DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

3A25 Revision 25 **CESSNA** 320 320F 320-1 335 320A 340 320B 340A 320C 320D 320E August 15, 1994

TYPE CERTIFICATE DATA SHEET NO. 3A25

This data sheet which is part of Type Certificate No. 3A25 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 320, Skyknight, (Normal Category), Approved May 24, 1961

2 Continental TSIO-470-B **Engines**

*Fuel 100/130 minimum grade aviation gasoline

See NOTE 5

*Engine Limits For all operations, 2600 r.p.m., 260 hp., 35 in, Hg MP

Critical altitude is 16,000 ft. in standard atmosphere

Propeller and 2 Hartzell full-feathering propeller installations

Propeller Limits (a) Hartzell hubs HC-A2XF-2 with 8433 blades

Diameter: not over 80 in., not under 78 in. No further reduction permitted

Pitch settings at 30 in. sta.:

low 15.0°, high 22.0°, feathered 84 ±2°
(b) Hydraulic governor, Woodward 210290, C210355, A210438, 210444;

McCauley DCFU290D1/T2, DCFU290D2/T2

(c) Propeller spinner, Cessna 0850319-1 dome with 0850309-1 bulkhead

*Airspeed Limits Never exceed 252 m.p.h. (218 knots) (CAS)

Maximum structural cruising 210 m.p.h. (183 knots) Maneuvering 167 m.p.h. (145 knots) Flaps extended 140 m.p.h. (122 knots) Landing gear extended 140 m.p.h. (122 knots)

*C.G. Range (+38.3) to (+41.6) at 4990 lb.

(+42.1) at 4600 lb.

(+32.0) to (+42.1) at 4060 lb. or less Straight line variation between points given

Empty Wt. C.G. Range None

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*Maximum Weight Landing 4750 lb., takeoff 4990 lb.

No. of Seats 5 (Std.) (2 at +37, 3 at +71) See Manufacturer's Weight and

Balance data sheet for optional seating arrangements.

Maximum Baggage 200 lb. (+96)

Fuel Capacity 102 gal. (2 wing tip tanks, 51 gal. each at +35.0)

or 133 gal. (with 2 wing tip tanks and 2 auxiliary tanks 15.5 gal. each at +47).

See NOTE 1 for data on system fuel

2

Oil Capacity 6.5 gal. (3.25 gal in each engine at (-3.5), unusable 1.5 gal. per engine)

See NOTE 1 for data on system oil

Control Surface Wing flaps 45° Down

Movements Main surfaces

 Aileron
 20° Up
 20° Down

 Elevator
 25° Up
 15° Down

 Rudder
 25° Right
 25° Left

(Parallel to W.L.)

Tab (main surface in neutral)

 Aileron
 20° Up
 20° Down

 Elevator
 10° Up
 26° Down

 Rudder
 17° Right
 22° Left

(Parallel to W.L.)

Serial Nos. Eligible 320-0001 through 320-0110

II - Model 320-1, Skyknight, (Normal Category), Approved May 10, 1962

Engines 2 Continental TSIO-470-B

*Fuel 100/130 minimum grade aviation gasoline

See NOTE 5

*Engine Limits For all operations, 2600 r.p.m., 260 hp., 35 in. Hg MP

Critical altitude is 16,000 ft. in standard atmosphere

Propeller and 2 Hartzell full-feathering propeller installations

Propeller Limits (a) Hartzell hubs HC-A2XF-2 with 8433 blades

Diameter: not over 80 in., not under 78 in.

No further reduction permitted Pitch settings at 30 in. sta.:

low 15.0°, high 22.0°, feathered 84 ±1°

(b) Hydraulic governor, Woodward 210280, C210355, A210438, 210444;

McCauley DCFU290D1/T2, DCFU290D2/T2

(c) Propeller spinner, Cessna 0850319-1 dome with 0850309-1 bulkhead

*Airspeed Limits Never exceed 257 m.p.h. (224 knots)

Maximum structural cruising 210 m.p.h. (183 knots)
Maneuvering 170 m.p.h. (148 knots)
Flaps extended 140 m.p.h. (122 knots)
Landing gear extended 140 m.p.h. (122 knots)

*C.G. Range (+38.0) to (+43.1) at 5200 lb.

(CAS)

(+43.6) at 4800 lb.

(+32.0) to (+43.6) at 4300 lb. or less Straight line variation between points given

Empty Wt. C.G. Range None

*Maximum Weight Landing 5200 lb., takeoff 5200 lb.

Number of Seats 5 (Std.) (2 at +37, 3 at +71) See Manufacturer's Weight and

Balance data sheet for optional seating arrangements.

Maximum Baggage 200 lb. (+96)

Fuel Capacity 102 gal. (2 wing tip tanks, 51 gal. each at +35.0)

or 133 gal. (with 2 wing tip tanks and 2 auxiliary tanks, 15.5 gal. each at

+47)

See NOTE 1 for data on unusable fuel

Oil Capacity 6.5 gal. (3.25 gal. in each engine at (-3.5), unusable 1.5 gal. per engine

See NOTE 1 for data on undrainable oil

Control Surface Wing flaps 45° Down Movements Main surfaces

 Aileron
 20° Up
 20° Down

 Elevator
 25° Up
 15° Down

 Rudder
 25° Right
 25° Left

(Parallel to W.L.)

Tab (main surface in neutral)

 Aileron
 20° Up
 20° Down

 Elevator
 10° Up
 26° Down

 Rudder
 17° Right
 22° Left

(Parallel to W.L.)

Serial Nos. Eligible All Model 320 (Section I), Serial Nos. are eligible upon modification in

accordance with Cessna AK320-28.

