# DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

	3A12
	Revision 69
	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
	March 31, 2003

# **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 Continental O-300-A or O-300-B

\*Fuel 80/87 minimum grade aviation gasoline

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

\*Engine limits

For all operations, 2700 rpm (145 hp)

Propeller and propeller limits

1. Propeller

(a) McCauley 1A170 Static rpm at maximum permissible throttle setting:

Not over 2360, not under 2230 No additional tolerance permitted

Diameter: not over 76 in., not under 74.5 in.

- (b) Spinner, Dwg. 0550162
- 2. Propeller
  - (a) Sensenich M74DR or 74DR

Static rpm at maximum permissible throttle setting:

Not over 2430, not under 2300 No additional tolerance permitted

Diameter: not over 74 in., not under 72.0 in.

(b) Spinner, Dwg. 0550162

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# I. Model 172, 4 PCLM (Normal Category) (cont'd)

Propeller

(a) McCauley 1C172/MDM 7652, 53, or 55 30 lb. (-39.0)

Static rpm at maximum permissible throttle setting:

Not over 2350, not under 2250 No additional tolerance permitted Diameter: not over 76 in., not under 74.5 in.

(b) Spinner, Dwg. 0550216

\*Airspeed Limits Maneuvering 115 mph (100 knots) (CAS) Maximum structural cruising 140 mph (122 knots)

Never exceed160 mph (139 knots)

Flaps extended 100 mph (87 knots)

C.G. range Normal (+40.8) to (+46.4) at 2200 lbs.

(+36.4) to (+46.4) at 1733 lbs.

Utility category (+38.4) to (+40.3) at 1950 lbs.

(+36.4) to (+40.3) at 1733 lbs. or less

Straight line variation between points given.

Empty weight C.G. range None

\*Maximum Weight Normal category 2200 lbs.

Utility category 1950 lbs.

Number of seats 4 (2 at +36, 2 at +70) (For child's optional jump seat, refer to Equipment List.)

Maximum baggage 120 lbs. (+95)

Fuel capacity 42 gal. total, 37 gal. usable (two 21 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 flaps Takeoff Retracted  $0^\circ$  1st notch  $10^\circ$  Landing 2nd notch  $20^\circ$  3rd notch  $30^\circ$ 

4th notch 40° Ailerons 20° 14° Up Down Elevator tab Up 28° Down 13° Elevator Up 28° 26° Down 16° 16° Rudder Right Left

Serial numbers eligible 610, 612, 615, 28000 through 29999, 36000 through 36999 and 46001 through 46754

# II. Model 172A, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved July 16, 1959; Model 172B, Skyhawk, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved June 14, 1960

Engine Continental O-300-C or O-300-D

\*Fuel 80/87 minimum grade aviation gasoline

\*Engine limits For all operations, 2700 rpm (145 hp)

Propeller and 1. Propeller propeller limits (a) McC

(a) McCauley 1C172/EM 7652, 53, or 55

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, Dwg. 0550216, 0550221 or 0550228

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

# Model 172B, Skyhawk, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category) (cont'd)

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.

(b) Spinner, Dwg. 0550216 or 0550221

Propeller

(a) Sensenich 74DC-0-56

Static rpm at maximum permissible throttle setting:

Not over 2420, not under 2300 No additional tolerance permitted Diameter: not over 74 in., not under 72.5 in.

\*Airspeed Limits Maneuvering 115 mph (100 knots) (CAS) Maximum structural cruising 140 mph (122 knots)

Never exceed 160 mph (122 knots) Flaps extended 100 mph (87 knots)

C.G. range Landplane (Model 172A):

Normal category (+40.8) to (+46.4) at 2200 lbs.

(+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 points given.

Landplane (Model 172B):

Utility category

Normal category (+40.4) to (+46.4) at 2200 lbs. (+36.4) to (+46.4) at 1850 lbs. or less Utility category (+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 points given.

Empty weight C.G. range None

\*Maximum weight Landplane:

Normal category 2200 lb. Utility category 1950 lb. Seaplane:

Normal category 2220 lb.

Number of seats 4 (2 at +36, 2 at +70) (For child's optional jump seat, refer to Equipment List.)

Maximum baggage 120 lb. (+95)

Fuel capacity 42 gal. total, 37 gal. usable (172A); 39 gal. usable (172B) (two 21 gal. tanks in

wings at +48)

See Note 1 for weight of unusable fuel and oil.

