#### DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

3A12 Revision 74 CESSNA 172 172I 172A 172K 172B 172L 172C 172M 172D 172N 172E 172P 172F (USAF T-41A) 172Q 172G 172R 172H (USAF T-41A 172S October 2, 2007	. 1		
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		172G	172R
October 2, 2007		172H (USAF T-41A	172S
		October	2, 2007

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

### **TYPE CERTIFICATE DATA SHEET NO. 3A12**

This data sheet which is part of Type Certificate No. 3A12 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

#### I. Model 172, 4 PCLM (Normal Category), approved November 4, 1955; 2 PCLM (Utility Category), approved December 14, 1956

Engine *Fuel	Continental O-300-A or O-300-B 80/87 minimum grade aviation gasoline
*Engine limits	For all operations, 2700 rpm (145 hp)
Propeller and propeller limits	<ol> <li>Propeller         <ul> <li>(a) McCauley 1A170</li> <li>Static rpm at maximum permissible throttle setting: Not over 2360, not under 2230</li> <li>No additional tolerance permitted</li> <li>Diameter: not over 76 in., not under 74.5 in.</li> <li>(b) Spinner, Dwg. 0550162</li> </ul> </li> <li>Propeller         <ul> <li>(a) Sensenich M74DR or 74DR</li> <li>Static rpm at maximum permissible throttle setting: Not over 2430, not under 2300</li> <li>No additional tolerance permitted</li> <li>Diameter: not over 74 in., not under 72.0 in.</li> <li>(b) Spinner, Dwg. 0550162</li> </ul> </li> </ol>

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I. Model 172, 4 PCLM (Normal (				
	Not over No addi	tt maximum per r 2350, not unde tional tolerance not over 76 in., r	missible throttle se er 2250	30 lb. (-39.0) etting:
*Airspeed Limits (CAS)	Maneuvering Maximum structural c Never exceed160 mph Flaps extended		115 mph (100 k 140 mph (122 k 100 mph ( 87 k	knots)
C.G. range	Normal		(+40.8) to (+40	5.4) at 2200 lbs.
	Utility category		(+36.4) to (+46 (+38.4) to (+46	6.4) at 1733 lbs. 0.3) at 1950 lbs. 0.3) at 1733 lbs. or less
	Straight line variation	between points	given.	
Empty weight C.G. range	None			
*Maximum Weight	Normal category Utility category	2200 lbs. 1950 lbs.		
Number of seats	4 (2 at +36, 2 at +70)	(For child's op	tional jump seat, r	efer to Equipment List.)
Maximum baggage	120 lbs. (+95)			
Fuel capacity	42 gal. total, 37 gal. u See Note 1 for weight			at +48)
Oil capacity	2 gal. (-20), includes	1 gal. unusable		
Control surface movements	]	Takeoff Landing	Retracted 1st notch 2nd notch 3rd notch 4th notch	0° 10° 20° 30° 40°
	Ailerons Elevator tab	Up 20° Up 28°	Down Down	14° 13°
	Elevator	Up 28°	Down	15 26°
	Rudder	Right 16°	Left	
Serial numbers eligible	610, 612, 615, 28000	through 29999,	36000 through 369	999 and 46001 through 46754
II. Model 172A, 4 PCL-SM (Norn				
Model 172B, Skyhawk, 4 PCL-	SM (Normal Category	<u>), 2 PCLM (Ut</u>	<u>ility Category), a</u>	pproved June 14, 1960
Engine	Continental O-300-C	or O-300-D		
*Fuel	80/87 minimum grade	e aviation gasoli	ne	
*Engine limits	For all operations, 270	00 rpm (145 hp	)	
Propeller and propeller limits	Not over No addi Diameter: r	t maximum per r 2350, not unde tional tolerance not over 76 in., r	missible throttle se er 2230	-

	<u>rmal Category), 2 PCLM (Utility Ca</u> L-SM (Normal Category), 2 PCLM (	
	<ol> <li>Propeller (seaplane only)         <ul> <li>(a) McCauley 1A175/SFC 8</li> <li>Static rpm at maximum y</li> <li>Not over 2480, not u</li> <li>No additional toleran</li> <li>Diameter: not over 80 in</li> <li>(b) Spinner, Dwg. 0550216</li> </ul> </li> <li>Propeller         <ul> <li>(a) Sensenich 74DC-0-56</li> </ul> </li> </ol>	8040 permissible throttle setting: inder 2380 nce permitted n., not under 78.4 in. or 0550221 permissible throttle setting: inder 2300 nce permitted
*Airspeed Limits (CAS)	Maneuvering Maximum structural cruising Never exceed Flaps extended	115 mph (100 knots) 140 mph (122 knots) 160 mph (139 knots) 100 mph ( 87 knots)
C.G. range	Landplane (Model 172A):	
e.o. runge	Normal category	(+40.8) to (+46.4) at 2200 lbs.
	Utility category	(+36.4) to (+46.4) at 1733 lbs. or less (+38.4) to (+40.3) at 1950 lbs. (+36.4) to (+40.3) at 1733 lbs. or less
	Straight line variation between poi	
	Landplane (Model 172B): Normal category	(+40.4) to (+46.4) at 2200 lbs.
	Utility category	(+36.4) to (+46.4) at 1850 lbs. or less (+37.4) to (+40.3) at 1950 lbs. (+36.4) to (+40.3) at 1850 lbs. or less
	Seaplane (Models 172A and 172B	):
	Normal category	(+39.8) to (+45.5) at 2220 lbs. (+36.4) to (+45.5) at 1825 lbs. or less
	Straight line variation between poi	
Empty weight C.G. range	None	
*Maximum weight	Landplane: Normal category Utility category Seaplane: Normal category	2200 lb. 1950 lb. 2220 lb.
Number of seats	4 (2 at $+36$ , 2 at $+70$ ) (For child's	s optional jump seat, refer to Equipment List.)
Maximum baggage	120 lb. (+95)	
Fuel capacity	42 gal. total, 37 gal. usable (172A) wings at +48) See Note 1 for weight of unusable	); 39 gal. usable (172B) (two 21 gal. tanks in <i>fuel and oil</i> .
Oil capacity	2 gal. (-20), 1 gal. usable	

Model 172B, Skyhawk, 4 PC Control surface movements	Wing flaps	Takeoff	,	Retracted	0°			
Control Surface movements	ting nups	runcom		1st notch	10°			
		Landing		2nd notch				
		Dununig		3rd notch	20 30°			
				4th notch	40°			
	Ailerons	Un	20°	Down	40 15°			
	Elevator tab		20 28°	Down	13°			
	Elevator		28°	Down				
	Rudder (landplane)	-		Left				
	· • ·	Right Right						
	(seaplane) (Measured parallel to		19-	Left	15			
Serial numbers eligible	Model 172A: 622, 62	5, 46755 th	rough 47	7746				
	Model 172B: 630, 17		-					
III. Model 172C, 4 PCL-SM (No				), approved J	<u>uly 18, 1961</u>			
Engine	Continental O-300-C	or O-300-	D					
*Fuel	80/87 minimum grade	aviation ga	asoline					
*Engine limits	For all operations, 270	0 rpm (14	5 hp)					
Propeller and	1. Propeller							
propeller limits	(a) McCauley 1							
	Static rpm, at maximum permissible throttle setting:							
	Not over 2350, not under 2230							
	No additional tolerance permitted Diameter: not over 76 in., not under 74.5 in.							
	(b) Spinner, Dw		5, 055022	21 or 0550228				
	2. Propeller (seapla		9040					
	(a) McCauley 1			-: 1-1 - 41 441	-44:			
				sible throttle s	etting:			
	Not over 2480, not under 2380 No additional tolerance permitted Diameter: not over 80 in., not under 78.4 in. (b) Spinner, Dwg. 0550216 or 0550221							
	3. Propeller							
	(a) Sensenich 7	4DC-0-56						
			permiss	ible throttle se	etting:			
		2420, not			0			
	No addit	ional tolera	ance perr	nitted				
	Diameter: n	ot over 74	in., not u	inder 72.5 in.				
*Airspeed limits	Maneuvering			oh (100 knots				
(CAS)	Maximum structural c	ruising	-	oh (122 knots				
	Never exceed			oh (139 knots				
	Flaps extended		100 mj	oh (87 knots	)			
C.G. range	Landplane		,	10.5) ( 1	( A) ( 2250 <sup>11</sup>			
	Normal category				6.4) at 2250 lbs.			
	TT:'1'				6.4) at 1850 lbs. or less			
	Utility category				0.3) at 1950 lbs.			
	Saanlana		(+	-50.4) to $(+40)$	0.3) at 1850 lbs. or less			
	Seaplane Normal category		()	30.8) to (14	5.5) at 2220 lbs.			
	Normal category				5.5) at 1825 lbs. or less			
	Straight line variation	hetween po			5.57 at 1025 105. 01 1688			
	Suaign ing variation	UCLWCCII DO	mus give					

## II. Model 172A, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category) (cont'd)

Empty weight C.G. range	None	
*Maximum weight	Landplane Normal category 2250 lbs. Utility category 1950 lbs. Seaplane Normal category 2220 lbs.	
Number of seats	4 (2 at +36, 2 at +70) (For child's optional jump seat, refer to Equipment	nt List.)
Maximum baggage	120 lbs. (+95)	
Fuel capacity	39 gal. total, 36 gal. usable (two 19.5 gal. tanks in wings at +48) See Note 1 for weight of unusable fuel and oil.	
Oil capacity	2 gal. (-20), includes 1 gal. unusable	
Control surface movements	Wing flapsTakeoffRetracted0°1st notch10°Landing2nd notch20°3rd notch30°4th notch40°	
	Ailerons Up 20° Down 15°	
	Elevator tab Up 28° Down 13°	
	Elevator Up 28° Down 26°	
	Rudder (Landplane) Right 16° Left 16°	
	(Seaplane) Right 19° Left 15° (Measured parallel to W.L.)	
Serial numbers eligible	17248735 through 17249544	
Model 172E, 4 PCL-SM (Nor Model 172F (USAF T-41A), 4 Model 172G, 4 PCL-SM (Nor Model 172H (USAF) T-41A),	rmal Category), 2 PCLM (Utility Category), approved June 19, 1962 rmal Category), 2 PCLM (Utility Category), approved June 27, 1963 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved A <sub>I</sub> rmal Category), 2 PCLM (Utility Category), approved June 15, 1965 , 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved J	
Engine	Continental O-300-C or O-300-D	
*Fuel	80/87 minimum octane aviation gasoline	
*Engine limits	For all operations, 2700 rpm (145 hp)	
Propeller and propeller limits	<ol> <li>Propeller         <ul> <li>(a) McCauley 1C172/EM 7652, 53 Static rpm at maximum permissible throttle setting: Not over 2420, not under 2230 No additional tolerance permitted Diameter: not over 76 in., not under 74.5 in.</li> <li>(b) Spinner Model 172D, E, F, Dwg. 0550216, 0550221 or 0550228 Model 172C, H. Dwg. 0550236</li> </ul> </li> </ol>	
	Model 172G, H, Dwg. 0550236 2. Propeller (Seaplane only) (a) McCauley 1A175/SFC 8040 Static rpm at maximum permissible throttle setting: Not over 2480, not under 2380	

No additional tolerance permitted Diameter: not over 80 in., not under 78.4 in.

