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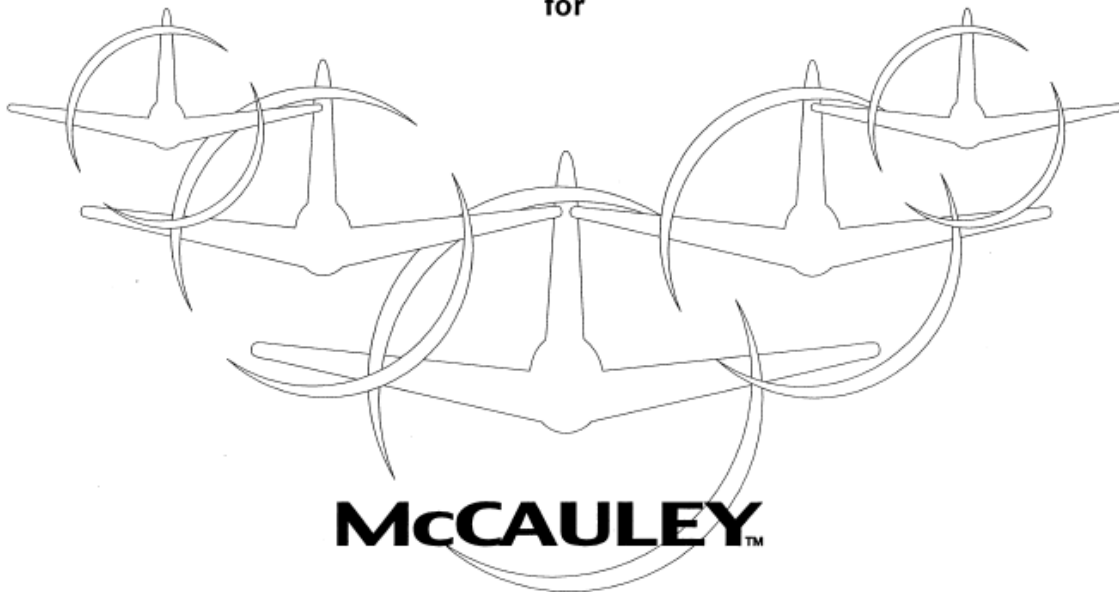
service manual

NO. 730720

FAA - DOA APPROVED

OVERHAUL - PARTS

for



FIXED PITCH

PROPELLERS



McCAULEY PROPELLER SYSTEMS
The CESSNA Aircraft Company
3535 McCauley Drive
Vandalia, Ohio 45377
USA