Oil capacity 2 gal. (-20), 1 gal. usable

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

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	Model 172B, Skyhawk, 4 PCL-S	<u> SM (Normal Category)</u>	, 2 PCLM	(Utility	<u>Category)</u>	(cont'd)
	Control surface movements	Wing flaps	Takeoff		Retracted	0°
					1st notch	10°
			Landing		2nd notch	20°
					3rd notch	30°
					4th notch	40°
		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 V	W.L.)			
	Serial numbers eligible	Model 172A: 622, 625	5, 46755 th	rough 47	746	
		Model 172B: 630, 172	247747 thro	ough 172	48734	

# III. Model 172C, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved July 18, 1961

Engine Continental O-300-C or O-300-D

\*Fuel 80/87 minimum grade aviation gasoline

\*Engine limits For all operations, 2700 rpm (145 hp)

Propeller and propeller limits

1. Propeller

(a) McCauley 1C172/EM 7652, 53, or 55

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, Dwg. 0550216, 0550221 or 0550228

- 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.

- (b) Spinner, Dwg. 0550216 or 0550221
- Propeller
  - (a) Sensenich 74DC-0-56

Static rpm at maximum permissible throttle setting:

Not over 2420, not under 2300 No additional tolerance permitted Diameter: not over 74 in., not under 72.5 in.

*Airspeed limits (CAS)	Maneuvering Maximum structural cruising Never exceed Flans extended	115 mph (100 knots) 140 mph (122 knots) 160 mph (139 knots) 100 mph (87 knots)
	Flaps extended	100 mph ( 87 knots)

C.G. range Landplane

Normal category (+40.5) to (+46.4) at 2250 lbs. (+36.4) to (+46.4) at 1850 lbs. or less Utility category (+37.4) to (+40.3) at 1950 lbs. (+36.4) to (+40.3) at 1850 lbs. or less Seaplane

Normal category (+39.8) to (+45.5) at 2220 lbs. (+36.4) to (+45.5) at 1825 lbs. or less

Straight line variation between points given.

# III. Model 172C, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category) (cont'd) None

Empty weight C.G. range

\*Maximum weight Landplane

> Normal category 2250 lbs. Utility category 1950 lbs.

Seaplane

2220 lbs. Normal category

Number of seats 4 (2 at +36, 2 at +70) (For child's optional jump seat, refer to Equipment List.)

120 lbs. (+95) Maximum baggage

39 gal. total, 36 gal. usable (two 19.5 gal. tanks in wings at +48) Fuel capacity

See Note 1 for weight of unusable fuel and oil.

Oil capacity 2 gal. (-20), includes 1 gal. unusable

Control surface movements	Wing flaps	Takeoff		Retracted	0°
				1st notch	10°
		Landing		2nd notch	20°
				3rd notch	30°
				4th notch	40°
	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

## IV. Model 172D, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved June 19, 1962

Model 172E, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved June 27, 1963

Model 172F (USAF T-41A), 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved April 21, 1964

Model 172G, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved June 15, 1965

Model 172H (USAF) T-41A), 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved June 7, 1966

Engine Continental O-300-C or O-300-D

\*Fuel 80/87 minimum octane aviation gasoline

For all operations, 2700 rpm (145 hp) \*Engine limits

Propeller and propeller limits Propeller

(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.

(b) Spinner

Model 172D, E, F, Dwg. 0550216, 0550221 or 0550228

Model 172G, H, Dwg. 0550236

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.

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

(b) Spinner

Model 172D, E, F, Dwg. 0550216, 0550221 Model 172G, H, Dwg. 0550236

\*Airspeed limits Maneuvering 122 mph (106 knots) Maximum structural cruising (CAS) 142 mph (122 knots) Never exceed 174 mph (151 knots) Flaps extended 100 mph ( 87 knots)

C.G. range Landplane

> Normal 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. Utility category (+35.0) to (+40.5) at 1950 lbs. or less

Seaplane

(+39.8) to (+45.5) at 2220 lbs. Normal category

(+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:

2300 lbs. Normal category 2000 lbs. Utility category Seaplane:

2220 lbs. Normal category

Number of seats 4 (2 at +36, 2 at +70) (For child's optional jump seat, refer to Equipment List.)

Maximum Baggage 120 lbs. (+95)

39 gal. total, 36 gal. usable (two 19.5 gal. tanks in wings at +48) Fuel Capacity

See Note 1 for weight of unusable fuel and oil.

Oil capacity 2 gal. (-20), 1 gal. usable

 $0^{\circ}$ Control surface movements Wing flaps Takeoff Retracted

> 1st notch 10° Landing 40° Ailerons 20° Down 15° Up Elevator tab Up 28° Down 13° Elevator Up 28° Down 23° (Neutral position is with bottom of balance area flush with bottom

of stabilizer.)

