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2A13
Revision 44
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October 15, 1997

TYPE CERTIFICATE DATA SHEET NO. 2A13

This data sheet, which is a part of Type Certificate 2A13, 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 The New Piper Aircraft, Inc.
2926 Piper Drive
Vero Beach, Florida 32960

I - Model PA-28-160 (Cherokee), 4 PCLM (Normal Category), Approved October 31, 1960, for S/N 28-03; 28-1 through 28-4377; and 28-1760A.

Engine Lycoming O-320-B2B or O-320-D2A with carburetor setting 10-3678-32

Fuel 91/96 minimum grade aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (160 hp)

Propeller and Propeller Limits Sensenich M74DM or 74DM6 on S/N 28-1 through 28-1760, and 28-1760A.
Sensenich M74DMS or 74D6S5 on S/N 28-1761 through 28-4377.
Static r.p.m. at maximum permission throttle setting not over 2425 r.p.m.,
not under 2325 r.p.m.
No additional tolerance permitted.
Diameter: Not over 74", not under 72.5".

Propeller Spinner Piper P/N 14422-00 on S/N 28-1 through 28-1760, and 28-1760A.
Piper P/N 63760-04 or P/N 65805-00 on S/N 28-1761 through 28-4377.
See NOTE 11.

Airspeed Limits Never exceed 171 mph (148 knots) CAS
Maximum structural cruising 140 mph (121 knots) CAS
Maneuvering 129 mph (112 knots) CAS
Flaps Extended 115 mph (100 knots) CAS

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<u>Center of Gravity Range</u>	(+84.0) to (+95.9) at 1650 lb. or less (+85.9) to (+95.9) at 1975 lb. (+89.2) to (+95.9) at 2200 lb. Straight line variation between points given.			
<u>Empty Weight C. G. Range</u>	None			
<u>Maximum Weight</u>	2200 lb.			
<u>No. of Seats</u>	4 (2 at +85.5, 2 at +118.1)			
<u>Maximum Baggage</u>	125 lb. at (+142.8) on S/N 28-1 through 28-1760, and 28-1760A. See NOTE 8. 200 lb. at (+142.8) on S/N 28-1761 through 28-4377.			
<u>Fuel Capacity</u>	50 gallons at (+95) (2 wing tanks) See NOTE 1 for data on system fuel.			
<u>Oil Capacity</u>	8 quarts at (+32.5), 6 quarts usable See NOTE 1 for data on system oil.			
<u>Control Surface Movements</u>	Wing flaps	(± 2°)	Up 0° Down 40°	
	Ailerons	(± 2°)	Up 30° Down 15°	
	Rudder	(± 2°)	Left 27° Right 27°	
	Stabilator	(± 2°)	Up 18° Down 2°	
	Stabilator Tab	(± 1°)	Up 3° Down 12°	
<u>Nose Wheel Travel</u>	(±1°) Left 30° Right 30° (Effective on S/N 28-1 through 28-3377, and 28-1760A) (±1°) Left 22° Right 22° (Effective S/N 28-3378 through 28-4377)			
<u>Manufacturer's Serial Nos.</u>	28-03; 28-1 through 28-4377; and 28-1760A.			

II - Model PA-28-150 (Cherokee), 4 PCLM (Normal Category), Approved June 2, 1961, for S/N 28-03; 28-1 through 28-4377; and 28-1760A.

<u>Engine</u>	Lycoming O-320-A2B or O-320-E2A with carburetor setting 10-3678-32			
<u>Fuel</u>	80/87 minimum grade aviation gasoline			
<u>Engine Limits</u>	For all operations, 2700 r.p.m. (150 hp)			
<u>Propeller and Propeller Limits</u>	Sensenich M74DM or 74DM6 on S/N 28-1 through 28-1760, and 28-1760A. Sensenich M74DMS or 74DM6S5 on S/N 28-1761 through 28-4377. Static r.p.m. at maximum permissible throttle setting not over 2375 r.p.m., not under 2275 r.p.m. No additional tolerance permitted. Diameter: Not over 74", not under 72.5".			
<u>Propeller Spinner</u>	Piper P/N 14422-00 on S/N 28-1 through 28-1760, and 28-1760A. Piper P/N 63760-04 or 65805-00 on S/N 28-1761 through 28-4377. See NOTE 11.			
<u>Airspeed Limits</u>	Never exceed	171 mph	(148 knots)	CAS
	Maximum structural cruising	140 mph	(121 knots)	CAS
	Maneuvering	129 mph	(112 knots)	CAS
	Flaps Extended	115 mph	(100 knots)	CAS

<u>Center of Gravity Range</u>	(+84.0) to (+95.9) at 1650 lb. or less (+85.9) to (+95.9) at 1975 lb. (+88.4) to (+95.9) at 2150 lb. Straight line variation between points given.					
<u>Empty Wt. C. G. Range</u>	None					
<u>Maximum Weight</u>	2150 lb.					
<u>No. of Seats</u>	4 (2 at +85.5, 2 at +118.1)					
<u>Maximum Baggage</u>	125 lb. at (+142.8) on S/N 28-1 through 28-1760, and 28-1760A. See NOTE 8. 200 lb. at (+142.8) on S/N 28-1761 through 28-4377.					
<u>Fuel Capacity</u>	50 gallons at (+95) (2 wing tanks) See NOTE 1 for data on system fuel.					
<u>Oil Capacity</u>	8 quarts at (+32.5) (6 quarts usable) See NOTE 1 for data on system oil.					
<u>Control Surface Movements</u>	Wing flaps	(± 2°)	Up	0°	Down	40°
	Ailerons	(± 2°)	Up	30°	Down	15°
	Rudder	(± 2°)	Left	27°	Right	27°
	Stabilator	(± 1°)	Up	18°	Down	2°
	Stabilator Tab	(± 1°)	Up	3°	Down	12°
<u>Nose Wheel Travel</u>	(± 2°)	Left	30°	Right	30°	
	(Effective on S/N 28-03; 28-1 through 28-3377; and 28-1760A)					
	(± 2°)	Left	22°	Right	22°	
	(Effective on S/N 28-3378 through 28-4377)					
<u>Manufacturer's Serial Nos.</u>	28-03; 28-1 through 28-4377; and 28-1760A.					

III - Model PA-28-180 (Cherokee), 4 PCLM (Normal Category), Approved August 3, 1962; 2 PCLM (Utility Category), Approved December 6, 1966, for S/N 28-03; 28-671 through 28-5859; and 28-7105001 through 28-7205318.

<u>Engine</u>	Lycoming O-360-A3A or O-360-A4A with carburetor setting 10-3878 or 10-4164-1
<u>Fuel</u>	91/96 minimum grade aviation gasoline
<u>Engine Limits</u>	S/N 28-671 through 28-1760, and 28-1760A (except S/N 28-1571 and S/N 28-1573) (See NOTE 4): Maximum permissible takeoff, 2475 r.p.m. For all other operations, 2700 r.p.m. (180 hp) S/N 28-1571; 28-1573; 28-1761 through 28-5859; and 28-7105001 through 28-7205318: For all operations, 2700 r.p.m. (180 hp)
<u>Propeller and Propeller Limits</u>	Sensenich M76EMM or 76EM8 on S/N 28-671 through 28-1760, and 28-1760A (except S/N 28-1571 and S/N 28-1573). Sensenich M76EMMS or 76EM8S5 on S/N 28-1571, 28-1573; 28-1761 through 28-5859; and 28-7105001 through 28-7205318. Static r.p.m. at maximum permissible throttle setting not over 2450 r.p.m., not under 2275 r.p.m. No additional tolerance permitted. Diameter: Not over or under 76". See NOTE 10.

Propeller Spinner

Piper P/N 14422-00 on S/N 28-671 through 28-1760, and 28-1760A.

Piper P/N 63760-04 or 65805-00 on S/N 28-1761 through 28-5859; and 28-7105001 through 28-7205318.

See NOTE 11.

Airspeed Limits

Never exceed	171 mph	(148 knots)	CAS
Maximum structural cruising	140 mph	(121 knots)	CAS
Maneuvering	129 mph	(112 knots)	CAS
Flaps Extended	115 mph	(100 knots)	CAS

Center of Gravity Range**Utility Category** (See NOTE 9)

(+84.0)	to	(+86.5)	at	1650 lb. or less
(+85.8)	to	(+86.5)	at	1950 lb.

Normal Category (See NOTE 15)

(S/N 28-671 through 28-5859)

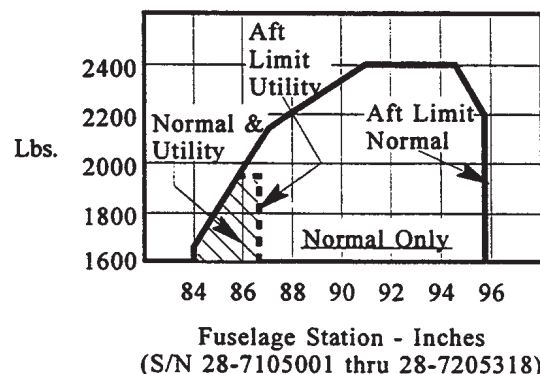
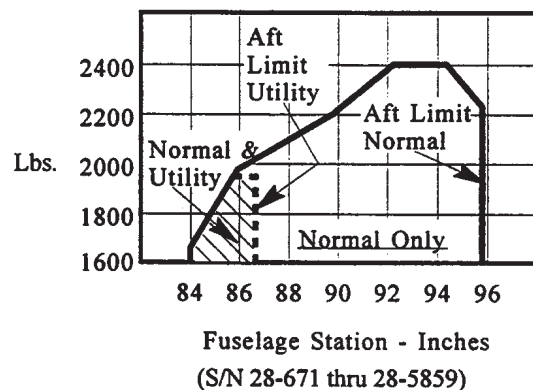
(+84.0)	to	(+95.9)	at	1650 lb. or less
(+85.9)	to	(+95.9)	at	1975 lb.
(+89.2)	to	(+95.9)	at	2200 lb.
(+92.1)	to	(+94.5)	at	2400 lb.

Normal Category

(S/N 28-7105001 through 28-7205318)

(+84.0)	to	(+95.9)	at	1650 lb. or less
(+87.0)	to	(+95.9)	at	2150 lb.
(+87.8)	to	(+95.9)	at	2200 lb.
(+91.0)	to	(+94.5)	at	2400 lb.

Straight Line Variation Between Points Given

**Empty Weight C. G. Range**

None

<u>Maximum Weight</u>	Normal Category: 2400 lb. Utility Category: 1950 lb.																																																							
<u>No. of Seats</u>	Normal Category: 4 (2 at +85.5, 2 at +118.1) Utility Category: 2 (2 at +85.5)																																																							
<u>Maximum Baggage</u>	Eligible Normal Category Only: 125 lb. at (+142.8) on S/N 28-671 through 28-1760, and 28-1760A. See NOTE 8. 200 lb. at (+142.8) on S/N 28-1761 through 28-5859, and 28-7105001 through 28-7205318.																																																							
<u>Fuel Capacity</u>	50 gallons at (+95) (2 wing tanks) See NOTE 1 for data on system fuel.																																																							
<u>Oil Capacity</u>	8 quarts at (+32.5) (6 quarts usable) See NOTE 1 for data on system oil.																																																							
<u>Control Surface Movements</u>	<table><tr><td>Wing flaps</td><td>(± 2°)</td><td>Up</td><td>0°</td><td>Down</td><td>40°</td></tr><tr><td>Ailerons</td><td>(± 2°)</td><td>Up</td><td>30°</td><td>Down</td><td>15°</td></tr><tr><td>Rudder</td><td>(± 2°)</td><td>Left</td><td>27°</td><td>Right</td><td>27°</td></tr><tr><td>Stabilator</td><td>(± 1°)</td><td>Up</td><td>18°</td><td>Down</td><td>2°</td></tr><tr><td>Stabilator Tab</td><td>(± 1°)</td><td>Up</td><td>3°</td><td>Down</td><td>12°</td></tr></table>	Wing flaps	(± 2°)	Up	0°	Down	40°	Ailerons	(± 2°)	Up	30°	Down	15°	Rudder	(± 2°)	Left	27°	Right	27°	Stabilator	(± 1°)	Up	18°	Down	2°	Stabilator Tab	(± 1°)	Up	3°	Down	12°																									
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<u>Nose Wheel Travel</u>	<table><tr><td>(± 2°)</td><td>Left</td><td>30°</td><td>Right</td><td>30°</td></tr><tr><td colspan="5">(Effective on S/N 28-671 through 28-3377)</td></tr><tr><td>(± 2°)</td><td>Left</td><td>22°</td><td>Right</td><td>22°</td></tr><tr><td colspan="5">(Effective on S/N 28-3378 through 28-5859, and 28-7105001 through 28-7205318)</td></tr></table>	(± 2°)	Left	30°	Right	30°	(Effective on S/N 28-671 through 28-3377)					(± 2°)	Left	22°	Right	22°	(Effective on S/N 28-3378 through 28-5859, and 28-7105001 through 28-7205318)																																							
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<u>Manufacturer's Serial Nos.</u>	28-03; 28-671 through 28-5859; and 28-7105001 through 28-7205318. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers: <table><tr><td>28-4704</td><td>28-4745</td><td>28-4754</td><td>28-4763</td><td>28-4776</td></tr><tr><td>28-4791</td><td>28-4795</td><td>28-4826</td><td>28-4834</td><td>28-4859</td></tr><tr><td>28-4875</td><td>28-4879</td><td>28-4891</td><td>28-4907</td><td>28-4919</td></tr><tr><td>28-4922</td><td>28-4935</td><td>28-4945</td><td>28-4946</td><td>28-4947</td></tr><tr><td>28-4955</td><td>28-4959</td><td>28-4961</td><td>27-4964</td><td>28-4967</td></tr><tr><td>28-4968</td><td>28-4971</td><td>28-4975</td><td>28-4977</td><td>28-4985</td></tr><tr><td>28-4995</td><td>28-4999</td><td>28-5004</td><td>28-5007</td><td>28-5015</td></tr><tr><td>28-5017</td><td>28-5018</td><td>28-5019</td><td>28-5020</td><td>28-5023</td></tr><tr><td>28-5026</td><td>28-5027</td><td>28-5028</td><td>28-5031</td><td>28-5039</td></tr><tr><td>28-5041</td><td>28-5046</td><td>28-5051</td><td>28-5053</td><td>28-5057</td></tr><tr><td>28-5060</td><td>28-5061</td><td>28-5062</td><td>28-5063</td><td>28-5064</td></tr></table> 28-5066 through 28-5859, and 28-7105001 through 28-7205318 under the delegation option provisions of FAR 21. See NOTE 17 and 20.	28-4704	28-4745	28-4754	28-4763	28-4776	28-4791	28-4795	28-4826	28-4834	28-4859	28-4875	28-4879	28-4891	28-4907	28-4919	28-4922	28-4935	28-4945	28-4946	28-4947	28-4955	28-4959	28-4961	27-4964	28-4967	28-4968	28-4971	28-4975	28-4977	28-4985	28-4995	28-4999	28-5004	28-5007	28-5015	28-5017	28-5018	28-5019	28-5020	28-5023	28-5026	28-5027	28-5028	28-5031	28-5039	28-5041	28-5046	28-5051	28-5053	28-5057	28-5060	28-5061	28-5062	28-5063	28-5064
28-4704	28-4745	28-4754	28-4763	28-4776																																																				
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28-5060	28-5061	28-5062	28-5063	28-5064																																																				

IV - Model PA-28S-160 (Cherokee), 4 PCSM (Normal Category), Approved February 25, 1963, for S/N 28-1 through 28-1760; and S/N 28-1760A.

<u>Engine</u>	Lycoming O-320-D2A with carburetor setting 10-3678-32 (See NOTE 18)
<u>Fuel</u>	100/130 minimum grade aviation gasoline
<u>Engine Limits</u>	For all operations, 2700 r.p.m. (160 hp)
<u>Propeller and Propeller Limits</u>	McCauley 1A175-GM Static r.p.m. at maximum permissible throttle setting not over 2360 r.p.m., not under 2260 r.p.m. No additional tolerance permitted. Diameter: Not over 79", not under 78".

<u>Propeller Spinner</u>	Piper P/N 14422-00 spinner required.			
<u>Airspeed Limits</u>	Never exceed	153 mph	(133 knots)	CAS
	Maximum structural cruising	140 mph	(121 knots)	CAS
	Maneuvering	129 mph	(112 knots)	CAS
	Flaps Extended	115 mph	(100 knots)	CAS

<u>Center of Gravity</u>	(+85.1)	to	(+93.5)	at	1850 lb. or less
	(+87.0)	to	(+93.5)	at	2100 lb.
	(+87.9)	to	(+93.5)	at	2140 lb.
	Straight line variation between points given.				

<u>Empty Weight C. G. Range</u>	None
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<u>Maximum Weight</u>	2140 lb.
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<u>No. of Seats</u>	4 (2 at +85.5, 2 at +118.1)
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<u>Maximum Baggage</u>	125 lb. at (+142.8)
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<u>Fuel Capacity</u>	50 gallons at (+95) (2 wing tanks)
	See NOTE 1 for data on system fuel.

<u>Oil Capacity</u>	8 quarts at (+32.5) (6 quarts usable)
	See NOTE 1 for data on system oil.

<u>Control Surface Movements</u>	Wing flaps	($\pm 2^\circ$)	Up	0°	Down	40°
	Ailerons	($\pm 2^\circ$)	Up	30°	Down	15°
	Rudder	($\pm 2^\circ$)	Left	27°	Right	27°
	Stabilator	($\pm 1^\circ$)	Up	18°	Down	2°
	Stabilator Tab	($\pm 1^\circ$)	Up	3°	Down	12°

<u>Manufacturer's Serial Nos.</u>	28-03; 28-1 through 28-1760; and 28-1760A.
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V - Model PA-28S-180 (Cherokee), 4 PCSM (Normal Category), Approved May 10, 1963, for S/N 28-671 through 28-5859, and 28-7105001 through 28-7105234.

<u>Engine</u>	Lycoming O-360-A3A or O-360-A4A with carburetor setting 10-4164-1
	See NOTE 19.

<u>Fuel</u>	100/130 minimum grade aviation gasoline
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<u>Engine Limits</u>	S/N 28-671 through 28-1760, and 28-1760A (except S/N 28-1571 and S/N 28-1573):
	Maximum permissible takeoff, 2350 r.p.m.
	For all other operations, 2700 r.p.m. (180 hp)
	See NOTE 4.
	S/N 28-1571; 28-1573; 28-1761 through 28-5859; and 28-7105001 through 28-7105234:
	For all operations, 2700 r.p.m. (180 hp)

<u>Propeller and Propeller Limits</u>	McCauley 1A200-FA8248 on S/N 28-671 to 28-1760, and 28-1760A.
	McCauley 1A200-DFA8248 on S/N 28-1761 through 28-5859, and 28-7105001 through 28-7105234.
	Static r.p.m. at maximum permissible throttle setting not over 2190 r.p.m.,
	not under 2140 r.p.m.
	No additional tolerance permitted.
	Diameter: Not over 82", not under 81".

Propeller Spinner

Spinner required.

Piper P/N 14422-00 on S/N 28-671 through 28-1760, and 28-1760A.

Piper P/N 63760-04 or 65805-00 on S/N 28-1761 through 28-5859, and 28-7105001 through 28-7105234.

Airspeed Limits

Never exceed	153 mph	(133 knots)	CAS
Maximum structural cruising	140 mph	(121 knots)	CAS
Maneuvering	129 mph	(112 knots)	CAS
Flaps Extended	115 mph	(100 knots)	CAS

Center of Gravity

(+85.1) to (+92.5) at 1850 lb. or less
 (+87.0) to (+92.5) at 2100 lb.
 (+89.8) to (+92.5) at 2222 lb.
 Straight line variation between points given.

Empty Weight C. G. Range

None

Maximum Weight

2222 lb.

No. of Seats

4 (2 at +85.5, 2 at +118.1)

Maximum Baggage

125 lb. at (+142.8)

Fuel Capacity

50 gallons at (+95) (2 wing tanks)
 See NOTE 1 for data on system fuel.

Oil Capacity

8 quarts at (+32.5) (6 quarts usable)
 See NOTE 1 for data on system oil.

Control Surface Movements

Wing flaps	(±2°)	Up	0°	Down	40°
Ailerons	(±2°)	Up	30°	Down	15°
Rudder	(±2°)	Left	27°	Right	27°
Stabilator	(±1°)	Up	18°	Down	2°
Stabilator Tab	(±1°)	Up	3°	Down	12°

Manufacturer's Serial Nos.

28-671 through 28-5859, and 28-7105001 through 28-7105234. See NOTE 3. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers:

28-4704	28-4745	28-4754	28-4763	28-4776
28-4791	28-4795	28-4826	28-4834	28-4859
28-4875	28-4879	28-4891	28-4907	28-4919
28-4922	28-4935	28-4945	28-4946	28-4947
28-4955	28-4959	28-4961	27-4964	28-4967
28-4968	28-4971	28-4975	28-4977	28-4985
28-4995	28-4999	28-5004	28-5007	28-5015
28-5017	28-5018	28-5019	28-5020	28-5023
28-5026	28-5027	28-5028	28-5031	28-5039
28-5041	28-5046	28-5051	28-5053	28-5057
28-5060	28-5061	28-5062	28-5063	28-5064

28-5066 through 28-5859, and 28-7105001 through 28-7105234 under the delegation option provisions of FAR 21. See NOTE 17 and 20.

VI - Model PA-28-235 (Cherokee Pathfinder), 4 PCLM (Normal Category), Approved July 15, 1963, for S/N 28-10001 through 28-11378, and 28-7110001 through 28-7210023.

<u>Engine</u>	Lycoming O-540-B2B5, O-540-B1B5, or O-540-B4B5 with carburetor setting 10-4404, 10-5042, or 10-5054. (Baffle P/N 68759 required with 10-5054 setting.)			
<u>Fuel</u>	80/87 minimum grade aviation gasoline			
<u>Engine Limits</u>	For all operations, 2575 r.p.m. (235 hp)			
<u>Propeller and Propeller Limits</u>	<p>McCauley 1P235PFA80</p> <p>Static r.p.m. at maximum permissible throttle setting not over 2300 r.p.m., not under 2125 r.p.m.</p> <p>No additional tolerance permitted.</p> <p>Diameter: Not over 80", not under 78.5".</p> <p>or</p> <p>Hartzell HC-C2YK-1/8468A-4 or HC-C2YK-1()F/8468A-4</p> <p>Pitch: High $27^{\circ} \pm 2^{\circ}$, Low $13.5^{\circ} \pm .2^{\circ}$ at 30" station.</p> <p>Diameter: Not over 80", not under 80".</p> <p>Governor assembly: Hartzell F-4-3 () or F-4-13</p> <p>See NOTE 21.</p> <p>or</p> <p><u>Approved for Use with O-540-B4B5 Engine Only:</u></p> <p>Sensenich M80BMM or 80BM8</p> <p>Pitch from 69" to 71".</p> <p>Static r.p.m. at maximum permissible throttle setting not over 2300 r.p.m., not under 2150 r.p.m.</p> <p>No additional tolerances permitted.</p> <p>Diameter: Not over 80", not under 78.5".</p>			
<u>Propeller Spinner</u>	<p>Piper P/N 65209-00 or P/N 63760-03 with fixed pitch propeller. Spinner required.</p> <p>Piper P/N 65435-0 or P/N 68713 or P/N 66785 spinner tip and P/N 66786 spinner shell or P/N 67790-0 spinner, P/N 67791-0 bulkhead, P/N 67793-0 bulkhead and P/N 99499-0 plate. Two each P/N 67794-0 cuff, or Kit 760 452V with constant speed propeller.</p> <p>See NOTE 14.</p>			
<u>Airspeed Limits</u>	Never exceed	197 mph	(171 knots)	CAS
	Maximum structural cruising	156 mph	(136 knots)	CAS
	Maneuvering	138 mph	(120 knots)	CAS
	Flaps Extended	115 mph	(100 knots)	CAS
<u>Center of Gravity Range</u>	<p>S/N 28-10001 through 28-11378 (See NOTE 16):</p> <p>(+81.5) to (+93.5) at 2100 lb. or less</p> <p>(+91.5) to (+93.5) at 2900 lb.</p> <p>S/N 28-7110001 through 28-7210023:</p> <p>(+85.1) to (+93.5) at 2100 lb. or less</p> <p>(+86.0) to (+93.5) at 2600 lb.</p> <p>(+91.5) to (+93.5) at 2900 lb.</p> <p>Straight line variation between points given.</p>			
<u>Empty Weight C. G. Range</u>	None			
<u>Maximum Weight</u>	2900 lb.			
<u>No. of Seats</u>	4 (2 at +85.5, 2 at +118.1)			
<u>Maximum Baggage</u>	200 lb. at (+142.8)			

<u>Fuel Capacity</u>	84 gallons at (+95) (50 gallons in 2 wing tanks, 34 gallons in 2 tip tanks). See NOTE 1 for data on system fuel.			
<u>Oil Capacity</u>	12 quarts at (+34.1)(9 ¼ quarts usable) See NOTE 1 for data on system oil.			
<u>Control Surface Movements</u>	Wing flaps	(±2°)	Up 0°	Down 40°
	Ailerons	(±2°)	Up 30°	Down 15°
	Rudder	(+2°)	Left 27°	Right 27°
	Stabilator	(±1°)	Up 18°	Down 2°
	Stabilator Tab	(±1°)	Up 3°	Down 12°
<u>Nose Wheel Travel</u>	(±2°)	Left 30°	Right 30°	
	(Effective on S/N 28-10001 through 28-11039)			
	(±2°)	Left 22°	Right 22°	
	(Effective on S/N 28-11040 through 28-11378, and 28-7110001 through 28-7210023)			
<u>Manufacturer's Serial Nos.</u>	28-10001 through 28-11378, and 28-7110001 through 28-7210023. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28-11063, 28-11064, 28-11070, 28-11072 through 28-11378, and 28-7110001 through 28-7210023 under the delegation option provisions of FAR 21. See NOTE 17 and 20.			

VII - Model PA-28-140 (Cherokee Cruiser), 2 PCLM (Utility or Normal Category); 1950 lb. Maximum Weight, Approved February 14, 1964; 2150 lb. Maximum Weight, Approved June 17, 1965; for S/N 28-20001 through 28-26946, and 28-7125001 through 28-7725290.

<u>Engine</u>	Lycoming O-320-E2A with carburetor setting 10-3678-32 or O-320-E3D with carburetor setting 10-5009			
<u>Fuel</u>	80/87 minimum grade aviation gasoline			
<u>Engine Limits</u>	For all operations 2700 r.p.m. (150 hp)			
<u>Propeller and Propeller Limits</u>	<p>For 1950 lb. maximum weight - Normal Category; S/N 28-20001 through 28-20939; or Utility Category, S/N 28-20001 through 28-26946, and 28-7125001 through 28-7725290: Sensenich M74DM or 74DM6 Static r.p.m. at maximum permissible throttle setting not over 2425 r.p.m., not under 2150 r.p.m. No additional tolerance permitted. Diameter: Not over 74", not under 72.5".</p> <p>For 2150 lb. maximum weight - Normal Category; S/N 28-20940 through 28-26946, and 28-7125001 through 28-7725290: Sensenich M74DM or 74DM6 Static r.p.m. at maximum permissible throttle setting not over 2425 r.p.m., not under 2275 r.p.m. No additional tolerance permitted. Diameter: Not over 74", not under 72.5".</p>			
<u>Propeller Spinner</u>	Piper P/N 14422-00. See NOTE 11.			
<u>Airspeed Limits</u>	Never exceed	171 mph	(148 knots)	CAS
	Maximum structural cruising	140 mph	(121 knots)	CAS
	Maneuvering	129 mph	(112 knots)	CAS
	Flaps Extended	115 mph	(100 knots)	CAS

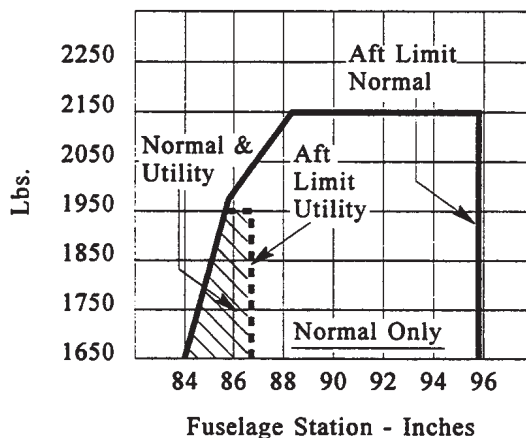
Center of Gravity RangeUtility Category

(+84.0) to (+86.5) at 1650 lb. or less
 (+85.8) to (+86.5) at 1950 lb.

Normal Category

(+84.0) to (+95.9) at 1650 lb. or less
 (+85.9) to (+95.9) at 1975 lb.
 (+88.4) to (+95.9) at 2150 lb.

Straight line variation between points given.

Empty Weight C. G. Range

None

Maximum Weight

Normal Category: 1950 lb. on S/N 28-20001 through 28-20939 (See NOTE 6).
 2150 lb. on S/N 28-20940 through 28-26946, and 28-7125001 through 28-7725290.
 Utility Category: 1950 lb. on S/N 28-20001 through 28-26946, and 28-7125001 through 28-7725290.

No. of Seats

2 at (+85.5)

Maximum Baggage

Eligible Normal Category Only:
 100 lb. at (+117) on S/N 28-20001 through 28-20939 (See NOTE 12).
 200 lb. at (+117) on S/N 28-20940 through 28-26946, and 28-7125001 through 28-7725290.
 300 lb. at (+117 and +133) on S/N 28-20940 through 28-26946, and 28-7125001 through 28-7725290 (See NOTE 13).

Fuel Capacity

50 gallon at (+95) (2 wing tanks)
 See NOTE 1 for data on system fuel.

Oil Capacity

8 quarts at (+32.5) (6 quarts usable)
 See NOTE 1 for data on system oil.

Control Surface Movements

Wing flaps	($\pm 2^\circ$)	Up	0°	Down	40°
Ailerons	($\pm 2^\circ$)	Up	30°	Down	15°
Rudder	($\pm 2^\circ$)	Left	27°	Right	27°
Stabilator	($\pm 1^\circ$)	Up	18°	Down	2°
Stabilator Tab	($\pm 1^\circ$)	Up	3°	Down	12°

Nose Wheel Travel

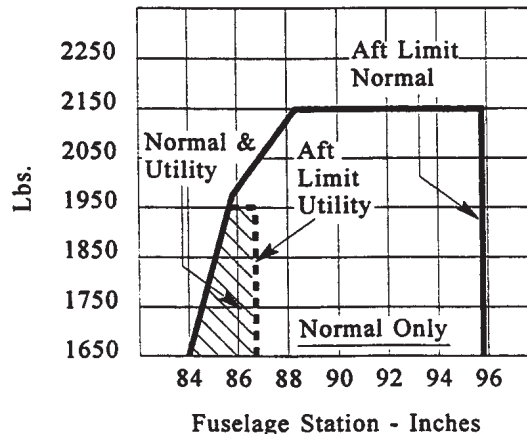
($\pm 2^\circ$) Left 30° Right 30°
 (Effective on S/N 28-20001 through 28-21845; 28-21931 through 28-21934; and 28-7425001 through 28-7725290)
 ($\pm 2^\circ$) Left 22° Right 22°
 (Effective on S/N 28-21846 through 28-21930; 28-21935 through 28-26946; and 28-7125001 through 28-7325674)

Manufacturer's Serial Nos.

28-20001 through 28-26946; and 28-7125001 through 28-7725290. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28-24677, 28-24682, 28-24697, 28-24698, 28-24700, 28-24703, 28-24704, 28-24705, 28-24706, 28-24709, 28-24710, 28-24712, 28-24713, 28-24714, 28-24715 through 28-26946, and 28-7125001 through 28-7725290 under the delegation option provisions of FAR 21. See NOTE 17 and 20.

VIII - Model PA-28-140 (Cherokee Cruiser), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved June 17, 1965, for S/N 28-20001 through 28-26946, and 28-7125001 through 28-7725290.

<u>Engine</u>	Lycoming O-320-E2A with carburetor setting 10-3678-32 or 10-5009 or O-320-E3D with carburetor setting 10-5009		
<u>Fuel</u>	80/87 minimum grade aviation gasoline		
<u>Engine Limits</u>	For all operations 2700 r.p.m. (150 hp)		
<u>Propeller and Propeller Limits</u>	Sensenich M74DM or 74DM6 Static r.p.m. at maximum permissible throttle setting not over 2425 r.p.m., not under 2275 r.p.m. No additional tolerance permitted. Diameter: Not over 74", not under 72.5".		
<u>Propeller Spinner</u>	Piper P/N 14422-00. See NOTE 11.		
<u>Airspeed Limits</u>	Never exceed	171 mph (148 knots)	CAS
	Maximum structural cruising	140 mph (121 knots)	CAS
	Maneuvering	129 mph (112 knots)	CAS
	Flaps Extended	115 mph (100 knots)	CAS
<u>Center of Gravity Range</u>	<u>Utility Category</u> (+84.0) to (+86.5) at 1650 lb. or less (+85.8) to (+86.5) at 1950 lb. <u>Normal Category</u> (+84.0) to (+95.9) at 1650 lb. or less (+85.9) to (+95.9) at 1975 lb. (+88.4) to (+95.9) at 2150 lb. Straight line variation between points given.		



<u>Empty Weight C. G. Range</u>	None																														
<u>Maximum Weight</u>	Normal Category: 2150 lb. Utility Category: 1950 lb.																														
<u>No. of Seats</u>	Normal Category: 4 (2 at +85.5, 2 at +117) Utility Category: 2 (2 at +85.5)																														
<u>Maximum Baggage</u>	Eligible Normal Category only: 100 lb. at (+117) on S/N 28-20001 through 28-20939 (See NOTE 12). 200 lb. at (+117) on S/N 28-20940 through 28-26946; and 28-7125001 through 28-7725290. 300 lb. at (+117 and +133) on S/N 28-20940 through 28-26946; and 28-7125001 through 28-7725290 (See NOTE 13).																														
<u>Fuel Capacity</u>	50 gallons at (+95) (2 wing tanks) See NOTE 1 for data on system fuel.																														
<u>Oil Capacity</u>	8 quarts at (+32.5) (6 quarts usable) See NOTE 1 for data on system oil.																														
<u>Control Surface Movements</u>	<table><tr><td>Wing flaps</td><td>(±2°)</td><td>Up</td><td>0°</td><td>Down</td><td>40°</td></tr><tr><td>Ailerons</td><td>(±2°)</td><td>Up</td><td>30°</td><td>Down</td><td>15°</td></tr><tr><td>Rudder</td><td>(±2°)</td><td>Left</td><td>27°</td><td>Right</td><td>27°</td></tr><tr><td>Stabilator</td><td>(±1°)</td><td>Up</td><td>18°</td><td>Down</td><td>2°</td></tr><tr><td>Stabilator Tab</td><td>(±1°)</td><td>Up</td><td>3°</td><td>Down</td><td>12°</td></tr></table>	Wing flaps	(±2°)	Up	0°	Down	40°	Ailerons	(±2°)	Up	30°	Down	15°	Rudder	(±2°)	Left	27°	Right	27°	Stabilator	(±1°)	Up	18°	Down	2°	Stabilator Tab	(±1°)	Up	3°	Down	12°
Wing flaps	(±2°)	Up	0°	Down	40°																										
Ailerons	(±2°)	Up	30°	Down	15°																										
Rudder	(±2°)	Left	27°	Right	27°																										
Stabilator	(±1°)	Up	18°	Down	2°																										
Stabilator Tab	(±1°)	Up	3°	Down	12°																										
<u>Nose Wheel Travel</u>	<table><tr><td>(±2°)</td><td>Left</td><td>30°</td><td>Right</td><td>30°</td></tr></table> <p>(Effective on S/N 28-20940 through 28-21845; 28-21931 through 28-21934; and 28-7425001 through 28-7725290)</p> <table><tr><td>(±2°)</td><td>Left</td><td>22°</td><td>Right</td><td>22°</td></tr></table> <p>(Effective on S/N 28-21846 through 28-21930; 28-21935 through 28-26946; and 28-7125001 through 28-7325674)</p>	(±2°)	Left	30°	Right	30°	(±2°)	Left	22°	Right	22°																				
(±2°)	Left	30°	Right	30°																											
(±2°)	Left	22°	Right	22°																											
<u>Manufacturer's Serial Nos.</u>	28-20001 through 28-26946, and 28-7125001 through 28-7725290. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28-24677, 28-24682, 28-24697, 28-24698, 28-24700, 28-24703, 28-24704, 28-24705, 28-24706, 28-24709, 28-24710, 28-24712, 28-24713, 28-24714, 28-24715 through 28-26946, and 28-7125001 through 28-7725290 under the delegation option provisions of FAR 21. See NOTE 17 and 20.																														

IX - Model PA-28R-180 (Arrow), 4 PCLM (Normal Category), Approved June 8, 1967, for S/N 28R-30002 through 28R-31270, and 28R-7130001 through 28R-7130013.

<u>Engine</u>	Lycoming IO-360-B1E
<u>Injector</u>	Bendix type RSA-5ADI Parts List No. 2524297
<u>Fuel</u>	100/130 minimum grade aviation gasoline
<u>Engine limits</u>	For all operations, 2700 r.p.m. (180 hp)
<u>Propeller and Propeller Limits</u>	Hartzell constant speed Model HC-C2YK-()/7666A-0 or HC-C2YK-1()/F7666A Pitch: High $29.0^\circ \pm 1^\circ$, Low $13.0^\circ \pm .2^\circ$ at 30" Station. Diameter: Not over 76", not under 74.5". Governor Assembly: Hartzell F-2-2 () or F-2-7 () Avoid continuous operation between 2000 - 2200 r.p.m.

Propeller Spinner

Piper P/N 68713 or P/N 66785 spinner tip and P/N 66786 spinner shell, or P/N 67790-0 spinner, P/N 67791-0 bulkhead, P/N 67793-0 bulkhead, and P/N 99499-0 plate. Two each P/N 67794-0 cuff or Kit 760 410V.
See NOTE 11.

Airspeed Limits

Never exceed	214 mph	(186 knots)	CAS
Maximum structural cruising	170 mph	(148 knots)	CAS
Maneuvering	134 mph	(116 knots)	CAS
Flaps extended	125 mph	(109 knots)	CAS
Maximum gear extension	150 mph	(130 knots)	CAS
Maximum gear retraction	125 mph	(109 knots)	CAS

Center of Gravity Range

(+81.0) to (+95.9) at 1925 lb. or less
(+91.0) to (+95.9) at 2500 lb.
Straight line variation between points given.
Moment due to retracting of landing gear (+819 in.-lb.)

Empty Weight C. G. Range

None

Maximum Weight

2500 lb.

No. of Seats

4 (2 at +85.5, 2 at +118.1)

Maximum Baggage

200 lb. at (+142.8)

Fuel Capacity

50 gallons at (+95) (2 wing tanks)
See NOTE 1 for data on system fuel.

Oil Capacity

8 quarts at (+29.5) (6 quarts usable)
See NOTE 1 for data on system oil.

Control Surface Movements

Wing flaps	(±2°)	Up 0°	Down 40°
Ailerons	(±2°)	Up 30°	Down 15°
Rudder	(±2°)	Left 27°	Right 27°
Stabilator	(±1°)	Up 18°	Down 2°
Stabilator Tab	(±1°)	Up 3°	Down 12°

Nose Wheel Travel

(±2°) Left 30° Right 30°

Manufacturer's Serial Nos.

28R-30002 through 28R-31270, and 28R-7130001 through 28R-7130013. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers:

28R-30538	28R-30546	28R-30559	28R-30586	28R-30587
28R-30602	28R-30603	28R-30605	28R-30624	28R-30627
28R-30638	28R-30639	28R-30642	28R-30684	28R-30697
28R-30708	28R-30726	28R-30739	28R-30740	28R-30747
28R-30750	28R-30752	28R-30759	28R-30760	28R-30766
28R-30776	28R-30779	28R-30785	28R-30787	28R-30795
28R-30801	28R-30809	28R-30815	28R-30819	28R-30821
28R-30824	28R-30827	28R-30832	28R-30835	28R-30838
28R-30842	28R-30845	28R-30849	28R-30853	28R-30857
28R-30860	28R-30865	28R-30866	28R-30867	28R-30868
28R-30869	28R-30872	28R-30874	28R-30875	28R-30877

through 28R-31270, and 28R-7130001 through 28R-7130013 under the delegation option provisions of FAR 21. See NOTE 17 and 20.

X - Model PA-28R-200 (Arrow), 4 PCLM (Normal Category), Approved January 16, 1969, S/N 28R-35001 through 28R-35820 and 28R-7135001 through 28R-7135229.