## III. Model 172C, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category) (cont'd)

IV. Model 172D, Model 172E, Mo		<u>, Model 172H</u>	(cont'd)	
	(b) Spinner Model	172D F F Dr	wg. 0550216, 05502	21
		l 172G, H, Dwg	-	21
		-, ,		
*Airspeed limits	Maneuvering		122 mph (106 l	knots)
(CAS)	Maximum structura	l cruising	142 mph (122 l	
	Never exceed		174 mph (151 l	
	Flaps extended		100 mph ( 87 l	knots)
C.G. range	Landplane			
	Normal category	v	(+38.5) to (+4'	7.3) at 2300 lbs.
				7.3) at 1950 lbs. or less
	Utility category		(+35.5) to (+4	0.5) at 2000 lbs.
			(+35.0) to (+4	0.5) at 1950 lbs. or less
	Seaplane			
	Normal category	J	(+39.8) to $(+4)$	5.5) at 2220 lbs.
	i torinar category	,		5.5) at 1825 lbs. or less
	Straight line variation	on between poin		,
Empty weight C.G. range	None			
*Maximum Weight	Landplane:			
C C	Normal category	4	2300 lbs.	
	Utility category		2000 lbs.	
	Seaplane:			
	Normal category	1	2220 lbs.	
Number of seats	4 (2 at +36, 2 at +7	0) (For child's o	optional jump seat, r	refer to Equipment List.)
Maximum Baggage	120 lbs. (+95)			
Eucl Conscitu	20 gal total 26 gal	usable (two 10	5 gol tonks in wing	$r_{0}$ at $(49)$
Fuel Capacity	39 gal. total, 36 gal. See Note 1 for weigh			s at +48)
	See Hole 1 jor weig	n of unuscore fi	iei unu on.	
Oil capacity	2 gal. (-20), 1 gal. u	ısable		
Control surface movements	Wing flaps	Takeoff	Retracted	0°
control surface movements	wing naps	Takeon	1st notch	10°
		Landing	0°	
	Ailerons	Up 2		
	Elevator tab	Up 2		
	Elevator	Up 2		
	(Neutral position is			
	of stabilizer.)			
	Rudder (landplane)			16°
	(seaplane)	Right 1	19° Left	15°
Serial numbers eligible	Model 172D: 17	249545 through	17250572	
			rough 17251822	
		251823 through		
	Model 172G: 17	253393 through	17254892	
	Model 172H: 63	8, 17254893 thr	ough 17256512 (exe	cept 17256493)

## IV. Model 172D, Model 172E, Model 172F, Model 172G, Model 172H (cont'd)

Engine	Lycoming O-320-E2D	
*Fuel	80/87 minimum grade aviation gas	oline
*Engine limits	For all operations, 2700 rpm (150	hp)
Propeller and propeller limits	<ol> <li>Propeller         <ul> <li>(a) McCauley 1C172/MTM Static rpm at maximum p Not over 2360, not un No additional toleran Diameter: not over 76 ir</li> <li>(b) Spinner, Dwg. 0550320</li> </ul> </li> <li>Propeller (seaplane only)         <ul> <li>(a) McCauley 1A175/ATM Static rpm at maximum p Not over 2480, not un No additional toleran Diameter: not over 80 ir</li> <li>(b) Spinner, Dwg. 0550320</li> </ul> </li> <li>Propeller         <ul> <li>(a) McCauley 1C160/CTM ' Static rpm at maximum p Not over 2370, not un No additional toleran Diameter: not over 75 ir</li> <li>(b) Spinner, Dwg. 0550320</li> </ul> </li> <li>Propeller         <ul> <li>(a) McCauley 1C160/CTM ' Static rpm at maximum p Not over 2370, not un No additional toleran Diameter: not over 75 ir</li> <li>(b) Spinner, Dwg. 0550320</li> </ul> </li> <li>Propeller (seaplane only)         <ul> <li>(a) McCauley 1A175/ETM ' Static rpm at maximum p Not over 2480, not un No additional toleran Diameter: not over 80 ir</li> <li>(b) Spinner, Dwg. 0550321</li> </ul> </li> <li>Propeller         <ul> <li>(a) McCauley 1C160/DTM ' Static rpm at maximum p Not over 2370, not un</li> </ul> </li> </ol>	<ul> <li>7653</li> <li>permissible throttle setting: nder 2260</li> <li>ce permitted (see Note 3)</li> <li>h., not under 74 in.</li> <li>8042</li> <li>permissible throttle setting: nder 2380</li> <li>ce permitted (see Note 3)</li> <li>h., not under 78.4 in.</li> <li>7553</li> <li>permissible throttle setting: nder 2270</li> <li>ce permitted (see Note 3)</li> <li>h., not under 74 in.</li> <li>8042</li> <li>permissible throttle setting: nder 2380</li> <li>ce permitted (see Note 3)</li> <li>h., not under 74 in.</li> <li>8042</li> <li>permissible throttle setting: nder 2380</li> <li>ce permitted (see Note 3)</li> <li>h., not under 78.4 in.</li> <li>7553</li> <li>permissible throttle setting: nder 2270</li> <li>ce permitted (see Note 3)</li> <li>h., not under 78.4 in.</li> </ul>
	(b) Spinner, Dwg. 0550320	
*Airspeed Limits (CAS)	Maneuvering Maximum structural cruising Never exceed Flaps extended	122 mph (106 knots) 140 mph (122 knots) 174 mph (151 knots) 100 mph ( 87 knots)
C.G. range	Landplane Normal category Utility category	(+38.5) to (+47.3) at 2300 lbs. (+35.0) to (+47.3) at 1950 lbs. or (+35.5) to (+40.5) at 2000 lbs. (+35.0) to (+40.5) at 1950 lbs. or
	Seaplane (Edo 89-2000 or 89A200 Normal category	00 floats) (+39.8) to (+45.5) at 2220 lbs.
	Straight line variation between poi	(+36.4) to (+45.5) at 1825 lbs. or

V. Model 172I, Model 172K (co Empty weight C.G. range	nt'd) None	
*Maximum Weight	Landplane: Normal category Utility category Seaplane: Normal category	2300 lbs. 2000 lbs. 2220 lbs.
Number of seats	4 (2 at +34 to +46, 2 at +73) (Occup	pant on child's optional jump seat at +93)
Maximum baggage	120 lb. at +95	
Fuel capacity	42 gal. total, 38 gal. usable (two 21 ga See Note 1 for weight of unusable fuel	
Oil capacity	2 gal. (-14.0), 1-1/2 gal. usable	
Control surface movements	Wing flapsAileronsUp $20^{\circ} \pm$ Elevator tabUp $28^{\circ} +$ ElevatorUp $28^{\circ} +$ (Neutral position is with bottom of ball of stabilizer.)of stabilizer.)Rudder (landplane)Right $16^{\circ} \pm$ (seaplane)Right $19^{\circ} \pm$ (Measured parallel to W.L.)	$1^{\circ}, -0^{\circ}$ Down $13^{\circ} +1^{\circ}, -0^{\circ}$ $1^{\circ}, -0^{\circ}$ Down $23^{\circ} +1^{\circ}, -0^{\circ}$ lance area flush with bottom $1^{\circ}$ Left $16^{\circ} \pm 1^{\circ}$
Serial numbers eligible	17258487 through 17	7258486 (1969 model) 7259223 (1970 model)
VI. Model 172L, 4 PCL-SM (Norn Engine	nal Category), 2 PCLM (Utility Catego Lycoming O-320-E2D	<u>ery), approved May 13, 1970</u>
*Fuel	80/87 minimum grade aviation gasolir	10
*Engine limits	For all operations, 2700 rpm (150 hp)	
Propeller and propeller limits	<ol> <li>Propeller         <ul> <li>(a) McCauley 1C172/MTM 765 Static rpm at maximum perm Not over 2360, not unde No additional tolerance p Diameter: not over 76 in., n</li> <li>(b) Spinner, Dwg. 0550320</li> </ul> </li> <li>Propeller (seaplane only)         <ul> <li>(a) McCauley 1A175/ATM 804 Static rpm at maximum perm Not over 2480, not unde No additional tolerance p Diameter: not over 80 in., n</li> <li>(b) Spinner, Dwg. 0550320</li> </ul> </li> </ol>	<ul> <li>53</li> <li>nissible throttle setting:</li> <li>r 2260</li> <li>permitted (see Note 3)</li> <li>not under 74 in.</li> <li>12</li> <li>nissible throttle setting:</li> <li>r 2380</li> <li>permitted (see Note 3)</li> </ul>

VI. Model 172L, 4 PCL-SM (Norma	al Category), 2 PCLM (Utility Category	<u>ry)</u> (cont'd)			
	3. Propeller				
	(a) McCauley 1C160/CTM 7553				
	Static rpm at maximum perm	-			
	Not over 2370, not under				
	No additional tolerance p				
	Diameter: not over 75 in., no	ot under 74 in.			
	(b) Spinner, Dwg. 0550320				
	4. Propeller	-			
	(a) McCauley 1A160/DTM 7553				
	Static rpm at maximum perm				
	Not over 2370, not under				
	No additional tolerance p				
	Diameter: not over 75 in., no	bt under 74 m.			
	(b) Spinner, Dwg. 0550320				
	5. Propeller (Seaplane only)				
	(a) McCauley 1A175/ETM 8042 Static rpm at maximum perm				
	Not over 2480, not under				
	No additional tolerance p				
	Diameter: not over 80 in., no				
	(b) Spinner, Dwg. 0550321				
	6. Propeller				
	(a) McCauley 1C160/DTM 7553	3			
	Static rpm at maximum perm				
	Not over 2370, not under				
	No additional tolerance p				
	Diameter: not over 75 in., no				
	(b) Spinner, Dwg. 0550320				
*Airspeed Limits	Maneuvering	122 mph (106 knots)			
(CAS)	Maximum structural cruising	140 mph (122 knots)			
	Never exceed	174 mph (151 knots)			
	Flaps extended	100 mph ( 87 knots)			
C.G. range	Landplane				
e.e. range	Normal category	(+38.5) to (+47.3) at 2300 lbs.			
		(+35.0) to $(+47.3)$ at 1950 lbs. or less			
	Utility category	(+35.5) to $(+40.5)$ at 2000 lbs.			
		(+35.0) to (+40.5) at 1950 lbs. or less			
	Straight line variation between points g				
	Seaplane (Edo 89-2000 or 89A2000 fl				
	Normal category	(+39.8) to (+45.5) at 2220 lbs.			
	Studiaht line variation hatwaan points	(+36.4) to (+45.5) at 1825 lbs. or less			
	Straight line variation between points given.				
Empty weight C.G. range	None				
*Maximum Weight	Landplane:				
	Normal category	2300 lbs.			
	Utility category	2000 lbs.			
	Seaplane:	2220 1			
	Normal category	2220 lbs.			
Number of seats	4 (2 at +34 to +46, 2 at +73) (Occup	ant on child's optional jump seat at +96)			
Maximum baggage	120 lb. at +95				
Fuel capacity	42 gal. total, 38 gal. usable (two 21 gal				
	See Note 1 for weight of unusable fuel.				