Rudder (landplane) Right 16° Left 16° Right 19° Left 15° (seaplane)

Serial numbers eligible Model 172D: 17249545 through 17250572

> Model 172E: 639, 17250573 through 17251822 Model 172F: 17251823 through 17253392 Model 172G: 17253393 through 17254892

638, 17254893 through 17256512 (except 17256493) Model 172H:

# V. Model 172I, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved December 15, 1967 Model 172K, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved May 9, 1968

Engine Lycoming O-320-E2D

\*Fuel 80/87 minimum grade aviation gasoline

\*Engine limits For all operations, 2700 rpm (150 hp)

Propeller and propeller limits

1. Propeller

(a) McCauley 1C172/MTM 7653

Static rpm at maximum permissible throttle setting:

Not over 2360, not under 2260

No additional tolerance permitted (see Note 3)

Diameter: not over 76 in., not under 74 in.

- (b) Spinner, Dwg. 0550320
- 2. Propeller (seaplane only)
  - (a) McCauley 1A175/ATM 8042

Static rpm at maximum permissible throttle setting:

Not over 2480, not under 2380

No additional tolerance permitted (see Note 3)

Diameter: not over 80 in., not under 78.4 in.

- (b) Spinner, Dwg. 0550320
- 3. Propeller
  - (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
- 4. Propeller (seaplane only)
  - (a) McCauley 1A175/ETM 8042

Static rpm at maximum permissible throttle setting:

Not over 2480, not under 2380

No additional tolerance permitted (see Note 3)

- Diameter: not over 80 in., not under 78.4 in.
- (b) Spinner, Dwg. 0550321
- 5. 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

*Airspeed	l Limits
(CAS)	

Maneuvering	122 mph (106 knots)
Maximum structural cruising	140 mph (122 knots)
Never exceed	174 mph (151 knots)
Flaps extended	100 mph ( 87 knots)

# C.G. range

Landplane	
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

Seaplane (Edo 89-2000 or 89A2000 floats)

Normal category (+39.8) to (+45.5) at 2220 lbs.

(+36.4) to (+45.5) at 1825 lbs. or less

Straight line variation between points given.

# V. Model 172I, Model 172K (cont'd)

Empty weight C.G. range None

\*Maximum Weight Landplane:

Normal category 2300 lbs. Utility category 2000 lbs.

Seaplane:

Normal category 2220 lbs.

Number of seats 4 (2 at +34 to +46, 2 at +73) (Occupant on child's optional jump seat at +93)

Maximum baggage 120 lb. at +95

Fuel capacity 42 gal. total, 38 gal. usable (two 21 gal. tanks in wings at +48)

See Note 1 for weight of unusable fuel and oil.

Oil capacity 2 gal. (-14.0), 1-1/2 gal. usable

Control surface movements Wing flaps Takeoff 0° - 10°

(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 172I: 17256513 through 17257161

Model 172K: 17257162 through 17258486 (1969 model)

17258487 through 17259223 (1970 model)

## VI. Model 172L, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved May 13, 1970

Engine Lycoming O-320-E2D

\*Fuel 80/87 minimum grade aviation gasoline

\*Engine limits For all operations, 2700 rpm (150 hp)

Propeller and propeller limits

1. Propeller

(a) McCauley 1C172/MTM 7653

Static rpm at maximum permissible throttle setting:

Not over 2360, not under 2260

No additional tolerance permitted (see Note 3)

Diameter: not over 76 in., not under 74 in.

(b) Spinner, Dwg. 0550320

2. Propeller (seaplane only)

(a) McCauley 1A175/ATM 8042

Static rpm at maximum permissible throttle setting:

Not over 2480, not under 2380

No additional tolerance permitted (see Note 3) Diameter: not over 80 in., not under 78.4 in.

(b) Spinner, Dwg. 0550320

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

3. Propeller

(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

Propeller

(a) McCauley 1A160/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

Propeller (Seaplane only)

(a) McCauley 1A175/ETM 8042

Static rpm at maximum permissible throttle setting:

Not over 2480, not under 2380

No additional tolerance permitted (see Note 3)

Diameter: not over 80 in., not under 78.4 in.

(b) Spinner, Dwg. 0550321

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

\*Airspeed Limits (CAS)

Maneuvering 122 mph (106 knots) Maximum structural cruising 140 mph (122 knots) Never exceed 174 mph (151 knots) Flaps extended 100 mph ( 87 knots)

C.G. range

Landplane

(+38.5) to (+47.3) at 2300 lbs. Normal category (+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 given.