<u>Engine</u>	Lycoming IO-360-C1C				
<u>Injector</u>	Bendix Type RSA-5AD1, Parts List Number 2524450				
<u>Fuel</u>	100/130 minimum grade aviation gasoline				
<u>Engine Limits</u>	For all operations, 2700 r.p.m. (200 hp)				
<u>Propeller and Propeller Limits</u>	<p>Hartzell constant speed Model HC-C2YK-1 ()/7666A-2 or HC-C2YK-1 ()F/F7666A</p> <p>Pitch: High 29.0° ±2°, Low 14.0° ±2° at 30 " Station</p> <p>Diameter: Not over 74", not under 72.5"</p> <p>Governor Assembly: Hartzell F-2-7 ()</p> <p>Avoid continuous operation between 2000 - 2350 r.p.m.</p>				
<u>Propeller Spinner</u>	<p>Piper P/N 66785 spinner tip and P/N 66786 spinner shell or P/N 67790-0 spinner, P/N 67791-0 bulkhead, P/N 67793-0 bulkhead, and P/N 99499-0 plate. Two each P/N 67794-0 cuff or Kit 760 410V.</p> <p>See NOTE 11.</p>				
<u>Airspeed Limits</u>	Never exceed	214 mph	(186 knots)	CAS	
	Maximum structural cruising	170 mph	(148 knots)	CAS	
	Maneuvering	134 mph	(116 knots)	CAS	
	Flaps Extended	125 mph	(109 knots)	CAS	
	Maximum gear extension	150 mph	(130 knots)	CAS	
	Maximum gear retraction	125 mph	(109 knots)	CAS	
<u>Center of Gravity Range</u>	<p>(+81.0) to (+95.9) at 1925 lb. or less</p> <p>(+90.0) to (+95.9) at 2600 lb.</p> <p>Straight line variation between points given.</p> <p>Moment due to retracting of landing gear (+819 in-lb.)</p>				
<u>Empty Weight C. G. Range</u>	None				
<u>Maximum Weight</u>	2600 lb.				
<u>No. of Seats</u>	4 (2 at +85.5, 2 at +118.1)				
<u>Maximum Cargo</u>	200 lb. (at +142.8)				
<u>Fuel Capacity</u>	<p>50 gallons at (+95)(2 wing tanks)</p> <p>See NOTE 1 for data on system fuel.</p>				
<u>Oil Capacity</u>	<p>8 quarts at (+29.5) (6 quarts usable)</p> <p>See NOTE 1 for data on system oil.</p>				
<u>Control Surface Movements</u>	Wing flaps	(±2°)	Up	0°	Down 40°
	Ailerons	(±2°)	Up	30°	Down 15°
	Rudder	(±2°)	Left	27°	Right 27°
	Stabilator	(±1°)	Up	18°	Down 2°
	Stabilator Tab	(±1°)	Up	3°	Down 12°
<u>Nose Wheel Travel</u>		(±2°)	Left	30°	Right 30°
<u>Manufacturer's Serial Numbers</u>	<p>28R-35001 through 28R-35820, and 28R-7135001 through 28R-7135229. The manufacturer is authorized to issue airworthiness certificates for airplanes serial numbers 28R-35001 through 28R-35820, and 28R-7135001 through 28R-7135229 under the delegation option provisions of FAR 21.</p>				

XI - Model PA-28R-200 (Arrow II), 4 PCLM (Normal Category), Approved December 2, 1971, for S/N 28R-7235001 through 28R-7635545.

This series differs from the basic PA-28R-200 (Item X) by the addition of a five-inch fuselage extension, larger horizontal tail, wing span increase, gross weight increase, and other minor changes.

<u>Engine</u>	Lycoming IO-360-C1C (See NOTE 22) Lycoming IO-360-C1C6 (See NOTE 23)		
<u>Injector</u>	Bendix Type RSA-5AD1, Part List Number 2524450		
<u>Fuel</u>	100/130 minimum grade aviation gasoline		
<u>Engine Limits</u>	For all operations, 2700 r.p.m. (200 hp)		
<u>Propeller and Propeller Limits</u>	<p>Hartzell Constant Speed Model HC-C2YK-1 () or HC-C2YK-1 () F Blade Model 7666A-2 or F7666A-2 (See NOTE 22) Pitch: High $29.0^{\circ} \pm 2^{\circ}$, Low $14.0^{\circ} \pm .2^{\circ}$ at 30" Station. Diameter: Not over 74", not under 72.5". Governor Assembly: Hartzell F-2-7 () Avoid continuous operation between 2000 - 2350 r.p.m. or McCauley Constant Speed Model B2D34C213, Blade Model 90DHA-16 (See NOTE 23) Pitch: High $27.5^{\circ} \pm .5^{\circ}$; Low $12.5^{\circ} \pm .2^{\circ}$ at 30" Station. Diameter: Not over 74", not under 73". Governor Assembly: Hartzell F-2-7 () Avoid continuous operation between 1500 and 1950 r.p.m. below 15" manifold pressure.</p>		
<u>Propeller Spinner</u>	<p>For the Hartzell Propeller: Piper P/N 66785-00 spinner tip, P/N 66786 spinner shell and P/N 68734-0 bulkhead or P/N 99374-0 spinner installation (same as Kit No. 760 410V). See NOTE 11. For the McCauley Propeller: Piper P/N 66785 spinner tip and P/N 66786 spinner shell or P/N 67790-0 spinner, P/N 67791-0 bulkhead, P/N 67793-0 bulkhead, and P/N 99499-0 plate. Two each P/N 67794-0 cuff, or Kit 760 410V. Spinner and attachment plate installation P/N 35828-2. See NOTES 11 and 23.</p>		
<u>Airspeed Limits</u>	Never exceed	214 mph	(186 knots) CAS
	Maximum structural cruising	170 mph	(148 knots) CAS
	Maneuvering	131 mph	(114 knots) CAS
	Flaps Extended	125 mph	(109 knots) CAS
	Maximum gear extension	150 mph	(130 knots) CAS
	Maximum gear retraction	125 mph	(109 knots) CAS
<u>Center of Gravity Range</u>	(+80.0) to (+93.0) at	1800 lb. or less	
	(+82.0) to (+93.0) at	2300 lb.	
	(+87.3) to (+93.0) at	2650 lb.	
<u>Empty Weight C. G. Range</u>	None		
<u>Maximum Weight</u>	2650 lb.		
<u>No. of Seats</u>	4 (2 at +80.5, 2 at +118.1)		
<u>Maximum Cargo</u>	200 lb. (at +142.8)		
<u>Fuel Capacity</u>	50 gallons at (+95) (2 wing tanks) See NOTE 1 for data on system fuel.		
<u>Oil Capacity</u>	8 quarts at (+24.5) (6 quarts usable) See NOTE 1 for data on system oil.		

<u>Control Surface Movements</u>	Wing flaps	(±2°)	Up	0°	Down	40°
	Ailerons	(±2°)	Up	30°	Down	15°
	Rudder	(±2°)	Left	27°	Right	27°
	Stabilator	(±1°)	Up	16°	Down	2°
	Stabilator Tab	(±1°)	Up	3°	Down	12°

<u>Nose Wheel Travel</u>	(±2°)	Left	30°	Right	30°
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<u>Manufacturer's Serial Numbers</u>	28R-7235001 through 28R-7635545. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28R-7235001 through 28R-7635545 under the delegation option provisions of FAR 21. See NOTE 20.
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XII - Model PA-28-180 (Archer), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved May 22, 1972, for S/N 28- E13, and 28-7305001 through 28-7505260.

This series differs from the basic PA-28-180 (Item III) by the addition of a five inch fuselage extension, wing span increase, larger horizontal tail, gross weight increase and other minor changes.

<u>Engine</u>	Lycoming O-360-A4A or O-360-A4M with carburetor settings 10-3878 or 10-5193
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<u>Fuel</u>	100/130 minimum grade aviation gasoline
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<u>Engine Limits</u>	For all operations, 2700 r.p.m. (180 hp)
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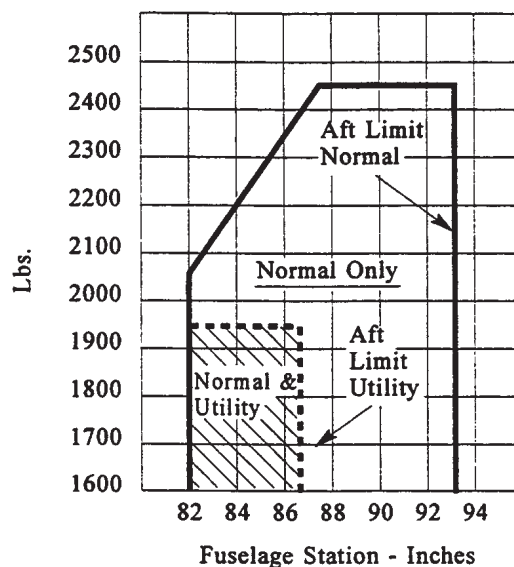
<u>Propeller and Propeller Limits</u>	Sensenich or 76EM8S5 or M76EMMS
	Static r.p.m. at maximum permissible throttle setting not over 2425 r.p.m., not under 2325 r.p.m.
	No additional tolerance permitted. Diameter: Not over or under 76".

<u>Propeller Spinner</u>	Piper P/N 65805-00. See NOTE 11.
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<u>Airspeed Limits</u>	Never exceed	171 mph	(148 knots)	CAS
	Maximum structural cruising	140 mph	(121 knots)	CAS
	Maneuvering	127 mph	(110 knots)	CAS
	Flaps Extended	115 mph	(100 knots)	CAS

<u>Center of Gravity Range</u>	<u>Normal Category</u>			
	(+82.0)	to	(+93.0)	at 2050 lb. or less
	(+87.4)	to	(+93.0)	at 2450 lb.

<u>Utility Category</u>			
(+82.0)	to	(+86.5)	at 1950 lb. or less
Straight line variation between points given.			

Empty Weight C. G. Range

None

Maximum Weight

Normal Category: 2450 lb.

Utility Category: 1950 lb.

No. of Seats

Normal Category: 4 (2 at +80.5 2 at +118.1)

Utility Category: 2 (2 at +80.5)

Maximum Baggage

200 lb. at (+142.8)

Fuel Capacity

50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity

8 quarts at (+27.5) (6 quarts usable)

See NOTE 1 for data on system oil.

Control Surface Movements

Wing flaps	($\pm 2^\circ$)	Up	0°	Down	40°
Ailerons	($\pm 2^\circ$)	Up	30°	Down	15°
Rudder	($\pm 2^\circ$)	Left	27°	Right	27°
Stabilator	($\pm 1^\circ$)	Up	14°	Down	2°
Stabilator Tab	($\pm 1^\circ$)	Up	3°	Down	12°

Nose Wheel Travel

($\pm 2^\circ$)	Left	22°	Right	22°
(S/N 28-E13, 28-7305001 through 28-7305601)				
($\pm 2^\circ$)	Left	30°	Right	30°
(S/N 28-7405001 through 28-7505260)				

Manufacturer's Serial Numbers

28-E13, and 28-7305001 through 28-7505260. The manufacturer is authorized to issue airworthiness certificates for airplanes serial numbers 28-7305001 through 28-7505260 under the delegation option provisions of FAR 21. See NOTE 20.

XIII - Model PA-28-235 (Cherokee Pathfinder), 4 PCLM (Normal Category), Approved June 9, 1972, for S/N 28E-11, and 28-7310001 through 28-7710089.

This series differs from the basic PA-28-235 (Item VI) by the addition of a five inch fuselage extension, larger horizontal tail, gross weight increase, and other minor changes.

Engine

Lycoming O-540-B4B5 with carburetor setting 10-5404

Fuel

80/87 minimum grade aviation gasoline

<u>Engine Limits</u>	For all operations, 2575 r.p.m. (235 hp)				
<u>Propeller and Propeller Limits</u>	Hartzell HC-C2YK-1()F/F 8468A-4 Pitch: High 27° ± 2°, Low 13.5° ± .2° at 30" station. Diameter: Not over 80", not under 80". Governor Assembly: Hartzell F-4-3() or F-4-13 (). See NOTE 21.				
<u>Propeller Spinner</u>	P/N 99374 Spinner Installation. Spinner required.				
<u>Airspeed Limits</u>	Never exceed	197 mph	(171 knots)	CAS	
	Maximum structural cruising	156 mph	(135 knots)	CAS	
	Maneuvering	138 mph	(119 knots)	CAS	
	Flaps Extended	115 mph	(99 knots)	CAS	
<u>Center of Gravity Range</u>	(+79.0) to (+91.5) at 1900 lb. or less (+82.0) to (+91.5) at 2500 lb. (+88.0) to (+91.5) at 3000 lb. Straight line variation between points given.				
<u>Empty Weight C. G. Range</u>	None				
<u>Maximum Weight</u>	3000 lb.				
<u>No. of Seats</u>	4 (2 at +80.5, 2 at +118.1)				
<u>Maximum Baggage</u>	200 lb. at (+142.8)				
<u>Fuel Capacity</u>	84 gallons (50 gallons in 2 wing tanks at (+95) and 34 gallons in 2 tip tanks at (+95)) See NOTE 1 for data on system fuel.				
<u>Oil Capacity</u>	12 quarts at(+29.1) (9¼ quarts usable) See NOTE 1 for data on system oil.				
<u>Control Surface Movements</u>	Wing flaps	(±2°)	Up 0°	Down 40°	
	Ailerons	(±2°)	Up 30°	Down 15°	
	Rudder	(±2°)	Left 27°	Right 27°	
	Stabilator	(±2°)	Up 16°	Down 2°	
	Stabilator Tab	(±1°)	Up 3°	Down 12°	
<u>Nose Wheel Travel</u>	(±2°)	Left 22°	Right 22°		
	(S/N 28-E11, 28-7310001 through 28-7310176)				
	(±2°)	Left 30°	Right 30°		
	(S/N 28-7410001 through 28-7710089)				
<u>Manufacturer's Serial Numbers</u>	28-E11, and 28-7310001 through 28-7710089. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28-E11, and 28-7310001 through 28-7710089 under the delegation option provisions of FAR 21. See NOTE 20.				

XIV - Model PA-28-151 (Cherokee Warrior), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved August 9, 1973, for S/N 28-7415001 through 28-7715314.

<u>Engine</u>	Lycoming O-320-E30 with carburetor setting 10-5009, or 10-5009N, or 10-5135
<u>Fuel</u>	80/87 minimum grade aviation gasoline
<u>Engine Limits</u>	For all operations, 2700 r.p.m. (150 hp)

Propeller and Propeller Limits

Sensenich M74DM6

Static r.p.m. at maximum permissible throttle setting not over 2375 r.p.m.,
not under 2275 r.p.m.

No additional tolerance permitted.

Diameter: Not over 74", not under 72".

or

McCauley 1C160 EGM 7653

Static r.p.m. at maximum permissible throttle setting not over 2400 r.p.m.,
not under 2300 r.p.m.

No additional tolerance permitted.

Diameter: Not over 76", not under 74.5".

Propeller Spinner

Piper P/N 35323.

See NOTE 11.

Airspeed Limits

Never exceed 176 mph (153 knots) CAS

Maximum structural cruising 140 mph (122 knots) CAS

Maneuvering 124 mph (108 knots) CAS

Flaps Extended 125 mph (109 knots) CAS

(S/N 28-7415001 through 28-7515449)

Flaps Extended 115 mph (100 knots) CAS

(S/N 28-7615001 through 28-7715314)

Center of Gravity RangeNormal Category

(+83.0) to (+93.0) at 1950 lb. or less

(+87.0) to (+93.0) at 2325 lb.

Utility Category

(+83.0) to (+86.5) at 1950 lb. or less

Straight line variation between points given.

Empty Weight C. G. Range

None

Maximum Weight

Normal Category: 2325 lb.

Utility Category: 1950 lb.

No. of Seats

Normal Category: 4 (2 at +80.5, 2 at +118.1)

Utility Category: 2 (2 at +80.5)

Maximum Baggage

Eligible Normal Category only:

200 lb. at (+142.8)

Fuel Capacity

50 gallons at (+95) (2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity

8 quarts at (+27.5) (6 quarts usable)

See NOTE 1 for data on system oil.

Control Surface Movements

Wing Flaps	($\pm 2^\circ$)	Up	0°	Down	40°
Ailerons	($\pm 2^\circ$)	Up	23°	Down	17°
(S/N 28-7415001 through 28-7515449)					
Ailerons	($\pm 2^\circ$)	Up	25°	Down	12.5°
(S/N 28-7615001 through 28-7715314)					
Rudder	($\pm 2^\circ$)	Left	27°	Right	27°
Stabilator	($\pm 1^\circ$)	Up	14°	Down	2°
Stabilator Tab	($\pm 1^\circ$)	Up	3°	Down	12°

Nose Wheel Travel($\pm 1^\circ$) Left 30° Right 30°

Manufacturer's Serial Numbers 28-7415001 through 28-7715314. The manufacturer is authorized to issue airworthiness certificates for airplanes serial numbers 28-7415001 through 28-7715314 under the delegation option provisions of FAR 21.

XV - A.- Model PA-28-181 (Archer II), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved July 8, 1975, for S/N 28-7690001 through 28-8690056; 28-8690061; 28-8690062; and 2890001 through 2890205.

<u>Engine</u>	Lycoming O-360-A4M with carburetor settings 10-3878 or 10-5193 or Lycoming O-360-A4A with carburetor setting 10-5193.		
<u>Fuel</u>	100/130 minimum grade aviation gasoline		
<u>Engine Limits</u>	<p>Applicable to S/N 28-7690001 through 28-7990589: For all operations, 2700 r.p.m. (180 hp)</p> <p>Applicable to S/N 28-8090001 through 28-8690056; 28-8690061; 28-8690062; and 2890001 through 2890205: For takeoff 5 minutes at 2700 r.p.m. (180 hp) For maximum continuous operation, 2650 r.p.m. (178 hp)</p>		
<u>Propeller and Propeller Limits</u>	<p>Sensenich 76EM8S5 For S/N 28-7690001 through 28-7790607: Static r.p.m. at maximum permissible throttle setting, not over 2425 r.p.m., not under 2325 r.p.m. at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m. under nonstandard conditions.) No additional tolerance permitted. Diameter: Not over or under 76".</p> <p>For S/N 28-7890001 through 28-8690056; 28-8690061; 28-8690062; and 2890001 through 2890205: Static r.p.m. at maximum permissible throttle setting, not over 2340 r.p.m., not under 2240 r.p.m. at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m. under nonstandard conditions.) No additional tolerance permitted. Diameter: Not over or under 76".</p>		
<u>Propeller Spinner</u>	Piper P/N 65805-00. See NOTE 11.		
<u>Airspeed Limits</u>	Never exceed	171 mph (148 knots)	CAS
	Maximum structural cruising	140 mph (121 knots)	CAS
	Maneuvering	124 mph (108 knots)	CAS
	Flaps Extended	115 mph (100 knots)	CAS
<u>Center of Gravity Range</u>	<p><u>Normal Category</u> (+82.0) to (+93.0) at 2050 lb. or less (+88.6) to (+93.0) at 2550 lb.</p> <p><u>Utility Category</u> (+82.0) to (+93.0) at 2050 lb. or less (+83.0) to (+93.0) at 2130 lb. Straight line variation between points given.</p>		
<u>Empty Weight C. G. Range</u>	None		

<u>Maximum Weight</u>	Normal Category: Ramp - 2558 lb. * Takeoff - 2550 lb. Utility Category: Ramp - 2138 lb. * Takeoff - 2130 lb. * - Ramp weights for S/N 28-8090001 through 28-8690056; 28-8690061; 28-8690062; and 2890001 through 2890205 only.																														
<u>No. of Seats</u>	Normal Category: 4 (2 at +80.5, 2 at +118.1) Utility Category: 2 (2 at +80.5)																														
<u>Maximum Baggage</u>	200 lb. at (+142.8)																														
<u>Fuel Capacity</u>	50 gallons at (+95)(2 wing tanks) See NOTE 1 for data on system fuel.																														
<u>Oil Capacity</u>	8 quarts at (+27.5) (6 quarts usable) See NOTE 1 for data on system oil.																														
<u>Control Surface Movements</u>	<table><tr><td>Wing flaps</td><td>(±2°)</td><td>Up</td><td>0°</td><td>Down</td><td>40°</td></tr><tr><td>Ailerons</td><td>(±2°)</td><td>Up</td><td>25°</td><td>Down</td><td>12.5°</td></tr><tr><td>Rudder</td><td>(±2°)</td><td>Left</td><td>27°</td><td>Right</td><td>27°</td></tr><tr><td>Stabilator</td><td>(±1°)</td><td>Up</td><td>14°</td><td>Down</td><td>2°</td></tr><tr><td>Stabilator Tab</td><td>(±1°)</td><td>Up</td><td>3°</td><td>Down</td><td>12°</td></tr></table>	Wing flaps	(±2°)	Up	0°	Down	40°	Ailerons	(±2°)	Up	25°	Down	12.5°	Rudder	(±2°)	Left	27°	Right	27°	Stabilator	(±1°)	Up	14°	Down	2°	Stabilator Tab	(±1°)	Up	3°	Down	12°
Wing flaps	(±2°)	Up	0°	Down	40°																										
Ailerons	(±2°)	Up	25°	Down	12.5°																										
Rudder	(±2°)	Left	27°	Right	27°																										
Stabilator	(±1°)	Up	14°	Down	2°																										
Stabilator Tab	(±1°)	Up	3°	Down	12°																										
<u>Nose Wheel Travel</u>	(±2°) Left 30° Right 30°																														
<u>Manufacturer's Serial Numbers</u>	28-7690001 through 28-8690056; 28-8690061; 28-8690062; and 2890001 through 2890205. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28-7690001 through 28-8690056; 28-8690061; 28-8690062; and 2890001 through 2890205 under the delegation option provisions of FAR 21. See NOTE 20.																														

XV - B.- Model PA-28-181 (Archer III), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved August 30, 1994, for S/N 2890206 through 2890231, and 2843001 and up.

<u>Engine</u>	Lycoming O-360-A4M with carburetor settings 10-5193			
<u>Fuel</u>	100/130 minimum grade aviation gasoline			
<u>Engine Limits</u>	For all operations, 2700 r.p.m. (180 hp)			
<u>Propeller and Propeller Limits</u>	Sensenich 76EM8S14-0-62 Static r.p.m. at maximum permissible throttle setting, not over 2340 r.p.m., not under 2240 r.p.m. at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m. under nonstandard conditions.) No additional tolerance permitted. Diameter: Not over or under 76".			
<u>Propeller Spinner</u>	Piper P/N 83349-02			
<u>Airspeed Limits</u>	Never exceed	171 mph	(148 knots)	CAS
	Maximum structural cruising	140 mph	(121 knots)	CAS
	Maneuvering	124 mph	(108 knots)	CAS
	Flaps Extended	115 mph	(100 knots)	CAS

<u>Center of Gravity Range</u>	<u>Normal Category</u> (+82.0) to (+93.0) at 2050 lb. or less (+88.6) to (+93.0) at 2550 lb.					
	<u>Utility Category</u> (+82.0) to (+93.0) at 2050 lb. or less (+83.0) to (+93.0) at 2130 lb. Straight line variation between points given.					
<u>Empty Weight C. G. Range</u>	None					
<u>Maximum Weight</u>	Normal Category: Ramp - 2558 lb. Takeoff - 2550 lb. Utility Category: Ramp - 2138 lb. Takeoff - 2130 lb.					
<u>No. of Seats</u>	Normal Category: 4 (2 at +80.5, 2 at +118.1) Utility Category: 2 (2 at +80.5)					
<u>Maximum Baggage</u>	200 lb. at (+142.8)					
<u>Fuel Capacity</u>	50 gallons at (+95)(2 wing tanks) See NOTE 1 for data on system fuel.					
<u>Oil Capacity</u>	8 quarts at (+27.5) (6 quarts usable) See NOTE 1 for data on system oil.					
<u>Control Surface Movements</u>	Wing flaps	(±2°)	Up	0°	Down	40°
	Ailerons	(±2°)	Up	25°	Down	12.5°
	Rudder	(±2°)	Left	27°	Right	27°
	Stabilator	(±1°)	Up	14°	Down	2°
	Stabilator Tab	(±1°)	Up	3°	Down	12°
<u>Nose Wheel Travel</u>		(±2°)	Left	30°	Right	30°
<u>Manufacturer's Serial Numbers</u>	2890206 through 2890231, and 2843001 and up. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 2890206 through 2890231, and 2843001 and up under the delegation option provisions of FAR 21.					

XVI - A. - Model PA-28-161 (Warrior II), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved November 2, 1976, for S/N 28-7716001 through 28-8216300, and 2841001 through 2841365 (Cadet only)

<u>Engine</u>	Lycoming O-320-D3G with carburetor setting 10-5135, 10-5009 or 10-5217, or Lycoming O-320-D2A with carburetor setting 10-5135 or 10-5217.					
<u>Fuel</u>	100 octane minimum grade aviation gasoline					
<u>Engine Limits</u>	For all operations, 2700 r.p.m. (160 hp)					
<u>Propeller and Propeller Limits</u>	Sensenich 74DM6-0-60					
	Static r.p.m. at maximum permissible throttle setting not over 2430 r.p.m., not under 2330 r.p.m., at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m. under nonstandard conditions.)					
	No additional tolerance permitted.					
	Diameter: Not over 74", not under 72".					

XVI - B. Model PA-28-161 (Warrior II), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved July 1, 1982, for S/N 28-8316001 through 28-8616057, and 2816001 through 2816109.

<u>Engine</u>	Lycoming O-320-D3G with carburetor setting 10-5135, 10-5009 or 10-5217, or Lycoming O-320-D2A with carburetor setting 10-5135 or 10-5217.		
<u>Fuel</u>	100 octane minimum grade aviation gasoline		
<u>Engine Limits</u>	For all operations, 2700 r.p.m. (160 hp)		
<u>Propeller and Propeller Limits</u>	<p>Sensenich 74DM6-0-60 Static r.p.m. at maximum permissible throttle setting not over 2430 r.p.m., not under 2330 r.p.m. at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m. under nonstandard conditions.) No additional tolerance permitted. Diameter: Not over 74", not under 72". or Sensenich 74DM6-0-58 Static r.p.m. at maximum permissible throttle setting not over 2465 r.p.m., not under 2365 r.p.m., at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m. under nonstandard conditions.) No additional tolerance permitted. Diameter: Not over 74", not under 72".</p>		
<u>Propeller Spinner</u>	Piper P/N 36850. See NOTE 11.		
<u>Airspeed Limits</u>	Never exceed Maximum structural cruising Maneuvering at 2440 lb. gross weight Maneuvering at 1531 lb. gross weight Flaps Extended	160 KIAS 126 KIAS 111 KIAS 88 KIAS 103 KIAS	See NOTE 26.
<u>Center of Gravity Range</u>	<p><u>Normal Category</u> (+83.0) to (+93.0) at 1950 lb. or less (+88.3) to (+93.0) at 2440 lb. See NOTE 26.</p> <p><u>Utility Category</u> (+83.0) to (+93.0) at 1950 lb. or less (+83.8) to (+93.0) at 2020 lb. Straight line variation between points given</p>		
<u>Empty Weight C.G. Range</u>	None		
<u>Maximum Weight</u>	<p>Normal Category: Ramp - 2447 lb. Takeoff - 2440 lb. See NOTE 26.</p> <p>Utility Category: Ramp - 2027 lb. Takeoff - 2020 lb.</p>		
<u>No. of Seats</u>	<p>Normal Category: 4 (2 at +80.5, 2 at +118.1) Utility Category: 2 (2 at +80.5)</p>		
<u>Maximum Baggage</u>	Eligible Normal Category only: 200 lb. at (+142.8)		
<u>Fuel Capacity</u>	50 gallons at (+95) (2 wing tanks) See NOTE 1 for data on system fuel.		

<u>Oil Capacity</u>	8 quarts at (+27.5) (6 quarts usable) See NOTE 1 for data on system oil.					
<u>Control Surface Movements</u>	Wing flaps	(±2°)	Up	0°	Down	40°
	Ailerons	(±2°)	Up	25°	Down	12.5°
	Rudder	(±2°)	Left	27°	Right	27°
	Stabilator	(±1°)	Up	14°	Down	2°
	Stabilator Tab	(±1°)	Up	3°	Down	12°
<u>Nose Wheel Travel</u>		(±1°)	Left	30°	Right	30°
<u>Manufacturer's Serial Nos.</u>	28-8316001 through 28-8616057, and 2816001 through 2816109. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28-8316001 through 28-8616057, and 2816001 through 2816109 under the delegation option provisions of FAR 21. See NOTE 20.					

XVI - C. Model PA-28-161 (Warrior III), 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved July 1, 1994, for S/N 2816110 through 2816119, and 2842001 and up.

<u>Engine</u>	Lycoming O-320-D3G with carburetor setting 10-5135, 10-5009 or 10-5217		
<u>Fuel</u>	100 octane minimum grade aviation gasoline		
<u>Engine Limits</u>	For all operations, 2700 r.p.m. (160 hp)		
<u>Propeller and Propeller Limits</u>	Sensenich 74DM6-0-60 Static r.p.m. at maximum permissible throttle setting not over 2430 r.p.m., not under 2330 r.p.m., at sea level, ISA conditions. (Reference aircraft Maintenance Manual for test procedure to determine approved static r.p.m. under nonstandard conditions.) No additional tolerance permitted. Diameter: Not over 74", not under 72".		
<u>Propeller Spinner</u>	Piper P/N 36850. See NOTE 11.		
<u>Airspeed Limits</u>	Never exceed	160 KIAS	See NOTE 26.
	Maximum structural cruising	126 KIAS	
	Maneuvering at 2440 lb. gross weight	111 KIAS	
	Maneuvering at 1531 lb. gross weight	88 KIAS	
	Flaps Extended	103 KIAS	
<u>Center of Gravity Range</u>	<u>Normal Category</u> (+83.0) to (+93.0) at 1950 lb. or less (+88.3) to (+93.0) at 2440 lb. See NOTE 26. <u>Utility Category</u> (+83.0) to (+93.0) at 1950 lb. or less (+83.8) to (+93.0) at 2020 lb. Straight line variation between points given		
<u>Emptv Weight C.G. Range</u>	None		
<u>Maximum Weight</u>	Normal Category: Ramp - 2447 lb. Takeoff - 2440 lb. See NOTE 26. Utility Category: Ramp - 2027 lb. Takeoff - 2020 lb.		

<u>No. of Seats</u>	Normal Category: 4 (2 at +80.5, 2 at +118.1) Utility Category: 2 (2 at +80.5)																														
<u>Maximum Baggage</u>	Eligible Normal Category only: 200 lb. at (+142.8)																														
<u>Fuel Capacity</u>	50 gallons at (+95) (2 wing tanks) See NOTE 1 for data on system fuel.																														
<u>Oil Capacity</u>	8 quarts at (+27.5) (6 quarts usable) See NOTE 1 for data on system oil.																														
<u>Control Surface Movements</u>	<table><tr><td>Wing flaps</td><td>(±2°)</td><td>Up</td><td>0°</td><td>Down</td><td>40°</td></tr><tr><td>Ailerons</td><td>(±2°)</td><td>Up</td><td>25°</td><td>Down</td><td>12.5°</td></tr><tr><td>Rudder</td><td>(±2°)</td><td>Left</td><td>27°</td><td>Right</td><td>27°</td></tr><tr><td>Stabilator</td><td>(±1°)</td><td>Up</td><td>14°</td><td>Down</td><td>2°</td></tr><tr><td>Stabilator Tab</td><td>(±1°)</td><td>Up</td><td>3°</td><td>Down</td><td>12°</td></tr></table>	Wing flaps	(±2°)	Up	0°	Down	40°	Ailerons	(±2°)	Up	25°	Down	12.5°	Rudder	(±2°)	Left	27°	Right	27°	Stabilator	(±1°)	Up	14°	Down	2°	Stabilator Tab	(±1°)	Up	3°	Down	12°
Wing flaps	(±2°)	Up	0°	Down	40°																										
Ailerons	(±2°)	Up	25°	Down	12.5°																										
Rudder	(±2°)	Left	27°	Right	27°																										
Stabilator	(±1°)	Up	14°	Down	2°																										
Stabilator Tab	(±1°)	Up	3°	Down	12°																										
<u>Nose Wheel Travel</u>	(±1°) Left 30° Right 30°																														
<u>Manufacturer's Serial Nos.</u>	2816110 through 2816119, and 2842001 and up. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 2816110 through 2816119, and 2842001 and up under the delegation option provisions of FAR 21.																														

XVII - Model PA-28R-201 (Arrow III), 4 PCLM (Normal Category), Approved November 2, 1976, for S/N 28R-7737002 through 28R-7837317; 2837001 through 2837061; and 2844001 and up.

<u>Engine</u>	Lycoming IO-360-C1C6												
<u>Injector</u>	Bendix Type RSA-5AD1, Part List Number 2524450												
<u>Fuel</u>	100/130 minimum grade aviation gasoline												
<u>Engine Limits</u>	For all operations, 2700 r.p.m. (200 hp)												
<u>Propeller and Propeller Limits</u>	<p>McCauley Constant Speed Hub Model B2D34C213, Blade Model 90 DHA-16 Pitch: High $27.5^\circ \pm .5^\circ$, Low $12.5^\circ \pm .2^\circ$ at 30" station. Diameter: Not over 74", not under 73". Governor Assembly: Hartzell Model F-2-7 () Avoid continuous operation between 1500 and 1950 r.p.m. below 15" manifold pressure. or Hartzell Constant Speed Hub Model HC-C2YK-1()F, Blade Model F7666A-2R Pitch: High $29.0^\circ \pm 2^\circ$, Low $14.0^\circ \pm .2^\circ$ at 30" station. Diameter: Not over 74", not under 72". Governor Assembly: F-2-7 ()</p>												
<u>Propeller Spinner</u>	For McCauley propeller: Piper P/N 35838-2 For Hartzell propeller: Piper P/N 99374 See NOTE 11.												
<u>Airspeed Limits</u>	<table> <tr> <td>Never exceed</td><td>183 KIAS</td></tr> <tr> <td>Maximum structural cruising</td><td>146 KIAS</td></tr> <tr> <td>Maneuvering</td><td>118 KIAS</td></tr> <tr> <td>Flaps Extended</td><td>103 KIAS</td></tr> <tr> <td>Maximum Gear Extension</td><td>129 KIAS</td></tr> <tr> <td>Maximum Gear Retraction</td><td>107 KIAS</td></tr> </table>	Never exceed	183 KIAS	Maximum structural cruising	146 KIAS	Maneuvering	118 KIAS	Flaps Extended	103 KIAS	Maximum Gear Extension	129 KIAS	Maximum Gear Retraction	107 KIAS
Never exceed	183 KIAS												
Maximum structural cruising	146 KIAS												
Maneuvering	118 KIAS												
Flaps Extended	103 KIAS												
Maximum Gear Extension	129 KIAS												
Maximum Gear Retraction	107 KIAS												

<u>Center of Gravity Range</u>	(+82.0) to (+91.5) at 2375 lb. or less (+88.9) to (+91.5) at 2750 lb. Straight line variation between points given. Moment due to retraction of gear (+819 in-lb.)					
<u>Empty Weight C.G. Range</u>	None					
<u>Maximum Weight</u>	2750 lb.					
<u>No. of Seats</u>	4 (2 at +80.5, 2 at +118.1)					
<u>Maximum Baggage</u>	200 lb. at (+142.8)					
<u>Fuel Capacity</u>	77 gallons at (+95) (2 wing tanks) See NOTE 1 for data on system fuel.					
<u>Oil Capacity</u>	8 quarts at (+24.5) (6 quarts usable) See NOTE 1 for data on system oil.					
<u>Control Surface Movements</u>	Wing flaps	($\pm 2^\circ$)	Up	0°	Down	40°
	Ailerons	($\pm 2^\circ$)	Up	25°	Down	12.5°
	Rudder	($\pm 1^\circ$)	Left	28°	Right	28°
	Stabilator	($\pm 1^\circ$)	Up	16°	Down	2°
	Stabilator Tab	($\pm 1^\circ$)	Up	3°	Down	12°
<u>Nose Wheel Travel</u>		($\pm 2^\circ$)	Left	30°	Right	30°
<u>Manufacturer's Serial Numbers</u>	28R-7737002 through 28-7837317; 2837001 through 2837061; and 2844001 and up. The manufacturer is authorized to issue airworthiness certificates for airplanes serial numbers 28R-7737002 through 28-7837317; 2837001 through 2837061; and 2844001 and up under the delegation option provisions of FAR 21. See NOTE 20.					

XVIII - Model PA-28R-201T (Turbo Arrow III), 4 PCLM (Normal Category), Approved November 2, 1976, for S/N 28R-7703001 through 28R-7803374, and 2803001 through 2803012.

<u>Engine</u>	Continental TSIO-360-F or TSIO-360-FB
<u>Fuel</u>	100/130 minimum grade aviation gasoline
<u>Engine Limits</u>	For all operations, 2575 r.p.m. at 41" Hg. manifold pressure (200 hp)
<u>Propeller and Propeller Limits</u>	1 Hartzell Hub Model BHC-C2YF-1BF, Blade Model F8459A-8R Pitch Setting at 30" Station: High: $29^\circ \pm 1.0^\circ$, Low: $14.4^\circ \pm 0.2^\circ$. Diameter: Not over 76", not under 75". Governor: Hartzell E-5 or Woodward G210681 Avoid continuous operation between 2000 and 2200 r.p.m. with engine manifold pressure above 32" Hg. Avoid continuous ground operation in cross and tail winds of over 10 knots between 1700 and 2100 r.p.m.
<u>Propeller Spinner</u>	Hartzell P/N C3568 Spinner Assembly. See NOTE 11.

<u>Airspeed Limits</u>	Never exceed	183 KIAS
	Maximum structural cruising	146 KIAS
	Maneuvering	119 KIAS
	Flaps Extended	103 KIAS
	Maximum Gear Retraction	107 KIAS
	Maximum Gear Extension	129 KIAS
	Maximum Gear Extended	129 KIAS
<u>Center of Gravity Range</u>	(+86.0) to (+90.0) at 2900 lb. (+78.0) to (+90.0) at 2240 lb. or less Straight line variation between points given. Moment due to retraction of landing gear (+819 in-lb.)	
<u>Empty Weight C. G. Range</u>	None	
<u>Maximum Weight</u>	Ramp: 2912 lb. Takeoff: 2900 lb.	
<u>No. of Seats</u>	4 (2 at +80.5, 2 at +118.1)	
<u>Maximum Baggage</u>	200 lb. at (+142.8)	
<u>Fuel Capacity</u>	77 gallons at (+95)(2 wing tanks) See NOTE 1 for data on system fuel.	
<u>Oil Capacity</u>	8 quarts at (+13.5) (5 quarts usable) See NOTE 1 for data on system oil.	
<u>Maximum Operating Altitude</u>	20,000 feet	
<u>Control Surface Movements</u>	Wing flaps (±2°) Up 0° Down 40° Ailerons (±2°) Up 25° Down 12.5° Rudder (±1°) Left 28° Right 28° Stabilator (±1°) Up 16° Down 2° Stabilator Tab (±1°) Up 3° Down 12°	
<u>Nose Wheel Travel</u>	(±2°) Left 30° Right 30°	
<u>Manufacturer's Serial Numbers</u>	28R-7703001 through 28R-7803374, and 2803001 through 2803012. The manufacturer is authorized to issue airworthiness certificates for airplanes serial numbers 28R-7703001 through 28R-7803374, and 2803001 through 2803012 under the delegation option provisions of FAR 21. See NOTE 20.	

XIX - Model PA-28-236 (Dakota), 4 PCLM (Normal Category), Approved June 1, 1978, for S/N 28-7911001 through 28-8611008; 2811001 through 2811050; and 2845001 and up.

<u>Engine</u>	Lycoming O-540-J3A5D with carburetor setting 10-5054
<u>Fuel</u>	100/130 minimum grade aviation gasoline
<u>Engine Limits</u>	For all operations, 2400 r.p.m. (235 hp)
<u>Propeller and Propeller Limits</u>	Hartzell HC-F2YR-1()F/F 8468A-4R Pitch: High 32° ±2°, Low 16.25° ± ¼°. Diameter: Not over 80", not under 78". Governor Assembly: Hartzell F-4-21()

<u>Propeller Spinner</u>	Hartzell P/N C3568 Spinner Assembly. See NOTE 11.					
<u>Airspeed Limits</u>	Never exceed	197 mph	(171 knots)	CAS		
	Maximum structural cruising	156 mph	(135 knots)	CAS		
	Maneuvering at 3000 lb.	140 mph	(122 knots)	CAS		
	Maneuvering at 1761 lb.	108 mph	(94 knots)	CAS		
	Flaps Extended	115 mph	(100 knots)	CAS		
<u>Center of Gravity Range</u>	(+79.8) to (+92.0) at 1900 lb. or less (+82.5) to (+92.0) at 2500 lb. (+88.5) to (+92.0) at 3000 lb. Straight line variation between points given.					
<u>Empty Weight C. G. Range</u>	None					
<u>Maximum Weight</u>	3000 lb.					
<u>Number of Seats</u>	4 (2 at +80.5, 2 at +118.1)					
<u>Maximum Baggage</u>	200 lb. at (+142.8)					
<u>Fuel Capacity</u>	77 gallons at (+95)(2 wing tanks) See NOTE 1 for data on system fuel.					
<u>Oil Capacity</u>	12 quarts at (+29.1) (9 1/2 quarts usable) See NOTE 1 for data on system oil.					
<u>Control Surface Movements</u>	Wing flaps	(±2°)	Up	0°	Down	40°
	Ailerons	(±2°)	Up	25°	Down	12.5°
	Rudder	(±1°)	Left	28°	Right	28°
	Stabilator	(±1°)	Up	16°	Down	2°
	Stabilator Tab	(±1°)	Up	3°	Down	12°
<u>Nose Wheel Travel</u>		(±1°)	Left	30°	Right	30°
<u>Manufacturer's Serial Numbers</u>	28-7911001 through 28-8611008; 2811001 through 2811050; and 2845001 and up. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28-7911001 through 28-8611008; 2811001 through 2811050; and 2845001 and up under the delegation option provisions of FAR 21. See NOTE 20.					

XX - A. Model PA-28RT-201 (Arrow IV), 4 PCLM (Normal Category), Approved November 13, 1978, for S/N 28R-7918001 through 28R-7918267.

<u>Engine</u>	Lycoming IO-360-C1C6
<u>Injector</u>	Bendix Type RSA-5AD1, Part List Number 2524450
<u>Fuel</u>	100/130 minimum grade aviation gasoline
<u>Engine Limits</u>	For all operations, 2700 r.p.m. (200 hp)
<u>Propeller and Propeller Limits</u>	McCauley Constant Speed Hub Model B2D34C213, Blade Model 90 DHA-16 Pitch: High 27.5° ±.5°, Low 12.5° ±.2° at 30" station. Diameter: Not over 74", not under 73". Governor Assembly: Hartzell Model F-2-7 () Avoid continuous operation between 1500 and 1950 r.p.m. below 15" manifold pressure.

Propeller and Propeller Limits or
 Hartzell Constant Speed Hub Model HC-C2YK-1()F, Blade Model F7666A-2R
 Pitch: High $29.0^\circ \pm 2^\circ$, Low $14.0^\circ \pm .2^\circ$ at 30" station.
 Diameter: Not over 74", not under 72".
 Governor Assembly: Hartzell Model F-2-7()

Propeller Spinner For the McCauley propeller: Piper P/N 35828-2
 For the Hartzell propeller: Piper P/N 99374
 See NOTE 11.

