

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

P7EA Revision 12 McCauley 2D34C B2D34C B2D37C C2D37C February 25, 2009

TYPE CERTIFICATE DATA SHEET NO. P7EA

Propellers of models described herein conforming with this data sheet (which is part of Type Certificate No. P7EA) and other approved data on file with the Federal Aviation Administration, meet the minimum standards for use in certificated aircraft in accordance with the pertinent aircraft data sheets and applicable portions of the Federal Aviation Regulations provided they are installed, operated, and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

Type Certificate Holder: McCauley Propeller Systems
 7751 E. Pawnee
 Wichita, KS 67207

Type Constant speed; hydraulic (see Note 3)
 Engine Shaft SAE No. 2 flange modified (6-1/2" Mounting bolts)
 Hub Material Aluminum Alloy
 Blade Material Aluminum Alloy
 No. of Blades Two
 Hubs Eligible 2D34C8, 2D34C9, 2D34C11, B2D34C16, 2D34C53, B2D34C53,
 B2D34C202, B2D34C206, B2D34C207, B2D34C208, B2D34C211,
 B2D34C212, B2D34C213, B2D34C214, 2D34C215, B2D34C217,
 B2D34C218, B2D34C219, B2D34C220, B2D37C224, B2D37C229,
 B2D34C235, C2D37C236

Blades Eligible (See NOTE 2)	Maximum <u>Continuous</u> HP RPM	<u>Take-Off</u> HP RPM	Diameter Limits (See NOTE 2)	Approx. Max. Wt. Complete (For Ref. Only) (See NOTE 3)
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THREAD TYPE RETENTION

Hub Models 2D34C53 or B2D34C53

74E-0 to 74E-4	180 2700	180 2700	74" – 70" (-0 to -4)	48 Lbs.
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Blades Eligible (See NOTE 2)	Maximum <u>Continuous</u> HP RPM	<u>Take-Off</u> HP RPM	Diameter Limits (See NOTE 2)	Approx. Max. Wt. Complete (For Ref. Only) (See NOTE 3)
<u>Hub Model 2D34C8</u>				
78FB-0 to 78FB-6	200 2700	200 2700	78" – 72" (-0 to -6)	54 lbs.
<u>Hub Model 2D34C9</u>				
78FBM-0 to 78FBM-6	200 2700	200 2700	78" – 72" (-0 to -6)	55 lbs.
<u>Hub Model 2D34C11 or B2D34C16</u>				
84HF-0 to 84HF-12	260 2700	260 2700	84" – 72" (-0 to -12)	52 lbs.
<u>THREADLESS TYPE RETENTION</u>				
<u>Hub Model B2D34C212</u>				
78CDA-0 to 78CDA-6	200 2700	200 2700	78" – 72" (-0 to -6)	51 lbs.
<u>Hub Model B2D34C206</u>				
78TA-0 to 78PA-6	200 2700	200 2700	78" – 72" (-0 to -6)	51 lbs.
<u>Hub Model B2D34C207</u>				
78TCA-0 to 78TCA-6	210 2700	210 2700	78" – 72" (-0 to -6)	51 lbs.
<u>Hub Model B2D34C220</u>				
80VHA-0 to 80VHA-6	180 2700	180 2700	80" – 74" (-0 to -6)	52 lbs.
<u>Hub Model B2D34C202 or B2D34C208</u>				
82PA-6 to 82PA-10	180 2700	180 2700	76" – 72" (-6 to -10)	48 lbs.

Blades Eligible (See NOTE 2)	Maximum <u>Continuous</u> HP RPM	<u>Take-Off</u> HP RPM	Diameter Limits (See NOTE 2)	Approx. Max. Wt. Complete (For Ref. Only) (See NOTE 3)
<u>Hub Model B2D34C211</u>				
82PCA-6 to 82PCA-10	180 2700	180 2700	76" – 72" (-6 to -10)	48.5 lbs.
<u>Hub Model B2D34C213</u>				
90DHA-12 to 90DHA-18	200 2700	200 2700	78" – 72" (-12 to -18)	49.5 lbs.
<u>Hub Model B2D34C214, B2D34C217, B2D34C218 OR B2D34C219</u>				
90DHB-12 to 90DHB-18	200 2700	200 2700	78" – 72" (-12 to -18)	49.5 lbs.
90DHB-8 to 90DHB-18	235 2400	235 2400	82" – 72" (-8 TO -18)	50.5 lbs.
<u>Hub Model 2D34C215</u>				
90DJA-12 to 90DJA-18	200 2700	200 2700	78" – 72" (-12 to -18)	50.5 lbs.
<u>Hub Model B2D37C224</u>				
90RA-2 to 90RA-12	280 2700	280 2700	88" – 74" (-2 to -16)	52 lbs.
<u>Hub Model B2D37C229</u>				
90RHC-0 to 90RHC-18	300 2700	300 2700	90" – 72" (-0 to -18)	52 lbs.
<u>Hub Model B2D34C235</u>				
90DK[X]-0 to 90DK[X]-18	285 2750	285 2750	90" – 72" (-0 to -18)	50.5 lbs.
<u>Hub Model C2D37C236</u>				
90REA-2 to 90REA-12	280 2700	280 2700	88" – 78" (-2 to -12)	52 lbs.