Seaplane (Edo 89-2000 or 89A2000 floats)

Normal category (+39.8) to (+45.5) at 2220 lbs.

(+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:

2300 lbs. Normal category Utility category 2000 lbs.

Seaplane:

Normal category 2220 lbs.

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, 38 gal. usable (two 21 gal. tanks in wings at +48)

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

 $0^{\circ}$  -  $10^{\circ}$ Wing flaps Takeoff Landing 0° - 40° ±2°

Up 20° ±1° Down 15° ±1° Ailerons Elevator tab Up  $28^{\circ} + 1^{\circ}, -0^{\circ}$ 13° +1°, -0° Down Up  $28^{\circ} + 1^{\circ}, -0^{\circ}$ Down 23° +1°, -0° Elevator

(Neutral position is with bottom of balance area flush with bottom

of stabilizer.)

Rudder (landplane) Right 16° ±1° Left 16° ±1° Right 19° ±1° 15° ±1° (seaplane) Left

(Measured parallel to W.L.)

Serial numbers eligible Model 172L: 17259224 through 17259903 (1971 model)

17259904 through 17260758 (1972 model) Model 172L:

# VII. Model 172M, Skyhawk, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category, approved May 12, 1972

Lycoming O-320-E2D Engine

\*Fuel 80/87 minimum grade aviation gasoline

For all operations, 2700 rpm (150 hp) \*Engine limits

Propeller and propeller limits Propeller

(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
- 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
- Propeller (seaplane only)
  - (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.

- (b) Spinner, Dwg. 0550320
- Propeller (seaplane only)
  - (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)

Diameter: not over 80 in., not under 78.4 in.

(b) Spinner, Dwg. 0550320

\*Airspeed Limits

17256493, 17260759 through 17265684

Maneuvering 112 mph ( 97 knots) Maximum structural cruising 145 mph (126 knots) Never exceed 182 mph (158 knots) Flaps extended 100 mph ( 87 knots)

(CAS)

# VII. Model 172M, Skyhawk, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category) (cont'd)

\*Airspeed Limits 17265685 through 17267584

(CAS) Maneuvering 97 knots (See Note 4 on use of CAS) Maximum structural cruising 128 knots Never exceed 160 knots

Never exceed 160 knots Flaps extended 85 knots

C.G. range Landplane:

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

Seaplane: (Edo 89-2000 or 89A2000 floats)

Normal category (+39.8) to (+45.5) at 2220 lbs.

(+36.4) to (+45.5) at 1825 lbs. or less

Straight line variation between points given.

Empty weight C.G. Range None

\*Maximum weight Normal category: 2300 lb. (landplane); 2220 lb. (seaplane)

Utility category: 2000 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, 38 gal. usable (two 21 gal. tanks in wings at +48)

See Note 1 for data on unusable fuel.

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° - 10° (landplane) (seaplane)

Landing  $0^{\circ}$  -  $40^{\circ}$  +0°, -2° (landplane)

 $0^{\circ} - 30^{\circ} \pm 2^{\circ}$  (seaplane)

(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 17256493, 17260759 through 17261898 (1973 model) (except 17261445 and

17261578)

17261899 through 17263458 (1974 model) 17263459 through 17265684 (1975 model) 17265685 through 17267584 (1976 model)

# VIII. Model 172N, Skyhawk, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved May 17, 1976

Engine Lycoming O-320-H2AD

\*Fuel 100/130 minimum grade aviation gasoline

(S/N 17261445, 17267585 through 17269309)

# VIII. Model 172N, Skyhawk, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category) (cont'd)

100LL/100 minimum grade aviation gasoline (S/N 17261578, 17269310 through 17274009)

\*Engine limits

For all operations, 2700 rpm (160 hp)

Propeller and propeller

limits

Propeller

(a) McCauley 1C160/DTM 7557

Static rpm at maximum permissible throttle setting:

Not over 2400, not under 2280 No additional tolerance permitted Diameter: not over 75 in., not under 74 in.

- (b) Spinner: Dwg. 0550320
- 2. Propeller (seaplane only)
  - (a) McCauley 1A175/ETM 8042

Static rpm at maximum permissible throttle setting:

Not over 2570, not under 2470 No additional tolerance permitted Diameter: not over 80 in., not under 78.5 in.