III - Model 320A, (Normal Category), Approved May 10, 1962

Engines 2 Continental TSIO-470-B

*Fuel 100/130 minimum grade aviation gasoline

See NOTE 5

*Engine Limits For all operations, 2600 r.p.m., 260 hp., 35 in. Hg MP

Critical altitude is 16,000 ft. in standard atmosphere

Propeller and 2 Hartzell full-feathering propeller installations Propeller Limits (a) Hartzell hubs HC-A2XF-2 with 8433 blade

(a) Hartzell hubs HC-A2XF-2 with 8433 blades Diameter: not over 80 in., not under 78 in.

No further reduction permitted Pitch settings at 30 in. sta.:

low 15.0°, high 22.0°, feathered 84 ±1°

(b) Hydraulic governor, Woodward 210280, C210355, A210438, 210444;

McCauley DCFU290D1/T2, DCFU290D2/T2

(c) Propeller spinner, Cessna 0850319-1 dome with 0850309-1 bulkhead

*Airspeed Limits Never exceed 257 m.p.h. (224 knots) (CAS) Maximum structural cruising 210 m.p.h. (183 knots)

Maneuvering 170 m.p.h. (148 knots)
Flaps extended 140 m.p.h. (122 knots)
Landing gear extended 140 m.p.h. (122 knots)

*C.G. Range (+38.0) to (+43.1) at 5200 lb.

(+43.6) at 4800 lb.

(+32.0) to (+43.6) at 4300 lb. or less Straight line variation between points given

Empty Wt. C.G. Range None

*Maximum Weight Landing 5200 lb., takeoff 5200 lb.

Number of Seats 5 (Std.) (2 at +37, 3 at +71) (See Manufacturer's Weight and

Balance data sheet for optional seating arrangements.)

Maximum Baggage 200 lb. (+96), 60 lb. on upper rack (+124), 80 lb. per side

on floor (+124)

See NOTE 2G for placards

Fuel Capacity 102 gal. (2 wing tip tanks, 51 gal. each at +35.0)

or 133 gal. (with 2 wing tip tanks and 2 auxiliary tanks 15.5 gal.

each at +47)

See NOTE 1 for data on unusable fuel

Oil Capacity 6.5 gal. (3.25 gal. in each engine (-3.5), unusable 1.5 gal. per engine)

See NOTE 1 for data on undrainable oil

Control Surface Wing flaps 45° Down Movements Main surfaces

Aileron 20° Up 20° Down Elevator 25° Up 15° Down Rudder 25° Right 25° Left

(Parallel to W.L.)

Tab (main surface in neutral)

 Aileron
 20° Up
 20° Down

 Elevator
 10° Up
 26° Down

 Rudder
 17° Right
 22° Left

(Parallel to W.L.)

Serial Nos. Eligible 320A0001 through 320A0047

IV - Model 320B, (Normal Category), Approved May 16, 1963

Engines 2 Continental TSIO-470-C

*Fuel 100/130 minimum grade aviation gasoline

See NOTE 5

*Engine Limits For all operations, 2600 r.p.m., 260 hp., 35 in. Hg MP

Critical altitude is 16,000 ft. in standard atmosphere

Propeller and 2 Hartzell full-feathering propeller installations

Propeller Limits

(a) Hartzell hubs HC-A2XF-2 with 8433 blades
Diameter: not over 80 in., not under 78 in.

No further reduction permitted Pitch settings at 30 in. sta.:

low 15.0°, high 22.0°, feathered 84 ±1°

(b) Hydraulic governor, Woodward 210280, C210355, A210438, 210444;

McCauley DCFU290D1/T2, DCFU290D2/T2

(c) Propeller spinner, Cessna 0850319-1 dome with 0850319-1 bulkhead

*Airspeed Limits Never exceed 257 m.p.h. (224 knots)
(CAS) Maximum structural cruising 210 m.p.h. (183 knots)
Maneuvering 170 m.p.h. (148 knots)
Flaps extended 140 m.p.h. (122 knots)
Landing gear extended 140 m.p.h. (122 knots)

*C.G. Range (+38.0) to (+43.1) at 5200 lb.

(+43.6) at 4800 lb.

(+32.0) to (+43.6) at 4300 lb. or less Straight line variation between points given

Empty Wt. C.G. Range None

*Maximum Weight Landing 5200 lb., takeoff 5200 lb.

Number of Seats 5 (Std.) (2 at +37, 3 at +71) See Manufacturer's Weight and

Balance data sheet for optional seating arrangements.

Maximum Baggage 200 lb. on floor at (+96), 80 lb. per side on floor at (+124),

60 lb. on upper rack at (+124), 120 lb. per nacelle at (+63)

Oil Capacity 6.5 gal. (3.25 gal. in each engine at (-3.5), unusable 1.5 gal. per engine)

See NOTE 1 for data on undrainable oil

Fuel Capacity 102 gal. (2 wing tip tanks, 51 gal. each at +35)

133 gal. (with 2 wing tip tanks and 2 auxiliary tanks 15.5 gal. each at +47)

See NOTE 1 for data on unusable fuel

Control Surface Wing flaps 35° Down Movements Main surfaces

 Aileron
 20° Up
 20° Down

 Elevator
 16.5° Up
 15° Down

 Rudder
 25° Right
 25° Left

(Parallel to W.L.)

Tab (main surface in neutral)

 Aileron
 20° Up
 20° Down

 Elevator
 10° Up
 26° Down

 Rudder
 17° Right
 22° Left

(Parallel to W.L.)

Serial Nos. Eligible 320B0001 through 320B0062

V - Model 320C, Skyknight, (Normal Category), Approved April 24, 1964

Engines 2 Continental TSIO-470-D

*Fuel 100/130 minimum grade aviation gasoline See NOTE 5

*Engine Limits For all operations, 2600 r.p.m., 260 hp., 35 in. Hg MP

Critical altitude is 16,000 ft. in standard atmosphere

Propeller and 2 McCauley full-feathering propeller installations
Propeller Limits (a) McCauley hubs D2AF34C54 with 84HF blad

(a) McCauley hubs D2AF34C54 with 84HF blades Diameter: not over 81 in., not under 78 in.

