



TEXTRON AVIATION

Pilot's Operating Handbook And FAA Approved Airplane Flight Manual **GRAND CARAVAN^{EX}**

CESSNA MODEL 208B

867 SHP - GARMIN G1000

and

867 SHP - GARMIN G1000 WITH FAIRING

Serials 208B2197 and 208B5000 and On

**ALAMO AEROSPACE AFM SUPPLEMENT NO. 55181-5
MCCAULEY 4-BLADED PROPELLER**

SERIAL NO. _____
REGISTRATION NO. _____

This supplement is applicable to the following manual(s): 208BPHCUS, 208BPHCUS-S1, 208BPHDUS, and 208BPHDUS-S1

This supplement must be inserted into Section 9 of the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual when the McCauley 4HFR34C778-()/()-102BHA-0 propeller is installed in accordance with Supplemental Type Certificate SA09850AC.



Member of GAMA

COPYRIGHT © 2019
TEXTRON AVIATION INC.
WICHITA, KANSAS, USA

Alamo Aerospace AFMS 55181-5

APPROVED BY *Mark Fuller*
for Stephen Gielisch, Lead ODA Administrator
Textron Aviation Inc.

Organization Delegation Authorization ODA-100129-CE
FAA Approved Under 14 CFR Part 183 Subpart D

DATE OF APPROVAL *Feb. 04, 2019*

4 FEBRUARY 2019

REVISION 1

U.S.

1

ALAMO AEROSPACE AFMS 55181-5

MCCAULEY 4 BLADED PROPELLER

Use the Log of Effective Pages to determine the current status of this supplement.

Pages affected by the current revision are indicated by an asterisk (*) preceding the page number.

Supplement Status

Date

Original Issue

10 December 2015

Revision 1

4 February 2019

LOG OF EFFECTIVE PAGES

Page Number	Page Status	Revision Number
* 1 thru 10	Revised	1

SERVICE BULLETIN CONFIGURATION LIST

The following is a list of Service Bulletins that are applicable to the operation of the airplane, and have been incorporated into this supplement. This list contains only those Service Bulletins that are currently active.

<u>Number</u>	<u>Title</u>	<u>Airplane Serial</u> <u>Effectivity</u>	<u>Revision</u> <u>Incorporated</u>	<u>Incorporated</u> <u>in Airplane</u>
---------------	--------------	--	--	---

MCCAULEY 4-BLADED PROPELLER

INTRODUCTION

The information contained in this document supplements or supersedes the basic POH/AFM only in those areas listed. For limitations, procedures, performance, and loading information not contained in this supplement, consult the basic POH/AFM.

PERFORMANCE - SPECIFICATIONS

CARGO VERSION

PROPELLER: McCauley Propeller Systems

4-bladed, Constant Speed, Full Feathering, Reversible Propeller
Diameter102.0 Inches (2.6 m)

PASSENGER VERSION

PROPELLER: McCauley Propeller Systems

4-bladed, Constant Speed, Full Feathering, Reversible Propeller
Diameter102.0 Inches (2.6 m)

SECTION 1 GENERAL

DESCRIPTIVE DATA

PROPELLER - MCCAULEY

Propeller Manufacturer	McCauley Propeller Systems
Propeller Model Number	4HFR34C778-()/()-102BHA-0
Number of Blades	4
Propeller Diameter	Maximum 102 Inches (2.6 m) Minimum 100 Inches (2.5 m)

Propeller Type:

Constant-speed, full-feathering, reversible, hydraulically-actuated aluminum-bladed propeller, with a feathered blade angle of 88.0°, a low pitch blade angle of 17.2°, and a maximum reverse blade angle of -14° at 30 inch blade station.

Propeller ground clearance with standard tires and standard length nose gear fork:

With nose tire inflated and nose strut barrel extended 3.625 inches (92 mm), propeller ground clearance is 13.25 inches (336 mm).

With nose tire deflated and nose strut barrel fully compressed, propeller ground clearance is 4.5 inches (114 mm).

Propeller ground clearance with standard tires and extended length nose gear fork:

With nose tire inflated and nose strut barrel extended 3.625 inches (92 mm), propeller ground clearance is 16.75 inches (425 mm).

With nose tire deflated and nose strut fully compressed, propeller ground clearance is 7.875 inches (200 mm).

SECTION 2 OPERATING LIMITATIONS

POWERPLANT LIMITATIONS

PROPELLER

MCCAULEY

Propeller Manufacturer	McCauley Propeller Systems
Propeller Model Number	4HFR34C778-()/()-102BHA-0
Propeller Diameter	
Maximum.	102.0 Inches (2.6 m)
Minimum	100.0 Inches (2.5 m)
McCauley Propeller Blade Angle at 30-inch Station:	
Feathered	88.0° ± 0.2°
Low Pitch.	17.2° ± 0.2°
Maximum Reverse	-14.0° ± 0.2°

KINDS OF OPERATIONS EQUIPMENT LIST

SYSTEM AND/OR COMPONENT	KIND OF OPERATION					COMMENTS
	V F R D A Y	V F R D A Y	I F R D A Y	I F R D A Y	I C I N G	
ICE AND RAIN PROTECTION						
13. McCauley Propeller 4HFR34C778-() /()-102BHA-0 (With Anti-Ice) Part Number P7785550-0183	0	0	1*	1*	1	*Refer to Note 5.