Airspeed Limits

Never exceed	190 KIAS
Maximum structural cruising	149 KIAS
Flaps extended	108 KIAS
Maximum gear extension	130 KIAS
Maximum gear retraction	109 KIAS
Maximum gear extended	130 KIAS
Maneuvering at 2750 lb.	121 KIAS
Maneuvering at 1863 lb.	96 KIAS

Center of Gravity Range (+85.5) to (+93.0) at 2400 lb. or less
 (+90.0) to (+93.0) at 2750 lb.
 Straight line variation between points given.
 Moment due to retraction of gear (+819 in-lb.)

Empty Weight C. G. Range None

Maximum Weight 2750 lb.

No. of Seats 4 (2 at +80.5, 2 at +118.1)

Maximum Baggage 200 lb. at (+142.8)

Fuel Capacity 77 gallons at (+95) (2 wing tanks)
 See NOTE 1 for data on system fuel.

Oil Capacity 8 quarts at (+24.5) 6 quarts usable
 See NOTE 1 for data on system oil.

Control Surface Movements

Wing flaps	($\pm 2^\circ$)	Up	0°	Down	40°
Ailerons	($\pm 2^\circ$)	Up	25°	Down	12.5°
Rudder	($\pm 1^\circ$)	Left	33°	Right	33°
Stabilator	($\pm 1^\circ$)	Up	14°	Down	10°
Stabilator Tab		Up	$2.5^\circ (\pm 1^\circ)$	Down	$10^\circ (\pm .5^\circ)$

Nose Wheel Travel ($\pm 2^\circ$) Left 30° Right 30°

Manufacturer's Serial Numbers 28R-7918001 through 28R-7918267. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28R-7918001 through 28R-7918267 under the delegation option provisions of FAR 21.

XX - B. Model PA-28RT-201 (Arrow IV), 4 PCLM (Normal Category), Approved November 13, 1978, for S/N 28R-8018001 through 28R-8218026.

Engine Lycoming IO-360-C1C6

Injector Bendix Type RSA-5AD1, Part List Number 2524450

Fuel 100/130 minimum grade aviation gasoline

<u>Engine Limits</u>	For 5-minute takeoff, 2700 r.p.m. (200 hp) For maximum continuous operation, 2650 r.p.m. (196 hp)					
<u>Propeller and Propeller Limits</u>	McCauley Constant Speed Hub Model 2D34C215, Blade Model 90 DJA-14E Pitch: High 27.5° ± .5°; Low 12.5° ± .2° at 30" station. Diameter: Not over 76", not under 75". Governor Assembly: Hartzell Model F-2-7 () Avoid continuous operation between 1400 and 1750 r.p.m. below 15" manifold pressure.					
<u>Propeller Spinner</u>	Piper P/N 35828-2. See NOTE 11.					
<u>Airspeed Limits</u>	Never exceed		190 KIAS			
	Maximum structural cruising		149 KIAS			
	Flaps Extended		108 KIAS			
	Maximum gear extension		130 KIAS			
	Maximum gear retraction		109 KIAS			
	Maximum gear extended		130 KIAS			
	Maneuvering at 2750 lb. gross weight		121 KIAS			
	Maneuvering at 1863 lb. gross weight		96 KIAS			
<u>Center of Gravity Range</u>	(+85.5) to (+93.0) at 2400 lb. or less (+90.0) to (+93.0) at 2750 lb. Straight line variation between points given. Moment due to retraction of gear (+819 in-lb.)					
<u>Empty Weight C. G. Range</u>	None					
<u>Maximum Weight</u>	2750 lb.					
<u>Number of Seats</u>	4 (2 at +80.5, 2 at +118.1)					
<u>Maximum Baggage</u>	200 lb. at (+142.8)					
<u>Fuel Capacity</u>	77 gallons at (+95) (2 wing tanks) See NOTE 1 for data on system fuel.					
<u>Oil Capacity</u>	8 quarts at (+24.5) (6 quarts usable) See NOTE 1 for data on system oil.					
<u>Control Surface Movements</u>	Wing flaps	(±2°)	Up	0°	Down	40°
	Ailerons	(±2°)	Up	25°	Down	12.5°
	Rudder	(±1°)	Left	33°	Right	33°
	Stabilator	(±1°)	Up	14°	Down	10°
	Stabilator Tab		Up	2.5° (±1°)	Down	10° (±.5°)
<u>Nose Wheel Travel</u>		(±2°)	Left	30°	Right	30°
<u>Manufacturer's Serial Numbers</u>	28R-8018001 through 28R-8218026. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28R-8018001 through 28R-8218026 under the delegation option provisions of FAR 21. See NOTE 20.					

XXI - Model PA-28RT-201T (Turbo Arrow IV), 4 PCLM (Normal Category), Approved November 13, 1978, for S/N 28R-7931001 through 28R-8631005, and 2831001 through 2831038.

<u>Engine</u>	Continental TSIO-360-FB
<u>Fuel</u>	100/130 minimum grade aviation gasoline

Engine Limits

For all operations, 2575 r.p.m., 41" Hg. manifold pressure (200 hp)

Propeller and Propeller Limits

1 Hartzell Hub Model BHC-C2YF-1()F, Blade Model F8459A-8R

Pitch: High 29° ± 1.0°, Low 14.4° ± .2° at 30" station.

Diameter: Not over 76", not under 75".

Governor: Hartzell E-5 or Woodward G210681

Avoid continuous operation between 2000 and 2200 r.p.m. with engine manifold pressure above 32" Hg.

Avoid continuous ground operation in cross and tail winds of over 10 knots between 1700 and 2100 r.p.m.

or

1 Hartzell Hub Model PHC-C3YF-1()F, Blade Model F7663-2R

Pitch: High 33° ± 1°, Low 13.2° ± .2°.

Diameter: Not over 76", not under 72".

Governor: Hartzell E-5, Woodward G210681 or G210776

Propeller Spinner

For the Hartzell Hub Model BHC-C2YF-1()F: Hartzell P/N C3568 Spinner Assembly

For the Hartzell Hub Model PHC-C3YF-1()F: Piper PS50077-80 Spinner Assembly (Hartzell C3570)

See NOTE 11.

Airspeed Limits

Never exceed193 KIAS

Maximum structural cruising152 KIAS

Maneuvering at 2900 lb.124 KIAS

Maneuvering at 1893 lb.97 KIAS

Flaps Extended108 KIAS

Maximum Gear Retraction111 KIAS

Maximum Gear Extension133 KIAS

Maximum Gear Extended133 KIAS

Center of Gravity Range

(+89.0) to (+93.0) at 2900 lb.

(+85.0) to (+93.0) at 2240 lb. or less

Straight line variation between points given.

Moment due to retraction of landing gear (+819 in-lb.)

Empty Weight C. G. Range

None

Maximum Weight

Ramp: 2912 lb.

Takeoff: 2900 lb.

No. of Seats

4 (2 at +80.5, 2 at +118.1)

Maximum Baggage

200 lb. at (+142.8)

Fuel Capacity

77 gallons at (+95)(2 wing tanks)

See NOTE 1 for data on system fuel.

Oil Capacity

8 quarts at (+13.5) (5 quarts usable)

See NOTE 1 for data on system oil.

Maximum Operation Altitude

20,000 feet

Control Surface Movements

Wing flaps

(±2°)

Up

0°

Down

40°

Ailerons

(±2°)

Up

25°

Down

12.5°

Rudder

(±1°)

Left

33°

Right

33°

Stabilator

(±1°)

Up

14°

Down

10°

Stabilator Tab

Up

2.5° (±1°)

Down

10° (±.5°)

Nose Wheel Travel

(±2°)

Left

30°

Right

30°

Manufacturer's Serial Numbers 28R-7931001 through 28R-8631005, and 2831001 through 2831013. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28R-7931001 through 28R-8631005, and 2831001 through 2831038 under the delegation option provisions of FAR 21. See NOTE 20.

XXII - Model PA-28-201T (Turbo Dakota), 4 PCLM (Normal Category), Approved December 14, 1978, for S/N 28-7921001 through 28-7921095.

<u>Engine</u>	Continental TSIO-360-FB						
<u>Fuel</u>	100/130 minimum grade aviation gasoline						
<u>Engine Limits</u>	For all operations, 2575 r.p.m., 41" Hg. manifold pressure (200 hp)						
<u>Propeller and Propeller Limits</u>	1 Hartzell Hub Model BHC-C2YF-1()F, Blade Model F8459A-8R Pitch: High 29° ± 1.0°, Low 14.4° ± .2° at 30" station. Diameter: Not over 76", not under 75". Governor: Hartzell E-5 or Woodward G210681 Avoid continuous operation between 2000 and 2200 r.p.m. with engine manifold pressure above 32" Hg. Avoid continuous ground operation in cross and tail winds of over 10 knots between 1700 and 2100 r.p.m.						
<u>Propeller Spinner</u>	Hartzell P/N C3568 Spinner Assembly. See NOTE 11.						
<u>Airspeed Limits</u>	Never exceed		169 KIAS				
	Maximum structural cruising		140 KIAS				
	Maneuvering at 2900 lb.		122 KIAS				
	Maneuvering at 1841 lb.		96 KIAS				
	Flaps Extended		102 KIAS				
<u>Center of Gravity Range</u>	(+86.0) to (+90.0) at 2900 lb. (+78.0) to (+90.0) at 2240 lb. or less Straight line variation between points given.						
<u>Empty Weight C. G. Range</u>	None						
<u>Maximum Weight</u>	2900 lb.						
<u>No. of Seats</u>	4 (2 at +80.5, 2 at +118.1)						
<u>Maximum Baggage</u>	200 lb. at (+142.8)						
<u>Fuel Capacity</u>	77 gallons at (+95)(2 wing tanks) See NOTE 1 for data on system fuel.						
<u>Oil Capacity</u>	8 quarts at (+13.5) (5 quarts usable) See NOTE 1 for data on system oil.						
<u>Maximum Operation Altitude</u>	20,000 feet						
<u>Control Surface Movements</u>	Wing flaps	(±2°)	Up	0°	Down	40°	
	Ailerons	(±2°)	Up	25°	Down	12.5°	
	Rudder	(±2°)	Left	27°	Right	27°	
	Stabilator	(±1°)	Up	16°	Down	2°	
	Stabilator Tab	(±1°)	Up	3°	Down	12°	
<u>Nose Wheel Travel</u>		(±1°)	Left	30°	Right	30°	

Manufacturer's Serial Numbers 28-7921001 through 28-7921095. The manufacturer is authorized to issue airworthiness certificates for airplane serial numbers 28-7921001 through 28-7921095 under the delegation option provisions of FAR 21. See NOTE 20.

DATA PERTINENT TO ALL MODELS

Datum 78.4" forward of wing leading edge (straight wing only).
78.4" forward of inboard intersection of straight and tapered sections (semi-tapered wings).

Leveling Means Two screws left side fuselage below window.

Certification Basis Type Certificate No. 2A13 issued October 31, 1960.
Date of Application for Type Certificate, February 14, 1958.

Delegation Option Authorization granted per FAR 21, Subpart J, July 17, 1968.

PA-28-140 and PA-28-151: CAR 3 effective May 15, 1956, including Amendments 3-1, 3-2, and 3-4; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.955 and 23.959 as amended by Amendment 23-7 effective September 14, 1969; and FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977.

PA-28-150, PA-28-160, PA-28-180, PA-28-235, PA-28S-160, PA-28S-180, PA-28R-180, and PA-28R-200: CAR 3 effective May 15, 1956, including Amendments 3-1 and 3-2; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.955 and 23.959 as amended by Amendment 23-7 effective September 14, 1969; and FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977.

PA-28-161: CAR 3 effective May 15, 1956, including Amendments 3-1 and 3-2; paragraph 3.387(d) of Amendment 3-4; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.955 and 23.959 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; and FAR 36 effective December 1, 1969, through Amendment 36-4.

PA-28-181: CAR 3 effective May 15, 1956, including Amendments 3-2 and 3-4; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.207, 23.221, 23.955 and 23.959 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; and FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977. FAR 36, Appendix G, Amendment 36-16 for the PA-28-181 (Archer III), S/N 2890206 through 2890231, and 2843001 and up.

PA-28R-201: CAR 3 effective May 15, 1956, including Amendments 3-1 and 3-2; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.965 of FAR 23 effective February 1, 1965; FAR 23.221, 23.955, 23.959, and 23.1091 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.967(e)(2) as amended by Amendment 23-14 effective December 20, 1973; FAR 23.1093 as amended by Amendment 23-15 effective October 31, 1974; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; and FAR 36 effective December 1, 1969, through Amendment 36-4 (no acoustical change).

PA-28R-201T: CAR 3 effective May 15, 1956, through Amendment 3-2 including paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.965 of FAR 23 effective February 1, 1965; FAR 23.221, 23.901, 23.909, 23.955, 23.959, 23.1041, 23.1043, 23.1047, 23.1143, and 23.1527 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.1441 as amended by Amendment 23-9 effective June 17, 1970; FAR 23.967(e)(2) as amended by Amendment 23-14 effective December 20, 1973; FAR 23.1305 as amended by Amendment 23-15 effective October 31, 1974; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; and FAR 36 effective December 1, 1969, through Amendment 36-4.

PA-28-236: CAR 3 effective May 15, 1956, through Amendment 3-2; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.221, 23.955, 23.959 and 23.1091 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.1093 as amended by Amendment 23-17 effective February 1, 1977; FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; FAR 23.1581(b)(2) as amended by Amendment 23-21 effective March 1, 1978; and applicable portions of FAR 36, as amended by Amendment 36-9 effective April 3, 1978.

PA-28RT-201: CAR 3, effective May 15, 1956, through Amendment 3-2; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.965 of FAR 23 effective February 1, 1965; FAR 23.207, 23.221, 23.955, 23.959, and 23.1091 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.201, 23.203, 23.427(c), and 23.967(e)(2) as amended by Amendment 23-14 effective December 20, 1973; FAR 23.1093 as amended by Amendment 23-15 effective October 31, 1974; FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; FAR 23.1581(b)(2) as amended by Amendment 23-21 effective March 1, 1978; and applicable portions of FAR 36 as amended by Amendment 36-10 effective July 31, 1978.

PA-28RT-201T: CAR 3 effective May 15, 1956, through Amendment 3-2; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.207, 23.221, 23.901, 23.909, 23.955, 23.959, 23.1041, 23.1043, 23.1047, 23.1091, 23.1143, and 23.1527 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.201, 23.203, 23.427(c), and 23.967(e)(2) as amended by Amendment 23-14 effective December 20, 1973; FAR 23.1093 and 23.1305 as amended by Amendment 23-15 effective October 31, 1974; FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; FAR 23.1581(b)(2) as amended by Amendment 23-21 effective March 1, 1978; and applicable portions of FAR 36 as amended by Amendment 36-10 effective July 31, 1978. Compliance with FAR 23.1441 as amended by Amendment 23-9 effective June 17, 1970, will be established with optional oxygen equipment.

PA-28-201T: CAR 3 effective May 15, 1956, through Amendment 3-2; paragraphs 3.304 and 3.705 of Amendment 3-7 effective May 3, 1962; FAR 23.965 of FAR 23 effective February 1, 1965; FAR 23.207, 23.221, 23.901, 23.909, 23.955, 23.959, 23.1041, 23.1043, 23.1047, 23.1091, and 23.1527 as amended by Amendment 23-7 effective September 14, 1969; FAR 23.201 and 23.203 as amended by Amendment 23-14 effective December 20, 1973; FAR 23.1305 as amended by Amendment 23-15 effective October 31, 1974; FAR 23.1093 and 23.1143 as amended by Amendment 23-17 effective February 1, 1977; FAR 23.1557(c)(1) as amended by Amendment 23-18 effective May 2, 1977; FAR 23.1327 and 23.1547 as amended by Amendment 23-20 effective September 1, 1977; FAR 23.1581(b)(2) as amended by Amendment 23-21 effective March 1, 1978; and applicable portions of FAR 36 as amended by Amendment 36-10 effective July 31, 1978. Compliance with FAR 23.1441 as amended by Amendment 23-9 effective June 17, 1970, will be established with optional oxygen equipment.

Equivalent Safety Finding: CAR 3.757 for Models PA-28-161, PA-28R-201, PA-28R-201T, PA-28-236, PA-28RT-201, PA-28RT-201T, and PA-28-201T only.

Production Basis

Production Certificate No. 206 issued and the manufacturer authorized to issue airworthiness certificates under the delegation option provisions of FAR 21.

Equipment

The basic required equipment as prescribed in the applicable airworthiness regulation (see Certification Basis) must be installed in the aircraft for certification. In addition, the following documents are required:

PA-28-140	AFM	VB-160	2/14/64	28-20001 through 28-26946, and 28-7125001 through 28-7125641
	AFM	VB-339	7/21/71	28-7225001 through 28-7325674
	AFM	VB-557	5/14/73	28-7425001 through 28-7625275
	POH	VB-770	6/16/76	28-7725001 through 28-7725290
PA-28-150	AFM	VB-166	6/2/61	28-1 through 28-4377
PA-28-151	AFM	VB-573	7/25/73	28-7415001 through 28-7615435
	POH	VB-780	6/18/80	28-7715001 through 28-7715314
PA-28-160	AFM	VB-168	10/25/60	28-1 through 28-4377, and 28-1760A
PA-28S-160	AFM	VB-177	2/25/63	28-1 through 28-1760, and 28-1760A
PA-28-161	POH	VB-880	12/16/76	28-7716001 through 28-8216300
	POH	VB-1180	7/1/82	28-8316001 through 28-8616057, and 2816001 through 2816119
	POH	VB-1610	7/12/95	2842001 and up
	POH Supp.	VB-1546	6/30/92	28-8316001 through 28-8616057, and 2816001 through 2816119 (See NOTE 28)
	POH	VB-1360	9/9/88	2841001 through 2841365
	POH Supp.	VB-1545	5/29/92	2841001 through 2841365 (See NOTE 28)
	POH	VB-1565	7/1/94	2816110 through 2816119
PA-28-180	AFM	VB-163	8/3/62	28-671 through 28-5600
	AFM	VB-210	4/22/69	28-5601 through 28-5859, and 28-7105001 through 28-7205091
	AFM	VB-355	9/1/71	28-7205092 through 28-7205318
	AFM	VB-437	5/22/72	28-7305001 through 28-7305601 and 28-E13
	AFM	VB-558	5/14/73	28-7405001 through 28-7505260
PA-28S-180	AFM	VB-179	5/10/63	28-671 through 28-5859, and 28-7105001 through 28-7105234
PA-28-181	POH	VB-760	8/15/75	28-7690001 through 28-7690467
	POH	VB-790	6/18/76	28-7790001 through 28-7990589
	POH	VB-1120	7/2/79	28-8090001 through 28-8690056, 28-8690061, 28-8690062, and 2890001 through 2890231
	POH	VB-1611	7/12/95	2843001 and up
	POH	VB-1563	8/19/94	2890206 through 2890231
PA-28R-180	AFM	VB-173	6/8/67	28R-30001 through 28R-31270, and 28R-7130001 through 28R-7130013
PA-28R-200	AFM	VB-175	1/9/69	28R-35001 through 28R-35820, and 28R-7135001 through 28R-7135229
	AFM	VB-343	10/14/71	28R-7235001 through 28R-7335446
	AFM	VB-560	5/14/73	28R-7435001 through 28R-7635545
PA-28R-201	POH	VB-870	12/21/76	28R-7737001 through 28R-7837317
	POH	VB-1365	9/15/88	2837001 through 2837061
	POH	VB-1612	7/12/95	2844001 and up
(Continued)				
<u>MODEL</u>	<u>AFM/POH</u>	<u>REPORT NO.</u>	<u>APPROVED</u>	<u>SERIAL EFFECTIVITY</u>
PA-28R-201T	POH	VB-800	12/20/76	28R-7703001 through 28R-7803374
	POH	VB-1370	11/9/89	2803001 through 2803012

PA-28-235	AFM	VB-170	7/15/63	28-10001 through 28-11378, and 28-7110001 through 28-7210023
	AFM Supp.	VB-357	8/25/71	28-10001 through 28-11378, and 28-7110001 through 28-7110023
	AFM	VB-442	6/9/72	28-7310001 through 28-7310176 and 28-E11
	AFM	VB-559	5/14/73	28-7410001 through 28-7610202
	POH	VB-810	1/21/77	28-7710001 through 28-7710089
PA-28-236	AFM	FT-124, App E.	6/1/78	28-7911001 through 28-8611008, and 2811001 through 2811050
	POH	VB-910	6/1/78	28-7911001 through 28-8611008, and 2811001 through 2811050
	POH	VB-1613	7/12/95	2845001 and up
PA-28RT-201	AFM	FT-121, App C.	11/7/78	28R-7918001 through 28R-8218026
	POH	VB-930	11/30/78	28R-7918001 through 28R-7918267
	POH	VB-1130	9/14/79	28R-8018001 through 28R-8218026
PA-28RT-201T	AFM	FT-130, App E.	11/7/78	28R-7931001 through 28R-8631005, and 2831001 through 2831013
	POH	VB-940	11/30/78	28R-7931001 through 28R-8631005, and 2831001 through 2831013
PA-28-201T	AFM	FT-126, App E.	12/14/78	28-7921001 through 28-7921095
		VB-920	1/25/79	28-7921001 through 28-7921095

NOTE 1: Current weight and balance report, including list of equipment included in certification empty weight and loading instructions, when necessary, must be provided for each aircraft at the same time of original certification.

The certificated empty weight and corresponding center of gravity location must include undrainable system oil (not included in the oil capacity) and unusable fuel as noted below.

Unusable Fuel and Oil Quantity

Fuel 12.0 lb. at (+103.0)

Fuel 12.0 lb. at (+103.0)

Fuel 12.0 lb. at (+103.0)

Fuel 2.2 lb. at (+103.0)

Fuel 2.2 lb. at (+103.0)

Oil 1.8 lb. at (+27.5)

Oil 1.8 lb. at (+27.5)

Unusable Fuel and Oil Quantity

Oil 1.8 lb. at (+40.5)

Oil 1.8 lb. at (+35.5)

Oil 1.8 lb. at (+36.5)

Applicable Models and Serial Numbers

PA-28R-180, PA-28R-200: all Serial Nos.

PA-28-180: S/N 28-E13, and 28-7305001 through 28-7505260

PA-28-235: S/N 28-E11, and S/N 28-7310001 through 28-7710089

PA-28-151: S/N 28-7415001 through 28-7715314

PA-28-140, PA-28-150, PA-28-160: all Serial Nos.

PA-28-180: S/N 28-03, S/N 28-671 through 28-5859, and 28-7105001 through 28-7205318

PA-28-140, PA-28-150, PA-28-160, PA-28-180: S/N 28-03, 28-1 through 28-1760, and 28-1760A

PA-28-151: S/N 28-7415001 through 28-7715314

Applicable Models and Serial Numbers

PA-28-150, PA-28-160: S/N 28-1761 through 28-4377

PA-28-180: S/N 28-1761 through 28-5859, and 28-7105001 through 28-7205318

PA-28-180: S/N 28-E13, 28-7305001 through 28-7505260

PA-28R-180: all Serial Nos.

Oil 3.9 lb. at (+35.6)	PA-28R-200: S/N 28R-35001 through 28R-35820, and 28R-7135001 through 28R-7135229
Fuel 2.3 lb. at (+103.0)	PA-28-235: S/N 28-10001 through 28-11378, and 28-7110001 through 28-7210023
Oil 2.4 lb. at (+41.0)	
Oil 2.4 lb. at (+36.0)	PA-28-235: S/N 28-E11, and 28-7310001 through 28-7710089
Oil 3.9 lb. at (+30.6)	PA-28R-200: S/N 28R-7235001 through 28R-7635545
Oil 1.8 lb. at (+35.5)	PA-28-181: S/N 28-7690001 through 28-8690056,
Fuel 12.0 lb. at (+103.0)	28-8690061, 28-8690062, and 2890001 through 2890231
Fuel 30.0 lb. at (+103.0)	PA-28R-201: S/N 28R-7737001 through 28R-7837317, 2837001 through 2837061, and 2844001 and up
Oil 3.9 lb. at (+30.6)	
Fuel 30.0 lb. at (+103.0)	PA-28R-201T: S/N 28R-7703001 through 28R-7803369, 2831001 through 2831013
Oil 6.0 lb. at (+19.1)	PA-28-161 Cadet: S/N 2841001 through 2841365
Fuel 12.0 lb. at (+103.0)	PA-28-161: S/N 28-7716001 through 28-8616057, and
Oil 1.8 lb. at (+27.5)	2816001 through 2816119
Fuel 30.0 lb. at (+103.0)	PA-28-236: S/N 28-7911001 through 28-8611008,
Oil 5.2 lb. at (+36.0)	2811001 through 2811050, and 2845001 and up
Fuel 30.0 lb. at (+103.0)	PA-28RT-201: S/N 28R-7918001 through 28R-8218026
Oil 3.9 lb. at (+30.6)	
Fuel 30.0 lb. at (+103.0)	PA-28RT-201T: S/N 28R-7931001 through 28R-8631005,
Oil 6.0 lb. at (+19.1)	2831001 through 2831013
Fuel 30.0 lb. at (+103.0)	PA-28-201T: S/N 28-7921001 through 28-7921095
Oil 6.0 lb. at (+19.1)	

NOTE 2 The following placards must be displayed in clear view of the pilot:

In Normal Category Aircraft

"THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUAL."

In aircraft certificated in both Normal and Utility Categories

"THIS AIRPLANE MAY BE OPERATED AS A NORMAL OR UTILITY CATEGORY AIRPLANE IN COMPLIANCE WITH OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUAL."

Reference AFM for additional required placards.

- NOTE 3** The Models PA-28-160 and PA-28-180, S/N 28-508 to 28-1760, and 28-1760A may be converted to the seaplane configuration, PA-28S-160 and PA-28S-180, in accordance with Piper Drawing No. 62008.
- The Model PA-28-180, S/N 28-1761 through 28-5859, and 28-7105001 through 28-7205318, may be converted to the seaplane configuration, PA-28S-180, in accordance with Piper Drawing No. 65680.
- NOTE 4** Takeoff r.p.m. for Models PA-28-180 and PA-28S-180, S/N 28-671 through 28-1760, and 28-1760A, restricted due to fuel flow capability of the emergency pump.
- NOTE 5** The Models PA-28-150, PA-28-160, PA-28-180; S/N 28-03, 28-1 through 28-5859, and 28-7105001 through 28-7205318 and PA-28-235; S/N 28-10001 through 28-11378, and 28-7110001 through 28-7210023, may be operated with the door removed in accordance with the FAA approved Airplane Flight Manual Supplement dated September 3, 1963.
- The Model PA-28-140 may be operated with the door removed in accordance with the FAA approved Airplane Flight Manual Supplement dated August 12, 1965.
- NOTE 6** The Model PA-28-140, 2 PCLM (Normal Category Only), S/N 28-20001 through 28-20939 may be converted:
- (a) To a maximum weight of 2150 lb. by the installation of Piper Kit 756 962 and Sensenich propeller M74DM58.
 - (b) To the four place, 4 PCLM (See Item VIII), configuration in accordance with Piper Drawing 65599.
- NOTE 7** The Model PA-28-140, 2 PCLM, S/N 28-20940 through 28-26946, and 28-7125001 through 28-7725290, may be converted to the four place, 4 PCLM (See Item VIII), configuration by the installation of Piper Kit 756 941 and appropriate seats.
- NOTE 8** The maximum cargo allowable of 125 lb. for S/N 28-1 through 28-1760, and 28-1760A may be increased to 200 lb. in accordance with Piper Service Spares Letter No. 242.
- NOTE 9** The Model PA-28-180 (Normal Category), S/N 28-671 through 28-3832, may be operated in Utility Category in accordance with Service Spares Letter No. 258.
- NOTE 10** All PA-28 models with Lycoming O-360-A3A engine and Sensenich propeller Model M76EMM-0, M76EMMS-0, 76EM8S5-0, or 76EM8-0 must avoid continuous operation between 2150 and 2350 r.p.m. Placards must be installed in accordance with Piper Service Letter No. 526, and Airplane Flight Manual Supplement No. 1, dated April 22, 1969.
- NOTE 11** The Models PA-28-140, PA-28-150, PA-28-151, PA-28-160, PA-28-180; S/N 28-03, 28-1 through 28-5859, and 28-7105001 through 28-7205318; PA-28R-180 and PA-28R-200 may be operated with the spinner dome removed, or with the spinner dome and rear bulkhead removed. The PA-28-151, S/N 28-7415001 through 28-7715314, may be operated with the spinner dome removed, or with the spinner dome and front and rear bulkheads removed. The PA-28-180, S/N 28-7305001 through 28-7505260, and the PA-28-181; S/N 28-7690001 through 28-8690062, and 2890001 through 2890205, may be operated with the spinner dome removed. The PA-28R-201; S/N 28R-7737002 through 28R-7837317, 2837001 through 2837061, and 2844001 and up, may be operated with the spinner dome removed. The PA-28R-201T; S/N 28R-7703001 through 28R-7803374, and 2803001 through 2803012, may be operated with the spinner dome removed. The PA-28-161, S/N 28-7716001 through 28-8216300 may be operated with the spinner dome and front and rear bulkheads removed. The PA-28-161; S/N 28-8316001 through 28-8616057, 2816001 through 2816119, and PA-28-161 (Cadet), S/N 2841001 through 2841365, may be operated with the spinner dome removed, or with the spinner dome and front and rear bulkheads removed. The PA-28-236; S/N 28-7911001 through 28-8611008, 2811001 through 2811050, and 2845001 and up, may be operated with the spinner dome removed. The PA-28RT-201, S/N 28R-7918001 through 28R-8218026, may be operated with the spinner dome removed. The PA-28RT-201T; S/N 28R-7931001 through 28R-8631005, and 2831001 through 2831013, may be operated with the spinner dome removed. The PA-28-201T, S/N 28-7921001 through 28-7921095, may be operated with the spinner dome removed.

- NOTE 12 Maximum baggage may be increased to 200 lb. at (+117) by the installation of Piper Kit 756 962 and Sensenich propeller M74DM-58 or 74DM6-0-58. Maximum baggage may be increased to 300 lb. (200 lb. at +117 and 100 lb. at +133) by the installation of Piper Kit 756 962, Sensenich propeller M74DM-58 or 74DM6-0-58 and when modified in accordance with Piper Drawing 66671.
- NOTE 13 Maximum baggage may be increased to 300 lb. (200 lb. at +117 and 100 lb. at +133) when modified in accordance with Piper Drawing 66671.
- NOTE 14 The Model PA-28-235; S/N 28-10001 through 28-11378, and 28-7110001 through 28-7210023, may be operated with the spinner dome removed, or with the spinner dome and rear bulkhead removed on the constant speed propeller installation only.
- NOTE 15 The Model PA-28-180, S/N 28-671 through 28-5859, may be operated to the expanded C.G. envelope:
- (a) For S/N 28-671 through 28-3072 by the installation of P/N 65280-00 tube - Landing Gear Strut Piston in accordance with Piper Service Letter 567 and in accordance with FAA approved Airplane Flight Manual Supplement No. 2, dated September 14, 1970, for Model PA-28-180 (Piper Report VB-261).
 - (b) For S/N 28-3073 through 28-5859 in accordance with FAA approved Airplane Flight Manual Supplement No. 2, dated September 14, 1970, for Model PA-28-180 (Piper Report VB-261).
- NOTE 16 The Model PA-28-235, S/N 28-10001 through 28-11378, may be operated to the expanded C.G. envelope in accordance with FAA approved Airplane Flight Manual Supplement No. 1, dated September 14, 1970, for Model PA-28-235 (Piper Report VB-274).
- NOTE 17 The following serial numbered aircraft are not eligible for import certification to the U.S.: 28-5035, 28-5047, 28-5178, 28-5262, 28-5397, 28-5435, 28-11077, 28-11101, 28-11140, 28-11180, 28-11200, 28-11212, 28-11227, 28-11254, 28-11255, 28-24660, 28-24701, 28R-30861, 28R-30952, 28R-30972, 28R-31043, and 28R-31091. These aircraft have identification plates stamped "Ensenblado en Colombia."
- NOTE 18 Two propeller flange bushings must be replaced with Lycoming #72068S bushings at propeller blade positions corresponding to noncounterbored bolt holes in order to use the McCauley propeller.
- NOTE 19 Two propeller flange bushings must be replaced with Lycoming #72060S index bushing and Lycoming #721061S bushing, at flange index mark and opposite, in order to use the McCauley propellers. A spacer, Piper P/N 79528-0, is also required between propeller and engine flange.
- NOTE 20 The following model and serial number aircraft are not eligible for import certification to the U.S.:
PA-28-140:
28-24660, 28-24701, 28-7225490, 28-7225491, 28-7225492, 28-7225493, 28-7225494, 28-7225495, 28-7225496, 28-7225497, 28-7225498, 28-7225499, 28-7325238, 28-7325371, 28-7325372, 28-7325373, 28-7325374, 28-7325375, 28-7325376, 28-7325377, 28-7325378, 28-7325379, 28-7325508, 28-7325516, 28-7325525, 28-7325526, 28-7325555, 28-7325556, 28-7325557, 28-7325558, 28-7325580, 28-7325581, 28-7325599, 28-7325600, 28-7425217, 28-7425222, 28-7425224, 28-7425271, 28-7425272, 28-7425273, 28-7425274, 28-7425275, 28-7425276, 28-7425277, 28-7425278, 28-7425279, 28-7425304, 28-7425305, 28-7425306, 28-7425307, 28-7425344, 28-7425383, 28-7425384, 28-7525142, 28-7525144, 28-7525177, 28-7525180, 28-7525181, 28-7525182, 28-7525197, 28-7525201, 28-7525215, 28-7525216, 28-7525217, 28-7525218, 28-7525230, 28-7525238, 28-7525243, 28-7525244, 28-7525246, 28-7525247, 28-7625060, 28-7625061, 28-7625130, 28-7625144, 28-7625272, 28-7625273, 28-7625274, 28-7625275, 28-7725053, and 28-7725188.
PA-28-161:
28-7816330, 28-7916235, 28-8016266, 28-8116157, 28-8116158, 28-8316031, 28-8316032, 28-8616006, 28-8616007, 2816006, 2816020, 2816021, and 2816022.
PA-28-180:
28-5047, 28-5178, 28-5262, 28-5397, 28-5435, 28-7305315, 28-7305316, 28-7305499, 28-7405136, 28-7405137, 28-7405138, 28-7405139, 28-7405158, 28-7405160, 28-7405161, 28-7405167, 28-7405184, 28-7405185, 28-7405186, 28-7405187, 28-7405223, 28-7505138, 28-7505148, 28-7505159, 28-7505168, 28-7505169, 28-7505179, 28-7505189, and 28-7505260.

NOTE 20
(cont.)

PA-28-181:

28-7690362, 28-7790343, 28-7790344, 28-7790388, 28-7790533, 28-7790571, 28-7790605, 28-7890060, 28-7890185, 28-7890290, 28-7890351, 28-7890352, 28-7890406, 28-7890407, 28-7890463, 28-7890464, 28-7890465, 28-7890466, 28-7890480, 28-7890481, 28-7890507, 28-7890508, 28-7890509, 28-7890510, 28-7890534, 28-7890550, 28-7890551, 28-7990158, 28-7990251, 28-8090203, 28-8090243, 28-8090274, 28-8090349, 28-8190032, 28-8190098, 28-8190099, 28-8190174, 28-8190175, 28-8190200, 28-8190201, 28-8190261, 28-8190262, 28-8190317, 28-8190318, 28-8290020, 28-8290021, 28-8290022, 28-8290122, 28-8290123, 28-8290124, 28-8290125, 28-8290146, 28-8290147, 28-8290148, 28-8290149, 28-8390031, 28-8390032, 28-8390057, 28-8390058, 28-8390059, 28-8390060, 28-8690061, 28-8690062, 2890035, and 2890036.

PA-28-201T:

28-7921085

PA-28-235:

28-11077, 28-11101, 28-11140, 28-11180, 28-11200, 28-11212, 28-11227, 28-11254, 28-11255, 28-11370, 28-11371, 28-11372, 28-11373, 28-7310074, 28-7310152, 28-7310153, 28-7310172, 28-7410074, 28-7410078, 28-7410089, 28-7410090, 28-7510072, 28-7510073, 28-7610087, 28-7610168, 28-7710033, 28-7710068, and 28-7710089.

PA-28-236:

28-7911027, 28-7911028, 28-7911029, 28-7911030, 28-7911136, 28-7911219, 28-7911220, 28-7911221, 28-7911252, 28-8011020, 28-8011021, 28-8011062, 28-8011092, 28-8011093, 28-8011094, 28-8011107, 28-8111030, 28-8111038, 28-8111058, 28-8111068, 28-8111069, 28-8111070, 28-8111095, 28-8411021, 28-8411022, 28-8411023, 28-8411024, 28-8411026, 28-8411027, 28-8411028, and 28-8411029.

PA-28R-180:

28R-31091

PA-28R-200:

28R-7335201, 28R-7335202, 28R-7335326, 28R-7335328, 28R-7335377, 28R-7335387, 28R-7335395, 28R-7335397, 28-7435214, 28-7435229, 28-7435252, 28-7435253, 28R-7535146, 28R-7535149, 28R-7535167, 28R-7535168, 28R-7535214, 28R-7535217, and 28R-7635377.

PA-28R-201:

28R-7737119, 28R-7837076, 28R-7837148, 28R-7837149, 28R-7837188, 28R-7837189, 28R-7837225, 28R-7837226, 28R-7837248, 28R-7837249, 28R-7837273, 28R-7837274, 28R-7837294, 28R-7837316, and 28R-7837317.

PA-28R-201T:

28R-7703069, 28R-7703132, 28R-7703184, 28R-7703185, 28R-7703285, 28R-7703382, 28R-7803064, 28R-7803156, 28R-7803207, 28R-7803208, 28R-7803251, 28R-7803291, 28R-7803292, 28R-7803293, 28R-7803294, 28R-7803295, 28R-7803299, 28R-7803300, 28R-7803317, 28R-7803318, 28R-7803319, 28R-7803320, 28R-7803344, 28R-7803360, 28R-7803361, 28R-7803370, 28R-7803371, 28R-7803372, and 28R-7803373.

PA-28RT-201:

28R-8118029, 28R-8118054, 28R-8118078, 28R-8218015, and 28R-8218016.

PA-28RT-201T:

28R-7931122, 28R-7931205, 28R-7931206, 28R-7931262, 28R-7931296, 28R-7931297, 28R-8031062, 28R-8131029, 28R-8131083, and 28R-8131183.

In addition, aircraft having the following serial number are not eligible for import certification to the U.S.:

AR28-7325238, AR28-7325371, AR28-7325372, AR28-7325373, AR28-7325374, AR28-7325375, AR28-7325376, AR28-7325377, AR28-7325378, AR28-7325379, AR28-7305315, AR28-7305316, AR28-7335201, AR28-7335202, AR28-7325508, AR28-7325516, AR28-7325525, AR28-7325526, AR28-7310152, AR28-7310153, AR28-7325555, AR28-7325556, AR28-7325557, AR28-7325558, AR28-7305480, AR28-7305499, AR28-7335326, AR28-7335328, AR28-7325580, AR28-7325581, AR28-7325599, AR28-7325600, AR28-7335395, and AR28-7335397.

NOTE 21

Engines with serial numbers ending with "A" require the F-4-13 propeller governor assembly. Other engines require the F-4-3() propeller governor assembly.

NOTE 22

Hartzell Propeller HC-C2YK-1()/7666A-2 or HC-C2YK-1()/F7666A-2 approved with IO-360-C1C engine only (S/N 28R-7235001 through S/N 28R-7635516).

- NOTE 23 McCauley Propeller B2D34C213/90DHA-16 approved with IO-360-C1C6 engine only (S/N 28R-7635517 through 28R-7635545).
- NOTE 24 On Models PA-28-161; S/N 28-7816001 through 28-8616057, and S/N 2816001 through 2816109, and PA-28-181; S/N 28-7890001 through 28-8690056, 28-8690061, 28-8690062, 2890001 through 2890231, and 2843001 and up, the wheel fairings but not the landing gear strut fairings may be removed. If the wheel fairings are removed, the rudder centering springs must also be removed. This NOTE does not apply to the PA-28-161 (Cadet); S/N 2841001 through 2841365, or the PA-28-161 (Warrior III); S/N 2816110 through 2816119, and 2842001 and up, which are not equipped with wheel fairings.
- NOTE 25 On Models PA-28-201T; S/N 28-7921001 through 28-7921095, and PA-28-236; S/N 28-7911001 through 28-8611008, 2811001 through 2811050, and 2845001 and up, the wheel fairings alone or the wheel fairings but not the landing gear strut fairings may be removed.
- NOTE 26 With installation of Piper Kit 88050, PA-28-161 2325 lb. Maximum Gross Weight Modification, the following weights apply:
- Normal Category: Ramp - 2332 lb.
Takeoff - 2325 lb.
- Utility Category: Ramp - 2027 lb.
Takeoff - 2020 lb.
- (See POH VB-1180 Supplement dated October 5, 1985.)
- NOTE 27 With installation of Piper Kit 88168, PA-28-161 Cadet 2202 lb. Maximum Gross Weight Modification, the following weights apply:
- Normal Category: Ramp - 2209 lb.
Takeoff - 2202 lb.
- Utility Category: Ramp - 2027 lb.
Takeoff - 2020 lb.
- (See POH VB-1410 dated March 14, 1990.)
- NOTE 28 POH Supplement VB-1546 is applicable to POH VB-1180. POH Supplement VB-1545 is applicable to POH VB-1360. Supplements VB-1545 and VB-1546 restrict maximum r.p.m. limitation to 2600 r.p.m. for foreign countries requiring reduced noise level operation (Piper Kit No. 766 277 for PA-28-161 (Cadet) and Piper Kit No. 766 278 for PA-28-161 (Warrior II)).

