

INST-010918

INSTRUCTIONS FOR INSTALLATION OF HARTZELL

HC-C2YR-1N/NG8301-3 OR HC-C3Y1R-1N/NG8301-5

PROPELLER ON MAULE M()-235() AIRCRAFT

STC SA04320CH

LOG OF REVISIONS

Revision	Revised Pages	Description of Revision	Date
IR	All	Initial Release	6/28/2018
A	2	Included ski and float compatibility for 2-blade propeller. Reissued document in its entirety.	8/17/18

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

FAA Approved



Brian E. Meyer
STC ODA administrator
Hartzell STC ODA-100082-CE

Date

9/12/18

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Please read these instructions and the Instructions for Continued Airworthiness before starting installation. If you have any questions regarding installation of this STC, please contact Hartzell Propeller at:

*Phone: (937) 778-4379 or
1-800-942-7767*

E-mail: techsupport@hartzellprop.com

GENERAL

These STC installation instructions provide the necessary information to install either a HC-C2YR-1N/NG8301-3 or a HC-C3Y1R-1N/NG8301-5 propeller with aluminum spinner on the following airplanes:

Table 1. Aircraft included in this STC.

Aircraft model	Lycoming Engine Options
M-5-235C	O-540-J1A5D, O-540-J3A5, IO-540-W1A5D, or IO-540-W1A5
M-6-235	
M-7-235	
M-7-235A	
M-7-235B	
M-7-235C	
MX-7-235	
M-8-235	
MT-7-235	IO-540-W1A5D, IO-540-W1A5 only

This STC is compatible with the float and ski options described on the Aircraft Type Certificate Data Sheet (3A23) when using the 2-blade and 3-blade propellers. Use of the 2-blade propeller in place of the Hartzell HC-C3YR-1RF/F7693F propeller will increase the takeoff distances approximately 5%.

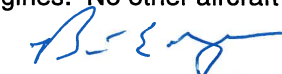
7:00 or larger tires are required per Note 14 of aircraft Type Certificate Data Sheet 3A23.

It is the responsibility of the installer to verify compatibility of this STC with previously approved modifications installed on the airplane.

APPLICABLE MODELS

This STC propeller conversion applies to all Maule aircraft listed in Table 1, equipped with the listed 235 HP engines. No other aircraft / engine combinations are applicable.

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PROCEDURE

1. Remove the original propeller and spinner per the applicable aircraft maintenance manual procedures.
2. Install the spinner bulkhead on the new propeller hub per Hartzell Owner's Manual 145 using the "Installation of a Metal Spinner Bulkhead on a Propeller Hub" instructions in the "spinner pre-installation" section of the manual.
3. Install new propeller and spinner dome on aircraft in accordance with Hartzell Owner's Manual number 145. Follow installation instructions for "Installation of "R" Flange Propellers" in Manual 145. Also reference the Maule Maintenance Manual section appropriate to the aircraft S/N and the configuration being modified.
4. Attach Hartzell Propeller Inc. Airplane Flight Manual Supplement AFMS-010918 to the existing Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.
5. Revise weight and balance records to show:

Removal of original propeller and spinner

Check aircraft records or Maule's Required Equipment List for appropriate propeller weight and moment arm.

Installation of the appropriate Hartzell propeller and spinner:

Item	Weight [lb]	Arm [in.]
HC-C2YR-1N/NG8301-3	41.0	-61.5
HC-C3Y1R-1N/NG8301-5	56.7	-61.5
A-2298-2(P)	5.1	-62.2
C-3575(-P)	4.3	-62.2

6. Perform ground engine run for a functional and leak check of the Hartzell propeller installation.
7. Make the appropriate logbook entries and return aircraft to service with FAA Form 337 referencing this STC.
8. Perform a functional check-flight using normal procedures, note maximum RPM setting and adjust governor high-RPM stop if necessary.
9. Post-installation dynamic balance of the propeller/engine combination is recommended, but not required, per Chapter 6 of Hartzell Owner's Manual 145.

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