No further reduction permitted Pitch settings at 30 in. sta.:

low 14.0°, high 15.6°, feathered 82.7°

(b) Hydraulic governor, Woodward 210280, C210355, 210444, A210438;

McCauley DCFU290D1/T2, DCFU290D2/T2

(c) Propeller spinner, Cessna 0850331-2 dome with 0850257-7 bulkhead

*Airspeed Limits (CAS)		Never exceed Maximum structural cruising Maneuvering Flaps extended Landing gear extended		210 m.p.h. 170 m.p.h. 140 m.p.h.	. (224 knots) . (183 knots) . (148 knots) . (122 knots) . (122 knots)
*C.G. Range		(+38.0) to (+43.1) at 5200 lb. (+43.6) at 4800 (+32.0) to (+43.6) at 4300 lb. of Straight line variation between			
Empty Wt. C.G. Range		None			
*Maximum Weight		Landing 5200 lb., takeoff 5200	O lb.		
No. of Seats		5 (Std.) (2 at +37, 3 at +71) See Manufacturer's Weight and Balance data sheet for optional seating arrangements.			
Maximum Baggage		200 lb. on floor at (+96), 80 lb. per side on floor (+124), 120 lb. per nacelle (+63)			
Oil Capacity		6.5 gal. (3.25 gal. in each eng See NOTE 1 for data on undra			sable 1.5 gal. per engine)
Fuel Capacity	or	102 gal. (2 wing tip tanks, 51 g 133 gal. (with 2 wing tip tanks See NOTE 1 for data on unus	and 2	auxiliary t	
Control Surface Movements		Wing flaps Main surfaces Aileron Elevator Rudder (Parallel to W.L.) Tab (main surface in neutral) Aileron Elevator Rudder (Parallel to W.L.)	25° 20° 10°	° Up Right Up	35° Down 20° Down 15° Down 25° Left 20° Down 26° Down 22° Left
Serial Nos. Eligible		320C0001 through 320C0073			

VI - Model 320D, Skyknight, (Normal Category), Approved April 9, 1965

Engines 2 Continental TSIO-520-B or TSIO-520-BB

*Fuel 100/130 minimum grade aviation gasoline See NOTE 5

*Engine Limits For all operations, 2700 r.p.m., 285 hp., 35 in. Hg MP Critical altitude is 16,000 ft. in standard atmosphere

<u>Altitude</u> Max. Allowable MP 16,000 ft. 32.0 in. Hg 18,000 ft. 30.7 in. Hg 20,000 ft. 29.0 in. Hg 22,000 ft. 26.4 in. Hg 24.3 in. Hg 22.2 in. Hg 24,000 ft. 26,000 ft. 20.2 in. Hg 28,000 ft. 30,000 ft. 18.5 in. Hg

Propeller and Propeller Limits

McCauley full-feathering propeller installations

(a) Hubs D2AF34C71 with 84JF blades

Diameter: not over 81 in., not under 79 in.

No further reduction permitted Pitch settings at 30 in. sta.:

low 13.3°, high 14.8°, feathered 82.7°

(b) Hydraulic governor, Woodward B210446, A210529

(c) Propeller spinner, Cessna 0855032-1 dome with 0855032-2 bulkhead

or 2. 2 McCauley full-feathering 3-bladed propeller installations

(a) Hubs 3AF32C87 with 82NC-4 blades or 3AF32C72 with

82N-4 blades

Diameter: not over 78 in., not under 74 in.

No further reduction permitted Pitch settings at 30 in. sta.:

3AF32C72 Hubs: low 12.7°, feathered 82.3° 3AF32C87 Hubs: low 13.0°, feathered 82.6°

(b) Hydraulic governor, Woodward B210446, A210529

(c) Propeller spinner, 3-bladed, McCauley D-3534 dome with D-3537 bulkhead

or 3. 2 McCauley full-feathering 3-bladed propeller installations

(a) Hubs 3AF32C504 with 82NEA-4 blades Diameter: not over 78 in., not under 74 in. No further reduction permitted Pitch settings at 30 in. sta.: low 13.0°, feathered 82.6°

(b) Hydraulic governor, Woodward B210446, A210529

(c) Propeller spinner, 3-bladed, McCauley D3534 dome with D3537 bulkhead

*Airspeed Limits (CAS)

Never exceed 257 m.p.h. (224 knots)
Maximum structural cruising 210 m.p.h. (183 knots)
Maneuvering 170 m.p.h. (148 knots)
Flaps extended 140 m.p.h. (122 knots)
Landing gear extended 140 m.p.h. (122 knots)

*C.G. Range

(+38.0) to (+43.1) at 5200 lb.

(+43.6) at 4800 lb.

(+32.0) to (+43.6) at 4300 lb. or less Straight line variation between points given

Empty Wt. C.G. Range

None

*Maximum Weight

Landing 5200, takeoff 5200 lb.

No. of Seats

5 (Std.) (2 at +37, 3 at +71) See Manufacturer's Weight and Balance data sheet for optional seating arrangements.