## VI. Model 172L, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category) (cont'd)

Oil capacity	2 gal. (-14.0), 1-1/2 gal. usable						
	See Note 1 for data on undrainable oil.						
Control surface movements	Wing flaps Takeoff $0^{\circ}$ - $10^{\circ}$						
	Landing $0^{\circ} - 40^{\circ} \pm 2^{\circ}$						
	Ailerons Up $20^{\circ} \pm 1^{\circ}$ Down $15^{\circ} \pm 1^{\circ}$						
	Elevator tab $Up 28^{\circ} +1^{\circ}, -0^{\circ}$ Down $13^{\circ} +1^{\circ}, -0^{\circ}$						
	Elevator Up $28^{\circ} + 1^{\circ}$ , $-0^{\circ}$ Down $23^{\circ} + 1^{\circ}$ , $-0^{\circ}$						
	(Neutral position is with bottom of balance area flush with bottom of stabilizer.)						
	Rudder (landplane) Right $16^{\circ} \pm 1^{\circ}$ Left $16^{\circ} \pm 1^{\circ}$						
	(seaplane) Right $19^{\circ} \pm 1^{\circ}$ Left $15^{\circ} \pm 1^{\circ}$						
	(Measured parallel to W.L.)						
Serial numbers eligible	Model 172L:17259224 through 17259903 (1971 model)Model 172L:17259904 through 17260758 (1972 model)						
II. Model 172M, Skyhawk, 4	PCL-SM (Normal Category), 2 PCLM (Utility Category, approved May 12, 197						
Engine	Lycoming O-320-E2D						
*Fuel	80/87 minimum grade aviation gasoline						
*Engine limits	For all operations, 2700 rpm (150 hp)						
Propeller and	1. Propeller						
propeller limits	(a) McCauley 1C160/CTM 7553						
	Static rpm at maximum permissible throttle setting:						
	Not over 2370, not under 2270						
	No additional tolerance permitted (see Note 3)						
	Diameter: not over 75 in., not under 74 in.						
	(b) Spinner: Dwg. 0550320						
	2. Propeller						
	(a) McCauley 1C160/DTM 7553						
	Static rpm at maximum permissible throttle setting:						
	Not over 2370, not under 2270						
	No additional tolerance permitted (see Note 3) Diameter: not over 75 in., not under 74 in.						
	(b) Spinner, Dwg. 0550320						
	3 Propeller (seanlane only)						
	3. Propeller (seaplane only) (a) McCauley 14175/ATM 8042						
	(a) McCauley 1A175/ATM 8042						
	<ul> <li>(a) McCauley 1A175/ATM 8042</li> <li>Static rpm at maximum permissible throttle setting:</li> </ul>						
	<ul> <li>(a) McCauley 1A175/ATM 8042</li> <li>Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445</li> </ul>						
	<ul> <li>(a) McCauley 1A175/ATM 8042</li> <li>Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445</li> <li>No additional tolerance permitted (see Note 3)</li> </ul>						
	<ul> <li>(a) McCauley 1A175/ATM 8042</li> <li>Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445</li> <li>No additional tolerance permitted (see Note 3)</li> <li>Diameter: not over 80 in., not under 78.4 in.</li> </ul>						
	<ul> <li>(a) McCauley 1A175/ATM 8042</li> <li>Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445</li> <li>No additional tolerance permitted (see Note 3)</li> <li>Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> </ul>						
	<ul> <li>(a) McCauley 1A175/ATM 8042 Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445 No additional tolerance permitted (see Note 3) Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> <li>4. Propeller (seaplane only)</li> </ul>						
	<ul> <li>(a) McCauley 1A175/ATM 8042 Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445 No additional tolerance permitted (see Note 3) Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> <li>4. Propeller (seaplane only)</li> <li>(a) McCauley 1A175/ETM 8042</li> </ul>						
	<ul> <li>(a) McCauley 1A175/ATM 8042 Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445 No additional tolerance permitted (see Note 3) Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> <li>4. Propeller (seaplane only)</li> </ul>						
	<ul> <li>(a) McCauley 1A175/ATM 8042 Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445 No additional tolerance permitted (see Note 3) Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> <li>4. Propeller (seaplane only)</li> <li>(a) McCauley 1A175/ETM 8042 Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445</li> </ul>						
	<ul> <li>(a) McCauley 1A175/ATM 8042 Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445 No additional tolerance permitted (see Note 3) Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> <li>4. Propeller (seaplane only)</li> <li>(a) McCauley 1A175/ETM 8042 Static rpm at maximum permissible throttle setting:</li> </ul>						
	<ul> <li>(a) McCauley 1A175/ATM 8042 Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445 No additional tolerance permitted (see Note 3) Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> <li>4. Propeller (seaplane only)</li> <li>(a) McCauley 1A175/ETM 8042 Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445 No additional tolerance permitted (see Note 3)</li> </ul>						
*Airspeed Limits	<ul> <li>(a) McCauley 1A175/ATM 8042 Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445 No additional tolerance permitted (see Note 3) Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> <li>4. Propeller (seaplane only) <ul> <li>(a) McCauley 1A175/ETM 8042</li> <li>Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445</li> <li>No additional tolerance permitted (see Note 3)</li> <li>Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> </ul> </li> <li>17256493, 17260759 through 17265684</li> </ul>						
*Airspeed Limits (CAS)	<ul> <li>(a) McCauley 1A175/ATM 8042 Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445 No additional tolerance permitted (see Note 3) Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> <li>4. Propeller (seaplane only) <ul> <li>(a) McCauley 1A175/ETM 8042</li> <li>Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445</li> <li>No additional tolerance permitted (see Note 3)</li> <li>Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> </ul> </li> <li>17256493, 17260759 through 17265684 <ul> <li>Maneuvering</li> <li>112 mph (97 knots)</li> </ul> </li> </ul>						
-	<ul> <li>(a) McCauley 1A175/ATM 8042 Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445 No additional tolerance permitted (see Note 3) Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> <li>4. Propeller (seaplane only) <ul> <li>(a) McCauley 1A175/ETM 8042</li> <li>Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445 No additional tolerance permitted (see Note 3) Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> </ul> </li> <li>17256493, 17260759 through 17265684 Maneuvering 112 mph (97 knots) Maximum structural cruising 145 mph (126 knots)</li> </ul>						
-	<ul> <li>(a) McCauley 1A175/ATM 8042 Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445 No additional tolerance permitted (see Note 3) Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> <li>4. Propeller (seaplane only) <ul> <li>(a) McCauley 1A175/ETM 8042</li> <li>Static rpm at maximum permissible throttle setting: Not over 2545, not under 2445</li> <li>No additional tolerance permitted (see Note 3)</li> <li>Diameter: not over 80 in., not under 78.4 in.</li> <li>(b) Spinner, Dwg. 0550320</li> </ul> </li> <li>17256493, 17260759 through 17265684 <ul> <li>Maneuvering</li> <li>112 mph (97 knots)</li> </ul> </li> </ul>						

3A12
3A12

Airspeed Limits	17265685 through 17	267584			
(CAS)	Maneuvering		97 knots		
(See Note 4 on use of CAS)	Maximum structural	cruising	128 knots		
	Never exceed		160 knots		
	Flaps extended		85 knots		
C.G. range	Landplane:				
	Normal category	у	(+38.5) to	(+47.3) at	2300 lbs.
					1950 lbs. or less
	Utility category		(+35.5) to		
			(+35.0) to	(+40.5) at	1950 lbs. or less
	Seaplane: (Edo 89-2	000 or 894	A2000 floats)		
	Normal category		(+39.8) to	(+45.5) at	2220 lbs.
					1825 lbs. or less
	Straight line variation	n between			
Empty weight C.G. Range	None				
N		200 11 /1		11 / 1	``
Maximum weight	Normal category: 2 Utility category: 2	300 lb. (la 000 lb. (la		ib. (seaplai	ne)
	Chinty category. 2	.000 10. (10	indplane)		
Number of seats	4 (2 at +34 to +46, 2	at +73) (	Occupant on ch	ild's option	al jump seat at +96)
Maximum baggage	120 lb. at +95				
Fuel capacity	42 gal. total, 38 gal. u See Note 1 for data o			n wings at	+48)
	see noie 1 jor aaia o	n unusubi	e juei.		
Oil capacity	2 gal. (-14.0), 1-1/2	gal. usable	•		
	See Note 1 for data o	n undrain	able oil.		
Control surface movements	Wing flaps	Takeoff	0° - 10°	(landplane	) (seaplane)
		Landing			
			0° - 30° ±2°		
	Ailerons	Up	20° ±1°		15° ±1°
	Elevator tab		28° +1°, -0°		13° +1°, -0°
	Elevator		$28^{\circ} + 1^{\circ}, -0^{\circ}$		$23^{\circ} + 1^{\circ}, -0^{\circ}$
	(Neutral position is w of stabilizer.)				
	Rudder (landplane)	Right	16° +1°	I oft	16° ±1° (landpla
	(seaplane)	-	10 ±1 19° ±1°		$15^{\circ} \pm 1^{\circ}$ (seaplan
	(Measured parallel to		17 11	Left	15 ±1 (scapian
Serial numbers eligible	17256493, 17260759	through 1	7261808 (1072	model) (av	cent 17261445 and
serial numbers eligible	17261578)	unough 1	1201090 (19/3	model) (ex	cept 17201445 and
	17261899 through 17	263458 (	1974 model)		
	17263459 through 17				
	17265685 through 17				

Engine Lycoming O-320-H2AD	
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*Fuel	100/130 minimum grade aviation gasoline
	(S/N 17261445, 17267585 through 17269309)

VIII. Model 172N, Skyhawk, 4 PC	L-SM (Normal Category), 2 PCL 100LL/100 minimum grade aviati		
	(S/N 17261578, 17269310 throug		
*Engine limits	For all operations, 2700 rpm (160	) hp)	
Propeller and propeller limits	<ol> <li>Propeller         <ul> <li>(a) McCauley 1C160/DTM Static rpm at maximum Not over 2400, not u No additional tolera Diameter: not over 75 ii</li> <li>(b) Spinner: Dwg. 0550320</li> </ul> </li> <li>Propeller (seaplane only)</li> </ol>	permissible throttle setting: inder 2280 nce permitted n., not under 74 in.	
	(a) McCauley 1A175/ETM	permissible throttle setting: inder 2470 nce permitted n., not under 78.5 in.	
*Airspeed limits (CAS) (See Note 4 on use of CAS)	1977 Model through 1979 Model Maneuvering Maximum structural cruising Never exceed Flaps extended	97 knots g 128 knots 160 knots 85 knots	
	1980 Model Maneuvering Maximum structural cruising Never exceed Flaps extended	97 knots 127 knots 158 knots 85 knots	
C.G. range	Landplane: Normal category Utility category	(+38.5) to (+47.3) at 2300 lbs. (+35.0) to (+47.3) at 1950 lbs. or less (+35.5) to (+40.5) at 2000 lbs. (+35.0) to (+40.5) at 1950 lbs. or less	
	Seaplane: (Edo 89-2000 or 89A2 Normal category Straight line variation between po	(+39.8) to (+45.5) at 2220 lbs. (+36.4) to (+45.5) at 1825 lbs. or less	
Empty weight C.G. Range	None		
*Maximum weight	Normal category: 2300 lb. (land Utility category: 2000 lb. (land	plane); 2220 lb. (seaplane) plane)	
Number of seats	4 (2 at +34 to +46, 2 at +73) (Occupant on child's optional jump seat at +96)		
Maximum baggage	120 lb. at +95		
Fuel capacity	42 gal. total, 40 gal. usable (two 2 See Note 1 for data on unusable f		
Oil capacity	1.5 gal. (-14.0), 1.0 gal. usable		

