## DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

A-799 Revision 54 CESSNA 170 170A 170B November 5, 2004

## **TYPE CERTIFICATE DATA SHEET NO. A-799**

This data sheet which is part of Type Certificate No. A-799 prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder

Cessna Aircraft Company P.O. Box 7704 Wichita, Kansas 67277

WARNING: Use of alcohol-based fuels can cause serious performance degradation and fuel system component damage, and is therefore prohibited on Cessna airplanes.

I - Model 170, 4 PCLM (Normal Category), Approved June 1, 1948; 2 PCLM (Utility Category), Approved July 12, 1948

Engine	Continental C145-2 (See Item 112 for optional engine)				
Fuel	80 Min. octane aviation gase	line			
Engine Limits	For all operations, 2700 r.p.m. (145 hp.)				
Airspeed Limits	Maneuvering Maximum structural cruising Never exceed Flaps extended	<ul> <li>115 m.p.h. (100 knots) True Ind.</li> <li>140 m.p.h. (122 knots) True Ind.</li> <li>160 m.p.h. (139 knots) True Ind.</li> <li>90 m.p.h. (78 knots) True Ind.</li> </ul>			
C.G. Range	Utility Category: (+38.0) t	o (+45.2) at 1733 lb or less o (+40.3) at 1900 lb. o (+40.3) at 1733 lb. or less			

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	C.G. RANGE CESSNA 170	
	2200	
	2100 NOR	
	2000 FROM	
	UTILITY 1900 CATEGOV	
	1800 AFT	
	FRONT	
	1700	
	36 37 38 39 40 41 INCHES	42 43 44 45 46
Employ Web C.C. Damage		
Empty Wt. C.G. Range	None	
Maximum Weight	2200 lb. Normal Category	
	1900 lb. Utility Category	
No. of Seats	4 (2 at +36), (2 at +70)	
Maximum Baggage	120 lb. (+95)	
Fuel Capacity	37.5 gal. total, 33.5 gal. usable (three 12 weight of unusable fuel	5 gal. tanks in wings at +45). See NOTE 1 for
Oil Capacity	2 gal. (-20)	
Control Surface Movements	Wing flaps Up I	Down 30°
	1	Down 14°
	1	Down 27°
	1	Down 17°
	Rudder Right 16° I	left 16°
Serial Nos. Eligible	18000 through 18729	
Required Equipment	In addition to the pertinent required basi items of equipment must be installed:	c equipment specified in CAR 3, the following
	Landplane: Items 1(a), 103, 104, 201	(a), 202(a), 204(a), 402(a).
	Skiplane: Items 1(a), 103, 104, 204	(a), 208(a), 402(a), and (e) or (d).
		ght and instrument lights or equivalent, to cards and instruments are required in addition to 3.

		ty Category), Approved December 15, 1948; 4 PC	SM						
	PCSM (Utility Category), Approved		4						
	adapt metal wing, dorsal fin and gravi	ailerons and flaps and aileron, flap and elevator con	litoi						
systems, revised fuserage to	adapt metar wing, dorsar fin and gravi	ty fuel system and fuel tanks).							
Engine	Continental C145-2 or -2H	I (See Item 112 for optional engine)							
Fuel 80 Min. octane aviation	n gasoline								
Engine Limits	For all operations, 2700 r.p	p.m. (145 hp.)							
Airspeed Limits	Landplane:								
1	Maneuvering	115 m.p.h. (100 knots) True Ind.							
	Maximum structural of	· · · · ·							
	Never exceed	160 m.p.h. (139 knots) True Ind.							
	Flaps extended	100 m.ph. ( 87 knots) True Ind.							
	Seaplane:								
	Maneuvering (Norm	al Category) 105 m.p.h. ( 91 knots) True Ind.							
		y Category) 110 m.p.h. (96 knots) True Ind.							
	Maximum structural of	cruising 110 m.p.h. (96 knots) True Ind.							
	Never exceed	140 m.p.h. (122 knots) True Ind.							
	Flaps extended	100 m.p.h. ( 87 knots) True Ind.							
C.G. Range	Landplane:								
	Normal Category	•							
		(+36.4) to (+46.4) at 1733 lb. or less							
	Utility Category:	(+38.0) to (+40.3) at 1900 lb.							
		(+36.4) to (+40.3) at 1733 lb. or less							
	Straight line variation betw	veen points given.							
	LBS.								
	2200 C.G. RANGE								
	LANDPLANE	NORMAL							
	2100	CAT.							
	2000	FRONT FRONT							
	1900	AFT							
		AT.							
	FRONT	FT I I I I I I I I I I I I I I I I I I I							
	1700								
	36 37 38 39	40 41 42 43 44 45 46 47 INCHES							
	Seaplane:								
	Normal Category:	(+38.8) to (+45.3) at 2106 lb.							
		(+37.0) to (+45.3) at 1800 lb. or less							
	Utility Category:	(+38.8) to (+40.6) at 1975 lb.							
		(+37.0) to (+40.6) at 1800 lb. or less							

Straight line variation between points given.