*Maximum Baggage

200 lb. on floor at (+96), 80 lb. per side on floor (+124),

120 lb. per nacelle (+63)

Fuel Capacity

102 gal. (2 wing tip tanks, 51 gal. each at +35.0)

or 143 gal. (with 2 wing tip tanks and 2 auxiliary tanks 20.5 gal.

each at +47)

See NOTE 1 for data on unusable fuel

Oil Capacity

6.5 gal. (3.25 gal. in each engine at (-3.5), unusable 1.5 gal.

per engine)

See NOTE 1 for data on unusable oil

Control Surface	Wing flaps		35° Down
Movements	Main surfaces		
	Aileron	20° Up	20° Down
	Elevator	16.5° Up	15° Down
	Rudder	29.3° Right	29.3° Left
	(Parallel to W.L.)	•	
	Tab (main surface in neutral)		
	Aileron	20° Up	20° Down
	Elevator	10° Up	26° Down
	Rudder	17° Right	22° Left
	(Parallel to W.L.)	· ·	

Serial Nos. Eligible 623, 320D0001 through 320D0130

VII - Model 320E, Executive Skyknight, (Normal Category), Approved July 26, 1966

Engines 2 Continental TSIO-520-B or TSIO-520-BB

*Fuel 100/130 minimum grade aviation gasoline

See NOTE 5

*Engine Limits For all operations, 2700 r.p.m., 285 hp., 32 in. Hg MP Critical altitude is 16,000 ft. in standard atmosphere

<u>Altitude</u>	Max. Allowable MP
Sea level	32.0 in. Hg
16,000 ft.	32.0 in. Hg
18,000 ft.	30.7 in. Hg
20,000 ft.	29.0 in. Hg
22,000 ft.	26.4 in. Hg
24,000 ft.	24.3 in. Hg
26,000 ft.	22.2 in. Hg
28,000 ft.	20.2 in. Hg
30,000 ft.	18.5 in. Hg
32,000 ft.	17.0 in. Hg

Propeller and **Propeller Limits**

- 1. 2 McCauley full-feathering propeller installations
 - (a) Hubs D2AF34C71 with 84JF blades Diameter: not over 81 in., not under 79 in.

No further reduction permitted

Pitch settings at 30 in. sta.:

- low 13.3°, high 14.8°, feathered 82.7°
 (b) Hydraulic governor, Woodward B210446, A210529
- (c) Propeller spinner, Cessna 0855032-1 dome with 0855032-2 bulkhead
- 2. 2 McCauley full-feathering 3-bladed propeller installations or
 - (a) McCauley hubs 3AF32C87 with 82NC-4 blades or McCauley hubs 3AF32C504 with 82NEA-4 blades

Diameter: not over 78 in., not under 74 in.

No further reduction permitted Pitch settings at 30 in. sta.: low 13.0°, feathered 82.6°

- (b) Hydraulic governor, Woodward B210446, A210529
- (c) Propeller spinner, 3-bladed, McCauley D-3534 dome with D-3537 bulkhead

*Airspeed Limits	Never exceed	257 mph (224 knots)
(ČAS)	Maximum structural cruising	210 mph (183 knots)
	Maneuvering	170 mph (148 knots)
	Flaps extended	160 mph (139 knots)

(139 knots) Landing gear extended 160 mph (139 knots)

*C.G. Range (+39.3) to (+43.1) at 5300 lb.

(+43.6) at 4900 lb.

(+32.0) to (+43.6) at 4300 lb. or less Straight line variation between points given

Empty Wt. C.G. Range None

*Maximum Weight Landing 5300 lb., takeoff 5300 lb.

No. of Seats 5 (Std.) (2 at +37, 3 at +71) See Manufacturer's Weight and

Balance data sheet for optional seating arrangements.

Maximum Baggage 200 lb. on floor at (+96), 80 lb. per side on floor (+124),

120 lb. per nacelle (+63)

Fuel Capacity 102 gal. (2 wing tip tanks, 51 gal. each at +35.0)

or 143 gal. (with 2 wing tip tanks and 2 auxiliary tanks 20.5 gal. each at +47)

r 183 gal. (with 2 wing tip tanks, 2 auxiliary tanks and 2 wing locker

transfer tanks 20 gal. each at +49.0) See NOTE 1 for data on system fuel

Oil Capacity 6.5 gal. (3.25 gal. in each engine at (-3.5), unusable 1.5 gal. per engine)

See NOTE 1 for data on system oil

Control Surface Wing flaps 35° Down Movements Main surfaces

Aileron 20° Up 20° Down
Elevator 16.5° Up 15° Down
Rudder 29.3° Right 29.3° Left

(Parallel to W.L.)

Tab (main surface in neutral)

Aileron 20° Up 20° Down Elevator 10° Up 26° Down Rudder 17° Right 22° Left

(Parallel to W.L.)

Serial Nos. Eligible 320E0001 through 320E0110

VIII - Model 320F, Executive Skyknight, (Normal Category), Approved May 10, 1967

Engines 2 Continental TSIO-520-B or TSIO-520-BB

*Fuel 100/130 minimum grade aviation gasoline

See NOTE 5

*Engine Limits For all operations, 2700 r.p.m., 285 hp., 32 in. Hg MP

Critical altitude is 16,000 ft. in standard atmosphere

<u>Altitude</u>	<u>Max. Allowable MP</u>
Sea level	32.0 in. Hg
16,000 ft.	32.0 in. Hg
18,000 ft.	30.7 in. Hg
20,000 ft.	29.0 in. Hg
22,000 ft.	26.4 in. Hg
24,000 ft.	24.3 in. Hg
26,000 ft.	22.2 in. Hg
28,000 ft.	20.2 in. Hg
30,000 ft.	18.5 in. Hg
32,000 ft.	17.0 in. Hg
52,000 II.	i7.0 in. ⊓g