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I - Model 150, Model 150A, Model 150B, Model 150C (cont'd)

*Maximum weight	1500 lb.		
No. of seats	2 at (+39); (for child's optional jump seat refer to Equipment List)		
Maximum baggage	80 lb. at (+65)		
Fuel capacity	26 gal. (22.5 gal. usable, two 13 gal. tanks in wings at +42) See NOTE 1 for data on system fuel		
Oil capacity	6 qt. (-13.5; unusable 2 qt.) See NOTE 1 for data on system oil		
Control Surface Movements	Wing flaps	Retracted	0°
		1st notch	10°
		2nd notch	20°
		3rd notch	30°
		4th notch	40°
	Ailerons	Up 20°	Down 15°
	Elevator	Up 25°	Down 15°
	Elevator tab	Up 10°	Down 20°
	Rudder	Right 16°	Left 16°
Serial Nos. eligible	Model 150:	617, 17001 through 17999, 59001 through 59018	
	Model 150A:	628, 15059019 through 15059350	
	Model 150B:	15059351 through 15059700	
	Model 150C:	15059701 through 15060087	

II - Model 150D, 2 PCLM (Utility Category), Approved July 19, 1963**Model 150E, 2 PCLM (Utility Category), Approved June 18, 1964****Model 150F, 2 PCLM (Utility Category), Approved May 27, 1965**

Engine	Continental O-200-A		
*Fuel	80/87 min. grade aviation gasoline		
*Engine limits	For all operations, 2750 r.p.m. (100 hp.)		
Propeller and propeller limits	1.	Sensenich 69CK-0-52 Diameter: not over 69 in., not under 67.5 in. Static r.p.m. at maximum permissible throttle setting: not over 2470, not under 2320 No additional tolerance permitted	24 lb. (-32)
	2.	McCauley 1A100/MCM 6950 Diameter: not over 69 in., not under 67.5 in. Static r.p.m. at maximum permissible throttle setting: not over 2475, not under 2375 No additional tolerance permitted	21 lb. (-32)
*Airspeed limits (CAS)	Never exceed	162 m.p.h. (141 knots)	
	Maximum structural cruising	120 m.p.h. (104 knots)	
	Maneuvering	109 m.p.h. (95 knots)	
	Flaps extended	100 m.p.h. (87 knots)	
C.G. range	(+32.9) to (+37.5) at 1600 lb.		
	(+31.5) to (+37.5) at 1280 lb. or less		
	Straight line variation between points given		
Empty weight C.G. range	None		
Leveling means	Top of tailcone		

II - Model 150D, Model 150E, Model 150F (cont'd)

*Maximum weight	1600 lb.		
No. of seats	2 at (+39); (for child's optional jump seat refer to Equipment List)		
Maximum baggage	120 lb. at (+65) (150D, 150E) 120 lb. - Reference weight and balance data (150F)		
Fuel capacity	26 gal. (22.5 gal. usable, two 13 gal. tanks in wings at +42) See NOTE 1 for data on system fuel		
Oil capacity	6 qt. (-13.5; unusable 2 qt.) See NOTE 1 for data on system oil		
Control Surface Movements	Wing flaps (150D, 150E)	Retracted 1st Notch 2nd Notch 3rd Notch 4th Notch	0° 10° 20° 30° 40°
	Wing flaps (150°F)		Down 0° -40° ±2°
	Ailerons	Up 20°	Down 15°
	Elevator	Up 25°	Down 15°
	Elevator tab	Up 10°	Down 20°
	Rudder (150D, 150E) (150F)	Right 16° Right 23°	Left 16° Left 23°
		(measured parallel to chord)	
Serial Nos. eligible	Model 150D: 15060088 through 15060772 Model 150E: 644, 15060773 through 15061532 Model 150F: 15061533 through 15064532		

III - Model 150G, 2 PCLM (Utility Category), Approved May 5, 1966**2 PCSM (Utility Category), Approved August 12, 1966****Model 150H, 2 PCL-SM (Utility Category), Approved August 10, 1967****Model 150J, 2 PCL-SM (Utility Category), Approved May 2, 1968****Model 150K, 2 PCL-SM (Utility Category), Approved June 5, 1969**

Engine	Continental O-200-A		
*Fuel	80/87 min. grade aviation gasoline		
*Engine limits	For all operations, 2750 r.p.m. (100 hp.)		
Propeller and propeller limits	1. Sensenich 69CK-0-52 Diameter: not over 69 in., not under 67.5 in. Static r.p.m. at maximum permissible throttle setting: not over 2470, not under 2320 No additional tolerance permitted	24 lb. (-32)	
	2. McCauley 1A100/MCM 6950 Diameter: not over 69 in., not under 67.5 in. Static r.p.m. at maximum permissible throttle setting: not over 2475, not under 2375 No additional tolerance permitted	21 lb. (-32)	
	3. McCauley 1A90/CF 7535 or 7538 (seaplane only) Diameter: not over 75 in., not under 73.5 in. Static r.p.m. at maximum permissible throttle setting: not over 2600, not under 2500 No additional tolerance permitted	24 lb. (-32)	
	4. McCauley 1A101/DCM 6948 or 6950 Diameter: not over 69 in., not under 67 in. Static r.p.m. at maximum permissible throttle setting: not over 2600, not under 2500 No additional tolerance permitted	21 lb. (-32)	

III - Model 150G, Model 150H, Model 150J, Model 150K (cont'd)

*Airspeed limits (CAS)	Never exceed	162 m.p.h. (141 knots)
	Maximum structural cruising	120 m.p.h. (104 knots)
	Maneuvering	109 m.p.h. (95 knots)
	Flaps extended	100 m.p.h. (87 knots)
C.G. range	<u>Landplane</u>	
	(+32.9) to (+37.5) at 1600 lb.	
	(+31.5) to (+37.5) at 1280 lb. or less	
	<u>Seaplane</u>	
	(+33.8) to (+36.5) at 1650 lb.	
	(+33.0) to (+36.5) at 1400 lb. or less	
	Straight line variation between points given	
Empty weight C.G. range	None	
Leveling means	Top of tailcone	
*Maximum weight	Landplane - 1600 lb.	
	Seaplane - 1650 lb. (Edo 88A-1650 floats)	
No. of seats	2 at (+39); (for child's optional jump seat, refer to Equipment List)	
Maximum baggage	120 lb. - Reference weight and balance data	
Fuel capacity	<u>Landplane</u>	
	26 gal. (22.5 gal. usable, two 13 gal. tanks in wings at +42.0)	
	<u>Seaplane</u>	
	26 gal. (21.5 gal. usable, two 13 gal. tanks in wings at +42.0)	
Oil capacity	See NOTE 1 for data on system fuel	
Control surface movements	6 qt. (-13.5; unusable 2 qt.)	
	See NOTE 1 for data on system oil	
	Wing flaps	Down 0° -40° ±2°
	Ailerons Up 20° +2°, -0°	Down 14° +2°, -0°
	Elevator Up 25° ±1°	Down 15° ±1°
	Elevator tab Up 10° ±1°	Down 20° ±1°
	Rudder Right 23° +0°, -2°	Left 23° +0°, -2°
	(measured perpendicularly to hinge line)	
Serial Nos. eligible	Model 150G:	15064533 through 15067198 (except 15064970)
	Model 150H:	649, 15067199 through 15069308
	Model 150J:	15069309 through 15071128
	Model 150K:	15071129 through 15072003

IV - Model A150K, Aerobat, 2 PCLM (Acrobatic Category), Approved June 5, 1969

Engine	Continental O-200-A	
*Fuel	80/87 min. grade aviation gasoline	
*Engine limits	For all operations, 2750 r.p.m. (100 hp.)	
Propeller and propeller limits	1. McCauley 1A101/DCM 6948 or 6950	21 lb. (-32)
	Diameter: not over 69 in., not under 67 in.	
	Static r.p.m. at maximum permissible throttle setting:	
	not over 2600, not under 2500	
	No additional tolerance permitted	

IV - Model A150K (cont'd)

*Airspeed limits (CAS)	Never exceed	193 m.p.h. (168 knots)
	Maximum structural cruising	140 m.p.h. (122 knots)
	Maneuvering	118 m.p.h. (103 knots)
	Flaps extended	100 m.p.h. (87 knots)
C.G. range	(+32.9) to (+37.5) at 1600 lb. (+31.5) to (+37.5) at 1280 lb. or less	
Empty weight C.G. range	None	
Leveling means	Top of tailcone	
*Maximum weight	1600 lb.	
No. of seats	2 at (+39); (for child's optional jump seat, refer to Equipment List)	
Maximum baggage	120 lb. - (reference weight and balance data)	
Fuel capacity	26 gal. (22.5 gal. usable, two 13 gal. tanks in wings at +42.0)	
Oil capacity	6 qt. (-13.5; unusable 2 qt.) See NOTE 1 for data on system oil.	
Control surface movements	Wing flaps	Down 0° -40° ±2°
	Ailerons Up 20° +2°, -0°	Down 14° +2°, -0°
	Elevator Up 25° ±1°	Down 15° ±1°
	Elevator tab Up 10° ±1°	Down 20° ±1°
	Rudder Right 23° +0°, -2°	Left 23° +0°, -2°
	(measured perpendicularly to hinge line)	
Serial Nos. Eligible	Model A150K: A1500001 through A1500226	

V - Model 150L, 2 PCLM (Utility Category), Approved June 8, 1970

Engine	Continental O-200-A	
*Fuel	80/87 min. grade aviation gasoline	
*Engine limits	For all operations, 2750 r.p.m. (100 hp.)	
Propeller and propeller limits	1. McCauley 1A101/GCM 6948	27.7 lb. (-34.5)
	(1971, 1972, 1973 models)	
	Diameter: not over 69 in., not under 67 in.	
	Static r.p.m. at maximum permissible throttle setting:	
	not over 2600, not under 2500	
	No additional tolerance permitted	
	2. McCauley 1A101/HCM 6948	27.7 lb. (-34.5)
	(1973, 1974 models)	
	Diameter: not over 69 in., not under 67 in.	
	Static r.p.m. at maximum permissible throttle setting:	
	not over 2600, not under 2500	
	No additional tolerance permitted	
	3. McCauley 1A101/PCM 6948	27.0 lb. (-34.5)
	(1974 model)	
	Diameter: not over 69 in., not under 67 in.	
	Static r.p.m. at maximum permissible throttle setting:	
	not over 2600, not under 2500	
	No additional tolerance permitted	

V - Model 150L (cont'd)	4. McCauley 1A102/OCM 6948 (1971 through 1974 models) Diameter: not over 69 in., not under 67.5 in. Static r.p.m. at maximum permissible throttle setting: not over 2560, not under 2460 No additional tolerance permitted	27.0 lb. (-34.5)
*Airspeed limits (CAS)	Never exceed 162 m.p.h. (141 knots) Maximum structural cruising 120 m.p.h. (104 knots) Maneuvering 109 m.p.h. (95 knots) Flaps extended 100 m.p.h. (87 knots)	
C.G. range	(+32.9) to (+37.5) at 1600 lb. (+31.5) to (+37.5) at 1280 lb. or less Straight line variation between points given	
Empty weight C.G. range	None	
Leveling means	Jig located nut plates and screws at Stations +94.63 and +132.94 on left side of tailcone	
*Maximum weight	1600 lb.	
No. of seats	2 at (+39); (for child's optional jump seat refer to Equipment List)	
Maximum baggage	120 lb. - (Reference weight and balance data)	
Fuel capacity	26 gal. (22.5 gal. usable, two 13 gal. tanks in wings at +42.0) See NOTE 1 for data on system fuel	
Oil capacity	6 qt. (-13.5; unusable 2 qt.) See NOTE 1 for data on undrainable oil	
Control surface movements	Wing flaps Ailerons Up 20° +2°, -0° Elevator Up 25° ±1° Elevator tab Up 10° ±1° Rudder Right 23° +0°, -2° (measured perpendicularly to hinge line)	Down 0° -40° ±2° Down 14° +2°, -0° Down 15° ±1° Down 20° ±1° Left 23° +0°, -2°
Serial Nos. eligible	15072004 through 15072628 (1971 Model) 15072629 through 15073658 (1972 Model) 15073659 through 15074850 (1973 Model) 15074851 through 15075781 (1974 Model)	
VI - Model A150L, Aerobat, 2 PCLM (Acrobatic Category), Approved June 8, 1970		
Engine	Continental O-200-A	
*Fuel	80/87 min. grade aviation gasoline	
*Engine limits	For all operations, 2750 r.p.m. (100 hp.)	
Propeller and propeller limits	1. McCauley 1A101/GCM 6948 (1971, 1972, 1973 models) Diameter: not over 69 in., not under 67 in. Static r.p.m. at maximum permissible throttle setting: not over 2600, not under 2500 No additional tolerance permitted	27.7 lb. (-34.5)

<u>VI - Model A150L</u> (cont'd)	2. McCauley 1A101/HCM 6948 (1971, 1972, 1973 models) Diameter: not over 69 in., not under 67 in. Static r.p.m. at maximum permissible throttle setting: not over 2600, not under 2500 No additional tolerance permitted	27.7 lb. (-34.5)	
	3. McCauley 1A102/OCM 6948 (1974 model) Diameter: not over 69 in., not under 67.5 in. Static r.p.m. at maximum permissible throttle setting: not over 2560, not under 2460 No additional tolerance permitted	27.0 lb. (-34.5)	
*Airspeed limits (CAS)	Never exceed Maximum structural cruising Maneuvering Flaps extended	193 m.p.h. (168 knots) 140 m.p.h. (122 knots) 118 m.p.h. (103 knots) 100 m.p.h. (87 knots)	
C.G. range	(+32.9) to (+37.5) at 1600 lb. (+31.5) to (+37.5) at 1280 lb. or less		
Empty weight C.G. range	None		
Leveling means	Jig located nut plates and screws at Stations +94.63 and +132.94 on left side of tailcone		
*Maximum weight	1600 lb.		
No. of seats	2 at (+39); (for child's optional jump seat refer to Equipment List)		
Maximum baggage	120 lb. - (Reference weight and balance data)		
Fuel capacity	26 gal. (22.5 gal. usable, two 13 gal. tanks in wings at +42.0) See NOTE 1 for data on unusable fuel		
Oil capacity	6 qt. (-13.5; unusable 2 qt.) See NOTE 1 for data on undrainable oil		
Control surface movements	Wing flaps Ailerons Elevator Elevator tab Rudder (measured perpendicularly to hinge line)	Up 20° +2°, -0° Up 25° ±1° Up 10° ±1° Right 23° +0°, -2°	Down 0° -40° ±2° Down 14° +2°, -0° Down 15° ±1° Down 20° ±1° Left 23° +0°, -2°
Serial Nos. eligible	A1500227 through A1500276 (1971 Model) A1500277 through A1500342 (1972 Model) A1500343 through A1500429 (1973 Model) A1500430 through A1500523 (1974 Model) (Except A1500433)		

VII - Model 150M. 2 PCLM (Utility Category), Approved May 6, 1974

Engine	Continental O-200-A
*Fuel	80/87 min. grade aviation gasoline
*Engine limits	For all operations, 2750 r.p.m. (100 hp.)

VII - Model 150M (cont'd)

Propeller and propeller limits	1. McCauley 1A102/OCM 6948		27.7 lb. (-34.5)	
	Diameter: not over 69 in., not under 67 in. Static rpm at maximum permissible throttle setting: not over 2560, not under 2460 No additional tolerance permitted			
*Airspeed limits (CAS)	15075782 through 15077005			
	Never exceed		162 m.p.h.	(141 knots)
	Maximum structural cruising		120 m.p.h.	(104 knots)
	Maneuvering		109 m.p.h.	(95 knots)
	Flaps extended		100 m.p.h.	(87 knots)
*Airspeed limits (IAS) (See Note 4 on use of (IAS))	15077006 through 15079405			
	Never exceed		141 knots	
	Maximum structural cruising		107 knots	
	Maneuvering		97 knots	
	Flaps extended		85 knots	
C.G. range	(+32.9) to (+37.5) at 1600 lb.			
	(+31.5) to (+37.5) at 1280 lb. or less			
	Straight line variation between points given			
Empty weight C.G. range	None			
Leveling means	Jig located nut plates and screws at Stations +94.63 and +132.94 on left side of tailcone			
*Maximum weight	1600 lb.			
No. of seats	2 at (+39); (for child's optional jump seat, refer to Equipment List)			
Maximum baggage	120 lb. (Reference weight and balance data)			
Fuel capacity	26 gal. (22.5 gal. usable, two 13 gal. tanks in wings at +42.0)			
	See NOTE 1 for data on unusable fuel			
Oil capacity	6 qt. (-13.5; unusable 2 qt.)			
	See NOTE 1 for data on undrainable oil			
Control surface movements	Wing flaps		Down	0° -40° ±2°
	Ailerons	Up 20° +2°, -0°	Down	14° +2°, -0°
	Elevator	Up 25° ±1°, -0°	Down	15° ±1°
	Elevator tab	Up 10° ±1°	Down	20° ±1°
	Rudder	Right 23° +0°, -2°	Left	23° +0°, -2°
	(measured perpendicularly to hinge line)			
Serial Nos. eligible	15075782 through 15077005 (1975 Model)			
	15077006 through 15078505 (1976 Model)			
	15078506 through 15079405 (1977 Model)			

VIII - Model A150M, Aerobat, 2 PCLM (Acrobatic Category), Approved May 6, 1974

Engine	Continental O-200-A
*Fuel	80/87 min. grade aviation gasoline
*Engine limits	For all operations, 2750 r.p.m. (100 hp.)

VIII - Model A150M (cont'd)Propeller and
propeller limits

1. McCauley 1A102/OCM 6948 27.0 lb. (-34.5)
- Diameter: not over 69 in., not under 67.5 in.
- Static r.p.m. at maximum permissible throttle setting:
not over 2560, not under 2460
- No additional tolerance permitted

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*Airspeed limits (CAS)

15064970, A1500524 through A1500609

Never exceed	193 m.p.h. (168 knots)
Maximum structural cruising	140 m.p.h. (122 knots)
Maneuvering	118 m.p.h. (103 knots)
Flaps extended	100 m.p.h. (87 knots)

*Airspeed limits (IAS)
(See NOTE 4 on Use
of IAS)

A1500610 through A1500734

Never exceed	164 knots
Maximum structural cruising	123 knots
Maneuvering	105 knots
Flaps extended	85 knots

C.G. range

(+32.9) to (+37.5) at 1600 lb.
(+31.5) to (+37.5) at 1280 lb. or less
Straight line variation between points given

Empty weight C.G. range

None

Leveling means

Jig located nut plates and screws at Stations +94.63 and +132.94 on left side of tailcone

*Maximum weight

1600 lb.

No. of seats

2 at (+39); (for child's optional jump seat, refer to Equipment List)

Maximum baggage

120 lb. - (Reference weight and balance data)

Fuel capacity

26 gal. (22.5 gal. usable, two 13 gal. tanks in wings at +42.0)
See NOTE 1 for data on unusable fuel

Oil capacity

6 qt. (-13.5; unusable 2 qt.)
See NOTE 1 for data on undrainable oil

Control surface movements

Wing flaps		Down	0° -40° ±2°
Ailerons	Up 20° +2°, -0°	Down	14° +2°, -0°
Elevator	Up 23° ±1°, -0°	Down	15° ±1°
Elevator tab	Up 10° ±1°	Down	20° ±1°
Rudder	Right 23° +0°, -2°	Left	23° +0°, -2°
(measured perpendicularly to hinge line)			

Serial Nos. eligible

15064970, A1500524 through A1500609 (1975 Model)
A1500610 through A1500684 (1976 Model)
A1500685 through A1500734 (1977 Model)

IX - Model 152, 2 PCLM (Utility Category), Approved March 16, 1977

Engine

S/N 15279406 through 15285594
Lycoming O-235-L2C

S/N 15285595 and on aircraft reworked per SK152-15 or SK152-16
Lycoming O-235-N2C

*Fuel

100LL/100 min. grade aviation gasoline

IX - Model 152 (cont'd)***Engine limits**S/N 15279406 through 15285594

For all operations, 2550 r.p.m. (110 hp.)

S/N 15285595 and on

For all operations 2550 r.p.m. (108 hp.)

**Propeller and
propeller limits**

1. (a) McCauley 1A103/TCM6958 23.2 lb. (-36.5)
 Diameter: not over 69 in., not under 67.5 in.
 Static rpm at full throttle (carburetor heat off and mixture
 leaned to maximum r.p.m.) is 2280 to 2380 r.p.m. For
 allowable variations in static r.p.m. at non-standard
 temperatures, refer to the Service Manual.
- (b) Spinner: Dwg. 0450073

***Airspeed Limits (IAS)
(See NOTE 4 on Use
of IAS)**

Never exceed	149 knots
Maximum structural cruising	111 knots
Maneuvering	104 knots
Flaps extended	85 knots

C.G. range

(+32.65) to (+36.5) at 1670 lb.
 (+31.0) to (+36.5) at 1350 lb. or less
 Straight line variation between points given

Empty weight C.G. range

None

Leveling means

Jig located nut plates and screws at Stations +94.63 and +132.94 on left side of tailcone

***Maximum weight**

1670 lb.
 1675 lb. ramp weight (S/N 15282032 and on)

No. of seats

2 at (+39); (for child's optional jump seat, refer to Equipment List)

Maximum baggage

120 lb. (Reference weight and balance data)

Fuel capacity

26 gal. (24.5 gal. usable, two 13 gal. tanks in wings at +42.0)
 See NOTE 1 for data on unusable fuel

Oil capacity

6 qt. (-14.7; unusable 2 qt.)
 See NOTE 1 for data on undrainable oil

Control surface movements

Wing flaps		Down	0° -30° ±2°
Ailerons	Up 20° ± 2°	Down	15° ± 1°
(aileron travel measured from 1° ±.5° droop)			
Elevator	Up 25° ±1°	Down	18° ±1°
Elevator tab	Up 10° ±1°	Down	20° ±1°
Rudder	Right 23° +0°, -2°	Left	23° +0°, -2°
(measured perpendicularly to hinge line)			

Serial Nos. eligible

15279406 through 15282031 (1978 Model)
 15282032 through 15283591 (1979 Model)
 15283592 through 15284541 (1980 Model)
 15284542 through 15285161 (1981 Model)
 15285162 through 15285594 (1982 Model)
 15285595 through 15285833 (1983 Model)
 15285834 through 15285939 (1984 Model)
 15285940 through 15286033 (1985 Model)

X - Model A152, Aerobat, 2 PCLM (Acrobatic Category), Approved March 16, 1977

Engine	<u>S/N A1500433, A1520735, 681 through A521014</u> Lycoming O-235-L2C <u>S/N A1521015 and on aircraft reworked per SK152-15 or SK152-16</u> Lycoming O-235-N2C			
*Fuel	100LL/100 min. grade aviation gasoline			
*Engine limits	<u>S/N A1500433, A1520735, 681 through A1521014</u> For all operations, 2550 r.p.m. (110 hp.) <u>S/N A1521015 and on</u> For all operations 2550 r.p.m. (108 hp.)			
Propeller and propeller limits	1. (a) McCauley 1A103/TCM6958 Diameter: not over 69 in., not under 67.5 in. Static rpm at full throttle (carburetor heat off and mixture leaned to maximum r.p.m.) is 2280 to 2380 r.p.m. For allowable variations in static r.p.m. at non-standard temperatures, refer to the Service Manual. (b) Spinner: Dwg. 0450073			23.2 lb. (-36.5)
*Airspeed Limits (IAS) (See NOTE 4 on Use of IAS)	Never exceed	172 knots		
	Maximum structural cruising	125 knots		
	Maneuvering	108 knots		
	Flaps extended	85 knots		
C.G. range	(+32.65) to (+36.5) at 1670 lb. (+31.0) to (+36.5) at 1350 lb. or less			
Empty weight C.G. range	None			
Leveling means	Jig located nut plates and screws at Stations +94.63 and +132.94 on left side of tailcone			
*Maximum weight	1670 lb. 1675 lb. ramp weight (S/N 681, A1520809 and on)			
No. of seats	2 at (+39); (for child's optional jump seat, refer to Equipment List)			
Maximum baggage	120 lb. (Reference weight and balance data)			
Fuel capacity	26 gal. (24.5 gal. usable, two 13 gal. tanks in wings at +42.0) See NOTE 1 for data on unusable fuel			
Oil capacity	6 qt. (-14.7; unusable 2 qt.) See NOTE 1 for data on undrainable oil			
Control surface movements	Wing flaps		Down	0° -30° ±2°
	Ailerons	Up 20° ± 1°	Down	15° ± 1°
	(aileron travel measured from 1° ±.5° droop)			
	Elevator	Up 25° ±1°	Down	18° ±1°
	Elevator tab	Up 10° ±1°	Down	20° ±1°
	Rudder	Right 23° +0°, -2°	Left	23° +0°, -2°
	(measured perpendicularly to hinge line)			

X - Model A152 (cont'd)

Serial Nos. eligible	A1500433, A1520735 through A1520808	(1978 Model)
	681, A1520809 through A1520878	(1979 Model)
	A1520879 through A1520943	(1980 Model)
	A1520944 through A1520983	(1981 Model)
	A1520984 through A1521014	(1982 Model)
	A1521015 through A1521025	(1983 Model)
	A1521026 through A1521027	(1984 Model)
	A1521028 through A1521049	(1985 Model)

Data Pertinent to All Models

Datum Fuselage station 0.0 front face of firewall

Certification basis Part 3 of the Civil Air Regulations dated May 15, 1956, as amended by 3-4. In addition, effective S/N 15282032 and on for 152 and S/N 681, A1520809 and on for A152, FAR 23.1559 effective March 1, 1978. FAR 36 dated December 1, 1969, plus Amendments 36-1 through 36-5 for 152 and A152 only. In addition, effective S/N 15285940 and on, and S/N A1521028 and on, FAR 23.1545(a), Amendment 23-23 dated December 1, 1978.

Application for Type Certificate dated August 13, 1956.

Type Certificate No. 3A19 issued July 10, 1958, obtained by the manufacturer under delegation option procedures.

Equivalent Safety Items S/N 15077006 through 15079405
S/N 15279406 and on
S/N A1500610 through A1500734
S/N 681, A1500433, A1520735 and on

Airspeed Indicator CAR 3.757 (See NOTE 4) (S/N 15279406 through 15285939 and 681, A1500433, A1520735 through A1521027)

Operating Limitations CAR 3.778(a)

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 regulations (see Certification Basis) must be installed in the aircraft for certification. This equipment must include a current Airplane Flight Manual effective S/N 15282032 and on, S/N 681, and S/N A1520809 and on. In addition, the following item of equipment is required:

1. Stall warning indicator, audible, Cessna Dwg. 0511062 (Model 150 through 150E)
2. Stall warning indicator, audible, Cessna Dwg. 0413029 (Model 150F through 150M, 1977 Model) (A150K through A150M, 1977 Model) (152 and on, A152 and on)

NOTE 1. Current weight and balance report together with 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. 17001 through 17999, 59001 through 59018, 15059019 through 15077005 and A1500001 through A1500609

The certificated empty weight and corresponding center of gravity location must include unusable fuel of 21 lb. at (+40) for landplanes or 27 lb. at (+40) for seaplanes and an undrainable oil of (0) lb. at (-13.5) for both landplane and seaplane.

- NOTE 1. Serial Nos. 15077006 through 15079405 and A1500610 through A1500734
(cont'd) The certificated empty weight and corresponding center of gravity location must include unusable fuel of 21 lb. at (+40) and full oil of 11.3 lb. at (-13.5) for landplane.
- Serial Nos. 15279406 and on, and 681, A1500433, A1520735 and on
The certificated empty weight and corresponding center of gravity location must include unusable fuel of 9 lb. at (+40) and full oil of 11.3 lb. at (-14.7) for landplane.
- NOTE 2. The following information must be displayed in the form of composite or individual placards.
- A. In full view of the pilot:
- (1) "This airplane must be operated in compliance with the operating limitations stated in the form of placards, markings and manuals."
- (2) (a) Model 150, 150A, 150B and 150C
"Acrobatic maneuvers are limited to the following:
- | <u>Maneuver</u> | <u>Entry Speed</u> |
|----------------------|------------------------|
| Chandelle | 106 m.p.h. (92 knots) |
| Steep turns | 106 m.p.h. (92 knots) |
| Lazy eights | 106 m.p.h. (92 knots) |
| Stalls (except whip) | Use slow deceleration |
| Spins | Use slow deceleration |
- Spin recovery - opposite rudder-neutral elevator
Intentional spins with flaps extended prohibited
Design maneuvering speed 106 m.p.h. (92 knots)"
- (b) Model 150D, 150E, 150F, 150G, 150H, 150J, 150K
"Acrobatic maneuvers are limited to the following:
- | <u>Maneuver</u> | <u>Entry Speed</u> |
|----------------------|------------------------|
| Chandelle | 109 m.p.h. (95 knots) |
| Steep turns | 109 m.p.h. (95 knots) |
| Lazy eights | 109 m.p.h. (95 knots) |
| Stalls (except whip) | Use slow deceleration |
| Spins | Use slow deceleration |
- Intentional spins with flaps extended prohibited
Spin recovery - opposite rudder-forward elevator
Maximum design weight - Landplane 1600 lb.
Seaplane 1650 lb.
Maximum maneuvering speed 109 m.p.h. (95 knots)
Maximum flight maneuvering load factors
- | | | |
|------------|-------|-------|
| Flaps Up | +4.4 | -1.76 |
| Flaps Down | +3.5" | |
- (3) Model A150K
"This airplane must be operated as an Acrobatic Category airplane in compliance with the operating limitations stated in the form of placards, markings and manuals.
- Acrobatic Category
- | | |
|---------------------------|------------------------|
| Maximum design weight | 1600 lb. |
| Maximum maneuvering speed | 118 m.p.h. (103 knots) |
- Refer to weight and balance data for loading instructions
Flight maneuvering load factors: Flaps up +6.0 -3.0 Flaps down: +3.5
Aerobatic maneuvers with flaps extended are prohibited.
Inverted flight is prohibited.
Child's seat and/or baggage compartment must not be occupied during aerobatic maneuvering. Spin recovery: Apply opposite rudder, followed by forward elevator for normal recovery.

(3) (cont'd)

The following aerobatic maneuvers are approved:

<u>Maneuver</u>	<u>Entry Speed</u>		<u>Maneuver</u>	<u>Entry Speed</u>	
Chandelle	120 m.p.h.	(104 knots)	Lazy eights	120 m.p.h.	(104 knots)
Steep turns	110 m.p.h.	(96 knots)	Spins	Slow deceleration	
Barrel rolls	130 m.p.h.	(113 knots)	Aileron rolls	130 m.p.h.	(113 knots)
Snap rolls	90 m.p.h.	(78 knots)	Immelmanns	145 m.p.h.	(126 knots)
Loops	130 m.p.h.	(113 knots)	Cuban eights	145 m.p.h.	(126 knots)
Vertical reversements	90 m.p.h.	(78 knots)	Stalls (except whip stalls)	Slow deceleration"	

(4) Model 150L and 150M (1971 Model through 1975 Model)

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

<u>Maximums</u>			
Maneuvering speed			109 m.p.h. CAS (95 knots)
Gross weight			1600 lb.
Flight load factor	Flaps Up		+4-4, -1.76
	Flaps Down		+3.5
<u>Maneuver</u>	<u>Max. Entry Speed</u>	<u>Maneuver</u>	<u>Max. Entry Speed</u>
Chandelles	109 m.p.h. (95 knots)	Spins	Slow deceleration
Lazy eights	109 m.p.h. (95 knots)	Stalls (except whip stalls)	Slow deceleration
Steep turns	109 m.p.h. (95 knots)		

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)

(5) Model A150L and A150M (1971 Model through 1975 Model)

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

<u>Maximums</u>	
Maneuvering speed	118 m.p.h. (CAS (103 knots)
Gross weight	1600 lb.
Flight load factor	Flaps up +6.0, -3.0
	Flaps Down +3.5

Aerobatic maneuvers with flaps extended are prohibited.

Inverted flight is prohibited.

Child's seat and/or baggage compartment must not be occupied during aerobatics.

<u>Maneuver</u>	<u>Max. Entry Speed</u>	<u>Maneuver</u>	<u>Max. Entry Speed</u>
Chandelle	120 m.p.h. (104 knots)	Lazy eights	120 m.p.h. (104 knots)
Steep turns	110 m.p.h. (96 knots)	Spins	Slow deceleration
Barrell rolls	130 m.p.h. (113 knots)	Aileron rolls	130 m.p.h. (113 knots)
Snap rolls	90 m.p.h. (78 knots)	Immelmanns	145 m.p.h. (126 knots)
Loops	130 m.p.h. (113 knots)	Cuban eights	145 m.p.h. (126 knots)
Vertical reversements	90 m.p.h. (78 knots)	Stalls (except whip stalls)	Slow deceleration

(5) (cont'd)

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)

(6) Model 150M (1976 and 1977 Model)

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

<u>Maximums</u>		
Maneuvering speed		97 knots
Gross weight		1600 lb.
Flight load factor	Flaps up	+4.4, -1.76
	Flaps Down	+3.5

NO ACROBATIC MANEUVERS APPROVED EXCEPT THOSE LISTED BELOW

<u>Maneuver</u>	<u>Max. Entry Speed</u>	<u>Maneuver</u>	<u>Max. Entry Speed</u>
Chandelles	95 knots	Spins	Slow deceleration
Lazy eights	95 knots	Stalls (except whip stalls)	Slow deceleration
Steep turns	95 knots		

Abrupt use of 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)

(7) A150M (1976 and 1977 Model)

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

<u>Maximums</u>		
Maneuvering speed (IAS)		105 knots
Gross weight		1600 lb.
Flight load factor -	Flaps up	+6.0, -3.0
	Flaps Down	+3.5

Aerobatic maneuvers with flaps extended are prohibited. Inverted flight is prohibited.

Baggage compartment and/or child's seat must not be occupied during aerobatics.

THE FOLLOWING AEROBATIC MANEUVERS ARE APPROVED

<u>Maneuver</u>	<u>Recm. Entry Speed</u>	<u>Maneuver</u>	<u>Recm. Entry Speed</u>
Chandelles	105 knots	Lazy eights	105 knots
Steep turns	100 knots	Spins	Slow deceleration
Barrel rolls	115 knots	Aileron rolls	115 knots
Snap rolls	80 knots	Immelmanns	130 knots
Loops	115 knots	Cuban eights	130 knots
Vertical reversements	80 knots	Stalls (except whip stalls)	Slow deceleration

Abrupt use of controls prohibited above 105 knots.

Spin Recovery: opposite rudder - forward elevator - neutralize controls.

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)

(8) Model 152 (1978 Model)

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

Maximums

Maneuvering speed (IAS)	104 knots
Gross weight	1670 lbs.
Flight load factor	Flaps up +4.4, -1.76
	Flaps Down +3.5

NO ACROBATIC MANEUVERS APPROVED EXCEPT THOSE LISTED BELOW

<u>Maneuver</u>	<u>Recm. Entry Speed</u>	<u>Maneuver</u>	<u>Recm. Entry Speed</u>
Chandelles	95 knots	Spins	Slow deceleration
Lazy eights	95 knots	Stalls (except	
Steep turns	95 knots	whip stalls)	Slow deceleration

Abrupt use of controls prohibited above 104 knots.

Intentional spins with flaps extended are prohibited. Altitude loss in a stall recovery -- 160 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)

(9) Model A152 (1978 Model and A1500433)

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

Maximums

Maneuvering speed (IAS)	108 knots
Gross weight	1670 lb.
Flight load factor	Flaps Up +6.0, -3.0
	Flaps Down +3.5

Aerobatic maneuvers with flaps extended are prohibited. Inverted flight is prohibited. Baggage compartment and/or child's seat must not be occupied during aerobatics.

THE FOLLOWING AEROBATIC MANEUVERS ARE APPROVED

<u>Maneuver</u>	<u>Recm. Entry Speed</u>	<u>Maneuver</u>	<u>Recm. Entry Speed</u>
Chandelles	105 knots	Lazy eights	105 knots
Steep turns	100 knots	Spins	Slow deceleration
Barrel rolls	115 knots	Aileron rolls	115 knots
Snap rolls	80 knots	Immelmanns	130 knots
Loops	115 knots	Cuban eights	130 knots
Vertical		Stalls (except	
reversements	80 knots	whip stalls)	Slow deceleration

Abrupt use of controls prohibited above 108 knots.

Altitude loss in a stall recovery -- 160 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. On the flap handle**(1) Models 150, 150A, 150B, 150C**

"Flaps -	Pull to extend
	Retracted 0°
Takeoff -	1st Notch 10°
	2nd Notch 20°
	3rd Notch 30°
Landing -	4th Notch 40°"

- B. (2) Models 150D, 150E
 "Flaps - Pull to extend
 Takeoff - Retracted 0°
 Landing - 0°-40°"
- C. In the baggage compartment
 (1) Models 150, 150A, 150B, 150C
 "Baggage - 80 lb. maximum."
 (2) Model 150D, 150E
 "Baggage - 120 lb. maximum."
 (3) S/N 15279406 through 15282031, A1500433, A15200735 through A1520808
 "120 lb. maximum baggage and/or auxiliary seat passenger. For additional loading instructions see Weight and Balance Data."
- D. On the instrument panel
 (1) Models 150K, A150K; 1971 Models 150L, A150L
 "Do not turn off alternator in flight except in emergency."
- E. Near fuel shut-off valve
 (1) Models 150 through 150M (1977 Model) and A150K through A150M (1977 Model)
 "Fuel 22.5 gals. ON-OFF."
 (2) S/N 15279406 through 15282031, A1500433, A15200735 through A1520808
 "Fuel 24.5 gals. ON-OFF."
- F. On front door posts
 (1) S/N A15200735 through A1520808, A1500433
 "Emergency door release
 1. Unlatch door
 2. Pull 'D' ring."
- G. On door near window latch
 (1) Model A150K through A150M (1975 Model)
 "Do not open window above 165 m.p.h."
 (2) Model A150M (1976 and 1977 Model) (1978 Model A152)
 "Do not open window above 143 knots IAS."
- H. On the instrument panel near overvoltage light (Model 150L through 150M, and A150L through A150M, 1978 Model 152 and A152, and A1500433)
 (1) "High Voltage"
- I. On left hand instrument panel
 (1) S/N 15279406 through 5282031, A1500433, A1520735 through A1520808
 "Spin Recovery"
 1. Verify ailerons are neutral and throttle is closed.
 2. Apply full opposite rudder.
 3. Move control wheel briskly forward to break stall."
- J. S/N 15282032 and on, S/N 681, and S/N A1520809 and on
 All placards required in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual must be installed in the appropriate locations.

NOTE 3. Reserved

NOTE 4. The markings of the airspeed indicator with IAS provides an equivalent level of safety to CAR 3.757 when the approved airspeed calibration data presented in Section V of the Pilot's Operating Handbooks listed below is available to the pilot:

150M,	Cessna P/N D1055-13	(S/N 15077006 through 15078505)
A150M,	Cessna P/N D1056-13	(S/N A1500610 through A1500684)
150M,	Cessna P/N D1080-13	(S/N 1507506 through 15079405)
A150M,	Cessna P/N D1081-13	(S/N A1500685 through A1500734)
152,	Cessna P/N D1107-13	(S/N 15279406 through 15282031)
A152,	Cessna P/N D1108-13	(S/N A1500433 through A1520735 through A1520808)
152,	Cessna P/N D1136-13PH	(S/N 15282032 through 15283591)
A152,	Cessna P/N D1137-13PH	(S/N 681, A1520809 through A1520878)
152,	Cessna P/N D1170-13PH	(S/N 15283592 through 15284541)
A152,	Cessna P/N D1171-13PH	(S/N A1520879 through A1520943)
152,	Cessna P/N D1190-13PH	(S/N 15284542 through 15285161)
A152,	Cessna P/N D1191-13PH	(S/N A1520944 through A1520983)
152,	Cessna P/N D1210-13PH	(S/N 15285162 through 15285594)
A152,	Cessna P/N D1211-13PH	(S/N A1520984 through A1521014)
152,	Cessna P/N D1229-13PH	(S/N 15285595 through 15285833)
A152,	Cessna P/N D1230-13PH	(S/N A1521015 through A1521025)
152,	Cessna P/N D1249-13PH	(S/N 15285834 through 15285939)
A152,	Cessna P/N D1250-13PH	(S/N A1521026 through A1521027)

NOTE 5. Near fuel tank filler

- A. 150 series through S/N 15079405 and A150 series through S/N A1500734 except A1500433:
 "FUEL
 80/87 min. grade aviation gasoline
 Cap. 13.0 U.S. Gal."
- B. S/N 15279406 through 15282031, A1500433, A1520735 through A1520808
 "FUEL
 100LL/100 min. grade aviation gasoline
 Cap. 13.0 U.S. Gal."

NOTE 6. 14-volt electrical system

(150 series through S/N 15079405 and A150 series through S/N A1500734 except A1500433)

28-volt electrical system

(S/N 15279406 and on, S/N 681, A1500433, A/N A1520735 and on)

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.

...END...

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Revision 11

AVCO Lycoming

O-540-A1A, -A1A5, -A1B5, -A1C5, -A1D, -A1D5, -A2B, -A3D5, -A4A5, -A4B5, -A4C5, -A4D5,
 O-540-B1A5, -B1B5, -B1D5, -B2A5, -B2B5, -B2C5, -B4A5, -B4A5, -B4B5, -B4B5,
 O-540-D1A5,
 O-540-E4A5, -E4B5, -E4C5,
 O-540-F1A5, -F1B5,
 O-540-G1A5, -G2A5,
 O-540-H1A5, -H2A5, -H1A5D, -H2A5D, -H1B5D, -H2B5D,
 O-540-J1A5D, -J2A5D, -J1B5D, -J2B5D, -J3A5D, -J1C5D, -J2C5D, -J1D5D, -J2D5D, -J3C5D, -L3C5D

March 20, 1986

E-295

TYPE CERTIFICATE DATA SHEET NO. E-295

Engines of models described herein conforming with this data sheet (which is a part of Type Certificate No. 295) and other approved data on file with the Federal Aviation Administration meet the minimum standards for use in certificate aircraft in accordance with pertinent aircraft data sheets and applicable portions of the Civil Air Regulations/Federal Aviation Regulations provided they are installed, operated and maintained as prescribed by the approved manufacturer's manuals and other approved instructions.