	C.G. RA	NGE (SI	EAPLANE)		
	2200				
	2100			NORM	
			FRONT	NORM CATEG	ORY
	2000		175.7		
	1900	CATE	LITY GORY		
	1800			AFI	
		FRONT AFT	r		
	36	38	40	42	44 46
Empty Weight C.G. range	None				
Maximum Weight	Landplane:	2200 lt	o. Normal Ca	itegory	
			o. Utility Cat		
	Seaplane		o. Normal Ca		
		1975 lt	o. Utility Cat	egory	
No. of seats	4 (2 at +36) (2 at	+70)			
Maximum baggage	120 lb. (+95)				
Fuel capacity	42 gals. total, 37 weight of unusab	-	e (Two 21 ga	al. tanks ir	n wings at +48). See NOTE 1 for
Fuel capacity Oil Capacity	-	-	e (Two 21 ga	al. tanks ir	n wings at +48). See NOTE 1 for
	weight of unusab 2 gals. (-20)	-	e (Two 21 ga	al. tanks ir Down	n wings at +48). See NOTE 1 for 50°
Oil Capacity	weight of unusab	-	e (Two 21 ga 20°		
Oil Capacity	weight of unusab 2 gals. (-20) Wing flaps Ailerons Elevator tab	le fuel Up Up	20° 10°	Down Down Down	50° 14° 27°
Oil Capacity	weight of unusab 2 gals. (-20) Wing flaps Ailerons Elevator tab Elevators	le fuel Up Up Up	20° 10° 28°	Down Down Down Down	50° 14° 27° 17°
Oil Capacity	weight of unusab 2 gals. (-20) Wing flaps Ailerons Elevator tab	le fuel Up Up	20° 10°	Down Down Down	50° 14° 27°
Oil Capacity	weight of unusab 2 gals. (-20) Wing flaps Ailerons Elevator tab Elevators	le fuel Up Up Up Right	20° 10° 28° 16°	Down Down Down Down	50° 14° 27° 17°
Oil Capacity Control Surface Movements	weight of unusab 2 gals. (-20) Wing flaps Ailerons Elevator tab Elevators Rudder 18730 through 20	le fuel Up Up Up Right 0266 (exce	20° 10° 28° 16° ept 19401).	Down Down Down Down Left	50° 14° 27° 17°
Oil Capacity Control Surface Movements Serial Nos. eligible	<ul> <li>weight of unusab</li> <li>2 gals. (-20)</li> <li>Wing flaps</li> <li>Ailerons</li> <li>Elevator tab</li> <li>Elevators</li> <li>Rudder</li> <li>18730 through 20</li> <li>In addition to the</li> <li>items of equipmed</li> </ul>	Up Up Up Right 0266 (exce pertinent nt must be	20° 10° 28° 16° ept 19401). required bas e installed:	Down Down Down Left ic equipm	50° 14° 27° 17° 16° eent specified in CAR 3, the following
Oil Capacity Control Surface Movements Serial Nos. eligible	<ul> <li>weight of unusab</li> <li>2 gals. (-20)</li> <li>Wing flaps</li> <li>Ailerons</li> <li>Elevator tab</li> <li>Elevators</li> <li>Rudder</li> <li>18730 through 20</li> <li>In addition to the</li> <li>items of equipme</li> <li>Landplane:</li> </ul>	le fuel Up Up Right )266 (exce pertinent nt must be Items 1	20° 10° 28° 16° ept 19401). required bas e installed: l(a), 103, 201	Down Down Down Left ic equipm	50° 14° 27° 17° 16° tent specified in CAR 3, the following a), 204(a), 402(a).
Oil Capacity Control Surface Movements Serial Nos. eligible	<ul> <li>weight of unusab</li> <li>2 gals. (-20)</li> <li>Wing flaps</li> <li>Ailerons</li> <li>Elevator tab</li> <li>Elevators</li> <li>Rudder</li> <li>18730 through 20</li> <li>In addition to the</li> <li>items of equipme</li> <li>Landplane:</li> <li>Skiplane:</li> </ul>	Up Up Up Right 0266 (exce pertinent nt must be Items 1 Items 1	20° 10° 28° 16° ept 19401). required bas e installed: 1(a), 103, 201 1(a), 103, 204	Down Down Down Left ic equipm I(a), 202(a 4(a), 208(a	50° 14° 27° 17° 16° ent specified in CAR 3, the following a), 204(a), 402(a). a), 402(a) and (e) or (d).
Oil Capacity Control Surface Movements Serial Nos. eligible	weight of unusab 2 gals. (-20) Wing flaps Ailerons Elevator tab Elevators Rudder 18730 through 20 In addition to the items of equipme Landplane: Skiplane: Seaplane:	Up Up Up Right 0266 (exce pertinent nt must be Items 1 Items 1 Items 1	20° 10° 28° 16° ept 19401). required bas e installed: 1(a), 103, 201 1(a), 103, 204 1(a), 103, 209	Down Down Down Left ic equipm 1(a), 202(a 4(a), 208(a 0(a), 402(a	50° 14° 27° 17° 16° ent specified in CAR 3, the following a), 204(a), 402(a). a), 402(a) and (e) or (d). a).
Oil Capacity Control Surface Movements Serial Nos. eligible	weight of unusab 2 gals. (-20) Wing flaps Ailerons Elevator tab Elevators Rudder 18730 through 20 In addition to the items of equipme Landplane: Skiplane: Seaplane: Note: For night	Up Up Up Up Right 0266 (exce pertinent nt must bo Items 1 Items 1 flying cab on of all p	20° 10° 28° 16° ept 19401). required bas e installed: 1(a), 103, 204 bin dome light placards and	Down Down Down Left ic equipm I(a), 202(a 4(a), 208(a 0(a), 402(a nt and inst	50° 14° 27° 17° 16° ent specified in CAR 3, the following a), 204(a), 402(a). a), 402(a) and (e) or (d).