Propeller and 2 McCauley full-feathering propeller installations **Propeller Limits** (a) Hubs D2AF34C71 with 84JF blades Diameter: not over 81 in., not under 79 in. No further reduction permitted Pitch settings at 30 in. sta.: low 13.3°, high 14.8°, feathered 82.7° (b) Hydraulic governor, Woodward B210446, A210529 (c) Propeller spinner, Cessna 0855032-1 dome with 0855032-2 bulkhead 2 McCauley full-feathering 3-bladed propeller installations or (a) McCauley hubs 3AF32C87 with 82NC-4 blades or McCauley hubs 3AF32C504 with 82NEA-4 blades Diameter: not over 78 in., not under 74 in. No further reduction permitted Pitch settings at 30 in. sta.: low 13.0°, feathered 82.6° (b) Hydraulic governor, Woodward B210446, A210529 (c) Propeller spinner, 3-bladed, McCauley D-3534 dome with D-3537 bulkhead *Airspeed Limits Never exceed 257 m.p.h. (224 knots) Maximum structural cruising 210 m.p.h. (183 knots) (CAS) Maneuvering 170 m.p.h. (148 knots) Flaps extended 160 m.p.h. (139 knots) Landing gear extended 160 m.p.h. (139 knots) *C.G. Range (+39.3) to (+43.1) at 5300 lb. (+43.6) at 4900 lb. (+32.0) to (+43.6) at 4300 lb. or less Straight line variation between points given Empty Wt. C.G. Range None *Maximum Weight Landing 5300 lb., takeoff 5300 lb. No. of Seats 5 (Std.) (2 at +37, 3 at +71) See Manufacturer's Weight and Balance data sheet for optional seating arrangements. 200 lb. on floor at (+96), 80 lb. per side on floor (+124), Maximum Baggage 120 lb. per nacelle (+63) **Fuel Capacity** 102 gal. (2 wing tip tanks, 51 gal. each at +35.0) 143 gal. (with 2 wing tip tanks and 2 auxiliary tanks 20.5 gal. each at +47) 183 gal. (with 2 wing tip tanks, 2 auxiliary tanks and 2 wing locker transfer tanks 20 gal. each at +49.0) See NOTE 1 for data on system fuel Oil Capacity 6.5 gal. (3.25 gal. in each engine at (-3.5), unusable 1.5 gal. per engine) See NOTE 1 for data on system oil Control Surface 35° Down Wing flaps Movements Main surfaces Aileron 20° Up 20° Down Elevator 16.5° Up 15° Down Rudder 29.3° Right 29.3° Left (Parallel to W.L.) Tab (main surface in neutral) 20° Up Aileron 20° Down Elevator 10° Up 26° Down 17° Right Rudder 22° Left

Serial Nos. Eligible 658, 320F0001 through 320F0045

(Parallel to W.L.)

IX - Model 340, (Normal Category), Approved October 15, 1971

Engines 2 Teledyne Continental TSIO-520-K or TSIO-520-KB

*Fuel 100/130 minimum grade aviation gasoline

See NOTE 5

*Engine Limits

For all operations, 2700 r.p.m., 285 hp., 33.0 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.

Altitude (ft.)	Max. Allowable MP (in. Hg)
16,000 ft.	33.0
18,000 ft.	30.2
20,000 ft.	28.0
23,000 ft.	24.5
26,000 ft.	21.5
29,000 ft.	19.0

Propeller and Propeller Limits

- 1. 2 McCauley full-feathering 2-bladed propeller standard installations
 - (a) McCauley hubs D2AF34C71 with 84JF-3 blades Diameter: not over 81 in., not under 79 in.

No further reduction permitted

Pitch settings at 30 in. sta.: low 13.3°, feathered 82.7°

- (b) Hydraulic governor, Woodward B210446, A210529; McCauley DCFS290D1/T3, DCFUS2990D1/T3, DCFS290D7/T3, DCFUS290D7/T3 or DCFUS290D13/T3
- (c) Propeller spinner, McCauley D-3800 dome with D3818 bulkhead
- or 2. 2 McCauley full-feathering 3-bladed optional propeller installations
 - (a) McCauley hubs 3AF32C87 with 82NC-4 blades or McCauley hubs 3AF32C504 with 82NEA-4 blades

Diameter: not over 78 in., not under 74 in.

No further reduction permitted

Pitch settings at 30 in. sta.: low 13.0°, feathered 82.6°

- (b) Hydraulic governor, Woodward B210446, A210529; McCauley DCFS290D1/T3, DCFUS290D1/T3, DCFS290D7/T3, DCFUS290D7/T3 or DCFUS290D13/T3
- (c) Propeller spinner, McCauley D-3534 dome with D3796 bulkhead

*Airspeed Limits (CAS)

S/N 340-0001 through 340-0300

Maneuvering	179 m.p.h. (155 knots)
Maximum structural cruising	230 m.p.h. (200 knots)
Never exceed	270 m.p.h. (234 knots)
Flaps extended 15°	180 m.p.h. (156 knots)
Flaps extended 45°	160 m.p.h. (139 knots)
Landing gear extended	160 m.p.h. (139 knots)

S/N 340-0301 and on

<u> </u>		
Maneuvering	155 knots	(179 m.p.h.)
Maximum structural cruising	200 knots	(230 m.p.h.)
Never exceed	234 knots	(270 m.p.h.)
Flaps extended 15°	160 knots	(184 m.p.h.)
Flaps extended 45°	140 knots	(161 m.p.h.)
Landing gear extended	140 knots	(161 m.p.h.)

*C.G. Range

Landing gear extended

(+150.41) to (+155.59) at 5975 lb. (T.O. and landing) to

(+155.96) at 5575 lb.

(+146.09) to (+155.96) at 5075 lb. or less Straight line variation between points given

Landing gear retracted moment change: +860 in.-lb.