(b) Spinner: Dwg. 0550320

\*Airspeed limits

(CAS) (See Note 4 on use of CAS) 1977 Model through 1979 Model

Maneuvering97 knotsMaximum structural cruising128 knotsNever exceed160 knotsFlaps extended85 knots

1980 Model

Maneuvering 97 knots
Maximum structural cruising 127 knots
Never exceed 158 knots
Flaps extended 85 knots

C.G. range Landplane:

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

Seaplane: (Edo 89-2000 or 89A2000 floats)

Normal category (+39.8) to (+45.5) at 2220 lbs. (+36.4) to (+45.5) at 1825 lbs. or less

Straight line variation between points given.

Empty weight C.G. Range None

\*Maximum weight Normal category: 2300 lb. (landplane); 2220 lb. (seaplane)

Utility category: 2000 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 1.5 gal. (-14.0), 1.0 gal. usable

# VIII. Model 172N, Skyhawk, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category) (cont'd)

Control surface movements Wing flaps Takeoff 0° - 10° (landplane) (seaplane)

Landing  $0^{\circ}$  -  $40^{\circ}$  +0°, -2° (landplane)

 $0^{\circ}$  -  $30^{\circ}$   $\pm 2^{\circ}$  (seaplane)

(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 17261445, 17267585 through 17269309 (1977 model)

17261578, 17269310 through 17271034 (1978 model) (except 17270050)

17271035 through 17272884 (1979 model)

17270050, 17272885 through 17274009 (1980 model)

# IX. Model 172P, Skyhawk, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category), approved May 13, 1980

Engine Lycoming O-320-D2J

\*Fuel 100LL/100 minimum grade aviation gasoline

\*Engine limits For all operations, 2700 rpm (160 hp)

Propeller and propeller limits

Propeller

(a) McCauley 1C160/DTM 7557

Static rpm at maximum permissible throttle setting:

Not over 2420, not under 2300 No additional tolerance permitted Diameter: not over 75 in., not under 74 in.

(b) Spinner: Dwg. 0550320

2. Propeller (floatplane only)

(a) McCauley 1A175/ETM 8043

Static rpm at maximum permissible throttle setting:

Not over 2570, not under 2470 No additional tolerance permitted Diameter: not over 80 in., not under 78.5 in.

(b) Spinner: Dwg. 0550320

\*Airspeed limits (CAS)

(See Note 4 on use of CAS)

Maneuvering

99 knots (landplane)

96 knots (floatplane)

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.

(+35.0) to (+47.3) at 1950 lbs. or less

Utility category (+36.5) to (+40.5) at 2100 lbs.

(+35.0) to (+40.5) at 1950 lbs. or less

Seaplane: (Edo 89-2000 or 89A2000 floats)

Normal category (+39.8) to (+45.5) at 2220 lbs.

(+36.4) to (+45.5) at 1825 lbs. or less

Straight line variation between points given.

Empty weight C.G. Range

None

# IX. Model 172P, Skyhawk, 4 PCL-SM (Normal Category), 2 PCLM (Utility Category) (cont'd)

\*Maximum weight 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 flaps Takeoff  $0^{\circ} - 10^{\circ}$ 

Landing  $0^{\circ}$  -  $30^{\circ}$  +0°, -2°

Ailerons Up  $20^{\circ} \pm 1^{\circ}$  Down  $15^{\circ} \pm 1^{\circ}$ 

Elevator tab Up  $28^{\circ} + 1^{\circ}, -0^{\circ}$  Down  $13^{\circ} + 1^{\circ}, -0^{\circ}$  (floatplane) Up  $22^{\circ} + 1^{\circ}, -0^{\circ}$  Down  $19^{\circ} + 1^{\circ}, -0^{\circ}$  (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 172Q, Cutlass, 4 PCLM (Normal Category), approved October 15, 1982

Engine Lycoming O-360-A4N

\*Fuel 100LL/100 minimum grade aviation gasoline

\*Engine limits For all operations, 2700 rpm (180 hp)

Propeller and 1. Propeller

propeller limits (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

\*Airspeed limits Maneuvering 105 knots

Maximum structural cruising 127 knots Never exceed 158 knots Flaps extended 85 knots

C.G. range Normal category (+41.0) to (+47.3) at 2550 lbs.

(+35.0) to (+47.3) at 1950 lbs. or less

Straight line variation between points given.

Empty weight C.G. range None

\*Maximum weight Normal category: 2550 lb.

# X. Model 172Q, Cutlass, 4 PCLM (Normal Category) (cont'd)

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 (two 27 gal. tanks in wings at +48)

See Note 1 for data on unusable fuel.