	ormal Category), 2 PCLM (Utility Category), Approved September 28, 1950 M (Utility Category), Approved October 29, 1951.	<u>; 4 PCSM</u>				
	slotted flaps, revised horizontal tail, flap and aileron control systems, flap limite	r, and				
Engine	Continental C145-2 or -2H (See item 112 for optional engine)					
Fuel	80 Min. octane aviation gasoline					
Engine limits	For all operations, 2700 r.p.m. (145 hp)					
Airspeed Limits	Landplane: Maneuvering 115 m.p.h. (100 knots) True Ind. Maximum structural cruising 140 m.p.h. (122 knots) True Ind. Never exceed 160 m.p.h. (139 knots) True Ind. Flaps extended 100 m.p.h. (87 knots) True Ind. Seaplane: Maneuvering (Normal Category) 105 m.p.h. (91 knots) True Ind. (Utility Category) 105 m.p.h. (91 knots) True Ind. (Utility Category) 110 m.p.h. (96 knots) True Ind. Never exceed 110 m.p.h. (96 knots) True Ind. Never exceed 140 m.p.h. (122 knots) True Ind. 100 m.p.h. (87 knots) True Ind. 100 m.p.h. (87 knots) True Ind.					
C.G. range	Landplane: Same as Model 170A Seaplane: Normal Category: (+38.8) to (+44.4) at 2106 lb. (+37.0) to (+44.4) at 1800 lb. or less Utility Category: (+38.8) to (+40.6) at 1975 lb. (+37.0) to (+40.6) at 1800 lb. or less Straight line variation between points given					
	C.G. RANGE (SEAPLANE) 2000 2100 2000 1900 1800 FRONT AFT A					
Empty Weight C.G. range	None					
Maximum weight	Landplane:2200 lb. Normal Category1900 lb. Utility CategorySeaplane2106 lb. Normal Category1975 lb. Utility Category					
No. of seats	4 (2 at +36) (2 at +70)					

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Maximum baggage	120 lb. (+95)								
Fuel capacity	42 gals. total, weight of unus	-		21 gal. tai	nks in v	wings at -	+48)). See	NOTE 1 for	
Oil Capacity	2 gals. (-20)								
Wing Flaps <u>All Serials S/N 20267 and up eligible</u>	Take Land		Retracted 1st Notch 2nd Notch 3rd Notch 4th Notch	0° 10° 20° 30° 40°					
	Note	e: S/N 20	267 through		ere del	ivered wi	ithout the 1	10° Notch.	
Control surface movements	Ailerons Elevator tab Elevators Rudder	Up Up Up Right	20° 12° 26° 16°	Down Down Down Left	14° 25° 20° 16°	Up Up Up Right	20° 12° 26° 16°	Down Down Down Left	14° 25° 20° 16°
Serial Nos. eligible	609, 19401 20	267 throu	igh 20999, ar	nd 25000	throug	h 27169			
Required Equipment	items of equip Landplane: Skiplane: Seaplane: Note: For nig illumir require	ment mus Iten Iten Iten ght flying	st be installed ns 1(a), 110, ns 1(a), 110, ns 1(a), 103, , cabin dome nll placards a	1: 201(a), 2 204(a), 2 209(b), 4 light and	02(a), 08(a), 02(h). l instru	204(a), 4 402(e), 4 ment ligh	02(f) and $e 02(f)$ and $e 02(f)$ and $e 02(f)$ and $e 02(f)$		le
Specifications Pertinent to All Mode	<u>els</u>								
Datum	Front face of f	ĩrewall							
Leveling Means	Upper door sil	1							
Certification Basis	<u>Models 170</u> : 0 1 thru 03-3.	Civil Air I	Regulations 1	Part 03 da	ated De	ecember	15, 1946, a	is amended by (	)3-
	<u>Models 170A</u> : 03-1 thru 03-4		r Regulation	s Part 03	dated	Decembe	r 15, 1946	, as amended by	Į
	Model 170B: and 3-2.	Civil Air	Regulations	Part 3 da	ited No	ovember 1	l, 1949, as	amended by 3-	1
	Type Certifica	te No. 79	9 issued June	e 1, 1948					
Production Basis	Production Ce issue airworth Federal Aviati	iness cert	ificates under					-1 authorized to art 21 of the	)

Equipment A plus (+) or minus (-) sign preceding the weight of an item indicates net weight change when that item is installed.

Approval for the installation of all items of equipment listed herein has been obtained by the aircraft manufacturer except those items preceded by an asterisk (\*). The asterisk denotes that approval has been obtained by someone other than the aircraft manufacturer. An item marked with an asterisk may not have been manufactured under a FAA monitored or approved quality control system, and therefore conformity must be determined if the item is not identified by a Form ACA-186, PMA, or other evidence of FAA production approval.

An item preceded by two asterisks (\*\*) indicates approval under Part 21 of the Federal Aviation Regulations.