Empty Wt. C.G. Range	None						
*Maximum Weight	5975 lb., takeoff and landing						
No. of Seats	6 (2 at +137.0, 2 at +175.0, 2 at +204.0) See Manufacturer's Equipment List for optonal seating arrangements.						
Maximum Baggage	350 lb. at (+77.0), 240 lb. at (+184.25) and 340 lb. at (+242.0)						
Fuel Capacity	Tank C S/N 340-0001 and on LH tip tank RH tip tank LH aux. tank (40 gal. opt) RH aux. tank (40 gal. opt) LH wing locker tank RH wing locker tank S/N 340-0151 and on LH aux. tank (63 gal. opt) RH aux. tank (63 gal. opt)	51 51 20.5 20.5 20.5 20.5 20.5 32 32 musable fuel	Usable (Gal) 50 50 20 20 20 20 31.5 31.5	Moment Arm +150.25 +150.25 +162.25 +162.25 +164.25 +164.25 +162.25 +162.25			
Oil Capacity	26 qt. (13 qt. each engine See NOTE 1 for data on u		able 5.52 qt. per	engine)			
Control Surface Movements	Wing flaps Main surfaces Aileron Elevator Rudder (Parallel to water line) (Perpendicular to hinge) Tabs (main surface in neuron Elevator Rudder (Parallel to water line) (Perpendicular to hinge)	tral) 20° Up 10° Up 16° Right	45° Down 20° Down 15° Down 29° Left 32° Left 20° Down 16° Down 21° Left 24° Left				
Serial Nos. Eligible	340-0001 through 340-011 340-0151 through 340-026 340-0301 through 340-035 340-0501 through 340-055	60 (1973) 70 (1974)					

X - Model 340A, (Normal Category), Approved November 19, 1975

Engines

S/N 340A0001 through 340A0600 2 Teledyne Continental TSIO-520-N or TSIO-520-NB

S/N 340A0601 and up 2 Teledyne Continental TSIO-520-NB

*Fuel 100/130 minimum grade aviation gasoline

See NOTE 5

*Engine Limits

For all operations, 2700 r.p.m., 310 hp., 38 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.

Altitude (ft.)	Max. Allowable MP (in. Hg)
20,000 ft.	38.0
22,000 ft.	35.2
24,000 ft.	32.3
26,000 ft.	29.8
28,000 ft.	27.4
30,000 ft.	25.0

Propeller and Propeller Limits

- 1. 2 McCauley full-feathering 3-bladed propeller standard installations
 - (a) McCauley hubs 3AF32C93 with 82NC-5.5 blades or McCauley hubs 3AF32C505 with 82NEA-5.5 blades

Diameter: not over 76.5 in., not under 75 in.

No further reduction permitted Pitch settings at 30 in. sta.: low 14.9°, feathered 81.2°

or (b) McCauley hubs 3AF32C93 with 82NC-6.5 blades or McCauley hubs 3AF32C505 with 82NEA-6.5 blades

Diameter: not over 75.5 in., not under 75 in.

No further reduction permitted Pitch settings at 30 in. sta.: low 15.2°, feathered 81.2°

(c) S/N 340A0001 through 340A0400

Hydraulic governor, McCauley DCFS290D4/T3, DCFS290D5/T3, DCFUS290D4/T3, DCFUS290D5/T3, DCFS290D7/T3, DCFS290D8/T3, DCFUS290D7/T3, DCFUS290D8/T3, DCFUS290D12/T3 or DCFUS290D13/T3

S/N 340A0401 through 340A1500

Hydraulic governor, McCauley DCFS290D4/T3, DCFS290D6/T3, DCFUS290D4/T3, DCFUS290D6/T3, DCFS290D7/T3, DCFS290D8/T3, DCFUS290D7/T3, DCFUS290D8/T3, DCFUS290D12/T3 or DCFUS290D13/T3

S/N 340A1501 and up

Hydraulic governor, McCauley DCFS290D9/T3, DCFUS290D9/T3 (d) Propeller spinner, McCauley D-3534 dome with D3796 bulkhead

*Airspeed Limits	Maneuvering	155 KIAS (179 m.p.h.)
•	Maximum structural cruising	200 KIAS (230 m.p.h.)
	Never exceed	234 KIAS (269 m.p.h.)
	Flaps extended 15°	160 KIAS (184 m.p.h.)
	Flaps extended 45°	142 KIAS (163 m.p.h.)
	Landing gear extended	140 KIAS (161 m.p.h.)

C.G. Range Landing gear extended

(+150.41) to (+155.59) at 5990 lb. (T.O. and landing) to

(+155.96) at 5590 lb.

(+146.09) to (+155.96) at 5075 lb. or less Straight line variation between points given

Landing gear retracted moment change: +860 in.-lb.

Empty Wt. C.G. Range

None

*Maximum Weight S/N 340A0001 through 340A0400

5990 lb., takeoff and landing

S/N 340A0401 and up

5990 lb., takeoff and landing; ramp 6025 lb.

No. of Seats 6 (2 at +137.0, 2 at +175.0, 2 at +204.0) See Manufacturer's

Equipment List for optonal seating arrangements

Maximum Baggage 350 lb. at (+77.0), 240 lb. at (+184.25), and 340 lb. at (+242.0)

Fuel Capacity

	Capacity	Usable	Moment
Tank	Gal.	<u>Gal.</u>	<u>Arm</u>
LH tip tank	51	50	+150.25
RH tip tank	51	50	+150.25
LH aux. tank (40 gal. opt)	20.5	20	+162.25
RH aux. tank (40 gal. opt)	20.5	20	+162.25
LH aux. tank (63 gal. opt)	32	31.5	+162.25
RH aux. tank (63 gal. opt)	32	31.5	+162.25
LH wing locker tank	20.5	20	+164.25
RH wing locker tank	20.5	20	+164.25

See NOTE 1 for data on unusable fuel

Oil Capacity 26 qt. (13 qt. each engine at (+111.75), usable 5.52 qt. per engine)

See NOTE 1 for data on undrainable oil

Control Surface Movements Wing flaps 45° Down Main surfaces Aileron 20° Up 20° Down Elevator 20° Up 15° Down Rudder 29° Right 29° Left (Parallel to water line) 32° Left 32° Right (Perpendicular to hinge) Tabs (main surface in neutral) Aileron 20° Up 20° Down Elevator 10° Up 16° Down Rudder 16° Right 21° Left (Parallel to water line) 24° Left 19° Right