Oil capacity 9 qt. at -15.5, 2 qt. unusable

Control surface movements Wing flaps Takeoff  $0^{\circ}$  -  $10^{\circ}$ 

Landing  $0^{\circ} - 30^{\circ} + 0^{\circ}, -2^{\circ}$ 

Ailerons Up  $20^{\circ}\pm1^{\circ}$  Down  $15^{\circ}\pm1^{\circ}$ 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 Right  $16^{\circ} \pm 1^{\circ}$  Left  $16^{\circ} \pm 1^{\circ}$ 

(Measured parallel to W.L.)

Serial numbers eligible 17275869 through 17276054 (1983 model)

17276101 through 17276211 (1984 model)

## DATA PERTINENT TO ALL MODELS 172 THROUGH 172Q

Datum Front face of firewall (28000 through 47746)

Lower front face of firewall (17247747 through 17276654)

Leveling means Upper doorsill

Certification basis <u>Models 172 through 172P</u>

Part 3 of the Civil Air Regulations effective November 1, 1949, as amended by 3-1 through 3-12. In addition, effective S/N 17271035 and on, FAR 23.1559 effective March 1, 1978. FAR 36 dated December 1, 1969, plus Amendments 36-1

through 36-5 for Model 172N; FAR 36 dated December 1, 1969, plus Amendments 36-1 through 36-12 for Model 172P through 172Q. In addition, effective S/N 17276260 and on, FAR 23.1545(a), Amendment 23-23 dated

December 1, 1978.

Equivalent Safety Items 17261445, 17261578, 17265685

Airspeed Indicator CAR 3.757 (see Note 4 on use of CAS)

(17261445, 17261578, 17265685 through 17276259)

Operating Limitations CAR 3.778(a)

## Model 172Q

Part 3 of the Civil Air Regulations dated November 1, 1949, as amended by 3-1 through 3-12. In addition, FAR 23.1559 effective March 1, 1978; FAR 25.951(b)(2), Amendment 23-15 effective October 31, 1974; and FAR 23.1545(a), Amendment 23-23 effective December 1, 1978. FAR 36 dated December 1, 1969, plus amendments 36-1 through 36-12.

Application for Type Certificate dated July 11, 1955. Type Certificate No. 3A12 issued November 4, 1955, obtained by the manufacturer under Delegation Option Procedures.

Production basis Production Certificate No. 4. Delegation Option Manufacturer No. CE-1 authorized to

issue airworthiness certificates under delegation option provisions of Part 21 of the

Federal Aviation Regulations.

# 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.

- Model 172 through 172G: Stall warning indicator, Dwg. 0511062.
- 2. Model 172H and on: Stall warning indictor, Dwg. 0523112.

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.

# <u>Serial Nos. 28000 through 29999, 36000 through 36999 and 46001 through 47746, 17247747 through 17265684</u>

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:

- A. In full view of the pilot:
  - (1) Models 172, 172A and 172B

"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 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) Models 172, 172A and 172B (cont'd)

No acrobatic maneuvers approved except those listed below.

ManeuverEntry speedChandelles115 mph (100 knots)Lazy eights115 mph (100 knots)Steep turns115 mph (100 knots)SpinsSlow decelerationStalls (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 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

No acrobatic maneuvers approved except those listed below.

ManeuverEntry speedChandelles115 mph (100 knots)Lazy eights115 mph (100 knots)Steep turns115 mph (100 knots)SpinsSlow decelerationStalls (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 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 2000 lbs.

Baggage compartment and rear seat must not be occupied.

Flight maneuvering load factors Flaps up +4.4 -1.76

Flaps down +3.5

No acrobatic maneuvers 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 stalls)	Slow deceleration"

# (4) Model 172L (1971 model)

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

## **MAXIMUMS**

	Norma	al Category	Utility Category		
Maneuvering speed (CAS)	122 mph	(106 knots)	122 mph (106 knots		
Gross weight	2300 lbs.		2000 lbs.		
Flight load factor					
Flaps up	+3.8	-1.52	+4.4	-1.76	
Flaps down	+3.5		+3.5		

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.

<u>Maneuver</u>	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**

	<u>Norr</u>	nal Category	<u>Utility Category</u>			
Maneuvering speed (CAS)	122 mp	oh (106 knots)	122 mph (106 knots)			
Gross weight	2300 lbs.		2000 lbs.			
Flight load factor						
Flaps up	+3.8	-1.52	+4.4	-1.76		
Flaps down	+3.5		+3.5			

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.