Manufacturer AVCO Lycoming Williamsport Division
 AVCO Corporation
 Williamsport, Pennsylvania 17701

Model	Lycoming O-540	-A1A, -A1A5, -A1B5, -A1C5, -A1D, -A1D5, -A2B, -A3D5, -A4A5, -A4B5, -A4C5, -A4D5, -D1A5	-B1A5, -B1B5, -B1D5, -B2A5, -B2B5, -B2C5, -B4A5, -B4B5	-E4A5, -E4B5, -E4G5, -G1A5, -G2A5, -H1A5, -H2A5, -H1A5D, -H2A5D, -H1B5D, -H2B5D	-F1A5, -F1B5
Type 6H0A	Direct Drive	--	--	--	--
Rating					
Maximum continuous, hp., r.p.m. in. Hg., at:					
Critical pressure altitude (ft.)	—	—	—	235-2800-25.0.4000	
Sea level pressure altitude	250-2575-F.T.-S.L.	235-2575-F.T.-S.L.	260-2700-F.T.-S.L.	235-2800-26.0-S.L.	
Takeoff (5 min.), hp., r.p.m., in. Hg., at:					
Critical pressure altitude (ft.)	—	—	—	260-2800-27.5-800	
Sea level pressure altitude	250-2575-F.T.-S.L.	235-2575-F.T.-S.L.	260-2700-F.T.-S.L.	260-2800-28.0-S.L.	
Fuel (Minimum grade aviation gasoline)	See NOTE 8	--	--	--	--

"--" indicates "same as preceding model"

"—" indicates "does not apply"

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Model	Lycoming O-540	-A1A, -A1A5, -A1B5, - A1C5, -A1D, -A1D5, - A2B, -A3D5, -A4A5, - A4B5, -A4C5, -A4D5, - D1A5	-B1A5, -B1B5, -B1D5, - -B2A5, -B2B5, -B2C5, - -B4A5, -B4B5	-E4A5, -E4B5, - -E4G5, -G1A5, - -G2A5, -H1A5, - -H2A5, -H1A5D, - -H2A5D, -H1B5D, - -H2B5D	-F1A5, -F1B5
Lubricating oil (lubricants which conform to the specifications as listed or to subsequent revision thereto.)	No. 301-F	--	--	--	--
Bore and stroke, in.	5.125 X 4.375	--	--	--	--
Displacement, cu. in.	541.5	--	--	--	--
Compression ratio	See NOTE 8	--	--	--	--
Weight (dry)	See NOTE 5	--	--	--	--
C.G. location (dry)	See NOTE 5	--	--	--	--
From front face of prop shaft flange, in.	17.9	--	--	--	--
Off propeller shaft C.L., in.	1.21 below 0.15 left	--	--	--	--
Propeller shaft-AS-127	Type 2 flange modified	--	--	--	--
Carburetion	Marvel-Schebler MA-4-5	--	--	--	--
Ignition, dual	See NOTE 8	--	--	--	--
Timing, °BTC	25	--	--	--	--
Spark plugs	See NOTE 7	--	--	--	--
Oil sump capacity, qt.	12	--	--	--	--
Crankshaft dampers	See NOTE 5 & 6	--	--	--	--
Minimum safe oil quantity qts.					
20°nose up or down attitude	2-3/4	--	--	--	--
30°nose up attitude	4	--	--	--	--
NOTES - As applicable	1 through 8, 10, 11	--	--	--	1 through 11
Model	Lycoming O-540	-J1A5D, -J2A5D, - -J1B5D, -J2B5D, - -J3A5D	-J1C5D, -J2C5D, - -J3C5D, -J1D5D, - -J2D5D	-L3C5D (See NOTE 12)	
Type 6H0A	Direct Drive	--	--	--	
Rating					
Maximum continuous, hp., r.p.m, in. Hg., at:					
Critical pressure altitude (ft.)	—	—	—	—	
Sea level pressure altitude	235-2400-F.T.-S.L.	235-2400-F.T.-S.L.	235-2400-F.T.-S.L.	235-2400-F.T.-S.L.	
Takeoff (5 min.), hp., r.p.m., in. Hg., at:					
Critical pressure altitude (ft.)	—	--	--	--	
Sea level pressure altitude	235-2400-F.T.-S.L.	235-2400-F.T.-S.L.	235-2400-F.T.-S.L.	235-2400-F.T.-S.L.	
Fuel (Minimum grade aviation gasoline)	See NOTE 8	--	--	--	
Lubricating oil (lubricants which conform to the specifications as listed or to subsequent revision thereto.)	No. 301-F	--	--	--	

"- -" indicates "same as preceding model"

"—" indicates "does not apply"

Model	Lycoming O-540	-J1A5D, -J2A5D, -J1B5D, -J2B5D, -J3A5D	-J1C5D, -J2C5D, -J3C5D, -J1D5D, -J2D5D	-L3C5D (See NOTE 12)
Bore and stroke. in.		5.125 X 4.375	--	--
Displacement, cu. in.		541.5	--	--
Compression ratio		See NOTE 8	--	--
Weight (dry)		See NOTE 5	--	--
C.G. location (dry)		See NOTE 5	--	--
From front face of prop shaft flange, in		17.75	17.94	18.10
Off propeller shaft C.L., in.		0.75 below 0.19 left	0.69 below 0.19 left	0.59 below 0.34 left
Propeller shaft-AS-127		Type 2 flange modified	--	--
Carburetion		Marvel Schebler HA-6	--	--
Ignition dual		See NOTE 8	25	--
Timing, °BTC		23	--	--
Spark plugs		See NOTE 7	--	--
Oil sump capacity, qts.		12	--	--
Crankshaft dampers		See NOTE 5 & 6	--	--
Minimum safe oil quantity qts.		--	--	--
20°nose up or down attitude		2-3/4	--	--
30°nose up attitude		2	--	--
			--	
NOTES - As applicable		1 through 8, 10, 11		1 through 8, 10, 11, 12, 13

"- -" indicates "same as preceding model"

"—" indicates "does not apply"

Certification basis:

<u>Regulations and Amendments</u>	<u>Model</u>	<u>Date of Application</u>	<u>Date Type Certificate No. E-295 Issued/Revised</u>
CAR 13 Effective June 15, 1956	O-540-A1A	July 2, 1957	October 31, 1957
As Amended By 13-1 & 13-2	O-540-A1A5	June 3, 1958	June 18, 1958
	O-540-A2P	July 24, 1958	July 24, 1958
	O-540-D1A5	October 21, 1958	August 12, 1959
	O-540-A1B5	January 21, 1959	February 10, 1959
	O-540-A1C5	March 16, 1959	April 2, 1959
	O-540-F1A5, -F1B5	April 3, 1959	August 12, 1959
	O-540-A1D, -A1D5	January 21, 1960	March 17, 1960
13-3	O-540-A3D5	May 17, 1960	June 22, 1960
	O-540-B1A5, -B2A5	November 30, 1960	May 3, 1961
	O-540-B1B5	April 17, 1961	May 3, 1961
	O-540-B2B5	December 8, 1961	December 26, 1961
13-4	O-540-A4A5, -A4B5, -A4C5, -A4D5, -B4A5, -B4B5	October 3, 1963	October 9, 1963
	O-540-E4A5, -E4B5	April 1, 1964	May 4, 1964
	O-540-E4C5	March 3, 1966	March 23, 1966
	O-540-B1D5, -B2C5	November 23, 1966	December 2, 1966
	O-540-G2A5	March 31, 1967	April 4, 1967
	O-540-G1A5	October 6, 1967	October 9, 1967
	O-540-H1A5, -H2A5	January 16, 1970	January 22, 1970
	O-540-H1B5D, H2B5D	July 30, 1971	August 4, 1971
	O-540-H1A5D, -H2A5D	July 27, 1971	October 21, 1971

Certification basis:
(cont'd)

Date Type Certificate
No. E-295
Issued/Revised

Regulations and AmendmentsModelDate of Application

13-4

-J1B5D, -J2B5D

August 25, 1976

October 4, 1976

O-540-J1C5D,

-J2C5D

-J1D5D, -J2D5D

O-540-J3C5D

February 4, 1977

February 15, 1977

O-540-J3A5D

November 23, 1977

November 30, 1977

O-540-L3C5D

July 21, 1977

June 19, 1978

Production basis: Production Certificate No. 3

NOTE 1. Maximum permissible temperatures are as follows:

Cylinder Head (well type)	Cylinder Base	Oil Inlet
500°F	325°F	245°F

NOTE 2. Pressure limits - p.s.i.

	<u>Minimum</u>	<u>Maximum</u>
	0.5	30.0 (O-540-L3C5D: See NOTE No. 13)
Fuel	0.5	8.0
Oil (Normal operation)	55.0	95.0
(Idle)	25.0	—
(Starting and warm-up)	—	115.0

NOTE 3. The following accessory provisions are incorporated:

	-A1A,							
	-A1A5,							
	-A1B5,							
	-A1C5,							
	-A1D,							
	-A1D5,							
	-A4A5,							
	-A4B5,			-B1A5				
	-A4C5,			-B1B5				
	-A4D5		-A2B	-B1D5,				
	-E4A5,		-B2A5	-B4A5				
	-E4B5		-B2B5	-B4B5,			-H1A5	-F1A5
	-E4C5	A3D5	-B2C5	-G1A5	-D1A5	-G2A5	-H2A5	-F1B5
Accessory	*	*	*	*	*	*	*	—
Starter	—	—	—	—	—	—	—	*
Generator	*	*	*	*	*	*	—	*
Generator	**	**	**	**	**	**	—	—
Alternator	**	**	**	**	—	**	*	—
Alternator	**	**	**	**	**	**	**	**
Vacuum Pump	*	*	*	*	*	*	*	*
Hydraulic Pump	*	*	*	*	*	*	*	*
Hydraulic Pump	—	—	—	—	—	—	—	—
Tachometer	*	*	*	*	*	*	*	*
Propeller Governor	*	*	—	*	*	—	*	—
Propeller Governor	—	—	—	—	—	—	—	—
Fuel Pump	**	**	**	**	**	**	**	**
Fuel Pump (plunger)	**	*	**	**	**	**	**	**

Accessory					All Models				
	-L3C5D	-H1A5D -H2A5D -H1B5D	-J2D5D -J2C5D	-J1A5D -J2A5D -J3A5D -J1B5D -J2B5D -J3C5D -J1D5D -J1C5D	Rotation Facing Drive Pad	Speed Ratio to Crankshaft	Maximum Torque (in. -lb.)		Max. Overhang Moment (in. -lb.)
		-H2B5D					Cont.	Static	
Starter	*	*	*	*	CC	16.556:1	—	450	150
Starter	—	—	—	—	CC	13.556:1	—	450	150
Generator	—	—	—	—	C	1.010:1	60	120	175
Generator	—	—	—	—	C	2.500:1	60	120	175
Alternator	*	*	*	*	C	3.250:1	60	120	175
Alternator	**	**	**	—	C	3.630:1	60	120	175
Vacuum Pump	*	*	*	*	CC	1.300:1	70	450	25
Hydraulic Pump	—	—	—	—	C	1.385:1	100	800	40
Hydraulic Pump	*	*	*	*	C	1.300:1	100	800	40
Tachometer	*	*	*	*	C	1.500:1	7	50	5
Propeller Governor	—	—	—	—	C	0.895:1	125	1200	25
Propeller Governor	*	*	—	*	C	0.947:1	125	1200	25
Fuel Pump	—	**	—	—	CC	1.000:1	25	—	25
Fuel Pump (plunger)	*	**	**	**	—	0.500:1	—	—	10

"C" - Clockwise "CC" - Counter clockwise

* - Standard

** - Optional

NOTE 4. These engines incorporate provisions for absorbing propeller thrust in both tractor and pusher type installations.

NOTE 5. These models incorporate additional characteristics as follows:

<u>O-540-Models</u>	<u>Wt. dry, lb.</u>	<u>Characteristics</u>
-A1A	374	Basic model, direct drive, six cylinder, horizontally opposed, air cooled engine with one each S6LN-20 and -21 Magnetos and two 6th order dampers.
-A1A5	374	Same as -A1A except has one fifth and one sixth order dampers.
-A1B5	375	Same as -A1A5 except has propeller governor pad with short studs to accommodate AN type governor.
-A1C5	375	Same as -A1A5 except has two S6LN-21 impulse coupling magnetos.
-A1D	375	Similar to -A1B5 except has one each S6LN-200 and S6LN-204 magnetos and two sixth order crankshaft torsional dampers.
-A1D5	375	Similar to -A1D except has one fifth and one sixth order crankshaft torsional dampers.
-A2B	374	Same as -A1B5 except for crankshaft damper arrangement and propeller flange has propeller locating bushings displaced 60° clockwise, viewed facing propeller.
-A3D5	373	Similar to -A1D5 except has provisions for Goodrich propeller deicing equipment.
-A4A5	374	Similar to -A1A5 except has heavier fifth and sixth order crankshaft counterweights.
-A4B5	375	Similar to -A1B5 except has heavier fifth and sixth order crankshaft counterweights.
-A4C5	375	Similar to -A1C5 except has heavier fifth and sixth order crankshaft counterweights.
-A4D5	375	Similar to -A1D5 except has heavier fifth and sixth order crankshaft counterweights.
-B1A5	366	Same as -A1D5 except has lower compression ratio and performance.
-B1B5	366	Field conversion of -A1A5, -A1B5, or -A1C5 to lower compression ratio.
-B1D5	367	Same as -B1A5 except for incorporation of Bendix 1200 series magnetos.
-B2A5	366	Similar to -B1A5 except does not have provisions for controllable pitch propeller.
-B2B5	366	Same as -B2A5 except has S6LN-20 and S6LN-21 magnetos.

NOTE 5. These models incorporate additional characteristics as follows: cont.

-B2C5	368	Same as -B2B5 except for incorporation of Bendix 1200 series magnetos and does not include generator as part of the engine.
-B4A5	366	Similar to -B1A5 except has heavier fifth and sixth order crankshaft counterweights.
B4B5	366	Similar to -B1B5 except has heavier fifth and sixth order crankshaft counterweights.
-D1A5	369	Same as -A1A5 except has increased strength crankcase.
-F4A5	368	Similar to -A4D5 except has hybrid camshaft permitting higher 260 hp. @ 2700 r.p.m.
-E4B5	369	Similar to -A4D5 except for left magneto S6LN-21 and minor difference in weight and length.
-E4C5	370	Same as model -E4B5 except has S6LN-1227 and S6LN-1209 magnetos.
-F1A5	367	Same as -A1A5 except rated for helicopter application and incorporates prototype bed mounting.
-F1B5	369	Same as -D1A5 except rated for helicopter application and incorporates provisions for either bed or dynafocal type mounting.
-G1A5	386	Similar to -E4C5 except incorporates heavier crankshaft, different crankcase and -A1D5 counterweights.
-G2A5	386	Similar to -G1A5 except does not provide for use of constant speed propeller.
-H1A5	385	Similar to -G1A5 except has different magnetos and incorporates piston cooling oil jets.
-H2A5	385	Similar to -G2A5 except has different magnetos and incorporates piston cooling oil jets.
-H1A5D	381	Similar to -H1A5 except incorporates dual magneto (impulse coupling).
-H2A5D	381	Similar to -H1A5D except does not have provision for controllable propeller.
-H1B5D	381	Similar to -H1A5 except incorporates dual magneto (retard).
-H2B5D	381	Similar to -H1B5D except does not have provision for controllable propeller.
-J1A5D	356	Similar to -A1A5 except incorporates dual magneto (impulse coupling), less weight and rated at 235 h.p. @ 2400 r.p.m.
-J2A5D	356	Similar to -J1A5D except does not have provision for controllable propeller.
-J1B5D	356	Similar to -A1A5 except incorporates dual magneto (retard), less weight and rated at 235 h.p. @ 2400 r.p.m.
-J2B5D	356	Similar to -J1B5D except does not have provision for controllable propeller.
-J1C5D	356	Same as -J1A5D except has horizontal carburetor and induction housing.
-J2C5D	356	Same as -J1C5D except has no provision for controllable propeller.
-J1D5D	356	Same as -J1C5D but with D6LN-3230 retard breaker dual magneto.
-J2D5D	356	Same as -J1D5D except does not have provision for controllable propeller.
-J3C5D	357	Same as -J1C5D except has heavier counterweights for use with McCauley controllable propeller.
-J3A5D	357	Same as -J1A5D except has heavier counterweights (same as O-540-J3C5D).
-L3C5D	367	Same as -J3C5D except for features to make engine suitable for turbocharging.

NOTE 6. These engines incorporate crankshafts with two sixth order dampers unless a "5" is part of the model designation, i.e., -A1A5. Engines so designated have one fifth order damper and one sixth order damper instead of two sixth order dampers.

NOTE 7. Spark plugs approved for use on these engines are listed in the latest revision of AVCO Lycoming Service Instruction No. 1042.

NOTE 8. Fuel grade, compression and ignition:

<u>O-540-</u>	<u>Fuel - Aviation Gasoline</u>	<u>Compression Ratio</u>	<u>Ignition, Dual Bendix Models</u>
	<u>M</u> <u>o</u> <u>d</u> <u>e</u> <u>l</u> <u>s</u>		
-A1A	100 or 100 LL	8.50:1	S6LN-20, S6LN-21
-A1A5	100 or 100 LL	8.50:1	S6LN-20, S6LN-21
-A1B5	100 or 100 LL	8.50:1	S6LN-21, S6LN-21
-A1C5	100 or 100 LL	8.50:1	S6LN-21, S6LN-21
-A1D	100 or 100 LL	8.50:1	S6LN-204, S6LN-200
-A1D5	100 or 100 LL	8.50:1	S6LN-204, S6LN-200
-A2B	100 or 100 LL	8.50:1	S6LN-20, S6LN-21
-A3D5	100 or 100 LL	8.50:1	S6LN-204, S6LN-200
-A4A5	100 or 100 LL	8.50:1	S6LN-20, S6LN-21
-A4B5	100 or 100 LL	8.50:1	S6LN-21, S6LN-21
-A4C5	100 or 100 LL	8.50:1	26LN-21, S6LN-21
-A4D5	100 or 100 LL	8.50:1	26LN-204, S6LN-200
-B1A5	100 or 100 LL	7.20:1	S6LN-204, S6LN-200
-B1B5	100 or 100 LL	7.20:1	S6LN-20, S6LN-21
-B1D5	100 or 100 LL	7.20:1	S6LN-1209, S6LN-1208
-B2A5	100 or 100 LL	7.20:1	S6LN-204, S6LN-200
-B2B5	100 or 100 LL	7.20:1	S6LN-20, S6LN-21
-B2C5	100 or 100 LL	7.20:1	S6LN-1209, S6LN-1227
-B4A5	100 or 100 LL	7.20:1	S6LN-204, S6LN-200
-B4B5	100 or 100 LL	7.20:1	S6LN-20, S6LN-21
-D1A5	100 or 100 LL	8.50:1	S6LN-20, S6LN-21
-E4A5	100 or 100 LL	8.50:1	S6LN-204, S6LN-200
-E4B5	100 or 100 LL	8.50:1	S6LN-204, S6LN-200
-E4C5	100 or 100 LL	8.50:1	S6LN-204, S6LN-200
-F1A5	100 or 100 LL	8.50:1	S6LN-20, S6LN-21
-F1B5	100 or 100 LL	8.50:1	S6LN-204, S6LN-200
-G1A5	100 or 100 LL	8.50:1	S6LN-1227, S6LN-1209
-G2A5	100 or 100 LL	8.50:1	S6LN-1227, S6LN-1209
-H1A5	100 or 100 LL	8.50:1	S6LN-20, S6LN-21
-H2A5	100 or 100 LL	8.50:1	S6LN-20, S6LN-21
-H1A5D	100 or 100 LL	8.50:1	D6LN-3031
-H2A5D	100 or 100 LL	8.50:1	D6LN-3031
-H1B5D	100 or 100 LL	8.50:1	D6LN-3230
-H2B5D	100 or 100 LL	8.50:1	D6LN-3230
-J1A5D	100 or 100 LL	8.50:1	D6LN-3031
-J2A5D	100 or 100 LL	8.50:1	D6LN-3031
-J1B5D	100 or 100 LL	8.50:1	D6LN-3230
-J2B5D	100 or 100 LL	8.50:1	D6LN-3230
-J1C5D	100 or 100 LL	8.50:1	D6LN-3031
-J2C5D	100 or 100 LL	8.50:1	D6LN-3031
-J1D5D	100 or 100 LL	8.50:1	D6LN-3230
-J2D5D	100 or 100 LL	8.50:1	D6LN-3230
-J3C5D	100 or 100 LL	8.50:1	D6LN-3031
-J3A5D	100 or 100 LL	8.50:1	D6LN-3031

All models equipped with one impulse coupling magneto may use two impulse coupling magnetos as optional equipment.

NOTE 9. Engine models O-540-F1A5 and -F1B5 are approved for helicopter application and operation in a horizontal installation.

- NOTE 10. Models O-540-A4A5, -A4B5, -A4C5, -A4D5, -B4A5, -B4B5, -E4B5, -E4A5, and -E4C5 are equipped with fifth and sixth order crankshaft counterweights which are heavier than the usual fifth and sixth order counterweights employed in other O-540 engine models.
- NOTE 11. Starters, generators, and alternators approved for use on these engines are listed in the latest revision of AVCO Lycoming Service Instruction No. 1154.
- NOTE 12. When equipped in accordance with Cessna Dwg. 2250065, this engine is certified for operation at a maximum manifold pressure of 31.0 in. Hg at 2400 r.p.m.
- NOTE 13. When complying with Lycoming Service Instruction No. 1398, the minimum permissible fuel pressure increase from 0.5 psi to 3 psi. Therefore, revised fuel pressure gage marking indicating a minimum red line of 3 psi is required.

.....END.....

	A7CE
	Revision 42
	CESSNA
401	411A
401A	414
401B	414A
402	421
402A	421A
402B	421B
402C	421C
411	425
	October 15, 1997

A7CETYPE CERTIFICATE DATA SHEET NO. A7CE

This data sheet which is part of Type Certificate No. A7CE 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 411 (Normal Category), Approved August 17, 1964
Model 411A (Normal Category), Approved January 26, 1967

Engines Two Continental GTSIO-520-C, reduction gear ratio .750:1

Fuel Grade 100 or 100LL aviation gasoline

Engine Limits For all operations, 2400 propeller r.p.m. (340 hp.)
 34.5 in. Hg. Mp. up to critical altitude of 16,000 ft. in standard atmosphere. Above
 16,000 ft. the following maximum Mp. applies for maximum r.p.m.

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
16,000	34.5
18,000	31.2
20,000	29.0
22,000	26.4
24,000	24.3
26,000	22.2
28,000	20.2
30,000	18.5

Propeller and
Propeller Limits

1. Model 411 only

Two Hartzell full-feathering 3-bladed propeller installations

(a) Hartzell Hub HC-A3VF-2D with V8833 blades

Diameter: not over 88.4 in., not under 86.4 in.

(no further reduction permitted)

Pitch settings at 30 in. station:

low 14.0°, +0°, -2°

feathered 84.0°, +2°, -0°

(b) Hydraulic Governor Woodward A210444, 210439, C210446 or B210529

(c) Propeller spinner and bulkhead assembly, Hartzell 835-20

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Propeller and Propeller Limits	or 2. <u>Models 411 and 411A</u> Two McCauley full-feathered 3-bladed propeller installations (a) McCauley hub 3AF34C74 with 90LF-0 blades or McCauley hub 3AF37C510 with 90LFB blades Diameter: not over 90 in., not under 84.0 in. with 90LF-0 blades or not under 88.0 in. with 90LFB-0 blades. (no further reduction permitted) Pitch settings at 30 in. station: low 14.0°, $\pm 0.2^\circ$ feathering 84.5°, $\pm 0.3^\circ$ (b) Hydraulic governor Woodward A210444, 210439, C210446 or B210529 (c) Propeller spinner and bulkhead assembly, McCauley D-3574 or D-3732 for use with C74 Model Propeller, or McCauley D-7229 for use with C510 Model Propeller.
Airspeed Limits (CAS)	Maneuvering 180 m.p.h. (156 knots) Maximum structural cruising 230 m.p.h. (200 knots) Never exceed 266 m.p.h. (231 knots) Landing gear operating 160 m.p.h. (139 knots) Landing gear extended 160 m.p.h. (139 knots) Flaps extended 15° 180 m.p.h. (156 knots) Flaps extended 45° 160 m.p.h. (139 knots) Minimum control 103 m.p.h. (90 knots)
C.G. Range (Landing Gear Extended)	(+150.6) to (+155.5) at 6500 lb. (+155.7) at 6100 lb. or less (+144.3) at 5200 lb. or less Straight line variation between points given Landing gear retracted moment change: +837 in.-lb.
Empty Wt. C.G. Range	None
Leveling Means	External screw heads on right side of fuselage at stations +213.65 and +238.00 on W.L. +93.80
Maximum Weight	Landing 6500 lb., takeoff 6500 lb.
No. of Seats	6, 7 or 8 (2 at +137.0, 2 at +175.5, 2 at +215.5, 1 or 2 at +238.0) (See manufacturer's equipment list for optional seating arrangements)
Maximum Baggage	Model 411: 120 lb. (+58.0), 240 lb. (+186.0), 340 lb. (+246.5) Model 411A: 350 lb. (+71.0), 240 lb. (+186.0), 340 lb. (+246.5)
Fuel Capacity	175 gal. (2 wing tip tanks, 51 gal. ea., 50 gal. usable at +152.0 and 2 wing tanks, 36.5 gal. ea., 35 gal. usable at +164.0) See NOTE 1 for data on unusable fuel
Oil Capacity	26 qt. (13 qt. in ea. engine at +115.4; usable 7.0 qt. per engine) See NOTE 1 for undrainable oil

I - Model 411, Model 411A (cont'd)

Control Surface Movements	Wing flaps		Down	45°, +1°, -0°
	Main surfaces			
	Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
	Elevator	Up	25°, +1°, -0°	Down 15°, +1°, -0°
	Rudder	Right	32°, +1°, -0°	Left 32°, +1°, -0°
	(Read degrees normal to rudder hinge line)			
	Tab (main surface in neutral)			
	Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
	Elevator	Up	10°, +1°, -0°	Down 26°, +1°, -0°
	Rudder	Right	17°, +1°, -0°	Left 22°, +1°, -0°
	(Read degrees normal to rudder hinge line)			
Serial Nos. Eligible	Model 411:	411-0001 through 411-0250		
	Model 411A:	411-0251 through 411-0300		

II - Model 401 (Normal Category), Approved September 20, 1966**Model 401A (Normal Category), Approved October 29, 1968****Model 401B (Normal Category), Approved November 12, 1969**

Engines	Two Continental TSIO-520-E or TSIO-520-EB
Fuel	Grade 100 or 100LL aviation gasoline
Engine Limits	For all operations, 2700 r.p.m. (300 hp.) 34.5 in. Hg. Mp. up to critical altitude of 16,000 ft. in standard atmosphere. Above 16,000 ft. the following maximum Mp. applies for maximum r.p.m.

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
16,000	34.5
18,000	31.8
20,000	29.5
22,000	27.3
24,000	25.1
26,000	23.0
28,000	22.0
30,000	19.0

Propeller and Propeller Limits	Two McCauley full-feathered 3-bladed propeller installations
	(a) McCauley hub 3AF32C87 with 82NC-5.5 blades or McCauley hub 3AF32C504 with 82NEA-5.5 blades Diameter: not over 76.5 in., not under 74.0 in. (no further reduction permitted) Pitch settings at 30 in. station: low 14.2°, ±0.2° feathered 81.2°, ±0.3°
	(b) <u>Model 401</u> : Hydraulic Governor Woodward B210444, C210439, B210446 or A210529F <u>Model 401A and 401B</u> : Hydraulic Governor Woodward B210444, C210439, B210446, or A210529F; McCauley DCF290D1/T3, DCF290D2/T3, DCF290D7/T3, DCFU290D1/T3, DCFU290D2/T3, DCFU290D7/T3, DCFU290D13/T3, DCFS290D1/T3, DCFS290D2/T3, DCFS290D7/T3, DCFUS290D1/T3, DCFUS290D2/T3, DCFUS290D7/T3, DCFUS290D13/T3.
	(c) Propeller spinner and bulkhead assembly, McCauley D-3534/D-3537, D-3534/D-3796, and D-5212/D5214.

II - Model 401, Model 401A, Model 401B (cont'd)

Airspeed Limits (CAS)	Maneuvering	180 m.p.h. (156 knots)
	Maximum structural cruising	230 m.p.h. (200 knots)
	Never exceed	266 m.p.h. (231 knots)
	Landing gear operating	160 m.p.h. (139 knots)
	Landing gear extended	160 m.p.h. (139 knots)
	Flaps extended 15°	180 m.p.h. (156 knots)
	Flaps extended 45°	160 m.p.h. (139 knots)
	Minimum control	95 m.p.h. (83 knots)
C.G. Range (Landing Gear Extended)	(+150.8) to (+158.1) at 6300 lb. (+158.5) at 5900 lb. or less (+147.5) at 5000 lb. or less Straight line variation between points given Landing gear retracted moment change: +837 in.-lb.	
Empty Wt. C.G. Range	None	
Leveling Means	External screw heads on right side of fuselage at stations +213.65 and +238.00 on W.L. +93.80	
Maximum Weight	Landing 6200 lb., takeoff 6300 lb.	
No. of Seats	6, 7 or 8 (2 at +137.0, 2 at +175.6, 2 at +215.5, 1 or 2 at +238.0) (See manufacturer's equipment list for optional seating arrangements)	
Maximum Baggage	350 lb. (+71.0), 240 lb. (+186.0), 340 lb. (+246.5)	
Fuel Capacity	102 gal. (2 wing tip tanks, 51 gal. ea., 50 gal. usable at +152.0) See NOTE 1 for data on unusable fuel	
Oil Capacity	26 qt. (13 qt. in ea. engine at +113.5; usable 6.5 qt. per engine) See NOTE 1 for data on undrainable oil	
Control Surface Movements	Wing flaps	Down 45°, +1°, -0°
	Main surfaces	
	Aileron Up 20°, +1°, -0°	Down 20°, +1°, -0°
	Elevator Up 25°, +1°, -0°	Down 15°, +1°, -0°
	Rudder Right 32°, +1°, -0°	Left 32°, +1°, -0°
	(Read degrees normal to rudder hinge line)	
	Tab (main surface in neutral)	
	Aileron Up 20°, +1°, -0°	Down 20°, +1°, -0°
	Elevator Up 5°, +1°, -0°	Down 30°, +1°, -0°
	Rudder Right 7°, +1°, -0°	Left 9°, +1°, -0°
	(Read degrees normal to rudder hinge line)	
Serial Nos. Eligible	Model 401: 401-0001 through 401-0322	
	Model 401A: 401A0001 through 401A0132	
	Model 401B: 401B0001 through 401B0221	

III - Model 402 (Normal Category), Approved September 20, 1966**Model 402A (Normal Category), Approved January 3, 1969****Model 402B (Normal Category), Approved November 12, 1969**

Engines	Two Continental TSIO-520-E or TSIO-520-EB
Fuel	Grade 100 or 100LL aviation gasoline

III - Model 402, Model 402A, Model 402B (cont'd)**Engine Limits**

For all operations, 2700 r.p.m. (300 hp.)

34.5 in. Hg. Mp. up to critical altitude of 16,000 ft. in standard atmosphere. Above 16,000 ft. the following maximum Mp. applies for maximum r.p.m.

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
16,000	34.5
18,000	31.8
20,000	29.5
22,000	27.3
24,000	25.1
26,000	23.0
28,000	22.0
30,000	19.0

**Propeller and
Propeller Limits**

Two McCauley full-feathered 3-bladed propeller installations

(a) McCauley hub 3AF32C87 with 82NC-5.5 blades or McCauley hub 3AF32C504 with 82NEA-5.5 blades

Diameter: not over 76.5 in., not under 74.0 in.

(no further reduction permitted)

Pitch settings at 30 in. station:

low 14.2°, $\pm 0.2^\circ$

feathering 81.2°, $\pm 0.3^\circ$

(b) Model 402, 402A and 402B, S/N 402B0001 thru 402B1200

Hydraulic governor, Woodward B210444, C210439, B210446F or A210529H; McCauley DCF290D1/T3, DCF290D2/T3, DCFS290D1/T3, DCFS290D2/T3, DCFU290D1/T3, DCFU290D2/T3, DCFUS290D1/T3, DCFUS290D2/T3, DCF290D7/T3, DCFS290D7/T3, DCFU290D7/T3, DCFUS290D7/T3, DCFU290D13/T3, DCFUS290D7/T3, or DCFUS290D13/T3.

Model 402B, S/N 402B1201 through 402B1300

Hydraulic governor, Woodward B210444, C210439; McCauley DCF290D1/T3, DCF290D2/T3, DCFU290D1/T3, DCFU290D2/T3, DCFS290D4/T3, DCFUS290D4/T3, DCFS290D5/T3, DCFUS290D5/T3, DCF290D7/T3, DCFU290D7/T3, DCFS290D7/T3, DCFUS290D7/T3, DCFU290D13/T3, or DCFUS290D13/T3.

Model 402B, S/N 402B1301 and up

Hydraulic governor, Woodward B210444, C210439; McCauley DCF290D1/T3, DCF290D2/T3, DCFU290D1/T3, DCFU290D2/T3, DCFS290D4/T3, DCFUS290D4/T3, DCFS290D6/T3, DCFUS290D6/T3, DCF290D7/T3, DCFU290D7/T3, DCFS290D7/T3, DCFUS290D7/T3, DCFS290D8/T3, DCFUS290D8/T3, DCFU290D13/T3, DCFUS290D12/T3, or DCFUS290D13/T3.

(c) Propeller spinner and bulkhead assembly, McCauley D-3534/D-3537, D-3534/D-3796, or D-5212/D5214.

III - Model 402, Model 402A, Model 402B (cont'd)

Airspeed Limits (CAS)	<u>Model 402, S/N 402-0001 and up</u>	
	<u>Model 402A, S/N 402A0001 and up</u>	
	<u>Model 402B, S/N 402B0001 through 402B0500</u>	
	Maneuvering	180 m.p.h. (156 knots)
	Maximum structural cruising	230 m.p.h. (200 knots)
	Never exceed	266 m.p.h. (231 knots)
Airspeed Limits (Cont.) (CAS)	Landing gear operating	160 m.p.h. (139 knots)
	Landing gear extended	160 m.p.h. (139 knots)
	Flaps extended 15°	180 m.p.h. (156 knots)
	Flaps extended 45°	160 m.p.h. (139 knots)
	Minimum control	95 m.p.h. (83 knots)
	<u>Model 402B, S/N 402B0501 through 402B1000</u>	
	Maneuvering	156 KCAS (180 m.p.h.)
	Maximum structural cruising	200 KCAS (230 m.p.h.)
	Never exceed	231 KCAS (266 m.p.h.)
	Landing gear operating	140 KCAS (161 m.p.h.)
	Landing gear extended	140 KCAS (161 m.p.h.)
	Flaps extended 15°	160 KCAS (184 m.p.h.)
	Flaps extended 45°	140 KCAS (161 m.p.h.)
	Minimum control	83 KCAS (95 m.p.h.)
(IAS)	<u>Model 402B, S/N 402B1001 and up</u>	
	Maneuvering	156 KIAS (180 m.p.h.)
	Maximum structural cruising	199 KIAS (229 m.p.h.)
	Never exceed	230 KIAS (265 m.p.h.)
	Landing gear operating	140 KIAS (161 m.p.h.)
	Landing gear extended	140 KIAS (161 m.p.h.)
	Flaps extended 15°	160 KIAS (184 m.p.h.)
	Flaps extended 45°	140 KIAS (161 m.p.h.)
	Minimum control	82 KIAS (94 m.p.h.)
C.G. Range (Landing Gear Extended)	(+150.8) to (+159.7) at 6300 lb.	
	(+160.2) at 5900 lb. or less	
	(+147.5) at 5000 lb. or less	
	Straight line variation between points given	
	Landing gear retracted moment change: +837 in.-lb.	
Empty Wt. C.G. Range	None	
Leveling Means	External screw heads on right side of fuselage at stations +213.65 and +238.00 on W.L. +93.80	
Maximum Weight	<u>Models 402, 402A, 402B, S/N 402B0001 through 402B1300</u>	
	Landing 6200 lb., takeoff 6300 lb.	
No. of Seats	<u>Model 402B, S/N 402B1301 and up</u>	
	Landing 6200 lb., ramp 6335 lb., takeoff 6300 lb.	
	<u>Model 402</u>	
	9 (2 at +137.0, 2 at +166.0, 2 at +193.0, 2 at +220.0, 1 at +247.0)	
	<u>Model 402A and 402B, S/N 402B0001 through 402B0300</u>	
	9 or 10 (2 at +137.0, 2 at +166.0, 2 at +193.0, 2 at +220.0, 1 or 2 at +247.0)	

III - Model 402, Model 402A, Model 402B (cont'd)

	<u>Model 402B, S/N 402B0301 and up</u>			
	6, 7 or 8 (2 at +137.0, 2 at +175.0, 2 at +218.0, 1 or 2 at +261.0)			
	9 (with photographic provisions option) (2 at +137.0, 2 at +162.0, 2 at +190.0, 2 at +218.0, 1 at +246.0)			
	10 (2 at +137.0, 2 at +162.0, 2 at +190.0, 2 at +218.0, 2 at +246.0)			
	(See manufacturer's equipment list for optional seating arrangements)			
Maximum Baggage	<u>Models 402, 402A and 402B, S/N 402B0001 through 402B0300</u>			
	350 lb. (+71.0), 240 lb. (+186.0), 170 lb. (+247.0)			
	<u>Model 402B, S/N 402B0301 and up</u>			
	250 lb. (+32.0), 350 lb. (+71.0), 240 lb. (+186.0), 400 lb. (+266.0), 100 lb. (+282.0)			
Fuel Capacity	102 gal. (2 wing tip tanks, 51 gal. ea., 50 gal. usable at +152.0) See NOTE 1 for data on unusable fuel			
Oil Capacity	26 qt. (13 qt. in ea. engine at +113.5; usable 6.5 qt. per engine) See NOTE 1 for data on undrainable oil			
Control Surface Movements	Wing flaps		Down 45°, +1°, -0°	
	Main surfaces			
	Aileron	Up 20°, +1°, -0°	Down	20°, +1°, -0°
	Elevator	Up 25°, +1°, -0°	Down	15°, +1°, -0°
	Rudder	Right 32°, +1°, -0°	Left	32°, +1°, -0°
	(Read degrees normal to rudder hinge line)			
	Tab (main surface in neutral)			
	Aileron	Up 20°, +1°, -0°	Down	20°, +1°, -0°
	Elevator	Up 5°, +1°, -0°	Down	30°, +1°, -0°
	Rudder	Right 7°, +1°, -0°	Left	9°, +1°, -0°
	(Read degrees normal to rudder hinge line)			
Serial Nos. Eligible	Model 402:	402-0001 through 402-0322		
	Model 402A:	402A0001 through 402A0129		
	Model 402B:	402B0001 through 402B1384		

IV - Model 421 (Normal Category), Approved May 1, 1967**Model 421A (Normal Category), Approved November 19, 1968**

Engines	Two Continental GTSIO-520-D, reduction gear ratio .667:1
Fuel	Grade 100 or 100LL aviation gasoline
Engine Limits	For all operations, 2275 propeller r.p.m. (375 hp.) 39.5 in. Hg. Mp. up to critical altitude of 16,000 ft. in standard atmosphere. Above 16,000 ft. the following maximum Mp. applies for maximum r.p.m.

<u>Model 421</u>		<u>Model 421A</u>	
Altitude (ft.)	Max. Allowable Mp. (in. Hg.)	Altitude (ft.)	Max. Allowable Mp. (in. Hg.)
16,000	39.5	16,000	39.5
18,000	32.5	18,000	37.5
20,000	32.5	20,000	35.5
22,000	30.0	22,500	32.5
24,000	27.0	24,000	30.5
26,000	24.5	26,000	28.0
28,000	22.0	28,000	25.5
30,000	20.0	30,000	23.0

IV - Model 421, Model 421A (cont'd)

Propeller and Propeller Limits	Two McCauley full-feathered 3-bladed propeller installations (a) McCauley hub 3AF34C92 with 90LF-0 blades or McCauley hub 3AF37C516 with 90LFB-0 blades. Diameter: not over 90.0 in., not under 88.0 in. (no further reduction permitted) Pitch settings at 30 in. station: low 16.9°, $\pm 0.2^\circ$ feathering 84.5°, $\pm 0.3^\circ$, (b) Hydraulic Governor Woodward 210594, 210595, 210596, or 210597. (c) Propeller spinner and bulkhead assembly, McCauley D-3573/D-3576, for use with C92 Model propeller, or McCauley D-7229 spinner and bulkhead assembly for use with C516 Model propeller.	
Airspeed Limits (CAS)	Maneuvering 184 m.p.h. (160 knots) Maximum structural cruising 230 m.p.h. (200 knots) Never exceed 272 m.p.h. (236 knots) Landing gear operating 165 m.p.h. (143 knots) Landing gear extended 165 m.p.h. (143 knots) Flaps extended 15° 180 m.p.h. (156 knots) Flaps extended 45° 165 m.p.h. (143 knots) Minimum control 106.5 m.p.h. (93 knots)	
C.G. Range (Landing Gear Extended)	<div> <div> <u>Model 421</u> (+151.9) to (+155.5) at 6800 lb. (+155.7) at 6400 lb. or less (+144.3) at 5200 lb. or less </div> <div> <u>Model 421A</u> (+152.1) to (+155.5) at 6840 lb. (+155.7) at 6500 lb. or less (+144.3) at 5200 lb. or less </div> </div> <p>Straight line variation between points given Landing gear retracted moment change: +889 in.-lb.</p>	
Empty Wt. C.G. Range	None	
Leveling Means	External screw heads on right side of fuselage at stations +213.29 and +238.55 on W.L. +93.80	
Maximum Weight	<u>Model 421</u> Landing 6500 lb., takeoff 6800 lb. (See NOTE 4 for takeoff 6840 lb.) <u>Model 421A</u> Landing 6500 lb., takeoff 6840 lb.	
No. of Seats	<u>Model 421</u> 6 (2 at +137.0, 2 at +175.5, 2 at +215.5) <u>Model 421A</u> 6 or 7 (2 at +137.0, 2 at +175.5, 2 at +215.5, 1 at +246.5) (See manufacturer's equipment list for optional seating arrangement)	
Maximum Baggage	350 lb. (+71.0), 240 lb. (+186.0), 340 lb. (+246.5)	
Fuel Capacity	175 gal. (2 wing tip tanks, 51 gal. ea., 50 gal. usable at +152.0 and 2 wing tanks, 36.5 gal. ea., 35 gal. usable at +164.0) See NOTE 1 for data on unusable fuel	
Oil Capacity	26 qt. (13 qt. in ea. engine at +115.4; usable 7.0 qt. per engine) See NOTE 1 for data on undrainable oil	

IV - Model 421, Model 421A (cont'd)

Control Surface Movements	Wing flaps			Down	45°, +1°, -0°
	Main surfaces				
	Aileron	Up	20°, +1°, -0°	Down	20°, +1°, -0°
	Elevator	Up	25°, +1°, -0°	Down	15°, +1°, -0°
	Rudder	Right	25°, +1°, -0°	Left	25°, +1°, -0°
	(Read degrees normal to rudder hinge line)				
	Tab (main surface in neutral)				
	Aileron	Up	20°, +1°, -0°	Down	20°, +1°, -0°
	Elevator	Up	10°, +1°, -0°	Down	26°, +1°, -0°
	Rudder	Right	11°, +1°, -0°	Left	16°, +1°, -0°
(Read degrees normal to rudder hinge line)					

Serial Nos. Eligible Model 421: 421-0001 through 421-0200
 Model 421A: 421A0001 through 421A0158

V - Model 414 (Normal Category), Approved September 24, 1969

Engines Two Continental TSIO-520-J or TSIO-520-JB
 (S/N 414-0001 through 414-0800)

 Two Continental TSIO-520-N or TSIO-520-NB
 (S/N 414-0801 and up)

Fuel Grade 100 or 100LL aviation gasoline

Engine Limits For all operations, 2700 r.p.m. (310 hp.)
 36.0 in. Hg. Mp. (S/N 414-0001 through 414-0800) 38.0 in. Hg. Mp.
 (S/N 414-0801 and up) up to critical altitude of 20,000 ft. in standard atmosphere.
 Above 20,000 ft. the following maximum Mp. applies for maximum r.p.m.

