TYPE-CERTIFICATE DATA SHEET

No. IM.P.192

for Propeller
4HFR34C(---) series propellers

Type Certificate Holder
McCauley Propeller Systems

One Cessna Boulevard
Wichita, KS 67277-7704
USA

For Models:
4HFR34C652
4HFR34C653
4HFR34C661
4HFR34C752
4HFR34C754
4HFR34C755
4HFR34C760
4HFR34C761
4HFR34C762
4HFR34C763
4HFR34C766
4HFR34C768
4HFR34C769
4HFR34C771
4HFR34C773
4HFR34C778
4HFR34C779
4HFR34C780
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TABLE OF CONTENTS

I. General ........................................................................................................................................ 4
   1. Type / Models ............................................................................................................................ 4
   2. Type Certificate Holder .............................................................................................................. 4
   3. Manufacturer ............................................................................................................................. 4
   4. Date of Application .................................................................................................................... 4
   5. EASA Type Certification Date .................................................................................................... 4
II. Certification Basis .......................................................................................................................... 5
   1. State of Design Authority Certification Basis ........................................................................... 5
   2. Reference Date for determining the applicable airworthiness requirements ......................... 5
   3. EASA Certification Basis ........................................................................................................... 6
   3.1. Airworthiness Standards ......................................................................................................... 6
   3.2. Special Conditions (SC) ......................................................................................................... 6
   3.3. Equivalent Safety Findings (ESF) .......................................................................................... 6
   3.4. Deviations ............................................................................................................................... 6
III. Technical Characteristics ............................................................................................................. 7
   1. Type Design Definition .............................................................................................................. 7
   2. Description ................................................................................................................................ 7
   3. Equipment ................................................................................................................................ 7
   4. Dimensions ............................................................................................................................... 7
   5. Weight ...................................................................................................................................... 7
   6. Hub / Blade Combinations ....................................................................................................... 8
   7. Control System .......................................................................................................................... 8
   8. Adaptation to Engine .................................................................................................................. 8
   9. Direction of Rotation ................................................................................................................ 8
IV. Operating Limitations ................................................................................................................... 9
   1. Approved Installations .............................................................................................................. 9
   2. Maximum Take Off Power and Speed ....................................................................................... 9
   3. Maximum Continuous Power and Speed .................................................................................. 9
   4. Propeller Pitch Angle ................................................................................................................ 9
V. Operating and Service Instructions .................................................................................................. 9
VI. Notes ........................................................................................................................................... 11
SECTION: ADMINISTRATIVE ........................................................................................................ 16
   I. Acronyms and Abbreviations .................................................................................................. 16
   II. Type Certificate Holder Record ............................................................................................ 16
   III. Change Record .................................................................................................................... 16
I. General

1. Type / Models

4HFR34C(--)- / 4HFR34C652, 4HFR34C653, 4HFR34C661, 4HFR34C752, 4HFR34C754, 4HFR34C755, 4HFR34C760, 4HFR34C761, 4HFR34C762, 4HFR34C763, 4HFR34C766, 4HFR34C768, 4HFR34C769, 4HFR34C771, 4HFR34C773, 4HFR34C778, 4HFR34C779, 4HFR34C780

2. Type Certificate Holder

McCauley Propeller Systems
One Cessna Boulevard
Wichita, KS 67277-7704
USA

3. Manufacturer

McCauley Propeller Systems

4. Date of Application

4HFR34C652: Before 1987*
4HFR34C653: Before 1988*
4HFR34C661: Before 1994*
4HFR34C752: Before 1987*
4HFR34C754: Before 1987*
4HFR34C755: Before 1987*
4HFR34C760: Before 1990*
4HFR34C761: Before 1990*
4HFR34C762: Before 1989*
4HFR34C763: Before 1989*
4HFR34C766: Before 1991*
4HFR34C768: Before 1993*
4HFR34C769: Before 1983*
4HFR34C771: Before 1994*
4HFR34C773: Before 1983*
4HFR34C778: 02 January 2016
4HFR34C779: 18 January 2024
4HFR34C780: 18 January 2024

*: The exact Date of Application was not recorded in individual EASA Member States.

5. EASA Type Certification Date

4HFR34C652: 24 April 1987*
4HFR34C653: 06 September 1988*
4HFR34C661: 28 January 1994*
4HFR34C752: 24 April 1987*
4HFR34C754: 24 April 1987*
4HFR34C755: 24 April 1987*
II. Certification Basis

1. State of Design Authority Certification Basis

Refer to FAA TCDS no. P3NE.