				<u>170</u>	<u>170A</u>	<u>170B</u>
Propelle	rs and	1 Propeller Accessories				
1.	Pro	peller				
	(a)	McCauley 1A170	33lb.	(-39)	(-39)	(-39)
		Static r.p.m. at max. permissible throttle setting:				
		Landplane: Not over 2330, not under 2230				
		Seaplane (Models 170A and 170B): Not				
		over 2525, not under 2300.				
		No additional tolerance permitted.				
		Diameter: Not over 76 in., not under 74.5 in.				
		Propeller spinner, dwg. No. 0550101-3		eli	gible	
		Propeller spinner, dwg. No. 0550162	2 lb.	(-39)	(-39)	(-39)
	(b)	Sensenich 73BR-50 or any other fixed pitch wood	15 1b.	(-39)	(-39)	(-39)
		Static r.p.m. at max. permissible throttle setting:				
		Not over 2320, not under 2220				
		No additional tolerance permitted				
		Diameter: Not over 74 in., not under 71.5 in.				
		(Not eligible on seaplane. Not eligible for				
		new installations on Continental C-145-2				
		engines having undampered crankshafts after November 1, 1951)				
		Propeller spinner, dwg. No. 0550102-3		eli	gible	
	(c)	Koppers Aeromatic F200-H/00-74E	41 lb.		(-38.5)	(-38.5)
		(Models 170A and 170B landplane and skiplane only)				
		Parts List Assembly No. 4356H-1				
		Low pitch setting 13° measured at 24° in. sta.				
		Static r.p.m. at max. permissible throttle setting:				
		Not over 2700, not under 2620				
		No additional tolerance permitted				
		Diameter: Not over 74 in., not under 72.5 in.				
		Installation of this item must be in accordance with				
		Cessna dwg. No. 0550103 and adjustment and operation				
		must be in accordance with Koppers "Adjustment				
		Instructions and Operation Limitations No. 45." Item 108				
		with seaplane lip, Item 402(c), and C145-2H engine with				
		dampered crankshaft are required when this propeller is				
		installed. With this propeller installation the airplane				
		performance has been demonstrated to equal or exceed				
		that presented in the Airplane Flight Manual with a fixed				
		pitch wood propeller over the altitude and temperature				
		range shown. This item can only be used on C145-2H				
		engine.				

	*(d) McCauley two-position controllable, hub 2B36C7, blades	60 lb.		(-39)	(-39)
	78K-2 (Models 170A and 170B landplane and skiplane				
	with C-145-2H engine)				
	Pitch settings at 30 in. sta.:				
	low 13°, high 17.5°				
	Diameter: Not over 76 in., not under 74.5 in.				
	Item 108 with seaplane lip and Item 402(j) required.				
	*(e) Sensenich M74DR, fixed pitch metal (landplane and	30 lb.	(-39)	(-39)	(-39)
	skiplane only)			. ,	<b>`</b>
	Static r.p.m. at max. permissible throttle setting: Not over				
	2320, not under 2220. No additional tolerance permitted.				
	Diameter: Not over 74 in., not under 72 in.				
	Item 402(m) required.				
	(f) McCauley 1C172/MDM	30 lb.	(-39)	(-39)	(-39)
	Static r.p.m. at maximum permissible throttle setting:	2010.	(2))	(2))	(3))
	Landplane: Not over 2350, not under 2250				
	Seaplane: (Models 170A and 170B): Not over				
	2525, not under 2300				
	Diameter: Not over 76 in., not under 74.5 in.				
	No additional tolerance permitted.				
	No additional colerance permitted.				
Engine	and Engine Accessories - Fuel and Oil Systems				
101.	Starter (Delco-Remy 1109656)	16 lb.	(- 6)	(- 6)	(- 6)
101.	Carburetor air filter 1 lb		(-27)	(-27)	( 0)
102.	Carburetor air heater and mufflers	10 lb.	(-23)	(-23)	
105.	Fuel pump (Continental No. 40585)	2 lb.	(-23)	(-25)	
104.	Winterization equipment (Cessna dwgs. Nos.	2 10.		t weight cl	ange
105.	0552104 and 0552101 or 0552106.		Neglee	i weight ei	lange
	0552104 and 0552101 of 0552100. 0552106 designed for use with 0552002 engine				
	cowl). Item 402(b) or 402(i) required with this equipment.				
106.	Oil filter - Fram PB-5				
100.	(1) Installed per Cessna dwg. 0550150	4 lb.	(-12)	(12)	(-12)
	*(2) Installed per Fram dwg. 6250150 *(2)	4 lb.	(-12) (-3)	(-12) (- 3)	(-12)
107	Engine cowl per Cessna dwg. 0552000	4 10.	(- 5)		
107.	Includes 3"-40° lip on bottom cowl			Use act	ual weight
100	*			I lan oof	
108.	Engine cowl per Cessna dwg. 0552001 or 0552002			Use act	ual weight
	Includes 3/4"-45° lip on bottom cowl				
100	required for seaplane	NT ( 1		<b>F1</b>	<b>F1</b>
109.	Oil dilution system (Cessna dwg. 0550151)	No wt. ch.	( 22)	Elig.	Elig.
110.	Hanlon-Wilson exhaust manifolds and carburetor	15 lb.	(-22)	(-22)	(-22)
4111	air heater (Cessna dwg. 0550157)				
*111.	Franklin 6A4-165-B3 engine			use	
	Eligible on Model 170A and 170B landplane			actual wt.	
	and seaplane with the following limits:				
	Fuel 80 min. octane aviation gasoline				
	Engine Limits For all operations, 2800 r.p.m. (165 hp.)				
	Propeller McCauley 1A170 with the following limits:				
	Static r.p.m. at max. permissible throttle				
	setting:	• • • •			
	(landplane): Not over 2350, not under 2				
	(seaplane): Not over 2500, not under 2	400			
	No additional tolerance permitted				
	Diameter: Not over 76 in., not under 74.				
	Placard required "Avoid continuous engine operation betw	veen 2150 and 2250 r.p	.m."		