VIII. Model 172N, Skyhawk, 4 P Control surface movements	Wing flaps Takeoff	$0^{\circ} - 10^{\circ}$ (landplane) (seaplane)		
	Landing	$0^{\circ} - 40^{\circ} + 0^{\circ}, -2^{\circ}$ (landplane)		
	C C	$0^{\circ} - 30^{\circ} \pm 2^{\circ}$ (seaplane)		
	Ailerons Up	$20^{\circ} \pm 1^{\circ}$ Down $15^{\circ} \pm 1^{\circ}$		
		$28^{\circ} + 1^{\circ}, -0^{\circ}$ Down $13^{\circ} + 1^{\circ}, -0^{\circ}$		
	Elevator Up	$28^{\circ} + 1^{\circ}, -0^{\circ}$ Down $23^{\circ} + 1^{\circ}, -0^{\circ}$		
		n of balance area flush with bottom of stabilizer.)		
		$16^{\circ} \pm 1^{\circ}$ Left $16^{\circ} \pm 1^{\circ}$ (landplane)		
		$19^{\circ} \pm 1^{\circ}$ Left $15^{\circ} \pm 1^{\circ}$ (seaplane)		
	(Measured parallel to W.L.)			
Serial numbers eligible	17261445, 17267585 through 1 17261578, 17269310 through 1 17271035 through 17272884 ( 17270050, 17272885 through 1	7271034 (1978 model) (except 17270050) 1979 model)		
IX. Model 172P, Skyhawk, 4 PCI	-SM (Normal Category), 2 PCL	M (Utility Category), approved May 13, 1980		
Engine	Lycoming O-320-D2J			
*Fuel	100LL/100 minimum grade avi	ation gasoline		
*Engine limits	For all operations, 2700 rpm (	160 hp)		
Propeller and	1. Propeller			
propeller limits	(a) McCauley 1C160/DT	TM 7557		
	Static rpm at maximum permissible throttle setting:			
	Not over 2420, not under 2300			
	No additional tole			
		75 in., not under 74 in.		
	<ul><li>(b) Spinner: Dwg. 05503</li><li>2. Propeller (floatplane only</li></ul>			
	(a) McCauley 1A175/ET			
		im permissible throttle setting:		
	Not over 2570, no	ot under 2470		
	No additional tole			
		0 in., not under 78.5 in.		
	(b) Spinner: Dwg. 0550	320		
*Airspeed limits	Maneuvering	99 knots (landplane)		
(CAS)		96 knots (floatplane)		
(See Note 4 on use of CAS)	Maximum structural cruising	127 knots		
	Never exceed	158 knots		
	Flaps extended	85 knots		
C.G. range	Landplane:			
	Normal category	(+39.5) to $(+47.3)$ at 2400 lbs.		
	Utility category	(+35.0) to (+47.3) at 1950 lbs. or less (+36.5) to (+40.5) at 2100 lbs.		
	ounty category	(+35.0) to (+40.5) at 1950 lbs. or less		
	Seaplane: (Edo 89-2000 or 89)	A2000 floats)		
	Normal category	(+39.8) to (+45.5) at 2220 lbs.		
	Straight line variation between	(+36.4) to (+45.5) at 1825 lbs. or less points given.		
	-			
Empty weight C.G. Range	None			

*Maximum weight	L-SM (Normal Category), 2 PCLM (Utility Category) (cont'd) Normal category: 2400 lb. (landplane); 2220 lb. (seaplane) Utility category: 2100 lb. (landplane)
Number of seats	4 (2 at +34 to +46, 2 at +73) (Occupant on child's optional jump seat at +96)
Maximum baggage	120 lb. at +95
Fuel capacity	42 gal. total, 40 gal. usable (two 21.5 gal. tanks in wings at +48) See Note 1 for data on unusable fuel.
Oil capacity	2 gal. (-13.1), 3.5 gal. usable
Control surface movements	Wing flapsTakeoff $0^{\circ}$ - $10^{\circ}$ Landing $0^{\circ}$ - $30^{\circ}$ + $0^{\circ}$ , - $2^{\circ}$
	AileronsUp $20^\circ \pm 1^\circ$ Down $15^\circ \pm 1^\circ$ Elevator tabUp $28^\circ \pm 1^\circ, -0^\circ$ Down $13^\circ \pm 1^\circ, -0^\circ$ (floatplane)Up $22^\circ \pm 1^\circ, -0^\circ$ Down $19^\circ \pm 1^\circ, -0^\circ$ (landplane)
	Elevator Up $28^{\circ} + 1^{\circ}$ , $-0^{\circ}$ Down $23^{\circ} + 1^{\circ}$ , $-0^{\circ}$ (Neutral position is with bottom of balance area flush with bottom of stabilizer.)
	Rudder (landplane) Right $16^{\circ} \pm 1^{\circ}$ Left $16^{\circ} \pm 1^{\circ}$ (landplane)
	(seaplane) Right $19^{\circ} \pm 1^{\circ}$ Left $15^{\circ} \pm 1^{\circ}$ (seaplane) (Measured parallel to W.L.)
Serial numbers eligible	17274010 through 17275034 (1981 model) 17275035 through 17275759 (1982 model) 17275760 through 17276079 (1983 model) 17276080 through 17276259 (1984 model) 17276260 through 17276516 (1985 model) 17276517 through 17276654 (1986 model)
X. Model 1720, Cutlass, 4 PCL	
$\overline{\Lambda}$ . Wroter 172Q, Cuttass, 4 PCL	M (Normal Category), approved October 15, 1982
Engine	M (Normal Category), approved October 15, 1982 Lycoming O-360-A4N
Engine	Lycoming O-360-A4N
Engine *Fuel	Lycoming O-360-A4N 100LL/100 minimum grade aviation gasoline
Engine *Fuel *Engine limits Propeller and	Lycoming O-360-A4N 100LL/100 minimum grade aviation gasoline For all operations, 2700 rpm (180 hp) 1. Propeller (a) McCauley 1A170E/JFA 7658 Static rpm at maximum permissible throttle setting: Not over 2450, not under 2350 No additional tolerance permitted Diameter: not over 76 in., not under 74.5 in.
Engine *Fuel *Engine limits Propeller and propeller limits	Lycoming O-360-A4N 100LL/100 minimum grade aviation gasoline For all operations, 2700 rpm (180 hp) 1. Propeller (a) McCauley 1A170E/JFA 7658 Static rpm at maximum permissible throttle setting: Not over 2450, not under 2350 No additional tolerance permitted Diameter: not over 76 in., not under 74.5 in. (b) Spinner: Dwg. 0509077 Maneuvering 105 knots Maximum structural cruising 127 knots Never exceed 158 knots
Engine *Fuel *Engine limits Propeller and propeller limits *Airspeed limits	Lycoming O-360-A4N 100LL/100 minimum grade aviation gasoline For all operations, 2700 rpm (180 hp) 1. Propeller (a) McCauley 1A170E/JFA 7658 Static rpm at maximum permissible throttle setting: Not over 2450, not under 2350 No additional tolerance permitted Diameter: not over 76 in., not under 74.5 in. (b) Spinner: Dwg. 0509077 Maneuvering 105 knots Maximum structural cruising 127 knots Never exceed 158 knots Flaps extended 85 knots Normal category (+41.0) to (+47.3) at 2550 lbs.
Engine *Fuel *Engine limits Propeller and propeller limits *Airspeed limits	Lycoming O-360-A4N 100LL/100 minimum grade aviation gasoline For all operations, 2700 rpm (180 hp) 1. Propeller (a) McCauley 1A170E/JFA 7658 Static rpm at maximum permissible throttle setting: Not over 2450, not under 2350 No additional tolerance permitted Diameter: not over 76 in., not under 74.5 in. (b) Spinner: Dwg. 0509077 Maneuvering 105 knots Maximum structural cruising 127 knots Never exceed 158 knots Flaps extended 85 knots Normal category (+41.0) to (+47.3) at 2550 lbs. (+35.0) to (+47.3) at 1950 lbs. or less

Number of seats	4 (2 at +34 to +46, 2 at +73	) (Occupant on optional child's seat at +96)
Maximum baggage	120 lbs. at +95	
Fuel capacity	54 gal. total, 50 gal. usable See Note 1 for data on unusa	(two 27 gal. tanks in wings at +48) <i>able fuel.</i>
Oil capacity	9 qt. at -15.5, 2 qt. unusable	
Control surface movements	Wing flaps	Takeoff $0^{\circ} - 10^{\circ}$ Landing $0^{\circ} - 30^{\circ} + 0^{\circ}$ , -2°
	Elevator tab U Elevator U (Neutral position is with bot	Jp $20^{\circ} \pm 1^{\circ}$ Down $15^{\circ} \pm 1^{\circ}$ Jp $22^{\circ} + 1^{\circ}, -0^{\circ}$ Down $19^{\circ} + 1^{\circ}, -0^{\circ}$ Jp $28^{\circ} + 1^{\circ}, -0^{\circ}$ Down $23^{\circ} + 1^{\circ}, -0^{\circ}$ tom of balance area flush with bottom of stabilizer.)ht $16^{\circ} \pm 1^{\circ}$ Left $16^{\circ} \pm 1^{\circ}$ Left
Serial numbers eligible	17275869 through 17276054 17276101 through 1727621	
TA PERTINENT TO ALL M	ODELS 172 THROUGH 172Q	
Datum	Front face of firewall (2800 Lower front face of firewall	0 through 47746) (17247747 through 17276654)
Leveling means	Upper doorsill	
Certification basis	by 3-1 through 3-12. In add effective March 1, 1978. FA through 36-5 for Model 172 Amendments 36-1 through 3	lations effective November 1, 1949, as amended ition, effective S/N 17271035 and on, FAR 23.1559 AR 36 dated December 1, 1969, plus Amendments 36- N; FAR 36 dated December 1, 1969, plus 36-12 for Model 172P through 172Q. In addition, on, FAR 23.1545(a), Amendment 23-23 dated
	Equivalent Safety Items	17261445, 17261578, 17265685
	Airspeed Indicator	CAR 3.757 (see Note 4 on use of CAS) (17261445, 17261578, 17265685 through 1727625
	Operating Limitations	CAR 3.778(a)
	through 3-12. In addition, F Amendment 23-15 effective	ations dated November 1, 1949, as amended by 3-1 AR 23.1559 effective March 1, 1978; FAR 25.951(b)( October 31, 1974; and FAR 23.1545(a), Amendment 2 FAR 36 dated December 1, 1969, plus amendments 3
		cate dated July 11, 1955. Type Certificate No. 3A12 btained by the manufacturer under Delegation Option
Production basis		. Delegation Option Manufacturer No. CE-1 authorize tes under delegation option provisions of Part 21 of the