2. Reference Date for determining the applicable airworthiness requirements

- 4HFR34C652: 03 October 1981
- 4HFR34C653: 11 August 1989
- 4HFR34C661: 07 July 1992
- 4HFR34C752: 26 May 1982 amended 18 March 1983
- 4HFR34C754: 11 January 1984
- 4HFR34C755: 03 February 1986
- 4HFR34C760: 29 January 1990
- 4HFR34C761: 29 January 1990
- 4HFR34C762: 17 September 1987
- 4HFR34C763: 26 February 1988
- 4HFR34C766: 13 March 1991
- 4HFR34C768: 01 April 1991
- 4HFR34C769: 30 September 1991
- 4HFR34C771: 12 May 1992
- 4HFR34C773: 04 September 1996
- 4HFR34C778: 31 October 2013
- 4HFR34C779: 18 May 2018
- 4HFR34C780: 18 May 2021

*: The EASA Certification Date has been taken over from individual EASA Member States.
3. EASA Certification Basis

3.1. Airworthiness Standards

4HFR34C652, 4HFR34C653, 4HFR34C752, 4HFR34C754, 4HFR34C755, 4HFR34C760, 4HFR34C761, 4HFR34C762, 4HFR34C763:
14 CFR Part 35 with Amendments 1 through 5 effective 14 October 1980.

4HFR34C661, 4HFR34C766, 4HFR34C768, 4HFR34C769, 4HFR34C771, 4HFR34C773:
14 CFR Part 35 with Amendments 1 through 6 effective 18 August 1990.

4HFR34C778:
14 CFR Part 35 with Amendments 1 through 5 effective 14 October 1980 and CS-P Amendment 1 dated 16 November 2006 for CS-P 390 and CS-P 400.

4HFR34C779:
14 CFR Part 35 with Amendments 1 through 6 effective 18 August 1990 and CS-P Amendment 1 dated 16 November 2006 for CS-P 390, CS-P 400 and CS-P 420.

4HFR34C780:
14 CFR Part 35 with Amendments 1 through 6 effective 18 August 1990 and CS-P Amendment 2 dated 24 June 2020 for CS-P 390, CS-P 400 and CS-P 420.

*: Application was made to EASA Member States before EASA was established. Refer to Commission Regulation (EU) No 748/2012. These propeller models are EASA certified based on member states approvals prior to EASA existence. The original and updated FAA certification basis as indicated above had been taken over from the FAA TCDS.

3.2. Special Conditions (SC)

None.

3.3. Equivalent Safety Findings (ESF)

None.

3.4. Deviations

None.
III. Technical Characteristics

1. Type Design Definition

The propeller type is defined by a propeller assembly drawing including a parts list (or later approved revisions).

4HFR34C652: Drawing E-5322, rev O, dated 09 February 2010
4HFR34C653: Drawing E-6401, rev F, dated 17 March 2010
4HFR34C661: Drawing E-6817, rev E, dated 17 February 2010
4HFR34C752: Drawing E-5410, rev A, dated 07 December 1982
4HFR34C754: Drawing E-5550, rev I, dated 25 June 2015
4HFR34C760: Drawing E-6120, rev D, dated 17 August 2000
4HFR34C761: Drawing E-6122, rev C, dated 17 August 2000
4HFR34C762: Drawing E-5550, rev I, dated 25 June 2015
4HFR34C763: Drawing E-6223, rev C, dated 17 August 2000
4HFR34C766: Drawing E-6720, rev D, dated 17 August 2000
4HFR34C768: Drawing E-6790, rev D, dated 17 August 2000
4HFR34C769: Drawing E-6790, rev D, dated 17 August 2000
4HFR34C771: Drawing E-6790, rev D, dated 17 August 2000
4HFR34C773: Drawing E-6790, rev D, dated 17 August 2000
4HFR34C778: Drawing E-5550, rev I, dated 25 June 2015
4HFR34C779: Drawing E-8181, rev G, dated 28 June 2023
4HFR34C780: Drawing E-8181, rev G, dated 28 June 2023

2. Description

The 4HFR34C(---) series propellers have 4 blades and a hydraulically operated variable pitch control with constant speed.

The models incorporate reversing, feathering and unfeathering features (See Note 4).

With aluminium alloy blades and an aluminium alloy forged hub.