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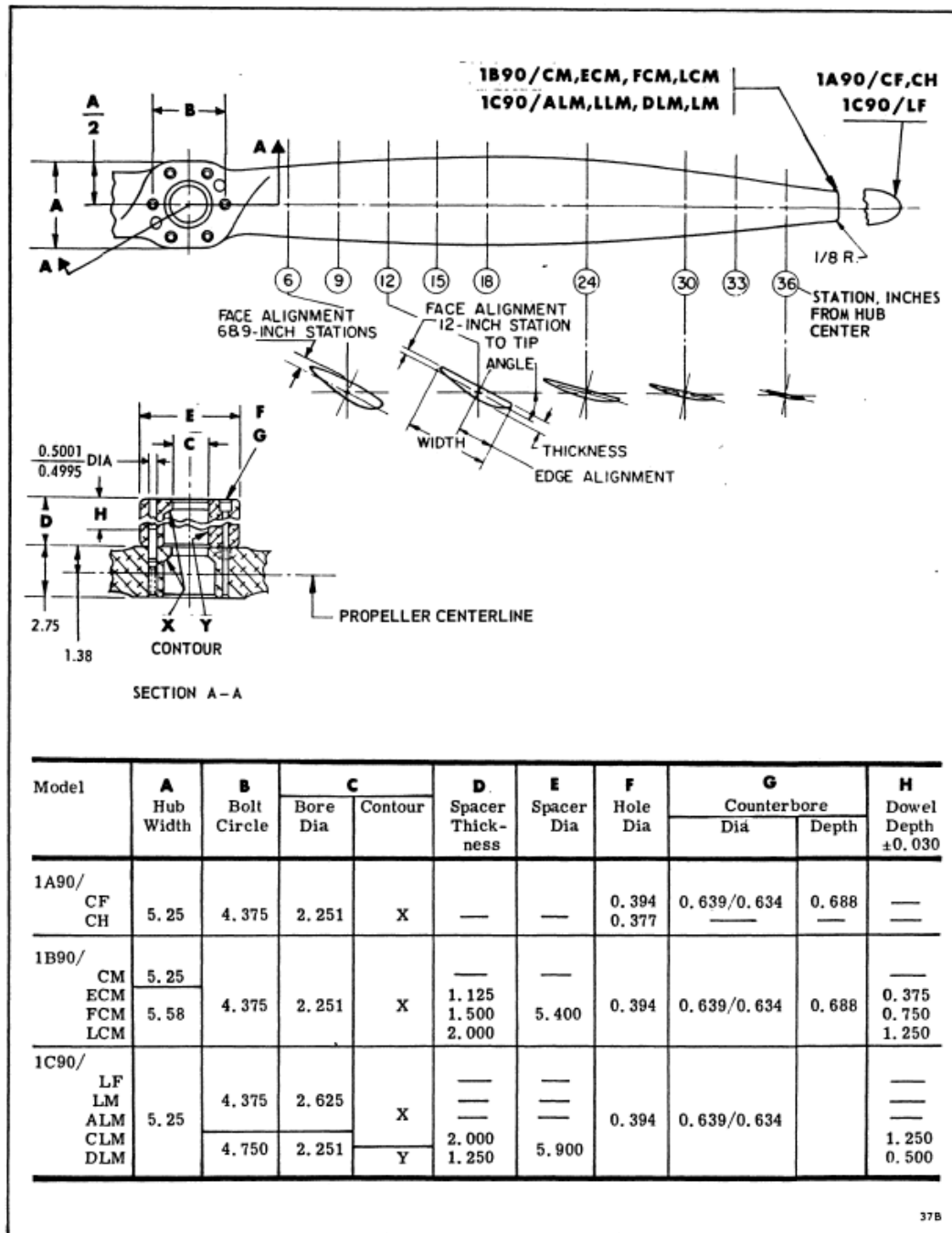


Figure 4-16. Blade Dimensions Models 1A90, 1B90, 1C90

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730720
Overhaul

Table 4-22. BLADE DIMENSIONS, 1A90, 1B90, 1C90
(NEW BLADES)

Station (Fig. 4-16)	Width (inches)		Thickness (inches)		Edge Alignment (inches)		Face Alignment (inches)	
	Min	Max	Min	Max	Min	Max	Min	Max
6	4.220	4.314	1.460	1.510	1.876	1.938	0.654	0.716
9	4.695	4.789	1.060	1.111	2.088	2.150	0.440	0.502
12	4.992	5.086	0.806	0.856	2.221	2.283	0.315	0.377
15	5.163	5.257	0.673	0.723	2.297	2.359	0.259	0.321
18	5.171	5.265	0.570	0.620	2.301	2.363	0.217	0.279
24	4.812	4.906	0.411	0.461	2.140	2.202	0.150	0.212
30	3.924	3.986	0.271	0.321	1.736	1.798	0.092	0.154
33	3.261	3.323	0.205	0.255	1.440	1.502	0.065	0.127
36	2.566	2.628	0.150	0.200	1.130	1.192	0.042	0.104

Table 4-23. SECTION ANGLES, 1A90, 1B90, 1C90
(NEW BLADES)