<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 stalls)	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) Model 172M (Landplane) 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	<u>Utili</u>	ty Category
Maneuvering speed (CAS)	112 mp	oh (97 knots)	112 mg	oh (97 knots)
Gross weight	2300 11	os.	2000 11	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:

Model 172M (Floatplane) 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:

(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**

	Norma	l Category	<u>Utility</u>	Category
Maneuvering speed (CAS)	97 k	nots	97 k	nots
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 ACROBATIC MANEUVERS EXCEPT THOSE 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.

# 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**

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

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:

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"

(2) Model 172B

"Both - 39 gal. Left - 19.5 gal. Right - 19.5 gal. Off"

(3) Model 172C, 172D, 172E, 172F, 172G, and 172H

"Both - 36 gal. Left - 18 gal. Right - 18 gal. Off"

(4) Model 172I 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) Model 172N (17261445, 17261578, 17267585 through 17271034, excluding 17270050)

"Both - 40 gal. (all flight altitudes) (Takeoff-landing)

Left - 20 gal. (level flight only)
Right - 20 gal. (level flight only)
Off"

- D. On flap handle, Models 172 through 172E
  - (1) "Flaps Pull to extend

Takeoff Retract  $0^{\circ}$ 1st notch  $10^{\circ}$ Landing  $0^{\circ}$  -  $40^{\circ}$ 

- (2) "Avoid slips with flaps down."
- E. Near flap indicator Models 172F (electric flaps) through 17271034, excluding 17270050) "Avoid slips with flaps extended."
- F. In baggage compartment:
  - (1) Models 172 through 172B

"Maximum baggage 120 lb. For additional loading instructions, see weight and balance data."

(2) Model 172C through 172M (1973 model)

"120 lb. maximum baggage and/or auxiliary seat passenger. For additional loading instructions see weight and balance data."

(3) 17261899 through 17271034, excluding 17270050

"120 lb. maximum baggage and/or auxiliary passenger forward of baggage door latch."
"50 lb. maximum baggage aft of baggage door latch maximum 120 lb. combined.
For additional loading instructions see weight and balance data."

G. Near ammeter (Models 17258487 through 17259903)

"Do not turn off alternator in flight except in emergency."

- H. Additional placards required in seaplane.
  - (1) Model 172A through 172I in full view of the pilot.

"Operate as normal category airplane except:

Maximum weight 2220 lbs.

Maximum altitude loss in stall recovery 120 ft.

Flaps - takeoff - 1st notch -10° Water rudder - pull to extract

Retract - takeoff, flight and landing

Extend - taxi."

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 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."

(3) 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:

#### "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 122 mph CAS (106 knots)

Gross weight 2220 lbs.
Flight load factor Flaps up +3.8, -1.52
Flore down +2.5

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 (1971) 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."

- Near fuel tank filler
  - (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."

(4) Model 172N (17261445, 17267585 through 17269309)

"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):

d 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<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 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 PCLM (Normal Category), 2 PCLM (Utility Category), Approved June 21, 1996

Engine Lycoming IO-360-L2A, Rated 160 Horsepower

When Modified by Cessna Modification Kit MK172-72-01 (See NOTE 4)

Lycoming IO-360-L2A, Rated 180 Horsepower

Fuel 100/100LL minimum grade aviation gasoline

Engine Limits For all operations, 2,400 RPM

When Modified by Cessna Modification Kit MK172-72-01 (See NOTE 4)

For all operations, 2,700 RPM

Propeller (a) McCauley Model IC235/LFA7570

(b) Spinner: Drawing No. 0550236

When Modified by Cessna Modification Kit MK172-72-01 (See NOTE 4)

(a) McCauley Model 1A170E/JHA7660

(b) Spinner: Drawing No. 0550236

Propeller limits Static RPM at full throttle: Not over 2,165; Not Under 2,065

No Additional Tolerance Permitted

Diameter: Not over 75 inches; not under 74 inches

When Modified by Cessna Modification Kit MK172-72-01 (See NOTE 4)

Static RPM at full throttle: Not over 2,400; Not Under 2,300

No Additional Tolerance Permitted

Diameter: Not over 76 inches; not under 75 inches

Airspeed Limits Maneuvering 99 Knots IAS (97 Knots CAS)

Max Structural Cruising129 Knots IAS(126 Knots CAS)Never Exceed163 Knots IAS(160 Knots CAS)Flaps Extended85 Knots IAS(84 Knots CAS)

When Modified by Cessna Modification Kit MK172-72-01 (See NOTE 4)

Maneuvering105 Knots IAS(102 Knots CAS)Max Structural Cruising129 Knots IAS(126 Knots CAS)Never Exceed163 Knots IAS(160 Knots CAS)Flaps Extended85 Knots IAS(84 Knots CAS)

C.G. Range Normal Category

(1) Aft Limits 47.3 inches aft of datum at 2,450 pounds or less.