Optional equipment includes spinner and ice protection.

3. Equipment

Spinner: See Note 7.
Governor: Has to be approved as part of the aircraft installation.
Ice Protection: See Note 7.

4. Dimensions

Diameters from 213,4 cm to 279,4 cm. (See Table of Section IV)

5. Weight

Depending on Propeller-Design Configuration. (See Table of Section IV)
6. Hub / Blade Combinations

Details are mentioned within Table of Section IV.

7. Control System

Propeller governor has to be approved as part of the aircraft installation.

8. Adaptation to Engine

Special flange. (See Note 1)

9. Direction of Rotation

The left hand version of an approved model propeller is approved at the same rating and diameter limitations as listed for the right hand model. (See Note 5)
IV. Operating Limitations

<table>
<thead>
<tr>
<th>Blades (see Note 2)</th>
<th>Maximum Continuous RPM (min⁻¹)</th>
<th>Take Off RPM (min⁻¹)</th>
<th>Diameter Limits (cm) (see Note 2)</th>
<th>Approx. Max Wt. Complete (kg) (For Ref. Only)</th>
<th>Blade Construction</th>
</tr>
</thead>
<tbody>
<tr>
<td>L106L[X]-0 to -6</td>
<td>932.1 1591</td>
<td>932.1 1591</td>
<td>269.2 to 254.0</td>
<td>76.20</td>
<td>Aluminium Alloy</td>
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<tr>
<td></td>
<td>Hub Model 4HFR34C652</td>
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<tr>
<td>L106F[X]-0 to -6</td>
<td>932.1 1591</td>
<td>932.1 1591</td>
<td>269.2 to 254.0</td>
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<td>90L[N][X]-0 to -6</td>
<td>533.2 2000</td>
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<td>228.6 to 213.4</td>
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<td>Aluminium Alloy</td>
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<td>106L[X]-0 to -6</td>
<td>969.4 1700</td>
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<td>269.2 to 254.0</td>
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<td>94L[X]-0 to -6</td>
<td>633.8 2000</td>
<td>633.8 2000</td>
<td>238.8 to 223.5</td>
<td>66.22</td>
<td>Aluminium Alloy</td>
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<td>Hub Model 4HFR34C754 and 4HFR34C755</td>
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<td>95D[X]-0 to -8</td>
<td>671.1 2000</td>
<td>671.1 2000</td>
<td>241.3 to 221.0</td>
<td>66.22</td>
<td>Aluminium Alloy</td>
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<td>Hub Model 4HFR34C760</td>
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<td>L95D[X]-0 to -8</td>
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<td>241.3 to 221.0</td>
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<tr>
<td>94LM[X]-4 to -10</td>
<td>522.0 2200</td>
<td>522.0 2200</td>
<td>228.6 to 213.4</td>
<td>60.33</td>
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<tr>
<td>94LN[X]-0 to -10</td>
<td>522.0 2200</td>
<td>522.0 2200</td>
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<td>Hub Model 4HFR34C766</td>
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<td>94LM[X]-2 to -10</td>
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<td>522.0 2200</td>
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<td>Hub Model 4HFR34C768</td>
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<tr>
<td>94LM[X]-0 to -10</td>
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<td>533.2 2200</td>
<td>238.8 to 213.4</td>
<td>61.23</td>
<td>Aluminium Alloy</td>
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<tr>
<td></td>
<td>Hub Model 4HFR34C769 and 4HFR34C773</td>
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</tr>
</tbody>
</table>
Hub Model 4HFR34C771

94L[X]:0 633,8 2080 633,8 2080 238,8 to 223,5 66,22 Aluminium Alloy

to -6

Hub Model 4HFR34C778

102BH[X]:0 646,5 2000 646,5 2000 259,1 to 248,9 64,41 Aluminium Alloy

to -4

Hub Model 4HFR34C779

110FD[X]:0 827,7 1700 827,7 1700 279,4 to 269,2 81,65 Aluminium Alloy

to -4

Hub Model 4HFR34C780

105ST[X]:0 782,9 1700 782,9 1700 266,7 to 256,5 78,47 Aluminium Alloy

to -4

1. Approved Installations

Initially intended for use on the Cessna Caravan 208EX aircraft. (See Note 10)
C779 propeller model intended for use on Textron Aviation model 408 twin engine.
C780 propeller model intended for use on Textron Aviation models B300 and B300C twin engine.