S/N 414-0001 through 414-0800

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
20,000	36.0
22,000	33.6
24,000	31.2
26,000	28.8
28,000	26.4
30,000	24.0

S/N 414-0801 and up

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
20,000	38.0
22,000	35.2
24,000	32.3
26,000	29.8
28,000	27.4
30,000	25.0

Propeller and
 Propeller Limits Two McCauley full-feathered 3-bladed propeller installations
 (a) McCauley hub 3AF32C93 with 82NC-5.5 blades or McCauley hub 3AF32C505 with
 82NEA-5.5 blades
 Diameter: not over 76.5 in., not under 74.5 in. (S/N 414-0001
 through S/N 414-0800), not under 75.0 in. (S/N 414-0801 and up)
 (no further reduction permitted)
 Pitch settings at 30 in. station:
 low 14.9°, ±0.2°, feathering 81.2°, ±0.3°

V - Model 414 (Normal Category), Approved September 24, 1969

Propeller and Propeller Limits	(b) <u>Model 414 S/N 414-0001 thru 414-0800</u> Hydraulic governor, Woodward B210444, C210439, B210446F, or A210529H McCauley DCF290D1/T3, DFC290D2/T3, DCF290D7/T3, DCFU290D1/T3, DCFS290D1/T3, DCFUS290D1/T3, DCFS290D2/T3, DCFU290D2/T3, DCFU290D7/T3, DCFU290D13/T3, DCFS290D7/T3, DCFUS290D2/T3, DCFUS290D7/T3 or DCFUS290D13/T3 <u>Model 414 S/N 414-0801 and up</u> McCauley DCFS290D4/T3, DCFUS290D4/T3, DCFS290D5/T3, DCFUS290D5/T3, DCFS290D7/T3, or DCFUS290D7/T3, DCFS290D8/T3, DCFUS290D8/T3, DCFUS290D12/T3, or DCFUS290D13/T3 (c) Propeller spinner and bulkhead assembly, McCauley D-3534/D-3537, D-3534/D-3796, or D-5212/D-5214.	
Airspeed Limits (CAS)	<u>S/N 414-0001 through 414-0450</u> Maneuvering Maximum structural cruising Never exceed 266 m.p.h. (231 knots) Flaps extended 15° Flaps extended 45° Landing gear operating Landing gear extended Minimum control	180 m.p.h. (156 knots) 230 m.p.h. (200 knots) 180 m.p.h. (157 knots) 160 m.p.h. (139 knots) 160 m.p.h. (139 knots) 160 m.p.h. (139 knots) 97 m.p.h. (84 knots)
	<u>S/N 414-0451 through 414-0800</u> Maneuvering Maximum structural cruising Never exceed 231 KCAS (266 m.p.h.) Flaps extended 15° Flaps extended 45° Landing gear operating Landing gear extended Minimum control	156 KCAS (180 m.p.h.) 200 KCAS (230 m.p.h.) 160 KCAS (184 m.p.h.) 140 KCAS (161 m.p.h.) 140 KCAS (161 m.p.h.) 140 KCAS (161 m.p.h.) 84 KCAS (97 m.p.h.)
(IAS)	<u>S/N 414-0801 and up</u> Maneuvering Maximum structural cruising Never exceed 236 KIAS (272 m.p.h.) Flaps extended 15° Flaps extended 45° Landing gear operating Landing gear extended Minimum control	160 KIAS (184 m.p.h.) 205 KIAS (236 m.p.h.) 164 KIAS (189 m.p.h.) 147 KIAS (169 m.p.h.) 143 KIAS (165 m.p.h.) 143 KIAS (165 m.p.h.) 82 KIAS (94 m.p.h.)
C.G. Range (Landing Gear Extended)	(+150.9) to (+159.7) at 6350 lb. (+160.2) at 5950 lb. or less (+147.5) at 5000 lb. or less Straight line variation between points given Landing gear retracted moment change: +837 in.-lb.	
Empty Wt. C.G. Range	None	
Leveling Means	External screw heads on right side of fuselage at stations +213.29 and +238.55 on W.L. +93.80	
Maximum Weight	Landing 6200 lb., takeoff 6350 lb.	

V - Model 414 (cont'd)**No. of Seats**S/N 414-0001 through 414-0350

6 or 7 (2 at +137.0, 2 at +175.5, 2 at +215.5, 1 at +246.5)

S/N 414-0351 and up

6 (2 at +137.0, 2 at +175.0, 2 at +218.0)

7 (with toilet option) (2 at +137.0, 2 at +175.0, 2 at +218.0, 1 at +250.0)

(See manufacturer's equipment list for optional seating arrangements)

Maximum BaggageS/N 414-0001 through 414-0350

350 lb. (+71.0), 240 lb. (+186.0), 340 lb. (+246.5)

S/N 414-0351 and up

350 lb. (+71.0), 240 lb. (+186.0), 400 lb. (+266.0), 100 lb. (+282.0)

Fuel Capacity

102 gal. (2 wing tip tanks, 51 gal. ea., 50 gal. usable at +152.0)

See NOTE 1 for data on unusable fuel

Oil Capacity

26 qt. (13 qt. in ea. engine at +113.5; usable 6.5 qt. per engine)

See NOTE 1 for data on undrainable oil

Control Surface Movements

Wing flaps

Down 45°, +1°, -0°

Main surfaces

Aileron Up 20°, +1°, -0°

Down 20°, +1°, -0°

Elevator Up 25°, +1°, -0°

Down 15°, +1°, -0°

Rudder Right 32°, +1°, -0°

Left 32°, +1°, -0°

(Read degrees normal to rudder hinge line)

Tab (main surface in neutral)

Aileron Up 20°, +1°, -0°

Down 20°, +1°, -0°

Elevator Up 5°, +1°, -0°

Down 30°, +1°, -0°

Rudder Right 11°, +1°, -0°

Left 16°, +1°, -0°

(Read degrees normal to rudder hinge line)

Serial Nos. Eligible

414-0001 through 414-0965

VI - Model 421B, Golden Eagle, (Normal Category), Approved April 28, 1970**Engines**

Two Continental GTSIO-520-H reduction gear ratio .667:1

Fuel

Grade 100 or 100LL aviation gasoline

Engine Limits

For all operations, 2275 propeller r.p.m. (375 hp.)

39.5 in. Hg. Mp. up to critical altitude of 18,000 ft. in standard atmosphere. Above 18,000 ft. the following maximum Mp. applies for maximum r.p.m.:

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
18,000	39.5
20,000	37.5
22,000	35.5
24,000	33.5
25,000	32.5
26,000	31.3
28,000	28.5
30,000	25.5

VI - Model 421B (cont'd)**Propeller and****Propeller Limits**

Two McCauley full-feathered 3-bladed propeller installations

(a) McCauley hub 3AF34C92 with 90LF-0 blades or

McCauley hub 3AF37C516 with 90LFB-0 blades

Diameter: not over 90.0 in., not under 88.0 in.

(no further reduction permitted)

Pitch settings at 30 in. station:

low 16.9°, $\pm 0.2^\circ$ feathering 84.5°, $\pm 0.3^\circ$ (b) Model 421B S/N 421B0001 thru 421B0500

Hydraulic governor Woodward 210594, 210595, 210596 or 210597

Model 421B S/N 421B0501 and up

McCauley DCF290D2/T4, DFC7290D2/T4, DCFS290D2/T4, DCFUS290D2/T4,

DCF290D7/T4, DCFU290D7/T4, DCFS290D7/T4, DCFUS290D7/T4,

DCFU290D13/T4 or DCFUS290D13/T4.

(c) Propeller spinner and bulkhead assembly, McCauley D-3534/D-3796.

Airspeed Limits**(CAS)**Model 421B: S/N 421B0001 through 421B0500 (except as noted)

Maneuvering 175 m.p.h. (152 knots)

Maximum structural cruising 230 m.p.h. (200 knots)

Never exceed 274 m.p.h. (238 knots)

Landing gear operating 165 m.p.h. (143 knots)

Landing gear extended 165 m.p.h. (143 knots)

Flaps extended 15° 180 m.p.h. (156 knots)

(S/N 421B0001 through 421B0200)

Flaps extended 15° 200 m.p.h. (174 knots)

(S/N 421B0201 through 421B0500)

Flaps extended 45° 165 m.p.h. (143 knots)

Minimum control 100 m.p.h. (87 knots)

(S/N 421B0001 through 421B0800)

94 m.p.h. (82 knots)

(S/N 421B0801 and up)

Model 421B: S/N 421B0501 and up

Maneuvering 152 KCAS (175 m.p.h.)

Maximum structural cruising 200 KCAS (230 m.p.h.)

Never exceed 238 KCAS (274 m.p.h.)

Landing gear operating 145 KCAS (167 m.p.h.)

Landing gear extended 145 KCAS (167 m.p.h.)

Flaps extended 15° 175 KCAS (202 m.p.h.)

Flaps extended 45° 145 KCAS (167 m.p.h.)

Minimum control 87 KCAS (100 m.p.h.)

C.G. Range (Landing**Gear Extended)**S/N 421B0001 through 421B02006, 7, or 8 Place

(+151.8) to (+156.4) at 7250 lb.

(+156.7) at 6850 lb. or less

(+147.1) at 6100 lb. or less

10 Place

(+151.8) to (+157.7) at 7250 lb.

(+158.0) at 6850 lb. or less

(+147.1) at 6100 lb. or less

S/N 421B0201 and up

(+152.6) to (+156.5) at 7450 lb.

(+156.7) at 7050 lb. or less

(+147.1) at 6100 lb. or less

(+152.6) to (+157.8) at 7450 lb.

(+158.0) at 7050 lb. or less

(+147.1) at 6100 lb. or less

Straight line variation between points given

Landing gear retracted moment change: +889 in.-lb.

VI - Model 421B (cont'd)

Empty Wt. C.G. Range	None																																				
Leveling Means	External screw heads on right side of fuselage at stations +213.9 and +238.55 on W.L. +93.80																																				
Maximum Weight	Landing 7200 lb., takeoff 7250 lb. (S/N 421B0001 through 421B0200) Landing 7200 lb., takeoff 7450 lb. (S/N 421B0201 and up)																																				
No. of Seats	<u>S/N 421B0001 through 421B0300</u> 6, 7, or 8 (2 at +137.0, 2 at +175.5, 2 at +215.5, 2 at +245.7) or 10 (2 at +137.0, 2 at +161.0, 2 at +190.0, 2 at +218.0, 2 at +249.0) <u>S/N 421B0301 and up</u> 6, 7, or 8 (2 at +137.0, 2 at +175.0, 2 at +218.0, 2 at +261.0) or 10 (2 at +137.0, 2 at +162.0, 2 at +190.0, 2 at +218.0, 2 at +246.0) (See manufacturer's equipment list for optional seating arrangements)																																				
Maximum Baggage	<u>S/N 421B0001 through 421B0300</u> 250 lb. (+32.0), 350 lb. (+71.0), 400 lb. (+186.0), 340 lb. (+246.5) <u>S/N 421B0301 and up</u> 250 lb. (+32.0), 350 lb. (+71.0), 400 lb. (+186.0), 400 lb. (+266.0), 100 lb. (+282.0)																																				
Fuel Capacity	175 gal. (2 wing tip tanks, 51 gal. ea., 50 gal. usable at +152.0 and 2 wing tanks, 36.5 gal. ea., 35 gal. usable at +164.0) See NOTE 1 for data on unusable fuel																																				
Oil Capacity	26 qt. (13 qt. in ea. engine at +115.4; usable 7.0 qt. per engine) See NOTE 1 for data on undrainable oil																																				
Control Surface Movements	<table><tr><td>Wing flaps</td><td></td><td>Down</td><td>45°, +1°, -0°</td></tr><tr><td>Main surfaces</td><td></td><td></td><td></td></tr><tr><td>Aileron</td><td>Up</td><td>20°, +1°, -0°</td><td>Down 20°, +1°, -0°</td></tr><tr><td>Elevator</td><td>Up</td><td>25°, +1°, -0°</td><td>Down 15°, +1°, -0°</td></tr><tr><td>Rudder</td><td>Right</td><td>25°, +1°, -0°</td><td>Left 25°, +1°, -0°</td></tr><tr><td></td><td>Right</td><td>32°, +1°, -0°</td><td>Left 32°, +1°, -0°</td></tr></table> <p>(S/N 421B0001 through 421B0800) (S/N 421B0801 and up) (Read degrees normal to rudder hinge line)</p> <p>Tab (main surface in neutral)</p> <table><tr><td>Aileron</td><td>Up</td><td>20°, +1°, -0°</td><td>Down 20°, +1°, -0°</td></tr><tr><td>Elevator</td><td>Up</td><td>12°, +1°, -0°</td><td>Down 20°, +1°, -0°</td></tr><tr><td>Rudder</td><td>Right</td><td>11°, +1°, -0°</td><td>Left 16°, +1°, -0°</td></tr></table> <p>(Read degrees normal to rudder hinge line)</p>	Wing flaps		Down	45°, +1°, -0°	Main surfaces				Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°	Elevator	Up	25°, +1°, -0°	Down 15°, +1°, -0°	Rudder	Right	25°, +1°, -0°	Left 25°, +1°, -0°		Right	32°, +1°, -0°	Left 32°, +1°, -0°	Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°	Elevator	Up	12°, +1°, -0°	Down 20°, +1°, -0°	Rudder	Right	11°, +1°, -0°	Left 16°, +1°, -0°
Wing flaps		Down	45°, +1°, -0°																																		
Main surfaces																																					
Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°																																		
Elevator	Up	25°, +1°, -0°	Down 15°, +1°, -0°																																		
Rudder	Right	25°, +1°, -0°	Left 25°, +1°, -0°																																		
	Right	32°, +1°, -0°	Left 32°, +1°, -0°																																		
Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°																																		
Elevator	Up	12°, +1°, -0°	Down 20°, +1°, -0°																																		
Rudder	Right	11°, +1°, -0°	Left 16°, +1°, -0°																																		
Serial Nos. Eligible	421B0001 through 421B0970																																				

VII - Model 421C, Golden Eagle, (Normal Category), Approved October 28, 1975

Engines	Two Continental GTSIO-520-L reduction gear ratio .667:1 (S/N 421C0001 through 421C1000) Two Continental GTSIO-520-N reduction gear ratio .667:1 (S/N 421C1001 and up)
Fuel	Grade 100 or 100LL aviation gasoline

VII - Model 421C (cont'd)**Engine Limits**

For all operations, 2235 propeller r.p.m. (375 hp.)
 39.0 in. Hg. Mp. up to critical altitude of 20,000 ft. in standard atmosphere. Above
 20,000 ft. the following maximum Mp. applies for maximum r.p.m.:

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
20,000	39.0
22,000	36.5
24,000	34.0
25,000	32.5
26,000	31.0
28,000	28.0
30,000	25.0

**Propeller and
Propeller Limits**

Two McCauley full-feathering 3-bladed propeller installations

- (a) McCauley hub 3FF32C501 with 90UMB-0 blades
 Diameter: not over 90.0 in., not under 88.0 in.
 (no further reduction permitted)
 Pitch settings at 30 in. station:
 low 16.6°, +0.2°, feathering 84.6°, +0.3°
- (b) S/N 421C0001 through 421C0800
 Hydraulic Governor McCauley DCF290D2/T6, DCFU290D2/T6,
 DCFS290D2/T6, DCFUS290D2/T6, DCF290D7/T6, DCFU290D7/T6 or
 DCFU290D13/T6, DCFS290D7/T6, DCFUS290D7/T6 or DCFUS290D13/T6
S/N 421C0801 and up
 Hydraulic Governor McCauley DCF290D7/T6, DCFU290D7/T6 or
 DCFU290D13/T6, DCFS290D9/T6, DCFUS290D9/T6
- (c) Propeller spinner and bulkhead assembly, McCauley D-3534/D-4506 or McCauley
 D-5212/D-5217

**Airspeed Limits
(IAS)**

Maneuvering	151 KIAS (174 m.p.h.)
Maximum structural cruising	201 KIAS (231 m.p.h.)
Never exceed	240 KIAS (276 m.p.h.)
Landing gear operating	176 KIAS (203 m.p.h.)
Landing gear extended	176 KIAS (203 m.p.h.)
Flaps extended 15°	176 KIAS (203 m.p.h.)
Flaps extended 45°	146 KIAS (168 m.p.h.)
Minimum control	80 KIAS (92 m.p.h.)

**C.G. Range (Landing
Gear Extended)**

6, 7, 8, 9 or 10 Place
 (+152.6) to (+158.0) at 7450 lb.
 (+147.1) at 6100 lb. or less
 Straight line variation between points given
 Landing gear retracted moment change:
 +917 in.-lb. (S/N 421C0001 through 421C0800)
 +1318 in.-lb. (S/N 421C0801 and up)

Empty Wt. C.G. Range

None

Leveling Means

External screw heads on right side of fuselage at stations +213.9 and +238.55 on
 W.L. +93.80

Maximum Weight

S/N 421C0001 through 421C0400
 Landing 7200 lb., takeoff 7450 lb.

S/N 421C0401 and up
 Landing 7200 lb., takeoff 7450 lb., ramp 7500 lb.

VII - Model 421C (cont'd)

No. of Seats	6, 7 or 8 (2 at +137.0, 2 at +175.0, 2 at +218.0, 1 at +261.0) or 10 (2 at +137.0, 2 at +162.0, 2 at +190.0, 2 at +218.0, 2 at +246.0) (See manufacturer's equipment list for optional seating arrangements)		
Maximum Baggage	250 lb. (+32.0), 350 lb. (+71.0), 400 lb. (+186.0), 400 lb. (+266.0), 100 lb. (+282.0)		
Fuel Capacity	213.4 gal. (2 wing tanks, 106.7 gal. ea., 103.0 gal. usable at +161.0) See NOTE 1 for data on unusable fuel		
Oil Capacity	26 qt. (13 qt. in ea. engine at +115.4; usable 7.0 qt. per engine) See NOTE 1 for data on undrainable oil		
Control Surface Movements	<p>Wing flaps Down 45°, +1°, -0°</p> <p>Main surfaces</p> <p>Aileron Up 20°, +1°, -0° Down 20°, +1°, -0°</p> <p>Elevator Up 25°, +1°, -0° Down 15°, +1°, -0°</p> <p>Rudder Right 32°, +1°, -0° Left 32°, +1°, -0°</p> <p>(Read degrees normal to rudder hinge line)</p> <p>Tab (main surface in neutral)</p> <p>Aileron Up 20°, +1°, -0° Down 20°, +1°, -0°</p> <p>Elevator Up 12°, +1°, -0° Down 20°, +1°, -0°</p> <p>Rudder Right 11°, +1°, -0° Left 16°, +1°, -0°</p> <p>(Read degrees normal to rudder hinge line)</p>		
Serial Nos. Eligible	421C0001 through 421C1807		

VIII - Model 414A, Chancellor, (Normal Category), Approved September 30, 1977

Engines	Two Continental TSIO-520-N or TSIO-520-NB (S/N 414A0001 through 414A0200) Two Continental TSIO-520-NB (S/N 414A0201 and up)
Fuel	Grade 100 or 100LL Aviation Gasoline
Engine Limits	For all operations, 2700 r.p.m., 310 hp., 38.0 in. Hg. Mp. up to critical altitude of 20,000 ft. in standard atmosphere. Above 20,000 ft. the following maximum Mp. applies for maximum r.p.m.:

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
20,000	38.0
22,000	35.2
24,000	32.3
26,000	29.8
28,000	27.4
30,000	25.0

Propeller and Propeller Limits	Two McCauley full-feathering three-bladed propeller installations (a) McCauley hub 3AF32C93 with 82NC-5.5 blades or McCauley hub 3AF32C505 with 82NEA-5.5 blades Diameter: not over 76.5 in., not under 75.0 in. (no further reduction permitted) Pitch settings at 30 in. station: low 14.9°, ±0.2°, feathering 81.2°, ±0.3° or (b) McCauley hub 3AF32C93 with 82NC-5.5 blades or McCauley hub 3AF32C505 with 82NEA-5.5 blades Diameter: not over 75.5 in., not under 75 in. Pitch settings at 30 in. station: low 15.2°, ±0.2° feathered 81.2°, ±0.3°
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VIII - Model 414A (cont'd)Propeller and
Propeller Limits

- (c) S/N 414A0001 through 414A0801
Hydraulic governor McCauley DCF290D2/T3, DCFU290D2/T3, DCFS290D4/T3, DCFUS290D4/T3, DCFS290D6/T3, DCFUS290D6/T3, DCF290D7/T3, DCFU290D7/T3, DCFU290D13/T3, DCFS290D7/T3, DCFUS290D7/T3, DCFUS290D13/T3, DCFS290D8/T3, DCFUS290D8/T3 or DCFUS290D12/T13

S/N 414AC0801 and up

Hydraulic governor McCauley DCF290D2/T3, DCFU290D2/T3, DCF290D7/T3, DCFU290D7/T3 or DCFU290D13/T3, DCFS290D9/T3, DCFUS290D9/T3

- (d) Propeller spinner and bulkhead assembly, McCauley D-3534/D-3796, or McCauley D-5212/D-5214

Airspeed Limits
(IAS)

Maneuvering	145 KIAS (167 m.p.h.)
Max. structural cruising	203 KIAS (234 m.p.h.)
Never exceed	237 KIAS (273 m.p.h.)
Landing gear operating	177 KIAS (204 m.p.h.)
Landing gear extended	177 KIAS (204 m.p.h.)
Flaps extended 15°	177 KIAS (204 m.p.h.)
Flaps extended 45°	146 KIAS (168 m.p.h.)
Minimum control	79 KIAS (91 m.p.h.)

C.G. Range (Landing
Gear Extended)

(+151.3) to (+160.0) at 6750 lb.
(+147.8) at 5800 lb. or less
Straight line variation between points given
Landing gear retracted moment change: +917 in.-lb.

Empty Wt. C.G. Range

None

Leveling Means

External screw heads on right side of fuselage at stations +213.29 and +238.55 on W.L. +93.80

Maximum Weight

Ramp 6785 lb., takeoff and landing 6750 lb.

No. of Seats

6, 7 or 8 (2 at +137.0, 2 at +175.0, 2 at +218.0, Optional: 1 or 2 at +261.0 or with toilet option, 1 at +250.0)
(See manufacturer's equipment list for optional seating arrangements)

Maximum Baggage

250 lb. (+32.0), 350 lb. (+71.0), 400 lb. (+186.0), 400 lb. (+266.0), 100 lb. (+282.0)

Fuel Capacity

S/N 414A0001 through 414A0200

213.4 gal. (2 wing tanks, 106.7 gal. ea., 103.0 gal. usable at +161.0)
See NOTE 1 for data on unusable fuel

S/N 414A0201 through 414A0400

213.4 gal. (2 wing tanks, 106.7 gal. ea., 102.0 gal. usable at +161.0)
See NOTE 1 for data on unusable fuel

S/N 414A0401 and up

213.4 gal. (2 wing tanks, 106.7 gal. ea., 103.0 gal. usable at +161.0)
See NOTE 1 for data on unusable fuel

Oil Capacity

26 qt. (13 qt. in ea. engine at +110.9; usable 6.5 qt. per engine)
See NOTE 1 for data on undrainable oil

VIII - Model 414A (cont'd)

Control Surface Movements

Wing flaps			Down	45°, +1°, -0°
Main surfaces				
Aileron	Up	20°, +1°, -0°	Down	20°, +1°, -0°
Elevator	Up	25°, +1°, -0°	Down	15°, +1°, -0°
Rudder	Right	32°, +1°, -0°	Left	32°, +1°, -0°
(Read degrees normal to rudder hinge line)				
Tab (main surface in neutral)				
Aileron	Up	20°, +1°, -0°	Down	20°, +1°, -0°
Elevator	Up	12°, +1°, -0°	Down	20°, +1°, -0°
Rudder	Right	11°, +1°, -0°	Left	16°, +1°, -0°
(Read degrees normal to rudder hinge line)				

Serial Nos. Eligible

414A0001 through 414A1212

IX - Model 402C, Businessliner/Utililiner, (Normal Category), Approved September 25, 1978

Engines

Two Continental TSIO-520-VB rated at 325 hp.

Fuel

Grade 100 or 100LL aviation gasoline

Engine Limits

Takeoff and engine inoperative, 2700 r.p.m., 39.0 in. Hg. Mp. up to 12,000 ft. Above 12,000 ft. the following maximum Mp. applies for maximum r.p.m.

<u>Altitude (ft.)</u>	<u>Max. Allowable Mp. (in. Hg.)</u>
S.L. to	
12,000	39.0
14,000	37.2
16,000	37.2
18,000	32.0
20,000	29.5
22,000	27.0
24,000	25.0
26,000	23.0
28,000	21.0
30,000	19.0

Propeller and
Propeller Limits

- Two McCauley full-feathering three-bladed propeller installations
- (a) McCauley hub 3AF32C93 with 82NC-5.5 blades or McCauley hub 3AF32C505 with 82NEA-5.5 blades
Diameter: not over 76.5 in., not under 75.0 in.
(no further reduction permitted)
Pitch settings at 30 in. station:
low 14.9°, ±0.2°, feathering 82.2°, ±0.3°
- or (b) McCauley hub 3AF32C93 with 82NC-6.5 blades or McCauley hub 3AF32C505 with 82NEA-6.5 blades
Diameter: not over 75.5 in., not under 75.0 in.
Pitch settings at 30 in. station:
low 15.2°, ±0.2°, feathering 82.2°, ±0.3°
- (c) S/N 402C0001 through 402C0600
Hydraulic governor, Woodward B210444, C210439; McCauley DCF290D7/T3, DCFUS290D7/T3, DCFU290D13/T3, DCFS290D7/T3, DCFUS290D7/T3, DCFUS290D13/T3, DCFUS290D8/T3, or DCFUS290D12/T3
S/N 689, and 402C0601 and up
Hydraulic governor, Woodward B210444, C210439; McCauley DCF290D7/T3, DCFU290D7/T3 or DCFU290D13/T3, DCFS290D9/T3, DCFUS290D9/T3
- (d) Propeller spinner and bulkhead assembly; McCauley D-3534/D-3537, D-3534/D-3796, or D-5212/D-5214

IX - Model 402C (cont'd)

Airspeed Limits (IAS)	Maneuvering	150 KIAS (173 m.p.h.)
	Max. structural cruising	205 KIAS (236 m.p.h.)
	Never exceed	235 KIAS (270 m.p.h.)
	Landing gear operating	180 KIAS (207 m.p.h.)
	Landing gear extended	180 KIAS (207 m.p.h.)
	Flaps extended 15°	180 KIAS (207 m.p.h.)
	Flaps extended 45°	149 KIAS (172 m.p.h.)
	Minimum control	80 KIAS (92 m.p.h.)
C.G. Range (Landing Gear Extended)	(+151.58) to (+160.67) at 6850 lb. (+149.08) at 5800 lbs. or less Straight line variation between points given Landing gear retracted moment change: +917 in.-lb.	
Empty Wt. C.G. Range	None	
Leveling Means	External screw heads on right side of fuselage at stations +213.65 and +238.00 on W.L. +93.80	
Maximum Weight	Ramp, 6885 lbs., takeoff and landing 6850 lbs.	
No. of Seats	6, 7 or 8 (2 at +137.0, 2 at +175.0, 2 at +218.0, 1 or 2 at +261.0) 9 (with photographic provisions option) (2 at +137.0, 2 at +162.0, 2 at +190.0, 2 at +218.0, 1 at +246.0) 10 (2 at +137.0, 2 at +162.0, 2 at +190.0, 2 at +218.0, 2 at +246.0) (See manufacturer's equipment list for optional seating arrangements)	
Maximum Baggage	250 lbs. (+32.0), 350 lbs. (+71.0), 400 lbs. (+186.0), 400 lbs. (+266.0), 100 lbs. (+282.0)	
Fuel Capacity	<u>S/N 402C0001 through 402C0200</u> 213.4 gal. (2 wing tanks, 106.7 gal. ea., 102 gal. usable at +161.0) See NOTE 1 for data on unusable fuel	
	<u>S/N 689, and 402C0201 and up</u> 213.4 gal. (2 wing tanks, 106.7 gal. ea., 103 gal. usable at +161.0) See NOTE 1 for data on unusable fuel	
Oil Capacity	26 qt. (13 qt. in ea. engine at +110.9; usable 6.5 qt. per engine) See NOTE 1 for data on undrainable oil	
Control Surface Movements	Wing flaps	Down 45°, +1°, -0°
	Main surfaces	
	Aileron Up 20°, +1°, -0°	Down 20°, +1°, -0°
	Elevator Up 25°, +1°, -0°	Down 15°, +1°, -0°
	Rudder Right 32°, +1°, -0°	Left 32°, +1°, -0°
	(Read degrees normal to rudder hinge line)	
	Tab (main surface in neutral)	
	Aileron Up 20°, +1°, -0°	Down 20°, +1°, -0°
	Elevator Up 12°, +1°, -0°	Down 20°, +1°, -0°
	Rudder Right 11°, +1°, -0°	Left 16°, +1°, -0°
	(Read degrees normal to rudder hinge line)	
Serial Nos. Eligible	689, 402C0001 through 402C1020	

X - Model 425, Corsair or Conquest I (See NOTE 7), (Normal Category), Approved July 1, 1980

Engines Two Pratt & Whitney Aircraft of Canada, Ltd., PT6A-112 turboprop

Fuel Aviation turbine fuel Jet A, Jet A-1, or Jet B, JP-4, JP-5 or JP-8. For required use of anti-icing additives and emergency use of aviation gasoline, refer to the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

Engine Limits

	Operating Limits			
	Shaft Horsepower Power	Ng Gas Generator Speed (% rpm)	Indicated Torque (ft.-lbs.)	Maximum Permissible Interturbine Temp. (°C.)
Takeoff static & max. continuous	450*	101.6	1244	1900
Starting (2 sec.)	--	--	--	--
Maximum reverse	430	101.6	1244	1815

***Flat Rated:**

The engines may produce more power than that for which the airplane has been certificated.
Under these conditions, the placarded torque, ITT, or Ng limitations shall not be exceeded.

**Propeller and
Propeller Limits**

- (1) Two Hartzell three-bladed, full-feathered, reversible
 Hub: HC-B3TN-3C
 Blade: T10178B-8R
 Diameter: Not over 93-3/8 in., not under 91 inches; no further reduction permitted
 Pitch at 30-inch station:
 Low pitch 20.2°
 Feathered 86.7°
 Reverse -10.9°
- (2) Two McCauley three-bladed, full-feathered, reversible
 Hub: 3GFR34C701
 Blade: 93KB-0
 Diameter: Not over 93 inches, not under 90-5/8 inches; no further reduction permitted
 Pitch at 30-inch station:
 Low pitch 18.5°
 Feathered 85.5°
 Reverse -13.5°

Propellers may be interchanged in any combination.

**Airspeed Limits
(IAS)**

V _{MO} (Max Operating)	230 knots 265 m.p.h.
Sea level to 21,800 ft.	
M _{MO} Above 21,800 ft.	.52 mach
V _A (Maneuvering) at 8200 lbs.	154 knots 177 m.p.h.
V _A (Maneuvering) at 8600 lbs.	157 knots 181 m.p.h.
V _{FE} (Flaps extended)	
45° (Landing)	145 knots 169 m.p.h.
15° (Takeoff & Approach)	175 knots 201 m.p.h.
V _{MCA} (Min. control speed) Air at 8200 lbs.	90 knots 104 m.p.h.
V _{MCA} (Min. control speed) Air at 8600 lbs.	92 knots 106 m.p.h.
V _{LE} (Landing gear extended)	175 knots 201 m.p.h.

X - Model 425 (cont'd)C.G. Range (Landing
Gear Extended)S/N 425-0001 through 425-0176 (See NOTE 7)
(155.66) to (160.04) at 8200 lbs.
(150.65) to (160.04) at 6478 lbs. or lessS/N 425-0177 and up
(156.81) to (160.04) at 8600 lbs.
(150.65) to (160.04) at 6478 lbs. or lessStraight line variation between points given
Moment change due to retracting landing gear (+1448 in.-lb.)

Empty Wt. C.G. Range

None

Leveling Means

External screw heads on right side of fuselage at stations +213.9
and +238.55 on W.L. +93.80

Maximum Weight

	<u>S/N 425-0001 through 425-0176</u> (See NOTE 7)	<u>S/N 425-0177</u> and up
Takeoff	8200 lbs.	8600 lbs.
Landing	8000 lbs.	8000 lbs.
Zero fuel	6740 lbs.	7000 lbs.
Ramp	8275 lbs.	8675 lbs.

No. of Seats

6, 7 or 8 (2 at +137.0, 2 at +175.0, 2 at +218.0, 2 at +261.0)
See manufacturer's equipment list for optional seating arrangements

Maximum Baggage

250 lb. (+32.0), 350 lb. (+71.0), 400 lb. (+266.0), 100 lb. (+282.0)

Fuel Capacity

2497.8 lb. (372.8 gal.) total in two wing tanks, 1248.9 lb. (186.4 gal.) each; 2452.2 lb. (366.0 gal.) usable total, 1226.1 lb. (133 gal.) in each tank at +163.3. Fuel weight based on 6.70 lb./gal. See NOTE 1 for data on unusable fuel.

Oil Capacity

5.28 gal. total, 5.28 gal. usable (2.3 gal. in each engine-mounted tank at +125.3).
See NOTE 1 for data on undrainable oil.Maximum Operating
Altitude

30,000 ft.

Control Surface Movements

Wing flaps		Down	45°, +1°, -0°
Main surfaces			
Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
Elevator	Up	19°, +1°, -0°	Down 15°, +1°, -0°
Rudder	Right	32°, +1°, -0°	Left 32°, +1°, -0°
(Read degrees normal to rudder hinge line)			
Tab (main surface in neutral)			
Aileron	Up	20°, +1°, -0°	Down 20°, +1°, -0°
Elevator	Up	6°, +1°, -0°	Down 15°, +1°, -0°
Rudder	Right	11°, +1°, -0°	Left 16°, +1°, -0°
(Read degrees normal to rudder hinge line)			

Serial Nos. Eligible

425-0001 through 425-0236

Data Pertinent to All Models

Datum

100.00 in. forward face of fuselage bulkhead forward of rudder pedals.

Certification Basis**Models 401, 401A, 401B, 402, 402A, 402B, 411, 411A, 414, 421, 421A:**

Part 3 of the Civil Air Regulations dated May 15, 1956, as amended by 3-1 through 3-5 and 3-8.

Model 421B:

Part 3 of the Civil Air Regulations dated May 15, 1956, except Subpart B, as amended by 3-1 through 3-5 and 3-8; Subpart B, paragraphs 23.25 through 23.253 of the Federal Aviation Regulations dated February 1, 1965, as amended by 23-1 through 23-7.

Models 414A and 421C:

Part 3 of the Civil Air Regulations dated May 15, 1956, as amended by 3-1 through 3-5 and 3-8, excluding the following portions:

Subpart B and paragraphs 3.356, 3.357, 3.358, 3.359, 3.411, 3.429, 3.433, 3.434, 3.435, 3.436, 3.437, 3.445, 3.581, 3.582, 3.583, 3.584, 3.585, 3.587, 3.628, 3.666, 3.672, 3.673, 3.674, 3.675, 3.700(c), 3.728, 3.767(a) and 3.767(b). Include the following portions of FAR 23 dated February 1, 1965, as amended by 23-1 through 23-14; Subpart B and paragraphs 23.729, 23.901, 23.909, 23.951, 23.954, 23.955, 23.959, 23.973, 23.1041, 23.1043, 23.1047, 23.1143, 23.1305, 23.1387(e), 23.1435 and 23.1557(c); as amended by 23-1 through 23-21, paragraph 23.1385(c); as amended by 23-1 through 23-23, paragraph 23.1327. Add paragraph 23.1559(b) for Model 414A only. Findings of Equivalent Level of Safety were made for CAR 3.637, 3.757, and 3.778(a).

Model 402C:

Part 3 of the Civil Air Regulations dated May 15, 1956, as amended by 3-1 through 3-5 and 3-8, excluding the following portions: Subpart B and paragraphs 3.356, 3.357, 3.358, 3.359, 3.411, 3.429, 3.433, 3.434, 3.435, 3.436, 3.437, 3.445, 3.581, 3.582, 3.583, 3.584, 3.585, 3.587, 3.628, 3.666, 3.672, 3.673, 3.674, 3.675, 3.700(c), 3.728, 3.767(a) and 3.767(b). Include the following portions of FAR 23 dated February 1, 1965, as amended by 23-1 through 23-14: Subpart B and paragraphs 23.729, 23.901, 23.909, 23.951, 23.954, 23.955, 23.959, 23.973, 23.1041, 23.1043, 23.1047, 23.1143, 23.1305, 23.1387(e), 23.1435, 23.1557(c), and 23.1559(b); as amended by 23-1 through 23-21, paragraph 23.1385(c); as amended by 23-1 through 23-23, paragraph 23.1327. Part 36 of the Federal Aviation Regulations dated December 1, 1969, as amended by 36-1 through 36-7. Findings of Equivalent Level of Safety were made for CAR 3.637, 3.757, and 3.778(a).

Model 425:

Part 3 of the Civil Air Regulations dated May 15, 1956, as amended by 3-1 through 3-6 and 3-8 as follows: Paragraphs 3.0 through 3.20, 3.291 through 3.307, 3.317 through 3.347, 3.371 through 3.401, 3.651, 3.652, 3.655(c) and (d), 3.661, 3.662, 3.668, 3.686 through 3.699, 3.711 through 3.728, 3.749, 3.791, and 3.792; the following portions of FAR 23 dated February 1, 1965, as amended by 23-1 through 23-21: Paragraphs 23.21 through 23.33, 23.45(a) through (d), 23.49 through 23.179, 23.181(a), 23.201 through 23.572, 23.629, 23.723 through 23.735, 23.865, 23.867, 23.901 through 23.1017, 23.1019(a)(1) and (2), 23.1019(a)(4) and (5), 23.1019(b), 23.1021 through 23.1203, 23.1303(a) through (d), 23.1305(a) through (u) and (w), 23.1323, 23.1325, 23.1327, 23.1329, 23.1335, 23.1337, 23.1351 through 23.1357, 23.1385 through 23.1401, 23.1441 through 23.1449, 23.1501 through 23.1521, 23.1524, 23.1525, 23.1527(b), and 23.1529 through 23.1589; Paragraph 25.831(d) of FAR 25 dated February 1, 1965, as amended by 25-1 through 25-43; FAR 36 dated December 1, 1969, as amended by 36-1 through 36-10; SFAR No. 27, Fuel Venting and Exhaust Emission Requirements for Turbine Engine Powered Airplanes, effective February 1, 1974, as amended by SFAR's 27-1, 27-2, and 27-3; plus Special Conditions 23-93-CE-12 as amended by Amendment No. 1 dated June 25, 1980. (See NOTE 3.)

Model 414A (S/N 414A0401 and up, Model 421C (S/N 421C0801 and up)

In addition to the above certification basis, compliance with FAR 36, dated December 1, 1969, as amended by 36-1 through 36-10 (414A only) and 36-1 through 36-4 (421C only) has been demonstrated.

Model 402B, S/N 402B0501 and up

Model 402C

Model 414, S/N 414-0451 and up

Model 414A

Model 421B, S/N 421B0501 and up

Model 421C

Model 425

Markings, placards and manuals are primarily in knots instead of m.p.h. as required by CAR 3, but permitted by FAR 23, Amendment 23-7.

Model 402B, S/N 402B1001 and up

Model 414, S/N 414-0801 and up

Findings of equivalent level of safety were made for CAR 3.757 and 3.778(a).

Model 402B, S/N 402B0801 and up

Model 402C

Model 414, S/N 414-0601 and up

Model 414A

Model 421B, S/N 421B0801 and up

Model 421C

Model 425

In addition to the above certification basis, compliance with ice protection has been demonstrated in accordance with FAR 23.1419 of Amendment 23-14 effective December 20, 1973, when ice protection equipment is installed in accordance with Cessna Drawing 5914105 for 425, 5114400 for all other models, Factory Kit (FK) No. 194, Pilot's Operating Handbook and/or FAA Approved Airplane Flight Manual. Aircraft which have been modified in compliance with Accessory Kit (AK) No. 421-106 are considered to be equivalent to those with Factory Kit (FK) No. 194.