Certification Basis Model 2D34C53/74E:
 Civil Air Regulations Part 14 effective December 15, 1956.

 Models 2D34C8/78FB and 2D34C11/84HF:
 14 CFR Part 35 with Amendment 35-1 thereto.

 Model B2D37C224/90RA:
 14 CFR Part 35 with Amendment 35-1 to 35-5 thereto.

 Model B2D37C229/90RHC:
 14 CFR Part 35 with Amendment 35-1 to 35-5 thereto.

 Model B2D34C235/90DKB:
 14 CFR Part 35 with Amendment 35-1 to 35-6 thereto.

 Model C2D37C236/90REA:
 14 CFR Part 35 with Amendments 35-1 to 35-6 thereto.

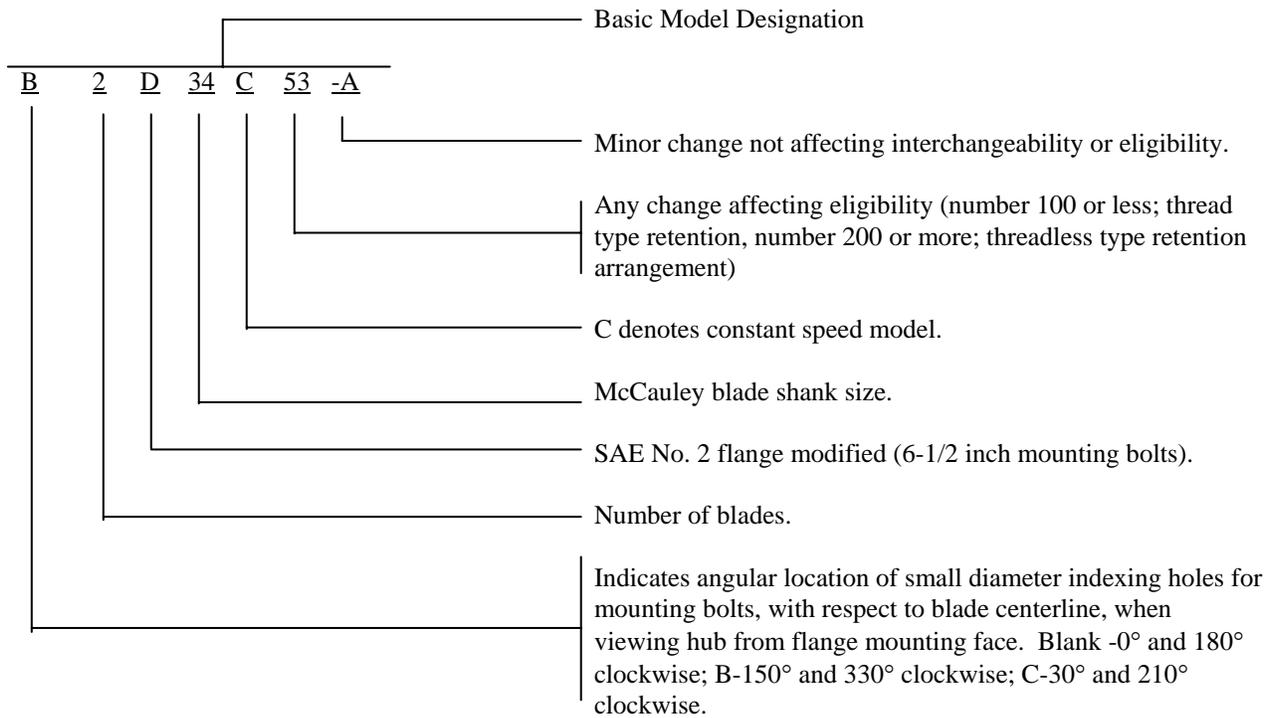
 All Other Models:
 14 CFR Part 35 with Amendments 35-1 to 35-2 thereto.