2. Maximum Take Off Power and Speed

Details are mentioned within Table of Section IV.

3. Maximum Continuous Power and Speed

Details are mentioned within Table of Section IV.

4. Propeller Pitch Angle

The propeller has variable pitch capability. Pitch control is provided by a governor.

V. Operating and Service Instructions

<table>
<thead>
<tr>
<th>Manual/Manual Incl.</th>
<th>MPC26 (*)</th>
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<tbody>
<tr>
<td>McCauley Owner/Operator Manual incl. Airworthiness Limitations</td>
<td></td>
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<tr>
<td>McCauley C750 series Overhaul Manual</td>
<td>MPC750 (*)</td>
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<tr>
<td>McCauley Standard Practices Manual</td>
<td>SPM100 (*)</td>
</tr>
<tr>
<td>McCauley Blade Overhaul Manual</td>
<td>BOM100 (*)</td>
</tr>
<tr>
<td>Service Bulletins</td>
<td></td>
</tr>
</tbody>
</table>

(*) or later approved revision
VI. Notes

1. Hub Model Designation:

[X] 4 H F R 34 C 752 - [X] [X] [X]

Letters denoting changes that may affect eligibility or interchangeability.

Numerals defining specific design and major change affecting eligibility or interchangeability of parts.

Type of propeller - C, constant speed.

McCauley blade shank size.

When present, indicates reverse pitch capability.

Type of propeller - F, full-feathering.

H denotes special flange - 4-1/4" bolt circle with eight 9/16" studs and two or four 1/2" dowels.

J denotes special flange - 5-1/8" bolt circle with twelve 9/16" studs and two 5/8" dowels.

Number of blades.

Indicates dowel location with respect to centerline of No. 1 blade socket, viewing hub from flange mounting face. Blank - 0, 90, 180, and 270 degrees clockwise.

2. Blade Model Designation:

[X] - [X] 106 LA - 0

Basic Model Designation

Change in diameter from basic, + or -, in inches.

Characteristics of blade design (planform, etc.). Suffix [X] indicates blade butt staking dimensions for actuating pin attachment.

Blade design diameter in inches.

Letter designating direction of rotation; no letter (blank) indicates clockwise (viewed from downstream), L indicates counter-clockwise.

Letter designating minor change not affecting eligibility or interchangeability.
3. Intentionally left blank.

4. **Feathering:**

   All propeller models are approved for feathering and unfeathering capability when installed with appropriate feather/unfeathering controls.

   **Reversing:**

   All propeller models are approved for installation with appropriate reversing controls.

5. **Left-Hand Models:**

   The left-hand version of an approved propeller model propeller is approved at the same rating and diameter limitations as listed for the right-hand model.

6. Intentionally left blank.

7. **Accessories:** Substantiated accessories not included in propeller type design:

   a. Propeller Anti-icing

   (1) Model 4HFR34C652/L106L[X] is eligible with McCauley deicers, P/N B-40183 or B-40245 series, installed per McCauley Specification MC-2611 and drawing E-5322.

   (2) Model 4HFR34C653/L106F[X] is eligible with McCauley deicers, P/N B-40183 or B-40245 series, installed per McCauley Specification MC-2611 and drawing E-6401.

   (3) Intentionally left blank.

   (4) Model 4HFR34C661/90LN[X] is eligible with McCauley deicers, P/N B-40183 or B-40245 series, installed per McCauley Specification MC-2611 and drawing E-6817.

   (5) Intentionally left blank.

   (6) Intentionally left blank.

   (7) Intentionally left blank.

   (8) Model 4HFR34C752/106L[X] is eligible with McCauley deicers, P/N B-40183 or B-40245 series, installed per McCauley Specification MC-2611 and drawing E-5410.

   (9) Model 4HFR34C754/94L[X] and 4HFR34C755/94L[X] are eligible with McCauley deicers, P/N B-40183 or B-40245 series, installed per McCauley Specification MC-2611 and drawing E-5550.

   (10) Intentionally left blank.
(11) Intentionally left blank.

(12) Model 4HFR34C760/95D[X] is eligible with McCauley deicers, P/N B-40183 or B-40245 series, installed per McCauley Specification MC-2611 and McCauley drawing E-6120.

(13) Model 4HFR34C762/94LM[X] is eligible with McCauley deicers, P/N B-40183 or B-40245 series, installed per McCauley Specification MC-2611 and drawing E-5550.