Equipment:	The basic required equipment as prescribed in the applicable airworthiness requirements (see Certification Basis) must be installed in the aircraft for certification. This equipment must include a current Airplane Flight Manual effective S/N 17271035 and on.
	<ol> <li>Model 172 through 172G: Stall warning indicator, Dwg. 0511062.</li> <li>Model 172H and on: Stall warning indictor, Dwg. 0523112.</li> </ol>
	The equipment portion of Aircraft Specification 3A12, Revision 17, or Cessna Publication TS1000-13 should be used for equipment references on all aircraft prior to the Model 172E. Refer to applicable equipment list for the Model 172E and subsequent models.
NOTE 1:	Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary must be provided for each aircraft at the time of original certification.
	Serial Nos. 28000 through 29999, 36000 through 36999 and 46001 through 47746, 17247747
	through 17265684 The certificated empty weight and corresponding center of gravity location must include unusable fuel of 30 lbs. at (+46) on Models 172 and 172A, or 18 lbs. at (+46) for Models 172B through 172H, or 24 lbs. at (+46) for Models 172I through 172M (17265684) and undrainable oil of (0) lb. at -20) for 172 through 172H and (0) lb. at (-14) for 172I through 172M (17265684).
	Serial Nos. 17261578, 17261445, 17265685 through 17274009 The certificated empty weight and corresponding center of gravity location must include unusable fuel of 24 lbs. at (+46) through 172M (17267584) or 18 lbs. at (+46) 17267585 and on and full oil of 11.3 lb. at (-14).
	Serial Nos. 17274010 through 17276654: (Model 172P) The certificated empty weight and corresponding center of gravity location must include unusable fuel of 18 lb. at (+46) and full oil of 15 lb. at (-13.1).
	Serial Nos. 17275869 through 17276211: (Model 172Q) The certificated empty weight and corresponding center of gravity location must include unusable fuel of 24 lb. at (+46) and full oil of 16.88 lb. at (-15.5).
NOTE 2.	The following placards must be displayed as indicated:
	<ul> <li>A. In full view of the pilot:</li> <li>(1) <u>Models 172, 172A and 172B</u></li> <li>"This airplane must be operated in compliance with the operating limitations stated in the form of placards, markings, and manuals.</li> </ul>
	NORMAL CATEGORY Maximum design weight 2200 lbs. Refer to weight and balance data for loading instructions. Flight maneuvering load factors Flaps up +3.8 -1.52
	Flaps down +3.5 No acrobatic maneuvers including spins approved.
	UTILITY CATEGORY Maximum design weight 1950 lbs.
	Baggage compartment and rear seat must not be occupied
	Flight maneuvering load factors Flaps up +4.4 -1.76 Flaps down +3.5

(1) <u>Models 172, 172A and 172B</u> No acrobatic maneuvers a	(cont'd) pproved except those listed below.
Maneuver	Entry speed
Chandelles	115 mph (100 knots)
Lazy eights	115 mph (100 knots)
Steep turns	115 mph (100 knots)
Spins	Slow deceleration
Stalls (except whip stalls)	Slow deceleration"

(2) Model 172C

"This airplane must be operated in compliance with the operating limitations stated in the form of placards, markings, and manuals.

NORMAL CATEGORY			
Maximum design weight	2250 lbs.		
Refer to weight and balance data f	for loading instruc	tions.	
Flight maneuvering load factors	Flaps up	+3.8	-1.52
	Flaps down	+3.5	
No acrobatic maneuvers including	spins approved.		

#### UTILITY CATEGORY

Maximum design weight	1950 lbs.		
Baggage compartment and rear sea	at must not be occ	upied.	
Flight maneuvering load factors	Flaps up	+4.4	-1.76
	Flaps down	+3.5	

No acrobatic maneuvers approved except those listed below.

Maneuver	Entry speed
Chandelles	115 mph (100 knots)
Lazy eights	115 mph (100 knots)
Steep turns	115 mph (100 knots)
Spins	Slow deceleration
Stalls (except whip stalls)	Slow deceleration"

#### (3) Models 172D, 172E, 172F, 172G, 172H, 172I, and 172K

"This airplane must be operated in compliance with the operating limitations stated in the form of placards, markings, and manuals.

NORMAL CATEGORY			
Maximum design weight	2300 lbs.		
Refer to weight and balance data f	or loading instruc	tions.	
Flight maneuvering load factors	Flaps up	+3.8	-1.52
	Flaps down	+3.5	
No acrobatic maneuvers including	spins approved.		

#### UTILITY CATEGORY

Maximum design weight	2000 lbs.		
Baggage compartment and rear seat	must not be occ	upied.	
Flight maneuvering load factors	Flaps up	+4.4	-1.76
	Flaps down	+3.5	
No acrobatic maneuvers except those listed below.			

Maneuver	Max. Entry speed
Chandelles	122 mph (106 knots)
Lazy eights	122 mph (106 knots)
Steep turns	122 mph (106 knots)
Spins	Slow deceleration
Stalls (except whip stalls)	Slow deceleration"

#### (4) <u>Model 172L (1971 model</u>)

"This airplane must be operated in compliance with the operating limitations stated in the form of placards, markings, and manuals.

		MAXIMUMS			
		Norr	nal Category	Utili	ty Category
Maneuvering speed (C	CAS)	122 mp	h (106 knots)	122 mp	h (106 knots)
Gross weight		2300 lb	<b>0</b> 8.	2000 lb	os.
Flight load factor					
Flaps up		+3.8	-1.52	+4.4	-1.76
Flaps down		+3.5		+3.5	
Normal category			euvers including		
Utility category	- Baggage	compart	ment and rear sea	at must not	be occupied.

No acrobatic maneuvers approved except those listed below.

Maneuver	Entry speed
Chandelles	122 mph (106 knots)
Lazy eights	122 mph (106 knots)
Steep turns	122 mph (106 knots)
Spins	Slow deceleration
Stalls (except whip stalls)	Slow deceleration"

Spin recovery: opposite rudder - forward elevator - neutralize controls

Known icing conditions to be avoided. This airplane is certified for the following flight operations as of date of original airworthiness certificate:

#### (DAY NIGHT VFR IFR)" (as applicable)

(5) Model 172L (1972 model)

"This airplane must be operated in compliance with the operating limitations as stated in the form of placards, markings, and manuals:

	MAXIMUMS			
	Norn	nal Category	Utili	ty Category
Maneuvering speed (CAS)	122 mp	h (106 knots)	122 mp	h (106 knots)
Gross weight	2300 lb	s.	2000 lb	s.
Flight load factor				
Flaps up	+3.8	-1.52	+4.4	-1.76
Flaps down	+3.5		+3.5	
Normal category - No acrob	oatic man	euvers including	spins appr	oved

Utility category - Baggage compartment and rear seat must not be occupied.

No acrobatic maneuvers approved except those listed below.

<u>Maneuver</u>	Max. Entry speed
Chandelles	122 mph (106 knots)
Lazy eights	122 mph (106 knots)
Steep turns	122 mph (106 knots)
Spins	Slow deceleration
Stalls (except whip stall	s) Slow deceleration"

Spin recovery: opposite rudder - forward elevator - neutralize controls. Intentional spins with flaps extended are prohibited. Known icing conditions to be avoided. This airplane is certified for the following flight operations as of date of original airworthiness certificate:

(DAY NIGHT VFR IFR)" (as applicable)

(6) <u>Model 172M (Landplane</u>) 17256493, 17260759 through 17265684 except 17261445 and 17261578

"This airplane must be operated in compliance with the operating limitations as stated in the form of placards, markings, and manuals.

	MAXIMUMS			
	Norr	nal Category	Utili	ty Category
Maneuvering speed (CAS)	112 mp	oh (97 knots)	112 mp	oh (97 knots)
Gross weight	2300 lb	os.	2000 lb	os.
Flight load factor				
Flaps up	+3.8	-1.52	+4.4	-1.76
Flaps down	+3.0		+3.0	

Normal category - No acrobatic maneuvers including spins approved

Utility category - Baggage compartment and rear seat must not be occupied.

No acrobatic maneuvers approved except those listed below.

	Recommended		Recommended
Maneuver	Entry speed	Maneuver	Entry Speed
Chandelles	120 mph (104 knots)	Spins	Slow deceleration
Lazy eights	120 mph (104 knots)	Stalls (except	Slow deceleration
Steep turns	112 mph ( 97 knots)	whip stalls)	

Altitude loss in stall recovery -- 180 feet.

Abrupt use of the controls prohibited above 112 mph

Spin recovery: opposite rudder -- forward elevator -- neutralize controls Intentional spins with flaps extended are prohibited. Flight into known icing conditions prohibited. This airplane is certified for the following flight operations as of date of original airworthiness certificate:

(DAY - NIGHT - VFR - IFR)" (as applicable)

<u>Model 172M (Floatplane)</u> 17256493, 17260759 through 17265684 except 17261445 and 17261578

"This airplane must be operated as a normal category airplane in compliance with the operating limitations as stated in the form of placards, markings, and manuals.

	MAXIMUMS		
Maneuvering speed		110 mph (96 k	nots) (CAS)
Gross weight		2220 lbs.	
Flight load factor		Flaps up	+3.8, -1.52
		Flaps down	+3.0

WATER RUDDER: Extend for taxi; retract for takeoff, flight, and landing.

No acrobatic maneuvers, including spins approved. Altitude loss in a stall recovery - 200 ft. Flight into known icing conditions prohibited. This airplane is certified for the following flight operations as of date of original airworthiness certificate:

(DAY - NIGHT - VFR - IFR)" (as applicable)

(7) <u>Model 172M and 172N (Landplane)</u> (17261445, 17261578, 17265685 through 17271034 except 17270050)

"This airplane must be operated in compliance with the operating limitations stated in the form of placards, markings, and manuals.

	MAXIMUMS			
	Normal Category		Utility Category	
Maneuvering speed (CAS)	97 ki	nots	97 knots	
Gross weight	2300 lbs.		2000 lbs.	
Flight load factor				
Flaps up	+3.8	-1.52	+4.4	-1.76
Flaps down	+3.0		+3.0	

Normal category - No acrobatic maneuvers including spins approved. Utility category - Baggage compartment and rear seat must not be occupied.

NO ACROBAT	IC MANEUVERS	EXCEPT THOSE I	LISTED BELOW:

	Recommended		Recommended
Maneuver	Entry speed	Maneuver	Entry Speed
Chandelles	105 knots	Spins	Slow deceleration
Lazy eights	105 knots	Stalls (except	Slow deceleration
Steep turns	95 knots)	whip stalls)	

Altitude loss in stall recovery - 180 feet. Abrupt use of the controls prohibited above 97 knots

Spin recovery: opposite rudder - forward elevator - neutralize controls. Intentional spins with flaps extended are prohibited. Flight into known icing conditions prohibited. This airplane is certified for the following flight operations as of date of original airworthiness certificate.

(DAY - NIGHT - VFR - IFR)" (as applicable)

Model 172M and 172N (Floatplane) (17265685 through 17271034)

FLOATPLANE

"This airplane must be operated as a normal category airplane in compliance with the operating limitations as stated in the form of placards, markings, and manuals.