(2) Forward Limits Linear variation from 40.0 inches aft of datum at 2,450

pounds to 35.0 inches aft of datum at 1,950 pounds; 35.0

inches aft of datum at 1,950 pounds or less.

**Utility Category** 

(1) Aft Limits 40.5 inches aft of datum at 2,100 pounds or less.

(2) Forward Limits Linear variation from 36.5 inches aft of datum at 2,100

pounds to 35.0 inches aft of datum at 1,950 pounds; 35.0

inches aft of datum at 1,950 pounds or less.

# XI - Model 172R (cont'd)

C.G. Range When Modified by Cessna Modification Kit MK172-72-01 (See NOTE 4)

Normal Category

(1) Aft Limits
 (2) Forward Limits
 47.3 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.

**Utility Category** 

Aft Limits
 Forward Limits
 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 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 <u>Normal Category</u>

Maximum Ramp 2,457 pounds Maximum Takeoff and Landing 2,450 pounds

**Utility Category** 

Maximum Ramp 2,107 pounds
Maximum Takeoff and Landing 2,100 pounds

When Modified by Cessna Modification Kit MK172-72-01 (See NOTE 4)

Normal Category

Maximum Ramp 2,558 pounds Maximum Takeoff and Landing 2,550 pounds

**Utility Category** 

Maximum Ramp 2,208 pounds
Maximum Takeoff and Landing 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 95.0 inches aft of datum

When Modified by Cessna Modification Kit MK172-72-01 (See NOTE 4)

120 pounds at 82.0 to 108.0 inches aft of datum 50 pounds at 108.0 to 142.0 inches aft of datum

(Maximum 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.) 2.0 gallons at 13.1 inches forward of datum

3.5 quarts usable

When Modified by Cessna Modification Kit MK172-72-01 (See NOTE 4)

2.0 gallons at 13.1 inches forward of datum

3.0 quarts usable

# XI - Model 172R (cont'd)

	Control surface movements	Wing flaps	Takeoff	0° - 10°
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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

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 23.441 and 23.1549 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(b)2, 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; 23.53; 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.

# 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

# **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**

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

# Data Pertinent to Model 172R (cont'd)

NOTE 1: Weight and Balance:

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."

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.

NOTE 4. Only certain Model 172R airplane serial numbers are eligible for modification by Cessna Modification Kit MK172-72-01. Applicable serial numbers are as follows:

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 (a) McCauley Model 1A170E/JHA7660

(b) Spinner: Drawing No. 0550236

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 105 Knots IAS (102 Knots CAS)

Max Structural Cruising129 Knots IAS(126 Knots CAS)Never Exceed163 Knots IAS(160 Knots CAS)Flaps Extended85 Knots IAS(85 Knots CAS)

# XII - Model 172S (cont'd)

C.G. Range Normal Category

(1) Aft Limits 47.3 inches aft of datum at 2,550 pounds or less. (2) Forward Limits 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.

**Utility Category** 

(1) Aft Limits 40.5 inches aft of datum at 2,200 pounds or less. (2) Forward Limits 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 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 Category

2,558 pounds Maximum Ramp Maximum Takeoff and Landing 2,550 pounds

**Utility Category** 

2,208 pounds Maximum Ramp Maximum Takeoff and Landing 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° - 10°

Landing  $0^{\circ} - 30^{\circ} + 0^{\circ}/-2^{\circ}$ 

Up  $20^{\circ} \pm 1^{\circ}$ Down  $15^{\circ} \pm 1^{\circ}$ Ailerons Up  $22^{\circ} + 1^{\circ}/-0^{\circ}$ Down  $19^{\circ} + 1^{\circ}/-0^{\circ}$ Elevator tab Down  $23^{\circ} + 1^{\circ}/-0^{\circ}$ Up  $28^{\circ} + 1^{\circ}/-0^{\circ}$ Elevator (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° 44' ± 1° Left 17° 44' ± 1°

# XII - Model 172S (cont'd)

## 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 23.441 and 23.1549 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(b)2, 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; 23.53; 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.

## Equivalent Safety Items

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

# **Data Pertinent to Model 172S:**

# **Production Basis**

Production Certificate No. PC-4 issued August 27, 1998. Applies to airplane serial numbers 172S80003 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:

## Serial Nos. 172S8001 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: 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."

# Data Pertinent to Model 172S: (cont'd)

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

.....END....