(14) Model 4HFR34C763/94LM[X] is eligible with McCauley deicers, P/N B-40183 or B-40245 series, installed per McCauley Specification MC-2611 and McCauley drawing E-6223.

(15) Intentionally left blank.

(16) Model 4HFR34C766/94LN[X] is eligible with McCauley deicers, P/N B-40183 or B-40245 series, installed per McCauley Specification MC-2611 and McCauley drawing E-6720.

(17) Model 4HFR34C768/94LM[X] and 4HFR34C771/94L[X] are eligible with McCauley deicers, P/N B-40183 or B-40245 series, installed per McCauley Specification MC-2611 and McCauley drawing E-6790.

(18) Model 4HFR34C769/94LM[X] is eligible with McCauley deicers, P/N B-40183 or B-40245 series, installed per McCauley Specification MC-2611 and McCauley drawing E-6790.

(19) Model 4HFR34C773/94LM[X] is eligible with McCauley deicers, P/N B-40183 or B-40245 series, installed per McCauley Specification MC-2611 and McCauley drawing E-6790.

(20) Intentionally left blank.

(21) Intentionally left blank.


(23) Model 4HFR34C779/110FD[X] is eligible with McCauley deicer, P/N B-40183-22, reference McCauley drawing C-8180.

(24) Model 4HFR34C780/105ST[X] is eligible with McCauley deicer, P/N B-40183-22 (and / or) B-40245-54, reference McCauley drawing C-8180.

b. Propeller Spinner

(1) Model 4HFR34C652/L106L[X] with spinner, reference McCauley drawing E-5322.

(2) Model 4HFR34C653/L106F[X] with spinner, reference McCauley drawing E-6401.

(3) Intentionally left blank.

(4) Model 4HFR34C661/90LN[X] with spinner, reference McCauley drawing E-6817.

(5) Intentionally left blank.
(6) Intentionally left blank.

(7) Intentionally left blank.

(8) Intentionally left blank.

(9) Model 4HFR34C752/106L[X] with spinner, reference McCauley drawing E-5410.


(12) Intentionally left blank.

(13) Intentionally left blank.

(14) Model 4HFR34C760/95D[X] with spinner, reference McCauley drawing E-6120.

(15) Model 4HFR34C761/L95D[X] with spinner, reference McCauley drawing E-6122.


(18) Intentionally left blank.


(22) Model 4HFR34C773/94LM[X] with spinner, reference McCauley drawing E-6790.

(23) Intentionally left blank.

(24) Intentionally left blank.

(25) Intentionally left blank.

(26) Intentionally left blank.


8. Intentionally left blank.

9. Intentionally left blank.

10. The propeller installation must be approved as part of the aircraft Type Certificate to demonstrate compliance with the applicable aircraft airworthiness standards.

Propeller models listed herein consist of basic hub and blade models. Most propeller models include additional characters to denote minor changes and specific features as explained in Notes 1 and 2.

10a. The propellers have been certificated in accordance with CS-P subparts A, B and C. Compliance with the requirements of Subpart D, which is specific to each aircraft installation, has not yet been demonstrated.

11. Special Limits: Please reference the airworthiness limitations section of the appropriate Owner/Operator Information Manual. Propeller model 4HFR34C761/L95D[X] contain life limited parts but is not referenced in the Owner/Operator Manual as it has not been produced.

12. The EASA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness is published in the applicable Propeller Owner’s Manual, chapter 5 “Airworthiness Limitations”.

-------------------------------------------------------------------
SECTION: ADMINISTRATIVE

I. Acronyms and Abbreviations
None.

II. Type Certificate Holder Record
N/A.

III. Change Record

<table>
<thead>
<tr>
<th>Issue</th>
<th>Date</th>
<th>Changes</th>
<th>TC issue</th>
</tr>
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<tbody>
<tr>
<td>Issue 02</td>
<td>27 January 2017</td>
<td>Adding propeller model 4HFR34C653/L106F[X]-0 to -6 (model is considered grandfathered, approved with aircraft Jetstream 3200 at CAA-UK before EASA)</td>
<td>27 January 2017</td>
</tr>
<tr>
<td>Issue 03</td>
<td>16 May 2024</td>
<td>Adding propeller models 4HFR34C779/110FD[X]-0 to -4 and 4HFR34C780/105ST[X]-0 to -4 (EASA major change approval 10084529) plus administrative corrections</td>
<td>16 May 2024</td>
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-END-