Station (Fig. 4-16)	Section Angle (degrees) at specified Pitch (inches)																
	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54
15	23.1	23.5	23.8	24.1	24.4	24.8	25.0	25.4	25.7	26.0	26.3	26.6	26.9	27.2	26.9	27.0	27.2
18	19.1	19.5	19.8	20.1	20.4	20.8	21.0	21.4	21.7	22.0	22.3	22.6	22.9	23.2	23.6	23.9	24.2
24	14.4	14.8	15.1	15.4	15.7	16.1	16.3	16.7	17.0	17.3	17.6	17.9	18.2	18.5	18.9	19.2	19.5
30	11.2	11.6	11.9	12.2	12.5	12.9	13.1	13.5	13.8	14.1	14.4	14.7	15.0	15.3	15.7	16.0	16.3
33	10.0	10.4	10.7	11.0	11.3	11.7	11.9	12.3	12.6	12.9	13.2	13.5	13.8	14.1	14.5	14.8	15.1
36	8.8	9.2	9.5	9.8	10.1	10.5	10.7	11.1	11.4	11.7	12.0	12.3	12.6	12.9	13.3	13.6	13.9

NOTE: Angle tolerances are ± 0.25 degrees for stations 15, 18, 24, and ± 0.20 degrees for stations 30, 33, 36.
Like stations on both blades are not to vary more than 0.20 degrees from each other.

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730720
Overhaul

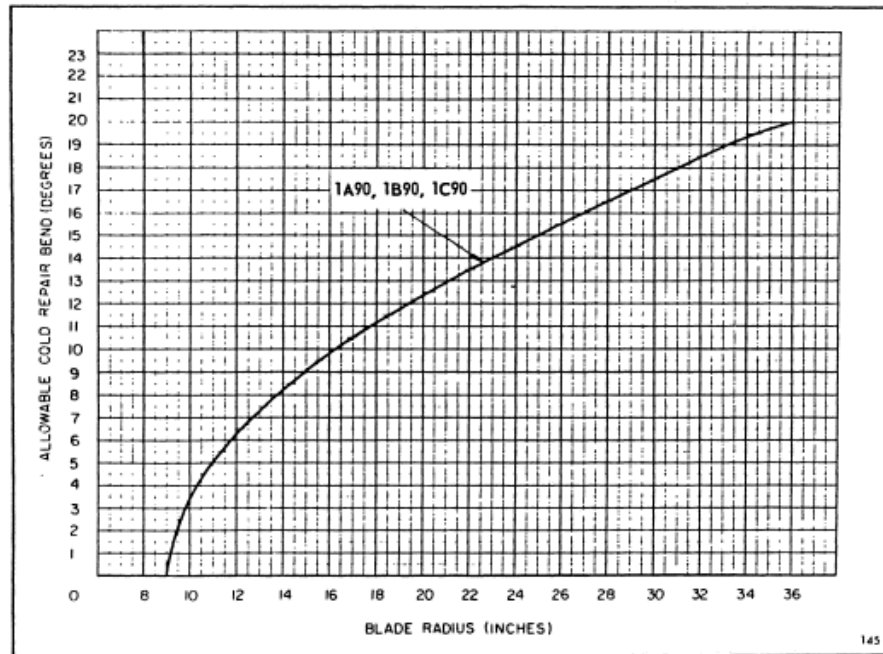


Figure 4-17. Maximum Allowable Bend for Cold Repair, 1A90, 1B90, 1C90

Table 4-24. MINIMUM PERMISSIBLE BLADE WIDTH & THICKNESS,
1A90, 1B90, 1C90 (FOR REPAIR)

Station (Fig. 4-16)	Width (Inches) at Propeller Diameter					Thickness (Inches) at Propeller Diameter				
	70	71	72	73	74	70	71	72	73	74
6	4.132	4.132	4.132	4.132	4.132	1.430	1.430	1.430	1.430	1.430
9	4.592	4.592	4.592	4.592	4.592	1.037	1.037	1.037	1.037	1.037
12	4.875	4.875	4.875	4.875	4.875	0.787	0.787	0.787	0.787	0.787
15	5.030	5.032	5.032	5.032	5.033	0.655	0.655	0.655	0.655	0.655
18	5.025	5.025	5.025	5.030	5.030	0.555	0.555	0.555	0.555	0.555
24	4.620	4.625	4.630	4.630	4.635	0.395	0.395	0.395	0.395	0.395
30	3.550	3.585	3.610	3.630	3.695	0.245	0.250	0.250	0.250	0.250
33	2.800	2.820	2.845	2.870	2.895	0.175	0.177	0.180	0.180	0.180