112. *113.	Con 18 g 140. 195.	<ul> <li>vil capacity 9 qt. (-20)</li> <li>Vhen this item is installed the engine mount, cowling, baffles, exhaust system including carburetor air heater and cabin heater, oil system, power plant instruments and markings, battery location, and other items must be changed in accordance with the installation instructions, drawings, photographs, and parts list approved for Green Flying Service, Eugene Airpark, 1953 Chamgers Street, Eugene, Oregon. Airplane Flight Manual Supplement, Item 402(g), is required when this item is installed in landplanes. Airplane Flight Manual Supplement, Item 402(g), obtainable from Carl Millard, Ltd., 307 Riverside Drive, Ontario, Canada, required when this item installed in seaplanes.</li> <li>tinental 0-300-A engine (Same limits as for C-145-2 or-2H engine) sal. auxiliary tank installed in accordance with Javelin Aircraft Co., 5 S. Oliver, Wichita, Kansas. Installation Instructions dated September 15, 5, and dwgs. Nos. 782-1 and 787 for landplanes and dwgs. Nos. 782-1, -2, and 787 for seaplanes.</li> </ul>	24 lb.	U (+99)	fse actual y (+99)	weight (+99)
		NOTE 1 for data on unusable fuel)				
		a 402(k) required when this tank is installed				
		eligible on aircraft equipped with Item 404(b)				
	1101	engible on aneralt equipped with term 404(0)				
Landing	g Gear					
201.		ain wheel-brake assemblies, 6.00-6, Type III				
		Goodyear Model LF6HBD	13 lb.	(+22)	(+22)	(+22)
	()	Wheel Assembly No. 511960-M		( )	( )	( )
		Brake Assembly No. 9521239				
	(b)	Goodyear Model CL6HBM	30 lb.	(+22)	(+22)	(+22)
	(-)	Wheel Assembly 9530243 L.H.		()	()	()
		9530242 R.H.				
		Brake Assembly 9530369 L.H.				
		9530368 R.H.				
		Installed in accordance with Cessna dwg. No. 0541150				
		Note: Item 210 is not eligible with this item				
202.	(a)	2 Main wheel 4 ply-rating tires, 6.00-6,	18 lb.	(+22)	(+22)	(+22)
202.	(u)	Type III (with reg. tubes)	10 10.	(+22)	(+22)	(+22)
	(h)	2 Main wheel 4 ply-rating tires, 7.00-6,	+1 lb.	(+22)	(+22)	(+22)
	(0)	Type III (with reg. tubes)	· 1 IU.	(+22)	(122)	(122)
	(c)	2 Main wheel 4 ply-rating tires, 8.00-6,	10 lb.	(+22)	(+22)	(+22)
	(0)	Type III (with reg. tubes)	10 10.	(+22)	(122)	(+22)
		(Items 202(a), (b) and (c) eligible for use				
		with Items 201(a) or (b)				
204.	Tail	wheel assembly				
204.		Scott Model 3-24B, steerable	5 lb.	(+246)	(+246)	(+246)
		Scott Model 3200, steerable, swiveling	8 lb.	(+240) (+249)	(+240) (+249)	(+240) (+249)
	(0)	installed in accordance with Scott Bulletin I-168)	8 10.	(+249)	(+249)	(+249)
	*(a)	Maule SFS-1-2-P8	6 lb.	(+246)	(+246)	(+246)
		Deleted June 22, 1951	0 10.	(+240)	(+240)	(+240)
208.		o skis				
200.		Federal A-2500 according to Cessna dwg.	53 lb.	(+16)	(+16)	(+16)
	(a)	No. 0541102 or Federal Instln. dwg. No. 11R170	55 10.	(10)	(10)	(10)
	*(b)		71 lb.	(+18)	(+18)	(+18)
	(0)	(not eligible with Items 201(b) and 202(a) or (c)	/1 10.	(+18)	(+18)	(+18)
	*(-)	installed)		Line and	al	hones
		Federal A-2500A Federal Instin. dwg. 11R170			al weight	
	·(a)	Federal A-3500 Federal Instln. dwg. 11R170		Use actu	al weight o	mange