(Perpendicular to hinge)

Serial Nos. Eligible

340A0001 through 340A0125 (1976) 340A0201 through 340A0375 (1977) 340A0401 through 340A0562 (1978) 340A0601 through 340A0801 (1979) 340A0901 through 340A1045 (1980) 340A1201 through 340A1280 (1981) 340A1501 through 340A1543 (1982) 340A1801 through 340A1817 (1984)

XI - Model 335, (Normal Category), Approved October 2, 1979

Engines 2 Teledyne Continental TSIO-520-EB

*Fuel 100 or 100 low-lead minimum grade aviation gasoline

See NOTE 5 for optional anti-icing additive

*Engine Limits

For all operations, 2700 r.p.m., 300 hp., 34.5 in. Hg MP up to a critical altitude of 16,000 ft. in standard atmosphere. Above 16,000 ft. the following maximum MP applies for maximum r.p.m.

	<u>Max. Allowable</u>
Altitude (ft.)	<u>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

2 McCauley full-feathering 3-bladed propeller standard installations

(a) McCauley hubs 3AF32C87 with 82NC-5.5 blades or McCauley hubs 3AF32C504 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. sta.: low 14.2° feathering 81.2°

- (b) Hydraulic governor, McCauley DCFS290D7/T3, DCFS290D8/T3, DCFUS290D7/T3, DCFUS290D8/T3, DCFUS290D12/T3 or DCFUS290D13/T3
- (c) Propeller spinner and bulkhead assembly, McCauley D-3534/D-3796

	ed		

Maneuvering	155 KIAS	(179 m.p.h.)
Max. structural cruising	200 KIAS	(230 m.p.h.)
Never exceed	234 KIAS	(269 m.p.h.)
Flaps extended 15°	160 KIAS	(184 m.p.h.)
Flaps extended 45°	142 KIAS	(163 m.p.h.)
Landing gear extended	140 KIAS	(161 m.p.h.)

C.G. Range

Landing gear extended

(+150.41) to (+155.59) at 5990 lbs. (T.O. and landing) to

(+155.96) at 5590 lbs.

(+146.09) to (+155.96) at 5075 lbs. or less Straight line variation between points given

Landing gear retracted moment change: +860 in.-lb.

Empty Wt. C.G. Range

None

*Maximum Weight

5990 lbs., takeoff and landing; ramp 6025 lbs.

No. of Seats

6 (2 at +137.0, 2 at +175.0, 2 at +204.0) See manufacturer's equipment list for optional seating arrangements

Maximum Baggage

350 lbs. at (+77.0), 240 lbs. at (+184.25), and 340 lbs. at (+242.0)

Fuel Capacity

	Capacity	Usable	Moment
Tank	Gal.	Gal.	Arm_
LH tip tank	51	50	+150.25
RH tip tank	51	50	+150.25
LH aux tank (40 gal. opt)	20.5	20	+162.25
RH aux. tank (40 gal. opt)	20.5	20	+162.25
LH aux. tank (63 gal. opt)	32	31.5	+162.25
RH aux. tank (63 gal. opt)	32	31.5	+162.25
LH wing locker tank	20.5	20	+164.25
RH wing locker tank	20.5	20	+164.25
See NOTE 1 for data on unus	able fuel		

Oil Capacity 26 qt. (13 qt. each engine at (+111.75), usable 5.52 qt. per engine)

See NOTE 1 for data on undrainable oil

Control Surface Wing flaps Down 45° +1°, -0°
Movements Main surfaces

Aileron Up 20° +1°, -0° Down 20° +1°, -0° Elevator Up 20° +1°, -0° Down 15° +1°, -0° Rudder Right 29° +1°, -0° Left 29° +1°, -0°

(Parallel to water line)

Right 32° +1°, -0° Left 32° +1°, -0°

(Perpendicular to hinge)
Tabs (main surface in neutral)

(Parallel to water line)

Right 19° +1°, -0°

Left 24° +1°, -0°

(Perpendicular to hinge)

Serial Nos. Eligible 335-0001 through 335-0065

Data Pertinent to All Models

Datum Model 320 Series: Fuselage station 0.00

The forward face of fuselage bulkhead forward of

the rudder pedals is at FS 0.00.

Model 335 and Fuselage station 0.00

340 Series: The forward face of fuselage bulkhead forward of

the rudder pedals is at FS 100.00.

Leveling Means Model 320 Series: External splice plate on left side of fuselage under cabin

windows.

Model 335 and External leveling screws at FS 185.46 and

340 Series: FS 209.96 on W.L. 116.0

Certification Basis Model 320 Series

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

Models 340:

Part 3 of the Civil Air Regulations effective May 15, 1956, as amended by 3-1 through 3-5 and 3-8, except Subpart B; and Part 23 Subpart B and 23.959, 23.1041 and 23.1305(p) of the Federal Aviation Regulations effective February 1, 1965, as amended by 23-1 through 23-7 and the following exemption No. 1435, FAR 23.1387(d) (CAR 3.702) "Aft Position Light Vertical Angle Coverage."

Model 340A and 335:

Part 3 of the Civil Air Regulations effective May 15, 1956, as amended by 3-1 through 3-5 and 3-8 except Subpart B and paragraphs 3.437(a), (b), (c), (d), (f), 3.581, and 3.666. Include the following portions of FAR 23, dated February 1, 1965, as amended by 23-1 through 23-7: Subpart B and paragraphs 23.959, 23.1041and 23.1305(p). Include paragraphs 23.1387(e) as amended by 23-12, 23.1327 as amended through 23-23, and FAR 36, dated December 1, 1969, as amended by 36-1 through 36-4 (36-10, Model 335). Findings of equivalent level of safety were made for CAR 3.757 and 3.778(a).