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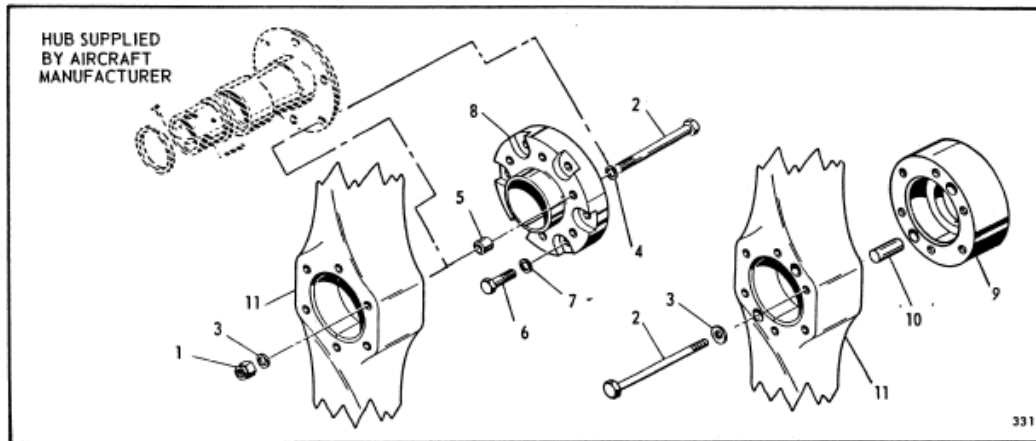


Figure 4-18. Propeller Assemblies, 1A90, 1B90, 1C90

INDEX	PART NO.	DESCRIPTION	QTY	1A90/CF	1A90/CH	1B90/CM	1B90/ECM	1B90/FCM	1B90/LCM	1C90/ALM	1C90/CLM	1C90/DLM	1C90/LF	1C90/LM
1	A-1639-6	Nut (AP)	6		•					•				•
2	A-2513-11	Bolt (AP)	6						•					
	A-2513-20	Bolt (AP)	6				•							
	A-2513-31	Bolt (AP)	6							•				
	A-2513-41	Bolt (AP)	6								•			
	A-2513-43	Bolt (AP)	6									•		
	A-2513-53	Bolt (AP)	6					•						
	A-2513-6	Bolt (AP)	6										•	•
	†A-2513-8	Bolt (AP)	6	•		•								
	A-2513-9	Bolt (AP)	6		•									
3	A-1638-13	Washer (AP)	6	•	•	•			•	•	•	•	•	•
	A-1638-14	Washer (AP)	6				•	•						
4	A-1212	Washer (AP)	6							•			•	•
5	A-1170	Bushing (AP)	6	*	*				•	•			•	•
6	A-2513-7	Bolt (AP)	6										•	•
7	A-1638-13	Washer (AP)	6							•			•	•
8	C-1210	Adapter (AP)	1											
	C-3635	Adapter	1							•				
9	B-3400	Spacer	1						•					
	B-3515	Spacer	1								•			
	B-3927	Spacer	1				•							
	B-4160	Spacer	1									•		
	B-4301	Spacer	1					•						
10	A-2973-6	Pin, Dowel	2				•	•	•	•	•	•	•	•
	†A-2973-2	Pin, Dowel (Optional)	AR				•	•	•	•	•	•	•	•
11	No Number	Propeller Assy	4	•	•	•	•	•	•	•	•	•	•	•

†Use A-2513-24 instead of A-2513-8 or Thorpe 211 aircraft.

†May be used as oversize replacement for A-2973-6.

*Used with these propeller to replace 1A90/CH.

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