	*(e) *(f)	Federal A-3500A Federal Instln. dwg. 11R170 Federal AWA 2500 wheel-ski, Federal Instln. dwg. 11R395 (Eligible with mechanical conversion on ground only)	78 lb.	Use act	•	ht change Iodels)
		Note: Weight and balance of aircraft shall	Retracte	d	Extende	d
		be checked with ski in retracted and extended position.		(+20	)	(+24)
		Not eligible with Item 202(c) installed				
	*(g)	Federal AWB 2500 wheel-ski, Federal Instln.	102 lb.	(,	All Mod	els)
		dwg. 11R549 (Eligible with hydraulic conversion		Retract		Extended
		on ground and in flight)		(+14.5	5)	(+18)
		Note: Weight and balance of aircraft shall be				
		checked with ski in retracted and				
		extended position.				
		Placard required: "Do not extend or retract skis while				
	*(h)	in motion on the ground." Federal AWB 2500A wheel-ski, Federal Instln. dwg.	108 lb.	(	All Mod	alc)
	(11)	11R549G (Effective on ski-gear shipped prior to	108 10.	Retrac		Extended
		January 31, 1952) and 11R889 (Effective on ski-gear		(+14.5		(+18.5)
		shipped after January 31, 1952). (Eligible with hydraulic		(*****	,	(*****)
		conversion on ground and in flight)				
		Note: Weight and balance of aircraft shall be checked				
		with ski in retracted and extended position.				
		Placard required: "Do not extend or retract skis while				
		in motion on the ground."				
	*(i)	Woychik R-1A, Woychik Aircraft Equipment (Middleton,	58 lb.	(+17)	(+17)	(+17)
		Wisc.) dwgs. Nos. 1 thru 5 (32 psi tire pressure required).				
		Airplane Flight Manual Supplement dated November 19, 1951,				
	*(i)	required Wesco, Western Aircraft Equipment Co. dwgs.Nos. 11 and 148				
	*(j)	(1) A-25	69 lb.	(+15)	(+15)	(+15)
		(1) A-25 (2) AS-2A	62 lb.	(+15) (+15)	(+15)	
		(2) AS-2B	64 lb.	(+15)	(+15)	
209.	Two	o floats			( -)	( - )
	(a)	Edo 89-2000 per Cessna dwg. No. 0541125	251 lb.		(+41)	
	(b)	Edo 89-2000 per Cessna dwg. No. 0541125B	245 lb.			(+40)
210.	Two	o wheel streamlines per Cessna dwg. No. 0441143	6 lb.	(+21)	(+21)	(+21)
		eligible when Items 201(b), 202(b) or (c) are installed)				
211.		ski, Federal AT-2500 in accordance with Cessna dwg.	6 lb.	(+245)	(+245)	(+245)
		0542103				
*212.		sse Safety Gear installed according to St. Louis Machine	12 lb.	(+20)	(+20)	(+20)
		dwgs. Nos. 1 and 2 and instructions dated May 5, 1953 ised October 8, 1953). May be used with Item 210 provided				
		Louis Machine Co. conversion kit installed per instructions				
		ed February 4, 1954. Not eligible with Items 201(b), 208, 209,				
		, or 213 installed.				
*213.		itaker Model L-19 Tandum Gear				
		With Item 202(a)	+64 lb.	(+22)	(+22)	(+22)
		With Item 202(b)	+67 lb.	(+22)	(+22)	(+22)
	Inst	alled in accordance with A.W. Whitaker, P.O. Box 1811,				
		land, Ore., Installation Instructions and dwg. CTG-5 dated				
		ober 11, 1952. When this item is installed, performance				
	ınfo	rmation in the Airplane Flight Manual does not apply.				

*214.	Two "No drag" wheel fenders per Liquid Tool Co., Box 299, Morrow, Ohio, dwg. No. 105	8 lb.	(+23)	(+23)	(+23)
Electrica	<u>l Equipment</u>		<u>170</u>	<u>170A</u>	<u>170B</u>
301.	Generator (Delco-Remy 1101876)	10 lb.	(-6)	(-6)	(-6)
302.	Battery - 12 volt 24 amp. hr.	23 lb.	(-3)	(-3)	(-3)
303.	Landing light - Grimes D-3040-8 (Cessna dwg. No. 0422007)	6 lb.	(+44)		
304.	Landing light - G.E. 4509 (Cessna dwg. No. 0523000-2)	2 lb.		(+32)	(+32)
305.	Generator - 25 amp. (Delco-Remy No. 1101879, Continental	14 lb.	(-6)	(-6)	(-6)
	No. 40734) Must be installed with Continental No. 531325			. ,	
	Drive Gear				
*306.	Generator - 35 amp. (Delco-Remy No. 1101880 or No. 1101898)	19 lb.	(-6)	(-6)	(-6)
	Eligible only on engines with dampened crankshafts.				
*307.	Voltage regulator, Delco-Remy No. 1118385		Neglec	t Weight	
	Equipment				
401.	Cabin heater valve assembly	1 lb.	(-2)	(-2)	(-2)
402.	(a) CAA Approved Airplane Flight Manual and pertinent revisions applicable to the particular model, serial number, and landing gear installation				
	(b) CAA Approved Supplement No. 1 to Airplane Flight Manual (pertinent	1			
	to winterization equipment, Item 105, designed for 0552000 and 055200 engine cowls)				
	(c) CAA Approved Supplement No. 2 to Airplane Flight Manual (pertinent				
	to Koppers propeller installation, Item 4)				
	(d) CAA Approved Airplane Flight Manuals (Skiplane) dated April 24, 194	8			
	(Model 170) and December 3, 1948 (Model 170A)				
	(e) The following supplement to Airplane Flight Manual is required for all				
	skis listed except for ski Item 208(a) which is covered by Item 402(d)				
	above. "PERFORMANCE WITH SKIS INSTALLED				
	Takeoff and Landing: Under the most favorable conditions of smooth				
	packed snow at temperatures approximately 30°F. skiplane takeoff				
	distance is approximately 10 percent greater than the distance shown for				
	the landplane. Skiplane landing distance is approximately 20 percent				
	greater than that shown for the landplane. In applying the performance				
	data, caution should be exercised in that lower temperatures or other snow	N			
	conditions will increase the ski friction and hence increase the takeoff run	1			
	and either increase or decrease the landing run.				
	Climb Performance: The skiplane rate of climb is approximately 50 feet				
	per minute less than the landplane."				
	(f) CAA Approved Airplane Flight Manual for Model 170B, dated				
	September 28, 1950.				
	*(g) CAA Approved Supplement to Airplane Flight Manual dated March 15,				
	1950 (Model 170A) (landplane) or December 30, 1955 (Model 170B)				
	(landplane). (Pertinent to Franklin 6A4-165-B3 engine installation, Item				
	(h) CAA Approved Airplane Flight Manual for Model 170B seaplane dated				
	October 29, 1951.				
	<ul> <li>(i) CAA Approved Supplement No. 3 to Airplane Flight Manual. (Pertinen to Winterization Equipment, Item 105, designed for 0552002 engine cowl).</li> </ul>	t			
	(j) CAA Approved Airplane Flight manual Supplement for Models 170A an	d			
	170B dated July 5, 1955. (Pertinent to McCauley controllable propeller				
	installation, Item 5).				