MAXIMUMS		
Maneuvering speed (CAS)	96 knots	
Gross weight	2220 lbs.	
Flight load factor	Flaps up	+3.8, -1.52
	Flaps down	+3.0

Water Rudder: Extend for taxi; retract for takeoff, flight and landing.

No acrobatic maneuvers, including spins approved. Altitude loss in a stall recovery - 200 ft. Flight into known icing conditions prohibited. This airplane is certified for the following flight operations as of date of original airworthiness certificate:

(DAY - NIGHT - VFR - IFR)" (as applicable)

B. Forward of fuel selector valve: (All models through S/N 17265684 except 17261445 and 17261578)

"Both tanks on for takeoff and landing."

C. On the fuel selector valve (at appropriate location)

(1)	Model	172 and	172A	
	"Both	-		37 gal.
	Left	-		18.5 gal.
	Right	-		18.5 gal.
	Off"			

<u>NT 1</u>	<u>O A</u>	<u>LL MO</u> D	<u>ELS 172 TI</u>	HROUGH 1720 (cont'd)
		Model 17		
	. ,	"Both	-	39 gal.
		Left	-	19.5 gal.
		Right	-	19.5 gal.
		Off"		6
	(3)	Model 17	72C, 172D, 1	172E, 172F, 172G, and 172H
		"Both	-	36 gal.
		Left	-	18 gal.
		Right	-	18 gal.
		Off"		
	(4)	Model 1'	72I through	172M (except 17261445 and 17261578)
	(+)	"Both	-	38 gal. (all flight attitudes)
		Left		19 gal. (level flight only)
		Right		19 gal. (level flight only)
		Off"		
	(5)			445, 17261578, 17267585 through 17271034, excluding 17270050)
		"Both	-	40 gal. (all flight altitudes) (Takeoff-landing)
		Left	-	20 gal. (level flight only)
		Right Off"	-	20 gal. (level flight only)
		OII		
D.	On	flap handl	e, Models 17	72 through 172E
			Pull to exte	
		Takeoff	Retract	0°
			1st notch	10°
		Landing	0° - 40°	
	(2)	"Avoid s	lips with flag	ps down."
E.	Nea			s 172F (electric flaps) through 17271034, excluding 17270050) ps extended."
F.	In b	aggage co	mpartment:	
			72 through	172B
	. ,			120 lb. For additional loading instructions, see weight
		and bala	nce data."	
	(2)			172M (1973 model)
				aggage and/or auxiliary seat passenger. For additional loading
			Ũ	ht and balance data."
	(3)			<sup>(271034</sup> , excluding 17270050
				aggage and/or auxiliary passenger forward of baggage door latch." ggage aft of baggage door latch maximum 120 lb. combined.
				g instructions see weight and balance data."
		1 of addit	lionar ioadin	g instructions see weight and balance data.
G.	Nea	r ammetei	r (Models 1'	7258487 through 17259903)
		"Do not t	turn off alter	nator in flight except in emergency."
H.				ed in seaplane.
	(1)			172I in full view of the pilot.
				al category airplane except:
				veight 2220 lbs.
				ltitude loss in stall recovery 120 ft.
				coff - 1st notch -10° r - pull to extract
				- takeoff, flight and landing
				- taxi."
			Entend	

 H. (2) Model 172K in full view of the pilot:
 "THIS AIRPLANE MUST BE OPERATED IN COMPLIANCE WITH THE OPERATING LIMITATIONS AS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS

NORMAL CATEGORY - FLOATPLANE		
Maximum weight	2220 lb.	
Refer to weight and balance data for loading	g instructions.	
Flight maneuvering load factors	Flaps up	+3.8, -1.52
	Flaps down	+3.5

No acrobatic maneuvers including spins approved. Maximum altitude loss in stall recovery - 120 ft. Flaps: Takeoff - 10°... Water rudder: Pull to retract... Retract: Takeoff, flight and landing....Extend: Taxi."

- Model 172F through 17271034, excluding 17270050, in full view of the pilot.
   "Floatplane Max. Flaps 30°."
- (4) Model 172L in full view of the pilot:

#### "<u>FLOATPLANE</u> THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS AS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS.

	"MAXIMUMS		
Maneuvering speed	d	122 mph CAS	(106 knots)
Gross weight		2220 lbs.	
Flight load factor	Flaps up	+3.8, -1.52	
	Flaps down	+3.5	

WATER RUDDER: Extend for taxi; retract for takeoff, flight and landing.

FLAPS: 10° for takeoff

No acrobatic maneuvers, including spins, approved. Altitude loss in stall recovery - 120 ft. Known icing conditions to be avoided. This airplane is certified for the following flight operations as of date of original airworthiness certificate:

DAY NIGHT VFR IFR" (as applicable)

- I. Near tachometer on Models 172I, 172K and 172L (with IC172/MTM propeller):
  - "Avoid continuous operation
  - 1. Above 75 percent power in cruise
  - 2. Above 2500 rpm in full throttle climb."
- J. Near ammeter and adjacent to overvoltage light:
  - (1) Model 172L (1972) through Model 172N (1978) "High Voltage"
- K. Near fuel selector valve on models with serial numbers 28000 through 17258855, except those with Cessna Kit No. SK-172-31B or SK-172-32 installed:

"SWITCH TO SINGLE TANK OPERATION IMMEDIATELY UPON REACHING CRUISE ALTITUDES ABOVE 5000 FEET."

#### DATA PERTINENT TO ALL MODELS 172 THROUGH 1720 (cont'd) Near fuel tank filler L. (1) Model 172, 172A and 172B "FUEL 80/87 min. grade aviation gasoline Cap. 21 U.S. gal." (2) Model 172C, 172D, 172E, 172F, 172G, and 172H "FUEL 80/87 min. grade aviation gasoline Cap. 19.5 U.S. gal." (3) Model 172I through 172M (except 17261445 and 17261578) "FUEL 80/87 min. grade aviation gasoline Cap. 21 US. gal." (17261445, 17267585 through 17269309) (4) <u>Model 172</u>N "FUEL 100/130 min. grade aviation gasoline Cap. 21.5 US. gal." (5) Model 172N (17261578, 17269310 through 17271034, excluding 17270050) "FUEL 100LL/100 min. grade aviation gasoline Cap. 21.5 US. gal." M. Effective 17270050, 17271035 through 17276654 All placards required in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual must be installed in the appropriate locations. NOTE 3. Compliance with Service Letter SE74-16 - Carburetor Nozzle Replacement - allows rpm's as follows: Landplane: not over 2420, not under 2300 Seaplane: not over 2570, not under 2445 NOTE 4. The marking of the airspeed indicator in CAS provides an equivalent level of safety to CAR 3.757 when approved airspeed calibration data presented in Section V of the Pilot's Operating Handbooks listed below is available to the pilot (TIAS is exactly equal to CAS): 172M, Cessna P/N D1057-13 (S/N 17265685 through 17267584) 172N, Cessna P/N D1082-13 (S/N 17261445, 17267585 through 17269309) 172N, Cessna P/N D1109-13 (S/N 17261578, 17269310 through 17271034 except 17270050) 172N, Cessna P/N D1138-13PH (S/N 17271035 through 17272884) 172N, Cessna P/N D1172-13PH (S/N 17270050, 17272885 through 17274009) 172P, Cessna P/N D1192-13PH (S/N 17274010 through 17275034) 172P, Cessna P/N D1212-13PH (S/N 17275035 through 17275759) 172P, Cessna P/N D1231-13PH (S/N 17275760 through 17276079) 172P, Cessna P/N D1251-13PH (S/N 17276080 through 17276259) NOTE 5. 14-volt electrical system (172 series through S/N 17269309, except 17258105 through 17258112 and 17261578) 28-volt electrical system (S/N 17258105 through 17258112, 17261578 and 17269310 through 17276654) NOTE 6: Special Ferry Flight Authorization. Flight Standards District Offices are authorized to issue Special overweight ferry flight authorizations. These airplanes are structurally satisfactory for ferry flight if maintained within the following limits: (1) Takeoff weight must not exceed 130% of the maximum weight for Normal Category; and (2) The Never Exceed Airspeed ( $V_{NE}$ ) and Maximum Structural Cruising Speed $(V_c)$ must be reduced by 30%; and (3) Forward and aft center of gravity limits may not be exceeded; and (4) Structural load factors of +2.5 g. to -1.0 g. may not be exceeded. Requirements for any additional oil should established in accordance with Advisory Circular AC23.1011-1. Increased stall speeds and reduced climb performance should be expected for the increased weights. Flight characteristics and performance at the increased weights have not been evaluated. Flight Permit for operations of overweight aircraft may be found

in Advisory Circular AC21-4B

In addition to the placards specified above, the prescribed operating limitations indicated by an asterisk (\*) under Sections I through X of this data sheet must also be displayed by permanent markings.

XI - Model 172R, Skyhawk, 4	4 PCLM (Normal Category), 2 PC	LM (Utility Category), Approv	ved June 21, 1996
Engine	Lycoming IO-360-L2A, Ra	ated 160 Horsepower	
	When Modified by Cessna Lycoming IO-360-L2A, Ra	Modification Kit MK172-72-01 tted 180 Horsepower	(See NOTE 4)
Fuel	100/100LL minimum grade	e aviation gasoline	
Engine Limits	For all operations, 2,400 R	PM	
	When Modified by Cessna For all operations, 2,700 RI	<u>Modification Kit MK172-72-01</u> PM	(See NOTE 4)
Propeller	<ul><li>(a) McCauley Model IC2.</li><li>(b) Spinner: Drawing No.</li></ul>		
	When Modified by Cessna (a) McCauley Model 1A1 (b) Spinner: Drawing No		(See NOTE 4)
Propeller limits	Static RPM at full throttle: No Additional Tolerar Diameter: Not over 75 incl		55
Airspeed Limits	Maneuvering Max Structural Cruising Never Exceed Flaps Extended	99 Knots IAS 129 Knots IAS 163 Knots IAS 85 Knots IAS	<ul><li>(97 Knots CAS)</li><li>(126 Knots CAS)</li><li>(160 Knots CAS)</li><li>(84 Knots CAS)</li></ul>
	When Modified by Cessna Maneuvering Max Structural Cruising Never Exceed Flaps Extended	Modification Kit MK172-72-01 105 Knots IAS 129 Knots IAS 163 Knots IAS 85 Knots IAS	(See NOTE 4) (102 Knots CAS) (126 Knots CAS) (160 Knots CAS) ( 84 Knots CAS)
C.G. Range	Normal Category (1) Aft Limits (2) Forward Limits	47.3 inches aft of datum at 2, Linear variation from 40.0 ind pounds to 35.0 inches aft of d inches aft of datum at 1,950 p	ches aft of datum at 2,450 atum at 1,950 pounds; 35.0
	<ul><li>Utility Category</li><li>(1) Aft Limits</li><li>(2) Forward Limits</li></ul>	40.5 inches aft of datum at 1,950 p 40.5 inches aft of datum at 2, Linear variation from 36.5 inc pounds to 35.0 inches aft of d inches aft of datum at 1,950 p	100 pounds or less. ches aft of datum at 2,100 atum at 1,950 pounds; 35.0