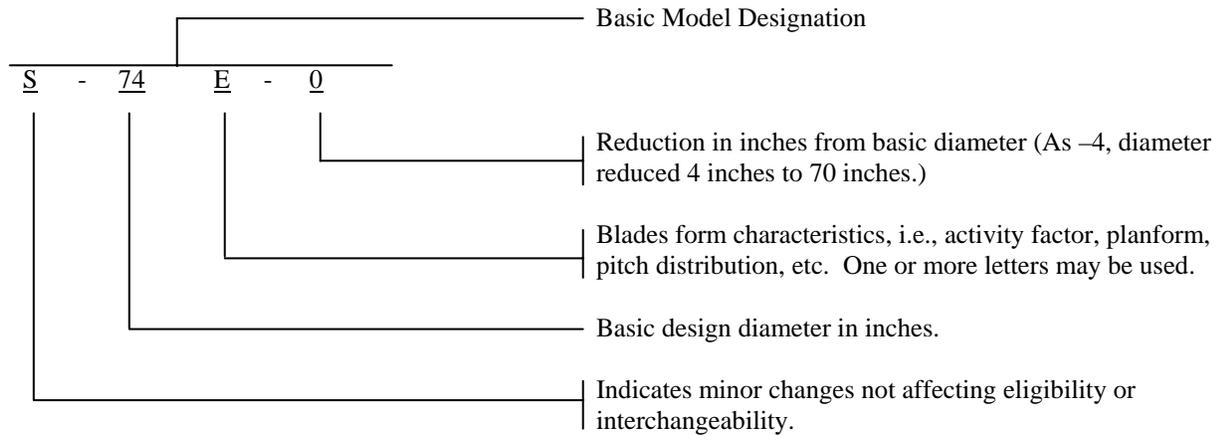
 Type Certificate No. P7EA issued September 5, 1962, under the Delegation Option
 Authorization provisions of Regulations of the Administrator Part 410.

 Date of Application for Type Certificate July 11, 1962.

Production Basis Production Certificate No. 3

NOTE 1. Hub Model Designation



NOTE 2. Blade Model DesignationNOTE 3. Pitch Control

With the following governors:

Woodward Model x,210,xxx	Wt. 3.5 lb.
Hoof Model 1,000,007 Series	Wt. 3.5 lb.
McCauley Model C290D1/T[X]	Wt. 2.8 lb.
McCauley Model C290D2/T[X]	Wt. 2.8 lb.
McCauley Model C290D3/T[X]	Wt. 2.8 lb.
McCauley Model C290D4/T[X]	Wt. 2.8 lb.
McCauley Model C290D5/T[X]	Wt. 2.8 lb.
McCauley Model C290D[X]/T[X]	Wt. 2.8 lb.
McCauley Model C290D1/T[X]	Wt. 2.8 lb.
McCauley Model DC[X][X][X]D1/T[X]	Wt. 2.8 lb.

NOTE 4. Not applicable

NOTE 5. Left Hand Models. The left hand version of an approved model propeller is eligible at the same rating and diameter limitations as listed for the right hand model.

NOTE 6. Not applicable

NOTE 7. Accessories

a. Spinners

- (1) 2D34C53, B2D34C53 and 2D34C11 models with McCauley spinners; D-2808 Dome, D-3148 Bulkhead and Fillet Assembly, and D-2809 Installation.
- (2) 2D34C8 and 2D34C9 models with McCauley spinners; D-3395 Dome, D-3686 Bulkhead and Fillet Assembly, and D-3683 Installation.
- (3) B2D34C235 model with McCauley spinner assembly D-7267.
- (4) C2D37C236 model with McCauley spinner assembly D-2137.

NOTE 8. Not applicable

NOTE 9.

Table of Propeller-Engine Combinations
Approved Vibrationwise for Use on Normal Category Single-Engine Tractor Aircraft

The maximum and minimum propeller diameters that can be used from a vibration standpoint are shown below. No reduction below the minimum diameter listed is permissible, since this figure includes the diameter reduction allowable for repair purposes.

