propeller Owner's Manual no. 145 using the sections titled "Inspections and Check" and "Maintenance Practices".

Troubleshooting guidance and procedures are contained in the Hartzell Propeller Owner's Manual no. 145 in the section titled "Testing and Troubleshooting".

5.1.1 Recommended Replacement Times

Table 5-2: Recommended Replacement Times

Item	Replacement Limits	Component ICA Document
Propeller		
Hartzell HC-C2YR-1N/NG8301-3	2400 hours / 72 calendar months	Propeller Owner's Manual 145
Hartzell BHC-C2YR-1N/NG8301-3	2400 hours / 72 calendar months	Propeller Owner's Manual 145

Note: Table is for reference only. Service instructions from manufacturer supersedes data listed.

6.0 Airframe and Structure

Table 6-1: Specific Torque Limits

The fastener torque values for the new Hartzell propeller and spinner installation are shown in the Hartzell Propeller Owner's Manual no. 145 in the "Installation and Removal" section. Use installation instructions for installation of "R flange" propellers in manual 145.

9.0 Powerplant

9.10 Installation of Constant Speed Propeller

Refer to Alamo Aerospace drawing number 2801 and Hartzell Propeller Owner's Manual 145, Installation and Removal, Section 4C, Installation of "R" Flange Propellers, for procedures on installing the new propeller.