<u>XI - Model 172R</u> (cont'd)			
C.G. Range	-	a Modification Kit MK172-72-01 (See NOTE 4)	
	Normal Category		
	<ol> <li>(1) Aft Limits</li> <li>(2) Forward Limits</li> </ol>	<ul><li>47.3 inches aft of datum at 2,550 pounds or less.</li><li>Linear variation from 41.0 inches aft of datum at 2,550 pounds to 35.0 inches aft of datum at 1,950 pounds; 35.0 inches aft of datum at 1,950 pounds or less.</li></ul>	
	Utility Category	inches art of datum at 1,950 pounds of less.	
	<ul><li>(1) Aft Limits</li><li>(2) Forward Limits</li></ul>	40.5 inches aft of datum at 2,200 pounds or less. Linear variation from 37.5 inches aft of datum at 2,200 pounds to 35.0 inches aft of datum at 1,950 pounds; 35.0 inches aft of datum at 1,950 pounds or less.	
Empty Wt. C.G. Range	None		
Reference Datum	Lower portion of front fac	e of firewall	
MAC	58.8 inches; Leading edge	e of MAC 25.9 inches aft of datum	
Leveling Means	Left side of Tailcone at 10	08.0 inches and 142.0 inches aft of datum	
Maximum Weights	Normal Category		
C	Maximum Ramp	2,457 pounds	
	Maximum Takeoff and La	anding 2,450 pounds	
	Utility Category		
	Maximum Ramp	2,207 pounds	
	Maximum Takeoff and La	anding 2,200 pounds	
	<u>When Modified by Cessn</u> <u>Normal Category</u>	a Modification Kit MK172-72-01 (See NOTE 4)	
	Maximum Ramp	2,558 pounds	
	Maximum Takeoff and La	anding 2,550 pounds	
	Utility Category		
	Maximum Ramp	2,208 pounds	
	Maximum Takeoff and La	anding 2,200 pounds	
No. of Seats	4 (2 at 34.0 to 46.0 inche	s aft of datum; 2 at 73.0 inches aft of datum)	
Maximum Baggage	120 pounds at 95.0 inches	aft of datum	
		a Modification Kit MK172-72-01 (See NOTE 4)	
	120 pounds at 82.0 to 108		
	50 pounds at 108.0 to 142 (Maximum combined wei	.0 inches aft of datum ght capacity for baggage areas is 120 pounds.)	
Fuel Capacity (Gal.)	56 gallons total; 53 gallo		
	(Two 28 gallon tanks in w See NOTE 1 for data on t	vings at 48.0 inches aft of datum) Isable fuel.	
Oil Capacity (Gal.)	<ul><li>2.0 gallons at 13.1 inches</li><li>3.5 quarts usable</li></ul>	forward of datum	
	When Modified by Cessna Modification Kit MK172-72-01 (See NOTE 4)		
	2.0 gallons at 13.1 inches 3.0 quarts usable		

## XI - Model 172R (cont'd)

Control surface movements	Wing flaps Takeoff $0^{\circ} - 10^{\circ}$
	Landing $0^{\circ} - 30^{\circ} + 0^{\circ}/-2^{\circ}$
	Ailerons Up $20^{\circ} \pm 1^{\circ}$ Down $15^{\circ} \pm 1^{\circ}$
	Elevator tab Up $22^{\circ} + 1^{\circ}/-0^{\circ}$ Down $19^{\circ} + 1^{\circ}/-0^{\circ}$
	Elevator Up $28^{\circ} + 1^{\circ}/-0^{\circ}$ Down $23^{\circ} + 1^{\circ}/-0^{\circ}$ (Neutral position is with bottom of balance area flush with bottom of stabilizer)
	Rudder (Measured parallel to W.L.): Right $16^{\circ} 10' \pm 1^{\circ}$ Left $16^{\circ} 10' \pm 1^{\circ}$
	Rudder (Measured perpendicular to Hinge: Right $17^{\circ} 44' \pm 1^{\circ}$ Left $17^{\circ} 44' \pm 1^{\circ}$
Certification Basis	<ul> <li>Part 23 of the Federal Aviation Regulations effective February 1, 1965, as amended by 23-1 through 23-6, except as follows:</li> <li>FAR 23.423; 23.611; 23.619; 23.623; 23.689; 23.775; 23.871; 23.1323; and 23.1563 as amended by Amendment 23-1. FAR 23.507; 23.771; 23.853(a),(b) and (c); and 23.1365 as amended by Amendment 23-10. FAR 23.507; 23.737; 23.737; 23.783; 23.780; 23.001 (2); and 23.1365 as amended by Amendment 23-15. FAR 23.607; 23.675; 23.685; 23.733; 23.787; 23.1300 and 23.1322 as amended by Amendment 23-17. FAR 23.1351; and 23.1559 as amended by Amendment 23-20. FAR 23.1523; and 23.1559 as amended by Amendment 23-23. FAR 23.1730; and 23.1559 as amended by Amendment 23-23. FAR 23.779 and 23.781 as amended by Amendment 23-33. FAR 23.172, 3.511 and 23.561 as amended by Amendment 23-34. FAR 23.301; 23.331; 23.351; 23.427; 23.677; 23.671; 23.735; and 23.781 as amended by Amendment 23-33. FAR 23.1523, and 23.562 (a); 23.143(g); 23.1143(g); 23.1143(g); 23.1143(g); 23.103; 23.1357; 23.1361 and 23.1388 as amended by Amendment 23-42. FAR 23.961; 23.1093; 23.1143(g); 23.1147(g); 23.103; 23.1357; 23.1361 and 23.1388 as amended by Amendment 23-45.</li> <li>FAR 36 dated December 1, 1969, as amended by Amendment 23-45.</li> <li>FAR 36 dated December 1, 1969, as amended by Amendment 23-45.</li> <li>FAR 36 dated December 1, 1969, as amended by Amendment 23-13. 14 CFR 23.701(a) as amended by Amendment 23-14. 14 CFR 23.607 and (Electrical System) 23.1509(a)(1)(2), (c) as amended by Amendment 23-17. 14 CFR 23.101; 23.1327 and 23.1547(e) as amended by Amendment 23-20. 14 CFR 23.1031; 23.1371 and 23.1541(a)(1), (a)(2), (b)(1), (b)(2) as amended by Amendment 23-21. 14 CFR 23.603 and 23.605 as amended by Amendment 23-20. 14 CFR 23.101; 23.1327 and 23.1547(e) as amended by Amendment 23-21. 14 CFR 23.603 and 23.605 as amended by Amendment 23-23. 14 CFR 23.5129 as amended by Amendment 23-45. 14 CFR 23.101; 23.1327 (a) (2), (a) (3) as amended by Amendment 23-45. 14 CFR 23.101; 23.1327 (a) (2), (b)(1), (b)(2), (c) (2);</li></ul>

#### Equivalent Safety Items

(1)	Induction System Icing Protection	FAR § 23.1093; Refer to FAA letter dated 5/3/96
(2)	Throttle Control	FAR § 23.1143(g); Refer to FAA letter dated 3/22/96
(3)	Mixture Control	FAR § 23.1147(b); Refer to FAA letter dated 3/22/96

Date of Application for Amended Type Certificate was September 25, 1995. Type Certificate No. 3A12 was amended June 21, 1996.

Serial numbers eligible 17280001 and On

Weight and Balance:

Special Conditions as follows:

No. 23-159-SC, "Special Conditions: Cessna Aircraft Company; Cessna Model 172R Airplane; Installation of Electronic Flight Instrument System and and the Protection of the System From High Intensity Radiated Fields (HIRF)."

#### Data Pertinent to Model 172R:

#### **Production Basis**

Production Certificate No. PC-4 issued March 28, 1997. Applies to airplane serial numbers 17280014, 17280015, 17280017, 17280021 through 17280029, and 17280031 and on. Airplane serial numbers not listed were produced under Type Certificate only. Cessna is authorized to issue airworthiness certificates under the delegation provisions of Delegation Option Authorization No. CE-1 in accordance with Part 21 of the Federal Aviation Regulations.

#### Equipment

NOTE 1:

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification.

	Serial Nos. 17280001 and On The certificated empty weight and corresponding center of gravity location must include unusable fuel of 18 pounds at 46.0 inches aft of datum, and full oil of 15.0 pounds at 13.1 inches forward of datum.
NOTE 2:	The airplane must be operated according to the appropriate Pilot's Operating Handbook and FAA Approved Airplane Flight Manual (POH/AFM). POH/AFM part number 172RPHUS00 (or later approved revision) is applicable to Production Model 172R. POH/AFM part number 172R180PH00 (or later approved revision) is applicable to Production Model 172R airplanes when modified by Cessna Modification Kit MK172-72-01. All POH/AFM Supplements approved for part number 172RPHUS00, are also applicable to part number 172R180PH00, unless specifically noted otherwise in the Supplement. All FAA required placards are included in Section 2 of the applicable POH/AFM. Placards may also be found in the Maintenance Manual, part number 172RMM00 (or later revision), Chapter Eleven (11), "Placards and Markings."
	FAA Approved Airplane Flight Manual (AFM): Part Number 172RPHAUS-00 (or later FAA approved revisions) is applicable to the Model 172R equipped with Garmin G1000 Integrated Cockpit System. The airplane must be operated according to the appropriate AFM. Required placards are included in the AFM.
NOTE 3:	Special Ferry Flight Authorization. Flight Standards District Offices are authorized to issue Special overweight ferry flight authorizations. This airplane is structurally satisfactory for ferry flight if maintained within the following limits: (1) Takeoff weight must not exceed 130% of the maximum weight for Normal Category; and (2) The Never Exceed Airspeed ( $V_{NE}$ ) and Maximum Structural Cruising Speed ( $V_C$ ) must be reduced by 30%; and (3) Forward and aft center of gravity limits may not be exceeded; and (4) Structural load factors of +2.5 g. to -1.0 g. may not be exceeded. Requirements for any additional oil should be established in accordance with Advisory Circular AC23.1011-1. Increased stall speeds and reduced climb performance should be expected for the increased weights. Flight characteristics and performance at the increased weights have not been evaluated. Flight Permit for operations of overweight aircraft may be found in Advisory Circular AC21-4B.