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	<ul> <li>*(k) CAA Approved Airplane Flight Manual Supplement dated November 18, 1955 (Pertinent to auxiliary fuel tank installation, Item 113).</li> <li>*(l) CAA Approved Supplement to Airplane Flight Manual dated October 6, 1955 (Pertinent to Franklin 6A5-164-B3 engine installation in Model</li> </ul>				
	<ul> <li>170A and 170B seaplanes).</li> <li>*(m) CAA Approved Airplane Flight Manual Supplement dated January 17, 1957, prepared by Sensenich Corporation, Lancaster, Pennsylvania, pertinent to Sensenich Propeller Installation, Item *6.</li> </ul>				
403.	Blind flying kit. Cessna dwg. No. 0500006	5lb.	(+26)	(+26)	(+26)
404.	Cabin heater installation	510.	(+20)	(+20)	(120)
101.	(a) Stewart-Warner Model 977B-1 per Cessna dwg. 0511200	10 lb.		(-7)	
	<ul><li>(b) Stewart-Warner Model 979B-1 per Cessna dwg. 0511230</li><li>(b) Stewart-Warner Model 979B-1 per Cessna dwg. 0511231</li></ul>	20 lb.		(+75)	(+75)
*405.	Lear Model L-2B (1102B) automatic pilot Model 1404A altitude and	50 lb.	(+75)	(+75)	(+75)
	controller (optional equipment) installed in accordance with Lear		(+138)	(+138)	(+138)
	Installation dwg. No. 91467 Model 1350A-1 approach coupler and		()	()	()
	(optional equipment) installed in accordance with Lear dwg. No.	9 lb.	(+82)	(+82)	(+82)
	700130 Items 306 and 307 required with this auto-pilot installation. Following				
	placard required near automatic pilot controller:				
	"(1) Do not use auto pilot below 150 feet above terrain in the cruise configuration.				
	(2) Do not use auto pilot below 75 feet above terrain in the approach				
	configuration."				
	Servo stall torque measured at the servo on the ground:				
	Aileron 25±5 in. lb., elevator 25±5 in. lb.,				
	Rudder 50±5 in. lb., Servo drum pitch diameters for all three axes are				
	1.375 inches.				
	FAA Approved Airplane Flight Manual Supplement				
	dated October 19, 1951, is required. Revision dated September 2, 1952				
	(Lear No. 96219) or revision dated November 29, 1954, required when				
	altitude controller installed. Revision dated January 11, 1955, required when				
	approach coupler installed.				
*406.	Fairbanks Aircraft Service Model FAS-1 seat. Installation to be in accordance	15 lb.	(+70)	(+70)	(+70)
	with Fairbanks Aircraft Service installation instruction dated September 2,				
	1952				
*407.	Chinook cabin heater, Model AC (eligible only on airplanes equipped with	+3 lb.	(+20)	(+20)	(+20)
	Item 110). Installation must be in accordance with instructions in Bulletin AC-				
* 100	2 dated December 1, 1952, as approved for Dakota Aviation Co., Huron, S. D.	10.11	(+110)	(+110)	(+110)
*408.	Javelin A-2 single axis automatic pilot installed according to Javelin dwg.	18 lb.	(+110)	(+110)	(+110)
* 100	No. 725.	(+122)	(	+ 100)	(+122)
*409.	Javelin rudder trim according to Javelin dwg. No. 719 (sheets 1 and 2 5 lb.	(+123)	(	+123)	(+123)
	revised April 14, 1955) and Instructions dated March 1955. Airplane Flight				
*410.	Manual Supplement for Javelin Rudder Trim dated May 20, 1955, required. Deleted November 26, 1957. Now covered by STC SA1-107				
*410. *411.	Lear ARCON Model A according to Lear dwg. No. 703437 or dwg. No.	12 lb.	(+96)	(+96)	(+96)
411.	702090. Lear Flight Manual Supplement for Lear "Arcon" dated February 16,	12 10.	(190)	(190)	(190)
	1955, required.				
*412.	Type 69A112 Gyro-Stabilizer installed according to Globe Industries, Inc.	15 lb.		(+99)	
114.	Installation Manual No. 503 dated July 1955.	10 10.		(.,,)	
	Servo cable slip clutch forces 7 to 12 lb. measured at pilot's control. Placard				
	required near automatic control controller: "Do not use Auto pilot during				
	Takeoff and Landing Within 75 feet of ground "				

Takeoff and Landing Within 75 feet of ground."