NOTE

5. Only required for flight into potential, known, or forecast icing conditions.

SECTION 3 EMERGENCY PROCEDURES

There is no change to the airplane emergency procedures when the McCauley 4-Bladed Propeller is installed.

ABNORMAL PROCEDURES

There is no change to the airplane abnormal procedures when the McCauley 4-Bladed Propeller is installed.

SECTION 4

NORMAL PROCEDURES

The noise level for the Model 208B Caravan EX, equipped with the PT6A-140 engine and the McCauley 4HFR34C778-()/()-102BHA-0 propeller is 82.0 dB(A). This noise level was established using test data obtained and analyzed under the procedures of 14 CFR 36, Amendment 30 and the equivalent procedures of International Civil Aviation Organization (ICAO) Annex 16, Volume I, Sixth Edition, Amendment 10. This airplane complies with Appendix G noise limits of 14 CFR 36 and Chapter 10 noise limits of ICAO Annex 16.

This noise level was obtained at a maximum weight of 8807 pounds (3994 kg) with flaps set at TO/APR up to 50 feet, then a climb with flaps UP at a speed of 108 KIAS and takeoff power at 1900 RPM and 2397 FT LB. No determination has been made by the Federal Aviation Administration that the noise levels of this airplane are, or should be, acceptable or unacceptable for operation at, into, or out of, any airport.

SECTION 5

PERFORMANCE

There is no change to the airplane performance when the McCauley 4-Bladed Propeller is installed.

SECTION 6

WEIGHT AND BALANCE/EQUIPMENT LIST

ATA/ ITEM	DESCRIPTION	Qty	PART NUMBER	UNIT WT LBS	ARM INCHES
61-01	Propeller, McCauley Model 4HFR34C778-()/()-102BHA-0 (With Anti-Ice)	1	P7785550-0183	135	28
61-02	Propeller, McCauley Model 4HFR34C778-()/()-102BHA-0 (No Anti-Ice)	1	P7785550-01	135	28
61-03	Propeller Spinner Assy, McCauley	1	E-8107	8	28

SECTION 7

AIRPLANE AND SYSTEMS DESCRIPTION

The airplane is equipped with a McCauley aluminum material, four-bladed propeller. The propeller is a constant-speed, full feathering, reversible, single acting, governor-regulated propeller. There are no changes to the cockpit controls or propeller operating procedures with the new propeller.

SECTION 8

AIRPLANE HANDLING, SERVICE, AND MAINTENANCE

CLEANING AND CARE

PROPELLER CARE

Always conduct a preflight inspection and occasionally wipe the blades with a cloth dampened with oil to clean off grass and bug stains, minimize corrosion, and assure a longer blade life. Waxing the blades with an automotive type paste wax on a regular basis will further minimize corrosion. Damaged or blistered paint must be repainted. During the preflight inspection, check the blades for nicks, gouges, scratches, corrosion pits, etc., the propeller hub for evidence of grease and oil leaks, and the propeller spinner for condition and security. Repair of small nicks and scratches may be performed by qualified mechanics in accordance with procedures specified in FAA Advisory Circular 43.13-1A. However, whenever a significant amount of metal is removed, or in the case of previously reworked blades that may be at or near minimum width and thickness limits, the appropriate McCauley Service Manual must be consulted to determine if minimum allowable blade width and thickness limits have been exceeded. If these limits are exceeded, blade replacement is required. After filing and polishing, the damaged area must be inspected by the dye penetrant method to verify that all damage has been removed and the blade is not cracked. The area should then be re-protected by localized application of chemical film per MIL-C-5541 (e.g., Alodine) and repainted as necessary. Large nicks or scratches or other damage involving such things as bent blades, balance, diameter reduction, etc. must be corrected by an FAA approved propeller repair station.

SUPPLEMENT 1

TKS ICE PROTECTION SYSTEM FOR CARGO POD OR FAIRING EQUIPPED AIRPLANES

The airplane is equipped with a McCauley aluminum material, four-bladed propeller. The propeller is a constant-speed, full feathering, reversible, single acting, governor-regulated propeller. There are no changes to the cockpit controls or propeller operating procedures with the new propeller.

OPERATING LIMITATIONS

REQUIRED EQUIPMENT

15. McCauley Propeller: 4HFR34C778-()/()-102BHA-0 Part Number P7785550-0183.