17280159	17280242	17280251	17280253	17280257
17280262	17280281	17280292	17280301	17280305
17280426	17280488	17280606	17280607	17280608
17280609	17280610	17280613	17280614	17280616
17280621	17280622	17280623	17280624	17280631
17280632	17280633	17280634	17280638	17280639
17280640	17280646	17280648	17280652	17280659
17280660	17280661	17280662	17280664	17280667
17280668	17280669	17280670	17280672	17280673
	17280674	17280675	17280701	17280707

#### XII - Model 172S, Skyhawk SP, 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved May 1, 1998

Engine	Lycoming IO-360-L2A, Rated 180 Horsepower		
Fuel	100/100LL minimum grade aviation gasoline		
Engine Limits	For all operations, 2,700 RPM		
Propeller	<ul><li>(a) McCauley Model 1A170E/JHA7660</li><li>(b) Spinner: Drawing No. 0550236</li></ul>		
Propeller limits	Static RPM at full throttle: Not over 2400; Not Under 2300 Diameter: Not over 76 inches; not under 75 inches		
Airspeed Limits	Maneuvering Max Structural Cruising Never Exceed Flaps Extended	105 Knots IAS 129 Knots IAS 163 Knots IAS 85 Knots IAS	(102 Knots CAS) (126 Knots CAS) (160 Knots CAS) ( 85 Knots CAS)
C.G. Range	Normal Category(1) Aft Limits(2) Forward Limits47.3 inches aft of datum at 2,550 pounds or less.Linear variation from 41.0 inches aft of datum at 2,550 pounds to 35.0 inches aft of datum at 1,950 pounds; 35.0 inches aft of datum at 1,950 pounds or less.		
	<ul><li>Utility Category</li><li>(1) Aft Limits</li><li>(2) Forward Limits</li></ul>	40.5 inches aft of datum at 2. Linear variation from 37.5 in pounds to 35.0 inches aft of a inches aft of datum at 1,950	ches aft of datum at 2,200 datum at 1,950 pounds; 35.0
Empty Wt. C.G. Range	None		
Reference Datum	Lower portion of front face of firewall		
MAC	58.8 inches; Leading edge of MAC 25.9 inches aft of datum		
Leveling Means	Left side of Tailcone at 108.0 inches and 142.0 inches aft of datum		
Maximum Weights	Normal Category2,558 poundsMaximum Ramp2,550 poundsMaximum Takeoff and Landing2,550 pounds		
	<u>Utility Category</u> Maximum Ramp Maximum Takeoff and Land	2,208 pounds ding 2,200 pounds	
No. of Seats	4 (2 at 34.0 to 46.0 inches aft of datum; 2 at 73.0 inches aft of datum)		

Maximum Baggage	120 pounds at 82.0 to 108.0 inches aft of datum 50 pounds at 108.0 to 142.0 inches aft of datum (Max. combined weight capacity for baggage areas is 120 pounds)		
Fuel Capacity (Gal.)	56 gallons total; 53 gallons usable (Two 28 gallon tanks in wings at 48.0 inches aft of datum) See NOTE 1 for data on usable fuel.		
Oil Capacity (Gal.)	8.0 quarts at 13.1 inches forward of datum 3.0 quarts usable		
Control surface movements	Wing flaps Takeoff $0^{\circ} - 10^{\circ}$ Landing $0^{\circ} - 30^{\circ} + 0^{\circ}/-2^{\circ}$		
	Ailerons Up $20^{\circ} \pm 1^{\circ}$ Down $15^{\circ} \pm 1^{\circ}$		
	Elevator $Up \ 28^{\circ} + 1^{\circ}/-0^{\circ} $ Down $23^{\circ} + 1^{\circ}/-0^{\circ}$		
	(Neutral position is with bottom of balance area flush with bottom of stabilizer) Rudder (Measured parallel to W.L.): Right $16^{\circ} 10' \pm 1^{\circ}$ Left $16^{\circ} 10' \pm 1^{\circ}$		
	Rudder (Measured perpendicular to Hinge: Right $17^{\circ}$ 44' ± $1^{\circ}$ Left $17^{\circ}$ 44' ± $1^{\circ}$		
	Rudder (Measured perpendicular to Hinge. Right 17 44 $\pm$ 1 Left 17 44 $\pm$ 1		
Certification Basis	Part 23 of the Federal Aviation Regulations effective February 1, 1965, as amended by 23-1 through 23-6, except as follows:		
	FAR 23.423; 23.611; 23.619; 23.623; 23.689; 23.775; 23.871; 23.1323; and 23.1563 as amended by Amendment 23-7. FAR 23.807 and 23.1524 as amended by Amendment 23-10. FAR 23.507; 23.771; 23.853(a),(b) and (c); and 23.1365 as amended by Amendment 23-14. FAR 23.951 as amended by Amendment 23-15. FAR 23.607; 23.675; 23.685; 23.733; 23.787; 23.1309 and 23.1322 as amended by Amendment 23-17. FAR 23.1301 as amended by Amendment 23-20. FAR 23.1353; and 23.1559 as amended by Amendment 23-21. FAR 23.603; 23.605; 23.613; 23.1329 and 23.1545 as amended by Amendment 23-23. FAR 23.603; 23.605; 23.613; 23.1329 and 23.1545 as amended by Amendment 23-28. FAR 23.779 and 23.781 as amended by Amendment 23-33. FAR 23.1; 23.51 and 23.561 as amended by Amendment 23-34. FAR 23.301; 23.331; 23.351; 23.427; 23.677; 23.701; 23.735; and 23.831 as amended by Amendment 23-42. FAR 23.961; 23.1093; 23.1143(g); 23.1147(b); 23.1303; 23.1357; 23.1361 and 23.1385 as amended by Amendment 23-43. FAR 23.562(a), 23.562(c)1, 23.562(c)2, 23.562(c)3, and 23.562(c)4 as amended by Amendment 23-44. FAR 23.33; 23.305; 23.321; 23.485; 23.621; 23.655 and 23.731 as amended by Amendment 23-45.		
	FAR 36 dated December 1, 1969, as amended by Amendments 36-1 through 36-21.		
	Additions for the Garmin G1000 Integrated Cockpit System (ICS) Only: Additions for the Garmin G1000 Integrated Cockpit System (ICS) Only:		
	14 CFR 23.303; 23.307; 23.601; 23.1163(a); 23.1367 and 23.1381 as amended by Amendment 23- N/C. 14 CFR 23.1589 as amended by Amendment 23-13. 14 CFR 23.771(a) as amended by Amendment 23-14. 14 CFR 23.607 and (Electrical System) 23.1309(a)(1)(2), (c) as amended by Amendment 23-17. 14 CFR 23.1301; 23.1327 and		

## XII - Model 172S (cont'd)

23.1547(e) as amended by Amendment 23-20. 14 CFR 23.1501 and 23.1541(a)(1), (a)(2), (b)(1), (b)(2) as amended by Amendment 23-21. 14 CFR 23.603 and 23.605 as amended by Amendment 23-23. 14 CFR 23.1529 as amended by Amendment 23-26. 14 CFR 23.561(e); 23.1523; 23.1581(a)(2); and 23.1583(a), (c), (d), (f) as amended by Amendment 23-34. 14 CFR 23.301 as amended by Amendment 23-42. 14 CFR 23.1322; 23.1331 and 23.1357(a)(b)(c)(d) as amended by Amendment 23-43. 14 CFR 23.305; 23.773(a)(1), (a)(2); 23.1525\_and 23.1549 as amended by Amendment 23-45. 14 CFR 23.1303(a)(b)(c)(f); 23.1309(a)(1)(i), (a)(1)(ii), (a)(2), (b)(1), (b)(2)(i), (b)(2)(ii), (b)(3),(b)(4)(i), (b)(4)(ii), (b)(4)(iii), (b)(4)(iv), (c)(1), (c)(2)(iii), (c)(3), (d), (e), (f)(1);23.1311; 23.1321 (a)(c)(d)(e); 23.1323(a), (b)(1), (b)(2), (c); 23.1329 (g)(h); 23.1351(a)(1), (a)(2)(i), (b)(1)(iii), (b)(2)(3), (c)(4), (d)(1); 23.1353(a)(b)(c)(d)(e); 23.1359(c); 23.1361; 23.1365(a)(b)(d)(e)(f) and 23.1431(a)(b)(d)(e) as amended by Amendment 23-49. 14 CFR 23.1325(a), (b)(1), (b)(2)(i), (b)(3), (c)(d)(e); 23.1543(b)(c); 23.1545(a), (b)(1), (b)(2), (b)(3), (b)(4); 23.1553; 23.1555(a)(b); 23.1563(a) and 23.1567(a) as amended by Amendment 23-50. 14 CFR 23.777(a)(b); 23.955(a)(2); 23.1337(a)(1), (a)(2), (b)(1), (c) as amended by Amendment 23-51. 14 CFR 23.1305(a)(1), (a)(2), (a)(3), (b)(2), (b)(3)(i), (b)(4)(i), (b)(5), (b)(6)(i) as amended by Amendment 23-52. 14 CFR 23.901(a)(b) as amended by Amendment 23-53.

#### Equivalent Safety Items

(1)	Induction System Icing Protection	FAR § 23.1093; Refer to FAA letter dated 5/1/98
(2)	Throttle Control	FAR § 23.1143(g); Refer to FAA letter dated 5/1/98
(3)	Mixture Control	FAR § 23.1147(b); Refer to FAA letter dated 5/1/98

Date of Application for Amended Type Certificate for the 172S was November 13, 1997. Type Certificate No. 3A12 was amended May 1, 1998 for the Model 172S.

Serial numbers eligible 172S8001 and On

Special Conditions as follows:

No. 23-159-SC, "Special Conditions: Cessna Aircraft Company; Cessna Model 172S Airplane; Installation of Electronic Flight Instrument System and the Protection of the System From High Intensity Radiated Fields (HIRF)."

#### Data Pertinent to Model 172S:

#### **Production Basis**

Production Certificate No. PC-4 issued August 27, 1998. Applies to airplane serial numbers 172S8003 and on. Airplane serial numbers not listed were produced under Type Certificate only. Cessna is authorized to issue airworthiness certificates under the delegation provisions of Delegation Option Authorization No. CE-1 in accordance with Part 21 of the Federal Aviation Regulations.

#### Equipment

The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane for certification.

 NOTE 1: Weight and Balance: <u>Serial Nos. 172S8001 and On</u> The certificated empty weight and corresponding center of gravity location must include unusable fuel of 18 pounds at 46.0 inches aft of datum, and full oil of 15.0 pounds at 13.1 inches forward of datum.

 NOTE 2: Pilot's Operating Handbook and FAA Approved Airplane Flight Manual (POH/AFM): part number 172SPHUS00 (or later approved revision) is applicable to the Model 172S. The airplane must be operated according to the appropriate POH/AFM. All FAA required placards are included in Section 2 of the POH/AFM. Placards may also be found in the Maintenance Manual, part number 172RMM02 (or later revision) for the Model 172S, Chapter 11, Placards and Markings."
 FAA Approved Airplane Flight Manual (AFM): Part Number 172SPHAUS-00 (or later FAA approved revisions) is applicable to Model 172S equipped with Garmin G1000 Integrated Cockpit System. The airplane must be operated according to the appropriate AFM. Required placards are included in the AFM.

NOTE 3: Special Ferry Flight Authorization. Flight Standards District Offices are authorized to issue Special overweight ferry flight authorizations. This airplane is structurally satisfactory for ferry flight if maintained within the following limits: (1) Takeoff weight must not exceed 130% of the maximum weight for Normal Category; and (2) The Never Exceed Airspeed (V<sub>NE</sub>) and Maximum Structural Cruising Speed (V<sub>C</sub>) must be reduced by 30%; and (3) Forward and aft center of gravity limits may not be exceeded; and (4) Structural load factors of +2.5 g. to -1.0 g. may not be exceeded. Requirements for any additional oil should be established in accordance with Advisory Circular AC23.1011-1. Increased stall speeds and reduced climb performance should be expected for the increased weights. Flight characteristics and performance at the increased weights have not been evaluated. Flight Permit for operations of overweight aircraft may be found in Advisory Circular AC21-4B

.....END....