Application for Type Certificate dated September 18, 1961. Type Certificate No. A7CE issued August 17, 1964, obtained by the manufacturer under delegation option procedures.

Production Basis

Production Certificate No. 312 issued and Delegation Option Manufacturer No. CE-3 authorized to issue airworthiness certificates under delegation option provisions of Part 21 of the Federal Aviation Regulations. Effective February 15, 1985, and on, Production Certificate No. 4 is applicable to all spares production. See NOTE 8 for specific effectivity of P.C. 4 on new airplane serials.

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. In addition, the following item of equipment is required.

1. Stall warning indicator, Cessna dwg. 5018100 (401, 402, 411, 411A)
 - Stall warning indicator, Cessna dwg. 5118000 (421)
 - Stall warning indicator, Cessna dwg. 5618002 (414)
 - Stall warning indicator, Cessna dwg. 5218016 (401A, 402A, 401B, 402B0001 through 402B0300)
 - Stall warning indicator, Cessna dwg. 5118310 (421A)
 - Stall warning indicator, Cessna dwg. 5118402 (421B0001 through 421B0300)
 - Stall warning indicator, Cessna dwg. 5618021 (414-0351 and up, 421B0301 and up)
 - Stall warning indicator, Cessna dwg. 5218031 (402B0301 and up)
 - Stall warning indicator, Cessna dwg. 5118627 (421C)
 - Stall warning indicator, Cessna dwg. 5618041 (402C, 414A, 425)

or Angle of Attack Indicator System, Cessna Dwg. 0800302, Model 402B, 402C, 414, 414A, 421B, 421C.

NOTE 1. Current weight and balance report together with 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.

The certificated empty weight and corresponding center of gravity location must include undrainable oil (not included in oil capacity) and unusable fuel as follows:

- (a) Fuel. 12 lb. (tip) at (+152.0) (401, 401A, 401B, 402, 402A, 402B, 411, 411A, 414, 421, 421A, 421B)
 18 lb. (wing, standard 73 gal. at +164.0) (411, 411A, 421, 421A, 421B)
 24 lb. (wing, optional 100 gal. at +164.0) (411, 411A, 421, 421A, 421B, 402A, 402B, 414)
 6 lb. (wing, optional 63 gal. at +164.0) (402B0301 and up and 414-0351 and up)
 44 lb. (wing, 7.4 gal. at +165.2) (402C, S/N 689, and 402C0201 and up; 414A, S/N 414A0401 and up; 421C)
 68 lb. (wing, 11.4 gal. at +165.2) (414A, S/N 414A0001 through S/N 414A0200)
 56 lb. (wing, 9.4 gal. at +165.0) (402C, S/N 402C0001 through 402C0200; 414A, S/N 414A0201 through 414A0400)
 45.6 lb. (wing, 6.8 gal. at +166.2) (425)
- (b) If optional wing locker transfer tanks are installed 3.0 lb. (each 26 gal. tank) at (+176.0) (411, 411A, 421, 421A, 421B)
 3.0 lb. (each 20 gal. tank) at (+175.0) (401, 401A, 401B, 402, 402A, 402B, 414)
 2.0 lb. (each 28 gal. tank) at (+176.0) (421C0001 and up)
- (c) Oil - 0.0 lb.

NOTE 2. The placards specified in the FAA Approved Airplane Flight Manual must be displayed.

NOTE 3. Service information
 The appropriate airplane service manual contains structural retirement lives, which may not be changed without FAA Engineering approval, for the following components:

	<u>Part Number</u>	<u>Hours</u>	<u>Model</u>
Windshield	5111604-1 & -2	13,200	414, 414A, 421A, 421B, 421C, 425
Windshield, heated	9910013-1	13,200	421, 421A (S/N 421A0001 through 421A0117)
Windshield, heated	9910071-1	13,200	414, 421A, 421B (S/N 414-0001 through 414-0600, 421A0118 through 421B0800)
Windshield, heated	9910214-1 & -2	13,200	414, 414A, 421B, 421C (S/N 414-0601 and up, 421B0801 through 421C0800)
Windshield, heated	9910460-1 & -200	13,200	421C (S/N 421C0801 and up), 425
Upper cabin door latch pins	5111545-3	8,000	421 (S/N 421-0001 through 421-0079)
Upper cabin door latch pins	5111545-6	8,000	421 (S/N 421-0080 and up)
Wing	5922125	13,000	425
Wing carry-thru	5911004, 5111225	30,000	425

Model 425 Special Conditions 23-93-CE-12, required, in part, that Cessna establish mandatory inspections of the Horizontal Tail Assembly in order to maintain continued structural integrity. Therefore, inspections are required for the horizontal stabilizer, elevators, elevator tab and tab actuator system. In order to comply with these requirements, airplanes must be inspected in accordance with inspection Item Codes A273002, A273101, A273102, B273109 and A551001 as contained in Model 425 Maintenance Manual, Part Number D2535-3-13, Revision 3 (or later revision). These inspection criteria are contained in Chapter 5, Subsection 5-10-01, and are applicable to Zones 331 and 332. All approved airplane inspection programs must include these mandatory inspections.

- NOTE 4.** Model 421, Serial Nos. 421-0001 and up, approved for 6840 lb. takeoff weight with C.G. range as follows when appropriate airplane flight manual, pilot's check list, weight and balance form, and other documents are provided as specified in Cessna Service Kit SK421-12.
- C.G. Range (Landing Gear Extended)**
- (+152.1) to (+155.5) at 6840 lb.
(+155.7) at 6500 lb.
(+144.3) to (+155.7) at 5500 lb.
- Straight line variation between points given
- NOTE 5.** McCauley propellers with 3AF32C87 and 3AF32C504 hubs may be interchanged in any combination. This also applies to propellers with 3AF32C93 and 3AF32C505m hubs; 3AF34C92 and 3AF37C516 hubs; 3AF34C74 and 3AF37C510 hubs.
- NOTE 6.** Model 425 aircraft in compliance with Cessna Drawing 5700018 are eligible for certification in The Netherlands.
- NOTE 7.** Model 425 S/N 425-0001 through 425-0176 (Corsair) are eligible for the maximum weights and C.G. range applicable to S/N 425-0177 and up (Conquest I), when modified in accordance with Cessna Service Kit SK425-17, and will be renamed Conquest I.
- NOTE 8.** Production Certificate No. 4 effective at Serials 402C1005 and on, 414A1208 and on, 421C1801 and on, and 425-0228 and on.

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I - Model 182 (Cont'd)

Propeller and	(b) Cessna spinner 0752619
Propeller Limits (cont'd)	(c) Woodward governor 210105AF, 210340 or 210451
4. McCauley constant speed	
(a) Hub 2A34C with 90A-8 or 90AT-8 blades	
Diameter: not over 82 in., not under 80 in.	
Pitch settings at 36 in. sta.:	
low 10.5°, high 21.5°	
(b) Cessna spinner 0752004	
(c) Woodward governor 210065, 210105, 210155, 210345 or 210452	
or McCauley C290D2/T1 or C290D3/T1	

*Airspeed Limits	Maneuvering	122 m.p.h. (106 knots)
(CAS)	Maximum structural cruising	160 m.p.h. (139 knots)
	Never exceed	184 m.p.h. (160 knots)
	Flaps extended	100 m.p.h. (87 knots)

C.G. Range	(+39.5) to (+45.8) at 2550 lb.
	(+35.0) to (+45.8) at 2050 lb. or less
	Straight line variation between points given

Empty Wt. C.G. Range	None
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*Maximum Weight	2550 lb.
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No. of Seats	4 (2 at +36, 2 at +70)
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Maximum Baggage	120 lb. (+95)
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Fuel Capacity	60 gal. (55 gal. usable); two 30 gal. tanks in wings at +48.
	See NOTE 1 for data on unusable fuel

Oil Capacity	12 qt. (-15) (6 qt. usable)
	See NOTE 1 for data on undrainable oil

Control Surface Movements	Wing flaps	Takeoff	Retracted	0°
			1st notch	10°
			2nd notch	20°
		Landing	3rd notch	30°
			4th notch	40°
	Ailerons	Up 20° ± 2°	Down	14° ± 2°
	Adj. stabilizer	Up 1° 50' ± 15'	Down	8° 20' ± 15'
	Elevator	Up 25° ± 1°	Down	22° 50' ± 1°
	(With stabilizer full down)			
	Rudder	Right 24° ± 1°	Left	24° ± 1°

Serial Nos. Eligible	Model 182: 613 and 33000 through 33842 (1956 Model)
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II - Model 182A, Skylane, 4 PCLM (Normal Category), Approved December 7, 1956

Engine	Continental O-470-L
*Fuel	80 minimum grade aviation gasoline
*Engine Limits	For all operations, 2600 r.p.m. (230 hp.)

II - Model 182A (cont'd)**Propeller and
Propeller Limits**

1. Hartzell constant speed
 - (a) Hub HC82XF-1 or HCA2XF-1 or BHCA2XF-1 with 8433-2 blades
Diameter: not over 82 in., not under 80 in.
Pitch settings at 30 in. sta.: low 12°, high 24°
 - (b) Cessna spinner 0752006
 - (c) Woodward governor 210065, 210105, 210155 or 210340
2. McCauley constant speed
 - (a) Hub 2A36C with 90M-8 blades
Diameter: not over 82 in., not under 80 in.
Pitch settings at 36 in. sta.: low 10.5°, high 22°
 - (b) Cessna spinner 0752004
 - (c) Woodward governor 210065, 210105, 210155 or 210452,
or McCauley C290D2/T1 or C290D3/T1
3. Hartzell constant speed
 - (a) Hub BHC-C2YF-1 with 8468-2 blades
Diameter: not over 82 in., not under 80 in.
Pitch settings at 30 in. sta.:
low 13°, high 24°
 - (b) Cessna spinner 0752619
 - (c) Woodward governor 210105AF, 210340 or 210451
4. McCauley constant speed
 - (a) Hub 2A34C with 90A-8 or 90AT-8 blades
Diameter: not over 82 in., not under 80 in.
Pitch settings at 36 in. sta.:
low 10.5°, high 21.5°
 - (b) Cessna spinner 0752004
 - (c) Woodward governor 210065, 210105, 210155, 210345, 210452,
or McCauley C290D2/T1 or C290D3/T1

***Airspeed Limits
(CAS)**

Maneuvering	122 m.p.h. (106 knots)
Maximum structural cruising	160 m.p.h. (139 knots)
Never exceed	184 m.p.h. (160 knots)
Flaps extended	100 m.p.h. (87 knots)

C.G. Range

(+40.0) to (+45.8) at 2650 lb.
 (+33.5) to (+45.8) at 2100 lb. or less
 Straight line variation between points given

Empty Wt. C.G. Range

None

***Maximum Weight**

2650 lb.

No. of Seats

4 (2 at +36, 2 at +70)

Maximum Baggage

120 lb. (+95)

Fuel Capacity

65 gal. (55 gal. usable); two 32.5 gal. tanks in wings at +48
 See NOTE 1 for data on unusable fuel

Oil Capacity

12 qt. (-15) (6 qt. usable)
 See NOTE 1 for data on undrainable oil

II - Model 182A (cont'd)

Control Surface Movements	Wing flaps	Takeoff	Retracted	0°
			1st notch	10°
		Landing	2nd notch	20°
			3rd notch	30°
	Ailerons	Up $20^{\circ} \pm 2^{\circ}$	4th notch	40°
			Down	$14^{\circ} \pm 2^{\circ}$
	Adj. stabilizer	Up $1^{\circ} 50' \pm 15'$	Down	$8^{\circ} 20' \pm 15'$
	Elevator	Up $25^{\circ} \pm 1^{\circ}$	Down	$22^{\circ} 50' \pm 1^{\circ}$
	(With stabilizer full down)			
	Rudder	Right $24^{\circ} \pm 1^{\circ}$	Left	$24^{\circ} \pm 1^{\circ}$
Serial Nos. Eligible				
Model 182A: 33843 through 34753 (1957 Model)				
Model 182A: 34755 through 34999 and 51001 through 51556 (1958 Model)				

III - Model 182B, Skylane, 4 PCLM (Normal Category), Approved August 22, 1958

Engine	Continental O-470-L			
*Fuel	80 minimum octane aviation gasoline			
*Engine Limits	For all operations, 2600 r.p.m. (230 hp.)			
Propeller and Propeller Limits	1. Hartzell constant speed			
	(a) Hub HC82XF-1 or HCA2XF-1 or BHCA2XF-1 with 8433-2 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 30 in. sta.: low 12° , high 24°			
	(b) Cessna spinner 0752006			
	(c) Woodward governor 210065, 210105, 210155, or 210340			
	2. McCauley constant speed			
	(a) Hub 2A36C with 90M-8 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 36 in. sta.: low 10.5° , high 22°			
	(b) Cessna spinner 0752004			
	(c) Woodward governor 210065, 210105, 210155, 210345, 210452, or McCauley C290D2/T1 or C290D3/T1			
	3. Hartzell constant speed			
	(a) Hub BHC-C2YF-1 with 8468-2 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 30 in. sta.: low 13° , high 24°			
	(b) Cessna spinner 0752619			
	(c) Woodward governor 210105AF, 210340, or 210451			
	4. McCauley constant speed			
	(a) Hub 2A34C with 90A-8 or 90AT-8 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 36 in. sta.: low 10.5° , high 21.5°			
	(b) Cessna spinner 0752004			
	(c) Woodward governor 210065, 210105, 210155, 210345, 210452, or McCauley C290D2/T1 or C290D3/T1			
*Airspeed Limits (CAS)	Maneuvering	122 m.p.h. (106 knots)		
	Maximum structural cruising	160 m.p.h. (139 knots)		
	Never exceed	184 m.p.h. (160 knots)		
	Flaps extended	100 m.p.h. (87 knots)		

III - Model 182B, Skylane (Cont'd)

C.G. Range	(+40.0) to (+45.8) at 2650 lb. (+33.5) to (+45.8) at 2100 lb. or less Straight line variation between points given			
Empty Wt. C.G. Range	None			
*Maximum Weight	2650 lb.			
No. of Seats	4 (2 at +36, 2 at +70)			
Maximum Baggage	120 lb. (+95)			
Fuel Capacity	65 gal. (55 gal. usable); two 32.5 gal. tanks in wings at +48 See NOTE 1 for data on unusable fuel			
Oil Capacity	12 qt. (-15) (6 qt. usable) See NOTE 1 for data on undrainable oil			
Control Surface Movements	Wing flaps	Takeoff	Retracted	0°
			1st notch	10°
			2nd notch	20°
		Landing	3rd notch	30°
			4th notch	40°
	Ailerons	Up 20° \pm 2°	Down	14° \pm 2°
	Adj. stabilizer	Up 1° 50' \pm 15'	Down	8° 20' \pm 15'
	Elevator	Up 25° \pm 1° (With stabilizer full down)	Down	22° 50' \pm 1°
	Rudder	Right 24° \pm 1°	Left	24° \pm 1°
Serial Nos. Eligible	Model 182B: 34754, 51557 through 52358 except 51623 (1959 Model)			

IV - Model 182C, Skylane, 4 PCLM (Normal Category), Approved July 8, 1959**Model 182D, Skylane, 4 PCLM (Normal Category), Approved June 14, 1960**

Engine	Continental O-470-L
*Fuel	80 minimum octane aviation gasoline
*Engine Limits	For all operations, 2600 r.p.m. (230 hp.)
Propeller and Propeller Limits	<ol style="list-style-type: none"> Hartzell constant speed <ol style="list-style-type: none"> Hub HC82XF-1 or HCA2XF-1 or BHCA2XF-1 with 8433-2 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 30 in. sta.: low 12°, high 24° Cessna spinner 0752006 Woodward governor 210065, 210105, 210155, or 210340 McCauley constant speed <ol style="list-style-type: none"> Hub 2A36C with 90M-8 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 36 in. sta.: low 10.5°, high 22° Cessna spinner 0752004 Woodward governor 210065, 210105, 210155, 210345, 210452, or McCauley C290D2/T1 or C290D3/T1

IV - Model 182C, Model 182D (cont'd)

3. Hartzell constant speed
 - (a) Hub BHC-C2YF-1 with 8468-2 blades
Diameter: not over 82 in., not under 80 in.
Pitch settings at 30 in. sta.:
low 13°, high 24°
 - (b) Cessna spinner 0752619
 - (c) Woodward governor 210105AF, 210340, or 210451
4. McCauley constant speed
 - (a) Hub 2A34C with 90A-8 or 90AT-8 blades
Diameter: not over 82 in., not under 80 in.
Pitch settings at 36 in. sta.:
low 10.5°, high 21.5°
 - (b) Cessna spinner 0752004
 - (c) Woodward governor 210065, 210105, 210155, 210345, 210452, or McCauley C290D2/T1 or C290D3/T1

*Airspeed Limits (CAS)	Maneuvering	122 m.p.h. (106 knots)
	Maximum structural cruising	160 m.p.h. (139 knots)
	Never exceed	184 m.p.h. (160 knots)
	Flaps extended	100 m.p.h. (87 knots)
C.G. Range	(+40.0) to (+45.8) at 2650 lb. (+33.5) to (+45.8) at 2100 lb. or less Straight line variation between points given	
Empty Wt. C.G. Range	None	
*Maximum Weight	2650 lb.	
No. of Seats	4 (2 at +36, 2 at +70)	
Maximum Baggage	120 lb. (+95)	
Fuel Capacity	65 gal. (55 gal. usable); two 32.5 gal. tanks in wings at +48 See NOTE 1 for data on unusable fuel	
Oil Capacity	12 qt. (-15) (6 qt. usable) See NOTE 1 for data on undrainable oil	
Control Surface Movements	Wing flaps	Takeoff 0°, 10°, 20° Landing 30°, 40°
	Ailerons Up 20° ±2°	Down 14° ±2°
	Adj. stabilizer Up 0° 45' ±15'	Down 8° 45' ±15'
	Elevator Up 25° ±1°	Down 22° 50' ±1°
	(With stabilizer full down)	
	Rudder Right 24° ±1°	Left 24° ±1°
	(measured parallel to 0.0.W.L.)	
Serial Nos. Eligible	Model 182C: 631, 52359 through 53007 (1960 Model)	
	Model 182D: 51623, 18253008 through 18253598 (1961 Model)	

V - Model 182E, Skylane, 4 PCLM (Normal Category), Approved June 27, 1961
Model 182F, Skylane, 4 PCLM (Normal Category), Approved August 1, 1962
Model 182G, Skylane, 4 PCLM (Normal Category), Approved July 19, 1963

Engine	Continental O-470-L or O-470-R	
*Fuel	80/87 minimum grade aviation gasoline	
*Engine Limits	For all operations, 2600 r.p.m. (230 hp.)	
Propeller and Propeller Limits	<ol style="list-style-type: none"> 1. Hartzell constant speed <ol style="list-style-type: none"> (a) Hub HC82XF-1 or HCA2XF-1 or BHCA2XF-1 with 8433-2 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 30 in. sta.: low 12°, high 24° (b) Cessna spinner 0752006 (c) Woodward governor 210065, 210105, 210155, or 210340 (Not eligible on O-470-R engine installation) 2. McCauley constant speed <ol style="list-style-type: none"> (a) Hub 2A36C with 90M-8 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 36 in. sta.: low 10.5°, high 22° (b) Cessna spinner 0752004 (c) Woodward governor 210065, 210105, 210155, 210345, or 210452, or McCauley C290D2/T1 or C290D3/T1 3. Hartzell constant speed <ol style="list-style-type: none"> (a) Hub BHC-C2YF-1 with 8468-2 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 30 in. sta.: low 13°, high 24° (b) Cessna spinner 0752619 (c) Woodward governor 210105AF, 210340, or 210451 4. McCauley constant speed <ol style="list-style-type: none"> (a) Hub 2A34C with 90A-8 or 90AT-8 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 36 in. sta.: low 10.5°, high 21.5° (b) Cessna spinner 0752004 (c) Woodward governor 210065, 210105, 210155, 210345, or 210452, or Garwin 34-828-01, or McCauley C290D2/T1 or C290D3/T1 	
*Airspeed Limits (CAS)	Maneuvering	128 m.p.h. (111 knots)
	Maximum structural cruising	160 m.p.h. (139 knots)
	Never exceed	193 m.p.h. (168 knots)
	Flaps extended	110 m.p.h. (96 knots)
C.G. Range	(+38.4) to (+47.4) at 2800 lb. (+33.0) to (+47.4) at 2250 lb. or less Straight line variation between points given	
Empty Wt. C.G. Range	None	
*Maximum Weight	2800 lb.	
No. of Seats	4 (2 at +36, 2 at +71)	
Maximum Baggage	120 lb. (+97)	

V - Model 182E, Model 182F, Model 182G (cont'd)

Fuel Capacity	65 gal. (60 gal. usable); two 32.5 gal. tanks in wings at +48 See NOTE 1 for data on unusable fuel			
Oil Capacity	12 qt. (-15) (6 qt. usable) See NOTE 1 for data on undrainable oil			
Control Surface Movements	Wing flaps			40° +1°, -2°
	Elevator tab	Up	25° ±2°	Down 15° ±1°
	Ailerons	Up	20° ±2°	Down 15° ±2°
	Elevator (relative to stabilizer)	Up	26° ±1°	Down 17° ±1°
	Rudder	Right	24° ±1°	Left 24° ±1°
Serial Nos. Eligible	Model 182E: 18253599 through 18254423 (1962 Model) Model 182F: 18254424 through 18255058 (1963 Model) Model 182G: 18255059 through 18255844 (1964 Model)			

VI - Model 182H, Skylane, 4 PCLM (Normal Category), Approved September 17, 1964**Model 182J, Skylane, 4 PCLM (Normal Category), Approved October 20, 1965****Model 182K, Skylane, 4 PCLM (Normal Category), Approved August 3, 1966****Model 182L, Skylane, 4 PCLM (Normal Category), Approved July 28, 1967**

Engine	Continental O-470-R		
*Fuel	80/87 minimum grade aviation gasoline		
*Engine Limits	For all operations, 2600 r.p.m. (230 hp.)		
Propeller and Propeller Limits	1. McCauley constant speed (a) Hub 2A34C66/90AT-8 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 36 in. sta.: low 10.5°, high 22° (b) Cessna spinner 0752637 (c) Woodward governor 210065, 210105, 210155, 210345, or 210452, or Garwin 34-828-01, or McCauley C290D2/T1 or C290D3/T1		
*Airspeed Limits (CAS)	Maneuvering	128 m.p.h. (111 knots)	
	Maximum structural cruising	160 m.p.h. (139 knots)	
	Never exceed	193 m.p.h. (168 knots)	
	Flaps extended	110 m.p.h. (96 knots)	
C.G. Range	(+38.4) to (+47.4) at 2800 lb. (+33.0) to (+47.4) at 2250 lb. or less Straight line variation between points given		
Empty Wt. C.G. Range	None		
*Maximum Weight	2800 lb.		
No. of Seats	4 (2 at +36, 2 at +71)		
Maximum Baggage	120 lb. (+97)		
Fuel Capacity	65 gal. (60 gal. usable); two 32.5 gal. tanks in wings at +48 See NOTE 1 for data on unusable fuel		

VI - Model 182H, Model 182J, Model 182K, Model 182L (cont'd)

Oil Capacity	12 qt. (-15) (6 qt. usable) See NOTE 1 for data on undrainable oil		
Control Surface Movements	Wing flaps		40° +1°, -2°
	Elevator tab	Up 25° ±2°	Down 15° ±1°
	Ailerons	Up 20° ±2°	Down 15° ±2°
	Elevator (relative to stabilizer)	Up 26° ±1°	Down 17° ±1°
	Rudder	Right 24° ±1°	Left 24° ±1°
Serial Nos. Eligible	Model 182H: 634, 18255846 through 18256684 (1965 Model) Model 182J: 18256685 through 18257625 (1966 Model) Model 182K: 18255845, 18257626 through 18257698, 18257700 through 18258505 (1967 Model) Model 182L: 18258506 through 18259305 (1968 Model)		

VII - Model 182M, Skylane, 4 PCLM (Normal Category), Approved September 19, 1968

Engine	Continental O-470-R		
*Fuel	80/87 minimum grade aviation gasoline		
*Engine Limits	For all operations, 2600 r.p.m. (230 hp.)		
Propeller and Propeller Limits	<div><div>1. McCauley constant speed</div><div><div>(a) Hub 2A34C66/90AT-8 blades</div><div>Diameter: not over 82 in., not under 80 in.</div><div>Pitch settings at 36 in. sta.:</div><div>low 10.5°, high 22°</div></div><div><div>(b) Cessna spinner 0752637</div><div>(c) Woodward governor 210065, 210105, 210155, 210345, or 210452, or Garwin 34-828-01, or McCauley C290D2/T1 or C290D3/T1</div></div></div> <div><div>2. McCauley constant speed</div><div><div>(a) Hub 2A34C201/90DA-8 blades</div><div>Diameter: not over 82 in., not under 80 in.</div><div>Pitch settings at 30 in. sta.:</div><div>low 13°, high 24.5°</div></div><div><div>(b) Cessna spinner 0752637</div><div>(c) Woodward governor 210065, 210105, 210155, 210345, or 210452, or Garwin 34-828-01, or McCauley C290D2/T1 or C290D3/T1</div></div></div> <div><div>3. McCauley constant speed</div><div><div>(a) Hub 2A34C203/90DCA-8 blades</div><div>Diameter: not over 82 in., not under 80.5 in.</div><div>Pitch settings at 30 in. sta.:</div><div>low 12.5°, high 25°</div></div><div><div>(b) Cessna spinner 0752637</div><div>(c) Woodward governor 210065, 210105, 210155, 210345, or 210452, or Garwin 34-828-01, or McCauley C290D2/T1 or C290D3/T1</div></div></div>		
*Airspeed Limits (CAS)	Maneuvering	128 m.p.h. (111 knots)	
	Maximum structural cruising	160 m.p.h. (139 knots)	
	Never exceed	193 m.p.h. (168 knots)	
	Flaps extended	110 m.p.h. (96 knots)	
C.G. Range	<div>(+38.4) to (+47.4) at 2800 lb.</div> <div>(+33.0) to (+47.4) at 2250 lb. or less</div> <div>Straight line variation between points given</div>		

VII - Model 182M (cont'd)

Empty Wt. C.G. Range	None		
*Maximum Weight	2800 lb.		
No. of Seats	4 (2 at +36, 2 at +71)		
Maximum Baggage	120 lb. (+97)		
Fuel Capacity	65 gal. (60 gal. usable); two 32.5 gal. tanks in wings at +48 See NOTE 1 for data on unusable fuel		
Oil Capacity	12 qt. (-15) (6 qt. usable) See NOTE 1 for data on undrainable oil		
Control Surface Movements	Wing flaps	40° +1°, -2°	
	Elevator tab	Up 25° ±2°	Down 15° ±1°
	Ailerons	Up 20° ±2°	Down 15° ±2°
	Elevator(relative to stabilizer)	Up 26° ±1°	Down 17° ±1°
	Rudder	Right 24° ±1°	Left 24° ±1°
Serial Nos. Eligible	Model 182M: 18257699, 18259306 through 18260055 (1969 Model)		

VIII - Model 182N, Skylane, 4 PCLM (Normal Category), Approved September 17, 1969

Engine	Continental O-470-R Continental O-470-S (See NOTE 4)		
*Fuel	80/87 minimum grade aviation gasoline		
*Engine Limits	For all operations, 2600 r.p.m. (230 hp.)		
Propeller and Propeller Limits	<ol style="list-style-type: none"> 1. McCauley constant speed <ol style="list-style-type: none"> (a) Hub 2A34C201/90DA-8 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 30 in. sta.: low 13°, high 24.5° (b) Cessna spinner 0752637 (c) Woodward governor 210065, 210105, 210155, 210345, or A210452, or Garwin 34-828-01-2A, or McCauley C290D2/T1 or C290D3/T1 2. McCauley constant speed <ol style="list-style-type: none"> (a) Hub 2A34C66/90AT-8 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 36 in. sta.: low 10.5°, high 22° (b) Cessna spinner 0752637 (c) Woodward governor 210065, 210105, 210155, 210345, or 210452, or Garwin 34-828-01, or McCauley C290D2/T1 or C290D3/T1 3. McCauley constant speed <ol style="list-style-type: none"> (a) Hub 2A34C203/90DCA-8 blades Diameter: not over 82 in., not under 80.5 in. Pitch settings at 30 in. sta.: low 12.5°, high 25° (b) Cessna spinner 0752637 (c) Woodward governor 210065, 210105, 210155, 210345, or 210452, or Garwin 34-828-01, or McCauley C290D2/T1 or C290D3/T1 		
*Airspeed Limits (CAS)	Maneuvering	131 m.p.h. (114 knots)	
	Maximum structural cruising	160 m.p.h. (139 knots)	
	Never exceed	198 m.p.h. (172 knots)	
	Flaps extended	110 m.p.h. (96 knots)	

VIII - Model 182N (cont'd)

C.G. Range	(+39.9) to (+47.4) at 2950 lb. (+38.4) to (+47.4) at 2800 lb. (+33.0) to (+47.4) at 2250 lb. or less Straight line variation between points given		
Empty Wt. C.G. Range	None		
*Maximum Weight	2950 lb. takeoff only, 2800 lb. landing		
No. of Seats	4 Front standard (2 at +36 to +49) Optional (2 at +32 to +44) Rear (2 at +74)		
Maximum Baggage	120 lb. (+97) (S/N 18260056 through 18260445) 120 lb. (+97) and 80 lb. (+117) (S/N 18260446 and up)		
Fuel Capacity	65 gal. (60 gal. usable); two 32.5 gal. tanks in wings at +48 See NOTE 1 for data on unusable fuel		
Oil Capacity	12 qt. (-15) (6 qt. usable) See NOTE 1 for data on undrainable oil		
Control Surface Movements	Wing flaps Elevator tab Ailerons Elevator(rel. to stabilizer) Rudder (parallel to 0.00 W.L.) (Perpendicular to hinge line)	Up 25° ±2° Up 20° ±2° Up 26° ±1° Right 24° ±1° Right 27° 13' ±1°	Down 40° +1°, -2° Down 15° ±1° Down 15° ±2° Down 17° ±1° Left 24° ±1° Left 27° 13' ±1°
Serial Nos. Eligible	Model 182N: 18260056 through 18260445 (1970 Model) 18260446 through 18260825 (1971 Model)		

IX - Model 182P, Skylane, 4 PCLM (Normal Category), Approved October 8, 1971

Engine	Continental O-470-R, Aircraft S/N 18260826 through 18263475 Continental O-470-S, Aircraft S/N 18260826 and up (See NOTE 4)
*Fuel	80/87 minimum grade aviation gasoline
*Engine Limits	For all operations, 2600 r.p.m. (230 hp.)
Propeller and Propeller Limits	1. McCauley constant speed (a) Hub 2A34C201/90DA-8 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 30 in. sta.: low 13°, high 24.5° (b) Cessna spinner 0752637 (c) Woodward governor 210065, 210105, 210155, 210345, or A210452, or Garwin 34-828-01-2A, or McCauley C290D2/T1 or C290D3/T1 2. McCauley constant speed (a) Hub 2A34C66/90AT-8 blades Diameter: not over 82 in., not under 80 in. Pitch settings at 36 in. sta.: low 10.5°, high 22° (b) Cessna spinner 0752637 (c) Woodward governor 210065, 210105, 210155, 210345, or 210452, or Garwin 34-828-01, or McCauley C290D2/T1 or C290D3/T1

IX - Model 182P, Skylane (Cont'd)

3. McCauley constant speed
 - (a) Hub 2A34C203/90DCA-8 blades
Diameter: not over 82 in., not under 80.5 in.
Pitch settings at 30 in. sta.: low 12.5°, high 25°
 - (b) Cessna spinner 0752637
 - (c) Woodward governor 210065, 210105, 210155, 210345, or 210452,
or Garwin 34-828-01, or McCauley C290D2/T1 or C290D3/T1

*Airspeed Limits (CAS)	(S/N 675, 18260826 through 18264295)
	Maneuvering 126 m.p.h. (109 knots)
	Maximum structural cruising 160 m.p.h. (139 knots)
	Never exceed 198 m.p.h. (172 knots)
	Flaps extended 110 m.p.h. (96 knots)

*Airspeed Limits (IAS) (See NOTE 5 on use of IAS)	(S/N 18264296 through 18265175)
	Maneuvering 110 knots
	Maximum structural cruising 141 knots
	Never exceed 176 knots
	Flaps extended 95 knots

C.G. Range	(+39.5) to (+48.5) at 2950 lb. (+33.0) to (+48.5) at 2250 lb. or less Straight line variation between points given
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Empty Wt. C.G. Range	None
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*Maximum Weight	2950 lb.
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No. of Seats	4 (2 front at +32.0 to +50.0) (2 rear at +74)
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Maximum Baggage	Serial Numbers 18260826 through 18263475 200 lb. (120 lb. at + 82.0 to +108.0) (80 lb. at +108.0 to +124.0) Serial Numbers 675 and 18263476 through 18265175 200 lb. (120 lb. at + 82.0 to +108.0) (80 lb. at +108.0 to +136.0)
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Fuel Capacity	(S/N 675, 18260826 through 18262250) Standard Range Tanks: 65 gal. (60 gal. usable); two 32.5 gal. tanks in wings at +48 Long Range Tanks: 84 gal. (79 gal. usable); two 42.0 gal. tanks in wings at +48 (S/N 18262251 through 18265175) Standard Range Tanks: 61 gal. (56 gal. usable); two 30.5 gal. tanks in wings at +48 Long Range Tanks: 80 gal. (75 gal. usable); two 40.0 gal. tanks in wings at +48
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See NOTE 1 for data on unusable fuel

Oil Capacity	12 qt. (-15) (6 qt. usable) See NOTE 1 for data on undrainable oil
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IX - Model 182P, Skylane (Cont'd)

Control Surface Movements	Wing flaps			Down	40° +1°, -2°
	Elevator tab	Up	25° ±2°	Down	15° ±1°
	Ailerons	Up	20° ±2°	Down	15° ±2°
	Elevator (rel. to stabilizer)	Up	26° ±1°	Down	17° ±1°
	Rudder(parallel to 0.00 W.L.)	Right	24° ±1°	Left	24° ±1°
	(perpendicular to hinge line)	Right	27° 13' ±1°	Left	27° 13' ±1°
Serial Nos. Eligible	Model 182P:	18260826 through 18261425 (1972 Model)			
		18261426 through 18262465 (1973 Model)			
		18262466 through 18263475 (1974 Model)			
		675, 18263476 through 18264295 except 18263479 (1975 Model)			
		18264296 through 18265175 (1976 Model)			

X - Model 182Q, Skylane, 4 PCLM (Normal Category), Approved July 28, 1976

Engine	Continental O-470-U	
*Fuel	100/130 minimum aviation grade gasoline (S/N 18265176 through 18265965) 100LL/100 aviation grade gasoline (S/N 18265966 through 18267715)	
*Engine Limits	For all operations, 2400 r.p.m. (230 hp.)	
Propeller and Propeller Limits	McCauley constant speed (a) Hub C2A34C204/90DCB-8 blades Diameter: not over 82 in., not under 80.5 in. Pitch settings at 30 in. sta.: low 15°, high 29.4° (b) Cessna spinner 0752637 (c) McCauley governor C290D3/T14	
*Airspeed Limits (IAS) (See NOTE 5 on use of IAS)	Maneuvering Maximum structural cruising Never exceed Flaps extended	111 knots 143 knots 179 knots 95 knots
C.G. Range	(+39.5) to (+48.5) at 2950 lb. (+33.0) to (+48.5) at 2250 lb. or less Straight line variation between points given	
Empty Wt. C.G. Range	None	
*Maximum Weight	2950 lb.	
No. of Seats	4 (2 front at +32.0 to +50.0) (2 rear at +74)	
Maximum Baggage	200 lb. (120 lb. at +82.0 to +108.0) (80 lb. at +108.0 to +136.0)	
Fuel Capacity	Standard Range Tanks: 61 gal. (56 gal. usable); two 30.5 gal. tanks in wings at +48 (S/N 18263479, 18265176 through 18266590) Long Range Tanks: 80 gal. (75 gal. usable); two 40.0 gal. tanks in wings at +48 (S/N 18263479, 18265176 through 18266590)	

X - Model 182Q (cont'd)

Fuel Capacity (Cont'd)	92 gal. (88 gal. usable); two 46.0 gal. integral tanks in wings at +46.5 (S/N 18266591 through 18267715)			
	See NOTE 1 for data on unusable fuel			
Oil Capacity	12 qt. (-15.0) (6 qt. usable) See NOTE 1 for data on undrainable oil			
Control Surface Movements	Wing flaps		Down	40° +1°, -2°
	Elevator tab	Up	25° ±2°	Down 15° ±1°
	Ailerons	Up	20° ±2°	Down 15° ±2°
	Elevator (rel. to stabilizer)	Up	26° ±1°	Down 17° ±1°
	Rudder (parallel to 0.00 W.L.)	Right	24° ±1°	Left 24° ±1°
	(perpendicular to hinge line)	Right	27° 13' ±1°	Left 27° 13' ±1°
Serial Nos. Eligible	Model 182Q: 18265176 through 18265965 (1977 Model) 18263479, 18265966 through 18266590 (1978 Model) 18266591 through 18267300 (1979 Model) 18267301 through 18267715, except 18267302 (1980 Model)			

XI - Model R182, Skylane RG, 4 PCLM (Normal Category), Approved July 7, 1977**Model TR182, Turbo Skylane RG, 4 PCLM (Normal Category), Approved September 12, 1978****Model R182**

Engine	Lycoming O-540-J3C5D, rated at 235 hp.
*Fuel	100LL/100 aviation grade gasoline
*Engine Limits	Full throttle for all operations, 2400 r.p.m.
Propeller and Propeller Limits	<ol style="list-style-type: none"> McCauley constant speed (S/N R18200002 through R18201313) <ol style="list-style-type: none"> Hub B2D34C214/90DHB-8 blades Diameter: not over 82 in., not under 80.5 in. Pitch settings at 30 in. sta.: low 15.8°, high 29.4° Cessna spinner 2250003 McCauley governor C290D3/T16 McCauley constant speed (S/N R18201314 through R18201628) <ol style="list-style-type: none"> Hub B2D34C218/90DHB-8 blades Diameter: not over 82 in., not under 80.5 in. Pitch settings at 30 in. sta.: low 15.8°, high 29.4° Cessna spinner 2250124 McCauley governor C290D3/T22 McCauley constant speed (S/N R18201629 through R18202041 and aircraft reworked per SK182-71) <ol style="list-style-type: none"> Hub B3D32C407/82NDA-3 blades Diameter: not over 79 in., not under 78 in. Pitch settings at 30 in. sta.: low 16.0°, high 31.7° Cessna spinner 2252076 McCauley governor C290D3/T22

XI - Model R182, Model TR182, Turbo Skylane RG (cont'd)**Model TR182****Engine**

Lycoming O-540-L3C5D, rated at 235 hp.
(Turbocharged in accordance with Cessna Drawing No. 2250065)

***Fuel**

100LL/100 aviation grade gasoline

***Engine Limits**

For all operations, 2400 r.p.m., 31 in. hg. mp.