<u>Hub Model</u>	<u>Blade Model</u>	<u>Engine Model</u>	<u>Damper Configuration</u>	<u>Max. Dia. (Inches)</u>	<u>Min. Dia. (Inches)</u>	<u>Placards</u>
2D34C53 or B2D34C53	74E	Lycoming O-360 & IO-360 Series (up to 180 hp. @ 2700 rpm)	None	74	72.5	*Avoid continuous operation while descending between 2250 & 2550 rpm with manifold pressure settings below 15" mercury.
* Ref: Airworthiness Directive No. 70-4-1						
B2D34C212	78CD A	Lycoming IO-360 Series (up to 200 hp. @ 2700 rpm)	One 6.3 and one 8 th order	74	73	*Avoid continuous operation between 1600 & 1950 rpm below 15" manifold pressure.
2D34C8 or 2D34C9	78FB 78FB M	Lycoming IO-360 Series (up to 200 hp. @ 2700 rpm)	None	76.5	76.5	Avoid continuous operation between 2000 & 2150 rpm above 20" manifold pressure.
B2D34C206 or B2D34C207	78TA 78TCA	Lycoming O-360 and IO-360 Series (up to 180 hp. @ 2700 rpm)	One 6.3 and one 8 th order	78	76	Avoid continuous operation between 1400 & 1700 rpm below 10" manifold pressure.
				76	74	Avoid continuous operation between 1450 & 1750 rpm below 10" manifold pressure.
				74	72	Avoid continuous operation between 1450 & 1800 rpm below 10" manifold pressure.

NOTE 9. (cont'd)

<u>Hub Model</u>	<u>Blade Model</u>	<u>Engine Model</u>	<u>Damper Configuration</u>	<u>Max. Dia. (Inches)</u>	<u>Min. Dia. (Inches)</u>	<u>Placards</u>
B2D34C206 or B2D34C207	78TA 78TCA	Lycoming IO-360 Series (up to 200 hp. @ 2700 rpm)	One 6.3 and one 8 th order	78	76.5	Avoid continuous operation between 1400 & 1750 rpm below 10" manifold pressure.
B2D34C15	78W	Lycoming O-360 Series (up to 180 hp. @ 2700 rpm)	None	74	72.5	Avoid continuous operation between 2000 & 2250 rpm above 18" manifold pressure.
2D34C202, B2D34C208 or B2D34C211	82PA 82PA 82PCA	Lycoming O-360 Series (up to 180 hp. @ 2700 rpm)	One 6.3 and one 8 th order	76	75	Avoid continuous operation between 1700 & 1900 rpm below 10" manifold pressure.
				75	74	Avoid continuous operation between 1700 & 2000 rpm below 10" manifold pressure.
2D34C11	84HF	Lycoming O-540 Series (up to 235 hp. @ 2575 rpm)	One 5 th and one 6 th order	84	80	None
B2D34C16	84HF	Lycoming O-540 Series (up to 260 hp. @ 2700 rpm)	One 5 th and one 6 th order	84	80	None
B2D34C213 or B2D34C214	90DH A 90DHB	Lycoming IO-360 Series (up to 200 hp. @ 2700 rpm)	One 6.3 and one 8 th order	74	73	Avoid continuous operation between 1500 & 1950 rpm below 15" manifold pressure.

NOTE 9. (cont'd)

<u>Hub Model</u>	<u>Blade Model</u>	<u>Engine Model</u>	<u>Damper Configuration</u>	<u>Max. Dia. (Inches)</u>	<u>Min. Dia. (Inches)</u>	<u>Placards</u>
B2D34C214	90DHB	Lycoming O-540 Series (up to 235 hp. @ 2400 rpm)	One 4.8 and one 6.3 order	82	78	None
B2D34C213	90DH A	Lycoming IO-360 Series (up to 200 hp. @ 2700 rpm)	One 8 th and one 6.3 order	76	75	Avoid continuous operation between 1400 & 1750 rpm below 15" manifold pressure.
B2D34C213	90DH A	Lycoming IO-360 Series (up to 200 hp. @ 2700 rpm)	One 8 th and one 6.3 order	75	74	Avoid continuous operation between 1450 & 1850 rpm below 15" manifold pressure.

NOTE 10. Special Notes. Aircraft installation must be approved as part of the aircraft certificate upon compliance with the applicable aircraft airworthiness requirements.

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