Miscellaneous (not listed above)			<u>170</u>	<u>170A</u>	<u>170B</u>
601.	Flares, three 1 1/2 PF-11 International	18 lb.	(+98)	(+98)	(+98)
602.	Gran portable stretcher installation				
	(a) Provision for stretcher, Cessna dwg. 0511003		elig.	elig.	elig.
	(b) Gran portable stretcher (stored location)	17 lb.	(+95)	(+95)	(+95)
	Note: The stretcher is adjustable for use at two lengths of approximately 72				
	and 64 inches. The co-pilot's seat may not be occupied with the				
	stretcher extended to 72 inches, the co-pilot's seat back serving as the				
	stretcher's forward support. However, with the stretcher shortened to				
	64 inches the co-pilot's seat may be occupied, if so desired. The last				
	sentence of the normal category placard specified in NOTE 2 is not				
	applicable with this item installed. Instead, the maximum ** allowable				
	baggage is limited for each aircraft as determined by weight and				
	balance check for the most rearward C.G. limit with the stretcher				
	occupied at (+73) and with the co-pilot's seat unoccupied. The				
	following placard must be installed in the baggage compartment:				
	"Maximum baggage <u>**</u> lb. with stretcher installed."				
603.	Provision for camera per drawing No. 0510010 Maximum allowable weight		Use actu	al weight	change
	for the camera and attachments is 92 lb. at $(+72)$ . Camera operator's stool to be			U	U
	placarded: "No Seat during Takeoff or Landing." making the airplane two-				
	place when installed.				
604.	Venturi installation in accordance with Cessna dwg. 0511010A	10 lb.	(+17)	(+17)	(+17)
605.	Heated pitot installation in accordance with Cessna dwg. 0511051	1 lb.	(+12)	(+12)	(+12)
*606.	Spray system installation in accordance with Yingling Aircraft, Inc.	+84 lb.		(+33)	
	dwg. Y-200 and installation instructions.				
	Spray fluid			(+57)	
607.	Stall warning kit in accordance with Cessna dwg. 0511062		elig.	elig.	elig.
608.	Deleted November 30, 1951				
609.	Model 170A dorsal fin (eligible on Model 170)				
*610.	Whitaker Model CWS-53 "Wingspray" installation instructions CWS-15	90 lb.		(+35)	
	(less fans and brushes)				
*611.	Woychik retractable lifting handles, Woychik Aircraft Equipment	14 oz.	(+172)	(+172)	(+172)
	(Middleton, Wisc.), dwg. Nos. 50 and 50A				
*612.	Metal Plating of Wings. Model 170 eligible when wings are	Use actu	al		
	covered with metal skin per Technical Instruction Report No.	wt. chan	ge		
	101440 by Birtcraft Engineering Co., 11826 Cherry Ave., Inglewood,				
	California				
613.	Omitted				
*614.	Metal skin installed in accordance with Met-Co-Aire, Fullerton,	Use actu	al weight	change	
	California, dwg. No. 7108				

NOTE 1. Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary, must be in each aircraft at the time of original certification and at all times thereafter (except in the case of air carrier operators having an approved weight control system).

The certificated empty weight and corresponding center of gravity location must include unusable fuel at 19 lb. at (+53) for Model 170 and 30 lb. at (+46) for Model 170A and Model 170B (above values are included in total fuel capacity). When Item 113, 18 gallon auxiliary fuel tank, is installed an additional 3 lb. unusable fuel at (+99) must be included.

NOTE 2. (a) The following placards must be displayed in front of and in clear view of the pilot:

<u>Model 170</u>

"This airplane must be operated as a normal or utility category airplane in compliance with the Airplane Flight Manual."

NORMAL "No acrobatic maneuvers including spins approved. With two people in the rear seat both front seats must be occupied." UTILITY "No acrobatic maneuvers approved except those listed in the Airplane Flight Manual. Baggage compartment and rear seat must not be occupied."

UTILITY

## Models 170A and 170B:

"This airplane must be operated as a normal or utility category airplane in compliance with the Airplane Flight Manual."

## NORMAL

"No acrobatic maneuvers including spins approved."

"No acrobatic maneuvers approved except those listed in the Airplane Flight Manual. Baggage compartment

"Both tanks on for takeoff and landing." and rear seat must not be occupied."

<u>Models 170A and 170B (Seaplanes)</u> "Retract Water Rudder During Takeoff and Landing."

<u>Model 170B Seaplane</u> "Intentional Spins Prohibited" (Normal and Utility Categories)

- (b) The following placard must be displayed in the baggage compartment:
   "Maximum Baggage 120 lb. For additional loading instructions see Weight and Balance Data."
- (c) The following placard must be displayed in front of and in clear view of the pilot for those aircraft with Items Nos. 208(g) and 208(h) installed:
   "Do not extend or retract skis while in motion on the ground."

.....END.....