**Propeller and
Propeller Limits**

1. McCauley constant speed (S/N R18200001, R18200584 through R18201313)
 - (a) Hub B2D34C217/90DHB-8
Diameter: not over 82 in., not under 80.5 in.
Pitch settings at 30 in. sta.: low 15.8°, high 31.9°
 - (b) Cessna spinner 2250003
 - (c) McCauley governor C290D3/T21
2. McCauley constant speed (S/N R18201314 and up)
 - (a) Hub B2D34C219/90DHB-8
Diameter: not over 82 in., not under 80.5 in.
Pitch settings at 30 in. sta.: low 15.8°, high 31.9°
 - (b) Cessna spinner 2250124
 - (c) McCauley governor C290D3/T22
3. McCauley constant speed (S/N R18201315, R18201629 and up and aircraft reworked per SK182-71 or SK182-72)
 - (a) Hub B3D32C407/82NDA-3
Diameter: not over 79 in., not under 78 in.
Pitch settings at 30 in. sta.: low 16.0°, high 31.7°
 - (b) Cessna spinner 2252076
 - (c) McCauley governor C290D3/T22

Models R182, TR182***Airspeed Limits**

(IAS)

(See NOTE 5 on use of IAS)

1978 Model R182	Maneuvering	112 knots
	Maximum structural cruising	143 knots
	Never exceed	182 knots
	Flaps extended	95 knots
	Landing gear extension	140 knots
1979 Model R182	Maneuvering	112 knots
	Maximum structural cruising	160 knots
	Never exceed	182 knots
	Flaps extended	95 knots
	Landing gear extension	140 knots
Model TR182	Maneuvering	112 knots
	Maximum structural cruising	157 knots
	Never exceed	179 knots
	Flaps extended	95 knots
	Landing gear extension	140 knots
1980 and up Model R182	Maneuvering	112 knots
	Maximum structural cruising	159 knots
	Never exceed	181 knots
	Flaps extended	95 knots
	Landing gear extension	140 knots
Model TR182	Maneuvering	112 knots
	Maximum structural cruising	157 knots
	Never exceed	178 knots
	Flaps extended	95 knots
	Landing gear extension	140 knots

XI - Model R182, Model TR182 (cont'd)

C.G. Range	(a) <u>S/N R18200001 through R18201628 except R18200975 & R18201315</u> (+40.9) to (+47.0) at 3100 lb. (+35.5) to (+47.0) at 2700 lb. (+33.0) to (+47.0) at 2250 lb. or less Straight line variation between points given Moment change due to retracting gear (+3052 in.-lb.) (b) <u>S/N R18200975, R18201315, R18201629 through R18202041</u> (+40.9) to (+46.0) at 3100 lb. (+35.5) to (+46.0) at 2700 lb. (+33.0) to (+46.0) at 2250 lb. or less Straight line variation between points given Moment change due to retracting gear (+3052 in.-lb.)																																																		
Empty Wt. C.G. Range	None																																																		
*Maximum Weight	3100 lb.																																																		
No. of Seats	4 (2 front at +32.0 to +50.0) (2 rear at +74.0)																																																		
Maximum Baggage	200 lb. (120 lb. at +82.0 to +110.0) (80 lb. at +110.0 to +134.0)																																																		
Fuel Capacity	(a) <u>S/N R18200002 through R18200583</u> Standard Range Tanks: 61 gal. (56 gal. usable); two 30.5 gal. tanks in wings at +48 Long Range Tanks: 80 gal. (75 gal. usable); two 40.0 gal. tanks in wings at +48 (b) <u>S/N R18200001, R18200584 through R18202041</u> 92 gal. (88 gal. usable); two 46.0 gal. integral tanks in wings at +46.5 See NOTE 1 for data on unusable fuel																																																		
Oil Capacity	9 qt. (-14.8) See NOTE 1 for data on oil																																																		
Control Surface Movements	(a) <u>S/N R18200001 through R18201628 except R18200975 & R18201315</u> <table> <tr> <td>Wing flaps</td><td></td><td>Down</td><td>40° +1°, -2°</td></tr> <tr> <td>Elevator tab</td><td>Up</td><td>25° +2°</td><td>Down 15° +1°</td></tr> <tr> <td>Ailerons</td><td>Up</td><td>20° +2°</td><td>Down 15° +2°</td></tr> <tr> <td>Elevator (rel. to stabilizer)</td><td>Up</td><td>28° +1°</td><td>Down 17° +1°</td></tr> <tr> <td>Rudder (parallel to 0.00 W.L.)</td><td>Right</td><td>24° +1°</td><td>Left 24° +1°</td></tr> <tr> <td>(Perpendicular to hinge line)</td><td>Right</td><td>27° 13' ±1°</td><td>Left 27° 13' ±1°</td></tr> </table> (b) <u>S/N R18200975, R18201629 through R18201798</u> <table> <tr> <td>Wing flaps</td><td></td><td>Down</td><td>40° +1°, -2°</td></tr> <tr> <td>Elevator tab</td><td>Up</td><td>24° +2°</td><td>Down 15° +1°</td></tr> <tr> <td>Ailerons</td><td>Up</td><td>20° +2°</td><td>Down 15° +2°</td></tr> <tr> <td>Elevator (rel. to stabilizer)</td><td>Up</td><td>28° +1°</td><td>Down 21° +1°</td></tr> <tr> <td>Rudder (parallel to 0.00 W.L.)</td><td>Right</td><td>24° +0°, -1°</td><td>Left 24° +0°, -1°</td></tr> <tr> <td>(Perpendicular to hinge line)</td><td>Right</td><td>27° 13' +0°, -1°</td><td>Left 27° 13' +0°, -1°</td></tr> </table>			Wing flaps		Down	40° +1°, -2°	Elevator tab	Up	25° +2°	Down 15° +1°	Ailerons	Up	20° +2°	Down 15° +2°	Elevator (rel. to stabilizer)	Up	28° +1°	Down 17° +1°	Rudder (parallel to 0.00 W.L.)	Right	24° +1°	Left 24° +1°	(Perpendicular to hinge line)	Right	27° 13' ±1°	Left 27° 13' ±1°	Wing flaps		Down	40° +1°, -2°	Elevator tab	Up	24° +2°	Down 15° +1°	Ailerons	Up	20° +2°	Down 15° +2°	Elevator (rel. to stabilizer)	Up	28° +1°	Down 21° +1°	Rudder (parallel to 0.00 W.L.)	Right	24° +0°, -1°	Left 24° +0°, -1°	(Perpendicular to hinge line)	Right	27° 13' +0°, -1°	Left 27° 13' +0°, -1°
Wing flaps		Down	40° +1°, -2°																																																
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XI - Model R182, Model TR182 (cont'd)(c) S/N R18201315, R18201799 through R18202041

Wing flaps		Down	38° +0°, -1°
Elevator tab	Up 24° ±2°	Down	15° ±1°
Ailerons	Up 20° ±1°	Down	15° ±2°
Elevator (rel. to stabilizer)	Up 28° ±1°	Down	21° ±1°
Rudder (parallel to 0.00 W.L.)	Right 24° +0°, -1°	Left	24° +0°, -1°
(Perpendicular to hinge line)	Right 27° 13' +0°, -1°	Left	27° 13' +0°, -1°

Serial Nos. Eligible	Model R182:	R18200002 through R18200583	(1978 Model)
	Model R182/TR182:	R18200001, R18200584 through R18201313	(1979 Model)
	Model R182/TR182:	R18201314 through R18201628	
		except R18201315	(1980 Model)
	Model R182/TR182:	R18201629 through R18201798	(1981 Model)
	Model R182/TR182:	R18201799 through R18201928	(1982 Model)
	Model R182/TR182:	R18201929 through R18201973	(1983 Model)
	Model R182/TR182:	R18201974 through R18201999	(1984 Model)
	Model R182/TR182:	R18201315, R18202000 through R18202031	(1985 Model)
	Model R182/TR182:	R18202032 through R18202041	(1986 Model)

XII - Model 182R, 4 PCLM (Normal Category), Approved August 29, 1980**Model T182, 4 PCLM (Normal Category), Approved August 15, 1980****Model 182R**

Engine	Continental O-470-U
*Fuel	100LL/100 aviation grade gasoline
*Engine Limits	For all operations, 2400 r.p.m. (230 hp.)
Propeller and Propeller Limits	McCauley constant speed (a) Hub C2A34C204/90DCB-8 Diameter: not over 82 in., not under 80.5 in. Pitch settings at 30 in. sta.: low 15°, high 29.4° (b) Cessna spinner 0752637 (c) McCauley governor C290D3/T14

Model T182

Engine	Lycoming O-540-L3C5D, rated at 235 hp. (Turbocharged in accordance with Cessna Drawing No. 2250065)
*Fuel	100LL/100 aviation grade gasoline
*Engine Limits	For all operations, 2400 r.p.m., 31 in. Hg. mp.
Propeller and Propeller Limits	1. McCauley constant speed (a) Hub B2D34C219/90DHB-8 Diameter: not over 82 in., not under 80.5 in. Pitch settings at 30 in. sta.: low 15.8°, high 31.9° (b) Cessna spinner 2250124 (c) McCauley governor C290D3/T22

XII - Model 182R, Model T182 (Cont'd)**Models 182R/T182**

Propeller and Propeller Limits (Cont'd)	2. McCauley constant speed (a) Hub B3D32C407/82NDA-3 Diameter: not over 79 in., not under 78 in. Pitch settings at 30 in. sta.: low 16.0°, high 31.7° (b) Cessna spinner 2252076 (c) McCauley governor C290D3/T22	
*Airspeed Limits (IAS) (See NOTE 5 on Use of IAS)	Model 182R	Maneuvering 111 knots Maximum structural cruising 143 knots Never exceed 179 knots Flaps extended 95 knots Model T182 Maneuvering 111 knots Maximum structural cruising 140 knots Never exceed 178 knots Flaps extended 95 knots
C.G. Range	Model 182R	(+40.9) to (+46.0) at 3100 lb. (+33.0) to (+46.0) at 2250 lb. or less Straight line variation between points given Model T182 (+40.9) to (+46.0) at 3100 lb. (+35.5) to (+46.0) at 2700 lb. (+33.0) to (+46.0) at 2250 lb. or less Straight line variation between points given
Empty Wt. C.G. Range	None	
*Maximum Weight	3100 lb. takeoff/flight 2950 lb. landing	
No. of Seats	4 (2 front at +32.0 to +50.0) (2 rear at +74.0)	
Maximum Baggage	200 lb. (120 lb. at +92.0 to +108.0) (80 lb. at +108.0 to +136.0)	
Fuel Capacity	92 gal. (88 gal. usable); two 46 gal. integral tanks in wings at +46.5 See NOTE 1 for data on unusable fuel	
Oil Capacity	<u>Model 182R</u> 12 qt. (-15.0) (6 qt. usable) (through S/N 18268055) 12 qt. (-14.1) (6 qt. usable) (S/N 18268056 and on) See NOTE 1 for data on oil	<u>Model T182</u> 9 qt. (-14.8) (6 qt. usable) See NOTE 1 for data on oil

XII - Model 182R, Model T182 (cont'd)**Control Surface
Movements****(a) S/N 18267716 through 18268055**

Wing flaps		Down	40° +1°, -2°
Elevator tab	Up	24° ±2°	Down 15° ±1°
Ailerons	Up	20° ±2°	Down 15° ±2°
Elevator (rel. to stabilizer)	Up	28° ±1°	Down 21° ±1°
Rudder (parallel to 0.00 W.L.)	Right	24° +0°, -1°	Left 24° +1°, -0°
(Perpendicular to hinge line)	Right	27° 13' +0°, -1°	Left 27° 13' +0°, -1°

(b) S/N 18268056 through 18268586

Wing flaps		Down	38° +0°, -1°
Elevator tab	Up	24° ±2°	Down 15° ±1°
Ailerons	Up	20° ±2°	Down 15° ±2°
Elevator (rel. to stabilizer)	Up	28° ±1°	Down 21° ±1°
Rudder (parallel to 0.00 W.L.)	Right	24° +0°, -1°	Left 24° +0°, -1°
(Perpendicular to hinge line)	Right	27° 13' +0°, -1°	Left 27° 13' +0°, -1°

Serial Nos. Eligible

Model 182R/T182:	18267302, 18267716 through 18268055	(1981 Model)
Model 182R/T182:	18268056 through 18268293	(1982 Model)
Model 182R/T182:	18268294 through 18268368	(1983 Model)
Model 182R/T182:	18268369 through 18268434	(1984 Model)
Model 182R/T182:	18268435 through 18268541	(1985 Model)
Model 182R:	18268542 through 18268586	(1986 Model)

(1986 Model)

Data Pertinent to Model Items I through XII

Datum	Front face of firewall
Leveling Means	Upper door sill. Top surface centerline of tailcone (S/N 18253599 through 18265965) Jig located nutplates and screws on left of tailcone (S/N 18263479, 18265966 through 18268586) (S/N R18200001 through 18202041)
Certification Basis	182 Series Part 3 of the Civil Air Regulations dated November 1, 1949, as amended by 3-1 through 3-12 and Paragraph 3.112 as amended October 1, 1959, for the Model 182E and on. In addition, effective S/N 18266591 through 18268586, FAR 23.1559 effective March 1, 1978. FAR 36 dated December 1, 1969, plus Amendments 36-1 through 36-6 for Model 182Q and on. In addition, effective S/N 18268435 through 18268586, FAR 23.1545(a) Amendment 23-23 dated December 1, 1978. Model T182 Part 3 of the Civil Air Regulations dated November 1, 1949, as amended by 3-1 through 3-12 and Paragraph 3.112 as amended October 1, 1959; and Sections 23.901, 23.909, 23.1041, 23.1043, 23.1143, and 23.1305 of the Federal Aviation Regulations dated February 1, 1965, as amended February 14, 1975; FAR 23.1559 effective March 1, 1978; FAR 36 dated December 1, 1969, plus Amendments 36-1 through 36-10. In addition, effective S/N 18268435 through 18268541, FAR 23.1545(a) Amendment 23-23 dated December 1, 1978.

Data Pertinent to Model Items I through XII, continued**Model R182**

Part 3 of the Civil Air Regulations dated November 1, 1949, as amended by 3-1 through 3-12 and Paragraph 3.112 as amended October 1, 1959; and Sections 23.729, 23.777(e), 23.781, 23.1555(e)(1) and (2), and 23.1563 of the Federal Aviation Regulations dated February 1, 1965, as amended February 14, 1975. In addition, effective S/N R18200001, R18200584 and up, FAR 23.1559 effective March 1, 1978. FAR 36 dated December 1, 1969, plus Amendments 36-1 through 36-6. In addition, effective S/N R18202000 through R18202041, FAR 23.1545(a) Amendment 23-23 dated December 1, 1978.

Model TR182

Part 3 of the Civil Air Regulations dated November 1, 1949, as amended by 3-1 through 3-12 and Paragraph 3.112 as amended October 1, 1969; and Sections 23.729, 23.777(e), 23.781, 23.901, 23.909, 23.1041, 23.1043, 23.1143, 23.1305, 23.1555(e)(1) and (2), and 23.1563 of the Federal Aviation Regulations dated February 1, 1965, as amended February 14, 1975; FAR 23.1559 effective March 1, 1978; FAR 36 dated December 1, 1969, plus Amendments 36-1 through 36-9. In addition, effective S/N R18202000 through R18202041, FAR 23.1545(a) Amendment 23-23 dated December 1, 1978.

Application for Type Certificate dated July 11, 1955.

Type Certificate No. 3A13 issued March 2, 1956, obtained by the manufacturer under delegation option procedures.

Equivalent Safety Items:**S/N 18263479, 18264296 through 18267715**

Airspeed Indicator	CAR 3.757 (See NOTE 5 on use of IAS)
Operating Limitations	CAR 3.778(a)

S/N 18267716 through 18268586

Airspeed Indicator	CAR 3.757 (See NOTE 5 on use of IAS) (S/N 18267716 through 18268434)
Operating Limitations	CAR 3.778(a)
Fuel System	CAR 3.430

S/N R18200001 through R18202041

Airspeed Indicator	CAR 3.757 (See NOTE 5 on use of IAS) (S/N R18200001 through R18201999)
Operating Limitations	CAR 3.778(a)
Fuel System	CAR 3.430

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 18266591 through 18268586 and R18200584 through R18202041. In addition, the following item

of equipment is required:

1. Stall warning indicator, Cessna Dwg. S1672-5.

The equipment portion of Aircraft Specification 3A13, Revision 15, or Cessna Publication TS3000-13 should be used for equipment references on all aircraft prior to the Model 182G. Refer to the applicable Equipment List for the Model 182G and subsequent models.

Data Pertinent to Model Items I through XII, continued

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 Numbers 613 and 33000 through 34999
631 and 51001 through 53007
18253008 through 18264295 except 18263479

The certificated empty weight and corresponding center of gravity location must include unusable fuel of 30 lb. (+46) on Models 182, 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M, 182N and 182P through 18264295 and 60 lb. (+46) on Models 182A, 182B, 182C and 182D and undrainable oil of 0 lb.

Serial Numbers 18263479, 18264296 through 18266590

The certificated empty weight and corresponding center of gravity location must include unusable fuel of 30 lb. (+46) and full oil of 22.5 lb. at (-15.0).

Serial Numbers 18266591 through 18268055

The certificated empty weight and corresponding center of gravity location must include unusable fuel of 24 lb. at (+48) and full oil of 22.5 lb. at (-15.0) for the 182Q, 182R Model, and include oil of 16.9 lb. at (-14.8) for the T182 Model.

Serial Numbers 18268056 through 18268586

The certificated empty weight and corresponding center of gravity location must include unusable fuel of 24 lb. at (+48) and full oil of 24.4 lb. at (-14.1) for the 182R, and include oil of 16.9 lb. at (-14.8) for the T182.

Serial Numbers R18200002 through R18200583

The certificated empty weight and corresponding center of gravity location must include unusable fuel of 30 lb. (+46) and include oil of 16.9 lb. (-15.7).

Serial Numbers R18200001, R18200584 through R18202041

The certificated empty weight and corresponding center of gravity location must include unusable fuel of 24 lb. (+48) and include oil of 16.9 lb. (-14.8).

NOTE 2. The following placards must be displayed in locations as indicated:

A. Applicable to Model 182 only:

(1) In full view of the pilot:

- (a) "This airplane must be operated as a normal category airplane in compliance with operating limitations stated in the form of placards, markings and manuals. No acrobatic maneuvers including spins approved.

Flight Maneuvering Load Factors

Flaps Up +3.8 -1.52

Flaps Down +3.5

Maximum design weight 2550 lb.

Reference weight and balance data for loading instructions."

- (b) "Both tanks on for takeoff and landing."

- (c) "Flaps - Pull to extend

Takeoff	Retracted	0°
	1st Notch	10°
	2nd Notch	20°
Landing	3rd Notch	30°
	4th Notch	40°

(2) In baggage compartment

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

Data Pertinent to Model Items I through XII, continued**B. Applicable to Models 182A, 182B, 182C and 182D****(1) In full view of the pilot:**

- (a) "This airplane must be operated as a normal category airplane in compliance with operating limitations stated in the form of placards, markings and manuals. No acrobatic maneuvers including spins approved.

Flight Maneuvering Load Factors

Flaps Up +3.8 -1.52

Flaps Down +3.5

Maximum design weight 2650 lb.

Reference weight and balance data for loading instructions."

- (b) "Both tanks on for takeoff and landing."

- (c) "Flaps - Pull to extend

Takeoff	Retracted	0°
	1st Notch	10°
	2nd Notch	20°
Landing	3rd Notch	30°
	4th Notch	40°"

(2) In baggage compartment

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

C. Applicable to Models 182E, 182F, 182G, 182H, 182J, 182K, 182L, 182M**(1) In full view of the pilot:**

- (a) "This airplane must be operated as a normal category airplane in compliance with operating limitations stated in the form of placards, markings and manuals. No acrobatic maneuvers including spins approved.

Flight Maneuvering Load Factors

Flaps Up +3.8 -1.52

Flaps Down +3.5

Maximum design weight 2800 lb.

Reference weight and balance data for loading instructions."

(2) On the fuel selector valve plate:

"Both off. Left tank level flight only 31 gal. Both on for landing and takeoff all flight attitudes 60 gal. Right tank level flight only 31 gal."

(3) On the control lock:

"Control lock - Remove before starting engine."

(4) On the baggage door:

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

D. Applicable to Models 182N:**(1) In full view of the pilot:**

- (a) Serial Numbers 18260056 through 18260445

"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.

No acrobatic maneuvers, including spins, approved

Maximums

Design weight	2950 lb. takeoff	Alt. loss in stall recovery-160 ft.
	2800 lb. landing	Flight Maneuvering Load Factors
Maneuvering speed	131 m.p.h.-CAS	Flaps up +3.8, -1.52, Flaps down +3.5

Reference weight and balance data for loading instructions"

- (b) Serial Numbers 182670446 through 18260825

"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.

Data Pertinent to Model Items I through XII, continued**D. Applicable to Models 182N, continued:**

	<u>Maximums</u>	
Maneuvering speed		131 m.p.h. CAS (114 knots)
Gross weight		Takeoff 2950 lb. Landing 2800 lb.
Flight load factor		Flaps up +3.8, -1.52 Flaps down +3.5

No acrobatic maneuvers, including spins, approved. Altitude loss in a stall recovery 160 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)

- (2) On the fuel selector valve plate:
"Both off. Left tank level flight only 31 gal. Both on for landing and takeoff all flight attitudes, 60 gal. Right tank level flight only 31 gal."
- (3) On the control lock:
"Control lock - Remove before starting engine."
- (4) On the baggage door:
 - (a) "120 lb. maximum baggage and/or auxiliary seat passengers. For additional loading instructions, see weight and balance data." Applicable to Models 182N, S/N 18260056 through 18260445.
 - (b) "120 lb. maximum baggage and/or auxiliary passenger forward of baggage door latch, and 80 pounds maximum baggage aft of baggage door latch. Maximum 200 lb. combined. For additional loading instructions see weight and balance data." Applicable to Models 182N, S/N 18260446 and up.
- (5) On flap control indicator:
 - (a) "0° to 20° - T.O."
 - (b) "10° - 20° - Full.
 (Indices at these positions with blue color code and 160 m.p.h. callout, and white color code with 110 m.p.h. callout; mechanical detent at 10° and 20°)"

E. Applicable to Models 182P:

- (1) In full view of the pilot:
(S/N 675, 18260826 through 18264295)
 - (a) "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.

	<u>Maximums</u>	
Maneuvering speed		126 m.p.h. CAS (109 knots)
Gross weight		2950 lb.
Flight load factor		Flaps up +3.8, -1.52 Flaps down +2.0

No acrobatic maneuvers, including spins, approved. Altitude loss in a stall recovery 160 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)

- (S/N 18264296 through 18265175)
 - (b) "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.

Data Pertinent to Model Items I through XII, continued**E. Applicable to Models 182P, continued:**

	<u>Maximums</u>
Maneuvering speed (IAS)	110 knots
Gross weight	2950 lb.
Flight load factor	Flaps up +3.8, -1.52 Flaps down +2.0

No acrobatic maneuvers, including spins, approved. Altitude loss in a stall recovery 160 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)

- (2) On the fuel selector valve plate: (S/N 675, 18260826 through 18262250)
 Standard range tanks: "Off. Left tank level flight only 31 gal. Both on for landing and takeoff all flight attitudes, 60 gal. Right tank level flight only 31 gal."
 Long range tanks: "Off. Left tank level flight only 39 gal. Both on for landing and takeoff all flight attitudes, 79 gal. Right tank level flight only 39 gal."
 On the fuel selector valve plate: (S/N 18262251 through 18265175)
 Standard range tanks: "Off. Left tank level flight only 29 gal. Both on for landing and takeoff all flight attitudes, 56 gal. Right tank level flight only 29 gal."
 Long range tanks: "Off. Left tank level flight only 37 gal. Both on for landing and takeoff all flight attitudes, 75 gal. Right tank level flight only 37 gal."
- (3) On the control lock: "Control lock - remove before starting engine."
- (4) On the baggage door: (S/N 18260826 through 18263475)
 "120 lb. maximum baggage and/or auxiliary passenger forward of baggage door latch, and 80 lb. maximum baggage aft of baggage door latch. Maximum 200 lb. combined. For additional loading instructions, see weight and balance data."

On the baggage door: (S/N 675, 18263476 through 18265175)
 "Forward of baggage door latch, 120 lb. maximum baggage and/or auxiliary passenger.
 Aft of baggage door latch, 80 lb. maximum baggage including 25 lb. maximum in baggage wall hat shelf. Maximum 200 lb. combined. For additional loading instructions see weight and balance data."
- (5) On flap control indicator: (S/N 675, 18260826 through 18264295)
 "(a) 0° to 10° - (Blue color code and 160 m.p.h. callout; also, mechanical detent at 10°)
 (b) 10° to 20°- Full (Indices at these positions with white color code and 110 m.p.h. callout; also, mechanical detent at 10° and 20°)"

On flap control indicator (S/N 18264296 through 18265175)
 "(a) 0° to 10° - (Blue color code and 140 KTS callout; also, mechanical detent at 10°)
 (b) 10° to 20°- Full (Indices at these positions with white color code and 95 KTS callout; also, mechanical detent at 10° and 20°)"
- (6) Forward of the filler cap on the wing surface: (S/N 675, 18260826 through 18262250)
 Standard range tanks: "Service this airplane with 80/87 minimum aviation grade gasoline. Capacity 32.5 gal."
 Long range tanks: "Service this airplane with 80/87 minimum aviation grade gasoline. Capacity 42.0 gal."

Data Pertinent to Model Items I through XII, continued**E. Applicable to Models 182P, continued:**

Forward of the filler cap on the wing surface: (S/N 18262251 through 18265175)

Standard range tanks: "Service this airplane with 80/87 minimum aviation grade gasoline.
Capacity 30.5 gal."

Long range tanks: "Service this airplane with 80/87 minimum aviation grade gasoline.
Capacity 40.0 gal."

- (7) On aft panel of baggage compartment:
"Oxygen refill." (All models with oxygen)
- (8) Adjacent to overvoltage light:
"High voltage."
- (9) Above the left fuel gauge:
"Do not turn off alternator in flight except in emergency."
(Model 182P, S/N 18260826 through 18261425)

F. Applicable to Models 182Q:

- (1) In full view of the pilot:

- (a) S/N 18263479, 18265176 through 18266590

"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 (IAS)	111 knots
Gross weight	2950 lb.
Flight load factor	Flaps up +3.8, -1.52 Flaps down +2.0

No acrobatic maneuvers, including spins, approved. Altitude loss in a stall recovery 160 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)

S/N 18266591 through 18267715

"The markings and placards installed in this airplane contain operating limitations which must be complied with when operating this airplane in the Normal Category. Other operating limitations which must be complied with when operating this airplane in this category are contained in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

No acrobatic maneuvers, including spins, approved. 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) Near airspeed indicator:
S/N 18266591 through 18267715
"Maneuver Speed
111 KIAS"

Data Pertinent to Model Items I through XII, continued**F. Applicable to Models 182Q, continued:**

- (2) On the fuel selector valve plate:

S/N 18263479, 18265176 through 18266590

Standard range tanks: "Off.

Left - 29 gal. Level flight only.
Both - 56 gal. All flight attitudes.
Both on for takeoff and landing.
Right - 29 gal. Level flight only."

Long range tanks: "Off.

Left - 37 gal. Level flight only.
Both - 75 gal. All flight attitudes.
Both on for takeoff and landing.
Right - 37 gal. Level flight only."

S/N 18266591 through 18267715

"Take Off - Both - Landing,
All Flight - 88.0 Gal. - Attitudes
Left - 44.0 Gal. Level Flight Only
Right - 44.0 Gal. Level Flight Only
Off."

- (3) On the control lock: "Control lock - remove before starting engine."

- (4) On the baggage door: "Forward of baggage door latch, 120 pounds maximum baggage and/or auxiliary passenger. Aft of baggage door latch, 80 pounds maximum baggage including 25 pounds maximum in baggage wall hat shelf. Maximum 200 pounds combined. For additional loading instructions, see weight and balance data."

- (5) On flap control indicator:

"0° to 10° - (Blue color code and 140 KTS callout;
also, mechanical detent at 10°)"

"0° to 20° - Full (Indices at these positions with white color code and 95 KTS
callout; also, mechanical detent at 10° and 20°)"

- (6) Forward of the filler cap on the wing surface:

S/N 18265176 through 18265965

Standard range tanks: "Service this airplane with 100/130 minimum aviation grade gasoline. Capacity 30.5 gal."

Long range tanks: "Service this airplane with 100/130 minimum aviation grade gasoline. Capacity 40.0 gal."

S/N 18263479, 18265966 through 18266590

Standard range tanks: "Service this airplane with 100LL/100 aviation grade gasoline. Capacity 30.5 gal."

Long range tanks: "Service this airplane with 100LL/100 aviation grade gasoline. Capacity 40.0 gal."

S/N 18266591 through 18267715

"Fuel 100LL/100 minimum grade aviation gasoline.
Capacity 46 U.S. gal. Capacity 34.5 U.S. gal.
to bottom of filler collar."

Data Pertinent to Model Items I through XII, continued**F. Applicable to Models 182Q, continued:**

- (7) On aft panel of baggage compartment:
"Oxygen refill." (All models with oxygen)
- (8) Adjacent to overvoltage light:
S/N 18263479, 18265176 through 18266590
"High Voltage"
- S/N 18266591 through 18267715
"Low Voltage"

G. Applicable to Models R182 and TR182, S/N R18200001 through R18201928:

- (1) In full view of the pilot:
(a) S/N R18200002 through R18200583
"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.

	<u>Maximums</u>
Gross weight	3100 lb.
Flight load factor	Flaps up +3.8, -1.52 Flaps down +2.0

No acrobatic maneuvers, including spins, approved. Altitude loss in a stall recovery 240 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) S/N R18200001, R18200584 through R18202041
"The markings and placards installed in this airplane contain operating limitations which must be complied with when operating this airplane in the Normal Category. Other operating limitations which must be complied with when operating this airplane in this category are contained in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

No acrobatic maneuvers, including spins, approved. 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)

- (c) Near Airspeed Indicator:
"MAX SPEED - KIAS

Maneuver	112
Gear Oper	140
Gear Down	140"

- (2) On the fuel selector valve plate:

- (a) S/N R18200002 through R18200583
Standard range tanks: "Off
Left - 29 gal. Level flight only.
Both - 56 gal. All flight attitudes.
Both on for takeoff and landing.
Right - 29 gal. Level flight only."
"Off
Long range tanks: "Off
Left - 37 gal. Level flight only.
Both - 75 gal. All flight attitudes.
Both on for takeoff and landing.
Right - 37 gal. Level flight only."

Data Pertinent to Model Items I through XII, continued**G. Applicable to Models R182 and TR182, S/N R18200001 through R18201928, continued:**

- (b) S/N R18200001, R18200584 through R18201798
 - "Take Off - Both - Landing,
All Flight - 88.0 Gal. - Attitudes
Left - 44.0 Gal. Level Flight Only
Right - 44.0 Gal. Level Flight Only
Off."
- (c) S/N R18201799 through R18202041
 - "Both - 88.0 Gal. - Take Off - Landing - All Flight
Attitudes; Left - 44.0 Gal. - Level Flight Only
Right - 44.0 Gal. - Level Flight Only
Off - Off."
- (3) On the control lock:
 - (a) S/N R18200001 through R18201798
 - "Control lock - Remove before starting engine."
 - (b) S/N R18201799 through R18202041
 - "Caution! Control Lock - Remove before starting engine."
- (4) On the baggage door:
 - "120 Pounds Maximum
Baggage And/Or Auxiliary Passenger
Forward of Baggage Door Latch And
80 Pounds Maximum
Baggage Aft of Baggage Door Latch
Maximum 200 Pounds Combined
For Additional Loading Instructions See Weight and Balance Data"
- (5) On the flap control indicator:
 - "0° to 10° - (Blue color code and 140 KTS callout;
also, mechanical detent at 10°)"
 - "0° to 20° - Full (Indices at these positions with white color code and 95 KTS
callout; also, mechanical detent at 10° and 20°)"
- (6) Forward of the filler cap on the wing surface:
 - (a) S/N R18200002 through R18200583
 - Standard range tanks: "Service this airplane with 100LL/100 aviation grade gasoline.
Capacity 30.5 gal."
 - Long range tanks: "Service this airplane with 100LL/100 aviation grade gasoline.
Capacity 40.0 gal."
 - (b) S/N R18200001, R18200584 through R18202041
 - Fuel 100LL/100 minimum grade aviation gasoline.
Capacity 46 U.S. gal. Capacity 34.5 U.S. gal. to
bottom of filler collar."
- (7) Adjacent to overvoltage light:
 - (a) S/N R18200002 through R18200583
 - "High Voltage"
 - (b) S/N R18200001, R18200584 through R18202041
 - "Low Voltage"

Data Pertinent to Model Items I through XII, continued**G. Applicable to Models R182 and TR182, S/N R18200001 through R18201928, continued:**

- (8) Near gear hand pump:
 "Manual Gear Extension
 1. Select Gear Down
 2. Pull Handle Fwd.
 3. Pump Vertically
 CAUTION
 Do Not Pump With Gear
 Up Selected"
- (9) Forward of each fuel filler cap:
 "Fuel Cap Forward - Arrow Alignment, Cap Must Not Rotate During Closing."

H. Applicable to Models 182R and T182, S/N 18267302, 18267716 through 18268293:

- (1) In full view of the pilot:
 (a) "The markings and placards installed in this airplane contain operating limitations which must be complied with when operating this airplane in the Normal Category. Other operating limitations which must be complied with when operating this airplane in this category are contained in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

No acrobatic maneuvers, including spins, approved. 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) Near airspeed indicator:
 "Maneuver Speed
 111 KIAS"
- (2) On the fuel selector valve plate:
 (a) S/N 18267716 through 18268055
 "Take Off - Both - Landing, -
 All Flight - 88.0 Gal. - Attitudes
 Left - 44.0 Gal. Level Flight Only
 Right - 44.0 Gal. Level Flight Only
 Off."
- (b) S/N 18268056 through 18268586
 "Both - 88.0 Gal. - Takeoff - Landing - All Flight Attitudes
 Left - 44.0 Gal. - Level Flight Only
 Right - 44.0 Gal. - Level Flight Only
 Off - Off."
- (3) On the control lock:
 (a) S/N 18267716 through 18268055
 "Control Lock - Remove before starting engine."
- (b) S/N 18268056 through 18268586
 "Caution! Control Lock - Remove before starting engine."

Data Pertinent to Model Items I through XII, continued**H. Applicable to Models 182R and T182, S/N 18267302, 18267716 through 18268293, continued:**

- (4) On baggage door:
 "120 Pounds Maximum
 Baggage And/Or Auxiliary Passenger
 Forward of Baggage Door Latch and
 80 Pounds Maximum
 Baggage Aft of Baggage Door Latch
 Maximum 200 Pounds Combined
- For Additional Loading Instructions
 See Weight and Balance Data"
- (5) On flap control indicator:
 "0° to 10° - (Blue color code and 140 KTS callout;
 also, mechanical detent at 10°)"
- "0° to 20° - Full (Indices at these positions with white color code and 95 KTS
 calout; also mechanical detent at 10° and 20°)"
- (6) Forward of the filler cap on the wing surface:
 "Fuel 100LL/100 minimum grade aviation gasoline. Capacity 46 U.S. gal.
 Capacity 34.5 U.S. gal. to bottom of filler collar."
- (7) Forward of each fuel filler cap:
 "Fuel cap fwd - arrow alignment, cap must not rotate during closing."
- (8) Adjacent to overvoltage light:
 "Low Voltage"

I. Applicable to Models R182 and TR182, S/N R18201929 through R18202041:

All placards required in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual must be installed in the appropriate locations.

J. Applicable to Models 182R and T182, S/N 18268294 through 18268586:

All placards required in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual must be installed in the appropriate locations.

NOTE 3. The cylinder head thermistors must be installed as follows:

<u>Model</u>	<u>Engine and Cylinder Head Number</u>				
	<u>O-470-R</u>	<u>O-470-S</u>	<u>O-470-U</u>	<u>O-540-J</u>	<u>O-540-L</u>
182N (1970 and 1971 Model)	3	3	N/A	N/A	N/A
182P (1972 and 1973 Model)	2	3	N/A	N/A	N/A
182P (1974 Model)	1	3	N/A	N/A	N/A
182P (1975 and 1976 Model)	N/A	3	N/A	N/A	N/A
182Q (1977 through 1980 Model)	N/A	N/A	3	N/A	N/A
182R (1981 Model through 18268160)	N/A	N/A	5	N/A	N/A
182R (18268161 through 18268586)	N/A	N/A	3	N/A	N/A
T182 (1981 Model through 1985 Model)	N/A	N/A	N/A	N/A	1
R182 (1978 and 1979 Model)	N/A	N/A	N/A	5	N/A
R182 (1980 Model through 1986 Model)	N/A	N/A	N/A	4	N/A
TR182 (1979 Model)	N/A	N/A	N/A	N/A	3
TR182 (1980 Model through 1986 Model)	N/A	N/A	N/A	N/A	5

NOTE 4. The installation of the O-470-S engine in Model 182N and Model 182P (1970 through 1974) will require a change of the oil temperature gauge. Reference Cessna Service Letter SE75-2 for information and instructions for this change.

Data Pertinent to Model Items I through XII, continued

NOTE 5. The marking of the airspeed indicator with IAS provides an equivalent level of safety to CAR 3.757 when the approved airspeed calibration data presented in Section V of the Pilot's Operating Handbooks listed below is available to the pilot:

182P, Cessna P/N D1062-13	(S/N 18264296 through 18265175)
182Q, Cessna P/N D1087-13	(S/N 18265176 through 18265965)
182Q, Cessna P/N D1114-13	(S/N 18263479, 18265966 through 18266590)
182Q, Cessna P/N D1141-13PH	(S/N 18266591 through 18267300)
182Q, Cessna P/N D1176-13PH	(S/N 18267301 through 18267715)
182R, Cessna P/N D1196-13PH	(S/N 18267716 through 18268055)
182R, Cessna P/N D1215-13PH	(S/N 18268056 through 18268293)
182R, Cessna P/N D1233-13PH	(S/N 18268294 through 18268368)
182R, Cessna P/N D1254-13PH	(S/N 18268369 through 18268434)
T182, Cessna P/N D1197-13PH	(S/N 18267302, 18267716 through 18268055)
T182, Cessna P/N D1216-13PH	(S/N 18268056 through 18268293)
T182, Cessna P/N D1234-13PH	(S/N 18268294 through 18268368)
T182, Cessna P/N D1234R1-13PH	(Special) (S/N 18268365)
T182, Cessna P/N D1255-13PH	(S/N 18268369 through 18268434)
R182, Cessna P/N D1115-13	(S/N R18200002 through R18200583)
R182, Cessna P/N D1142-13PH	(S/N R18200584 through R18201313)
R182, Cessna P/N D1177-13PH	(S/N R18201314 through R18201628)
R182, Cessna P/N D1198-13PH	(S/N R18201629 through R18201798)
R182, Cessna P/N D1217-13PH	(S/N R18201799 through R18201928)
R182, Cessna P/N D1235-13PH	(S/N R18201929 through R18201973)
R182, Cessna P/N D1256-13PH	(S/N R18201974 through R18201999)
R182, Cessna P/N D1277-13PH	(S/N R18202000 through R18202031)
R182, Cessna P/N D1299-13PH	(S/N R18202032 through R18202041)
TR182, Cessna P/N D1143-13PH	(S/N R18200001, R18200584 through R18201313 except R18200975)
TR182, Cessna P/N D1143-2-13PH	(Special) (S/N R18200975)
TR182, Cessna P/N D1178-13PH	(S/N R18201314 through R18201628 except R18201315)
TR182, Cessna P/N D1199-13PH	(S/N R18201629 through R18201798)
TR182, Cessna P/N D1218-13PH	(S/N R18201799 through R18201928)
TR182, Cessna P/N D1236-13PH	(S/N R18201929 through R18201973)
TR182, Cessna P/N D1257-13PH	(S/N R18201974 through R18201999)
TR182, Cessna P/N D1278-13PH	(S/N R18201315, R18202000 through R18202031)
TR182, Cessna P/N D1300-13PH	(S/N R18202032 through R18202041)

NOTE 6. 14-volt electrical system
 (182 series through S/N 18265965 except 18263479)
 28-volt electrical system
 (182 series S/N 18263479, 18265966 through 18268586)
 (R182 and TR182 series S/N R18200001 through R18202041)

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

XIII - Model 182S, Skylane, 4 PCLM (Normal Category), Approved October 3, 1996

Engine: Lycoming IO-540-AB1A5, rated 230 BHP

Fuel: 100/100LL minimum grade aviation gasoline

Engine Limits: For all operations, 2400 r.p.m.

- Propeller and Propeller Limits:**
- (1) McCauley Constant Speed
 - (a) Propeller: B2D34C235/90DKB-8 (2 blades)
Diameter: not over 82 in., not under 80.5 in.
Pitch settings at 30 in. sta.: Low 17.0°, High 31.8°
 - (b) McCauley Spinner: D-7267-2
 - (c) McCauley Governor: DC290D1/T8
 - (2) McCauley Constant Speed
 - (a) Propeller: B3D36C431/80VSA-1 (3 blades)
Diameter: not over 79 in., not under 77.5 in.
Pitch settings at 30 in. sta.: Low 14.9°, High 31.7°
 - (b) McCauley Spinner: D-7262-2
 - (c) McCauley Governor: DC290D1/T8

Airspeed Limits:

Maneuvering:	110 Knots IAS	(108 Knots CAS)
Max. Structural Cruising:	140 Knots IAS	(138 Knots CAS)
Never Exceed:	175 Knots IAS	(170 Knots CAS)
Flaps Extended:	100 Knots IAS	(99 Knots CAS)

CG Range:

Normal Category:

- (1) Aft Limits: 46.0 inches aft of datum at 3100 lbs. or less.
- (2) Forward Limits: Linear variation from 40.9 inches aft of datum at 3100 pounds to 33.0 inches aft of datum at 2250 lbs.; 33.0 inches aft of datum at 2250 lbs. or less.

Empty Wt. C.G. Range: None

Reference Datum: Front Face of Firewall

MAC: 58.8 inches; Leading edge of MAC 25.98 inches aft of datum

Leveling Means: Left side of Tailcone at 139.65 inches and 171.65 inches aft of datum

Maximum Weights:

Maximum Ramp:	3110 lbs.
Maximum Takeoff:	3100 lbs.
Maximum Landing:	2950 lbs.

No. of Seats: 4 (2 at 32.0 to 50.0 inches aft of datum, 2 at 74.0 inches aft of datum)

Maximum Baggage: 200 lbs. (120 lbs. at 92.0 to 108.0 inches aft of datum)
(80 lbs. at 108.0 to 136.0 inches aft of datum)

Fuel Capacity (Gal.): 92 gal. total; 88 gal. usable
(Two 46 gal. integral tanks in wings at 46.5 inches aft of datum)
See NOTE 1 for data on usable fuel.

Oil Capacity (Qts.): 12.0 qts. at 14.8 inches forward of datum; 5 qts. usable

XIII - Model 182S, Skvlane, continued**Control Surface Movements:**

Wing Flaps:		Down 38° +0°, -1°
Elevator Tab:	Up 24° ± 2°	Down 15° ± 1°
Ailerons:	Up 20° ± 2°	Down 15° ± 2°
Elevator:	Up 28° ± 1°	Down 21° ± 1°
(Relative to stabilizer)		
Rudder:	Right: 24° +0°, -1° (Parallel to 0.00 W.L.)	Left: 24° +0°, -1°
	Right: 27°13' +0°, -1° (Perpendicular to hinge line)	Left: 27°13' +0°, -1°

Serial Nos. Eligible 18280001 and On

Data Pertinent to Model 182S:

Certification Basis (Model 182S)

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.
(2)	Throttle Control	FAR § 23.1143(g)
(3)	Mixture Control	FAR § 23.1147(b)

Date of Application for Amended Type Certificate was January 22, 1996.
Type Certificate No. 3A13 was amended October 3, 1996.

Production Basis (Model 182S)

None. Prior to original certification of each aircraft, an FAA representative must perform a detailed inspection for workmanship, materials, conformity with the approved data, and a check of the flight characteristics.

XIII - Model 182S, Skylane (Cont'd)**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. 18280001 and On: (Model 182S)

The certificated basic empty weight and corresponding center of gravity location must include unusable fuel of 24 lbs. at 48 inches aft of datum, and full oil of 16.2 lb. at 14.8 inches forward of datum.

NOTE 2:

FAA Approved Airplane Flight Manual (AFM): Part number 182SPHUS00 or later FAA approved revisions are applicable to the Model 182S. The Airplane must be operated according to the appropriate AFM. Required placards are included in the AFM.

NOTE 3:

The CHT probe must be installed on Head #1.

.....END.....