<u>S/N 340-0301 and up, Models 340A and 335</u> - 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.

S/N 340A0201 and up, and Model 335:

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 the Pilot's Operating Handbook and Factory Kit (FK) No. 194.

S/N 335-0001 and up:

In addition to the above certification basis, installed oxygen systems must comply with FAR 23.1441 of Amendment 23-9 effective June 17, 1970, to make the airplane eligible for operation at altitudes where supplemental oxygen is mandatory.

Application for Type Certificate dated March 31, 1960. Type Certificate No. 3A25 issued May 24, 1961, obtained by the manufacturer under Delegation Option procedures.

Production Basis

Production Certificate No. 312. 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.

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:

- Stall warning indicator, Cessna dwg. 0511062 (Models 320, 320-1, 320A, 320B, 320C, 320D, 320E, 320F)
- 2. Stall warning indicator, Cessna dwg. 5318100 (Models 340, 340A, 335)

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:

	All	<u>(II)</u>
	320	340, 335
Weight (lb.)	<u>Series</u>	<u>Series</u>
6.0	+44.0	+150.25
6.0	+44.0	+150.25
3.0	+47.0	+162.25
3.0	+47.0	+162.25
3.0	N/A	+162.25
3.0	N/A	+162.25
3.0	+49.0	+173.25
3.0	+49.0	+173.25
1.0	- 3.5	+111.75
	6.0 6.0 3.0 3.0 3.0 3.0 3.0 3.0 3.0	320 Weight (lb.) 6.0 444.0 6.0 3.0 447.0 3.0 447.0 3.0 N/A 3.0 N/A 3.0 149.0 3.0 449.0

NOTE 2. Model 340A S/N 340A0601 and up, Model 335

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

Model 320 Series, 340, 340A S/N 340A0001 through 340A0600

The following placards must be displayed as indicated:

Model 320 Series

A. Operational limits (on circuit box cover)

- (1) "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 (Pilot's Check List)"
- (2) "No acrobatic maneuvers, including spins, approved"
- (3) (a) "Minimum speed for single engine operation, 88 m.p.h. (CAS)" (320, 320E, 320F)

"Minimum speed for single engine operation, 90 m.p.h. (CAS)" (320-1, 320A, 320B, 320C, 320D)

- (b) "Maximum gear extended speed, 140 m.p.h. (CAS)" (320, 320-1, 320A, 320B, 320C, 320D)
 "Maximum gear extended speed, 160 m.p.h. (CAS)" (320E, 320F)
- (c) "Maximum flap extension speed (CAS)

```
      (320, 320-1, 320A)
      15° Flaps - 160 m.p.h.

      (320, 320-1, 320A)
      45° Flaps - 140 m.p.h.

      (320B, 320C)
      15° Flaps - 160 m.p.h.

      (320D, 320E, 320F)
      15° Flaps - 180 m.p.h.

      (320B, 320C, 320D)
      35° Flaps - 140 m.p.h.

      (320E, 320F)
      35° Flaps - 160 m.p.h.
```

- (d) "Maximum landing light extension speed, 160 m.p.h. (CAS)" (320, 320-1, 320A, 320B)
- (e) "Maximum maneuvering speed, 170 m.p.h. (CAS)" (320-1, 320A, 320B, 320C, 320D, 320E, 320F)

B. On the instrument panel

- (1) "Open defrost or cabin air during heater operation."
- (2) "T & B Test" "Heater Overheat" "Push, T & B Test"
- (3) (a) On panel placard (320, 320-1, 320A)

"Flap	Maximum Speed
<u>Deflection</u>	<u>m.p.h. (CAS)</u>
15°	160
15° - 45°	140"

- (b) On panel mounted instruments
 - "Flap position 0° 15°, blue arc 160 m.p.h. (CAS) 15° - 35°, white arc 140 m.p.h. (CAS)" (320B, 320C)
 - (2) "Flap position 0° 15°, blue arc 180 m.p.h. (CAS) 15° 35°, white arc 140 m.p.h. (CAS)" (320D)
 - (3) "Flap position 0° 15°, blue arc 180 m.p.h. (CAS) 15° 35°, white arc 140 m.p.h. (CAS)" (320E, 320F)
- (4) When wing locker transfer tanks are installed "20 gal. Empty LH -ON - RH - OFF - Fuel Transfer - 20 gal."

C. On foul weather window

(1) "Do not open above 130 m.p.h. (CAS)" (320, 320-1, 320A, 320B, 320C, 320D)

D. Emergency exits

- (1) On left emergency exit:
 - (a) "Emergency exit pull ring push window out"
 - (b) "Emergency window release pull"
- (2) On right emergency exit (320-1, 320A, 320B, 320C, 320D)
 - (a) "Emergency exit force to open"

E. On control lock

'Control lock - remove before starting engine"

F. On floor between front seats

- (1) (a) "Left engine 50 gal. left on tank right on tank both off" (320, 320-1, 320A, 320B, 320C, 320D)
 - (b) "50 gal. left main 50 gal. right main left engine off" (320E, 320F)
- (2) (a) "Right engine 50 gal. left on tank right on tank both off" (320, 320-1, 320A, 320B, 320C, 320D)
 - (b) "50 gal. right main 50 gal. left main right engine off" (320E, 320F)
- (3) (a) "Set fuel selector valves to left main tank for left engine and right main tank for right engine in takeoff, landing and all normal operation"
 - (b) "Takeoff and land with auxiliary fuel pumps on. Use full rich mixture and auxiliary fuel pumps when switching fuel tanks. To extend gear manually, pull out crank to engage and turn clockwise. Caution: Push button and stow crank before operating electrically. Gear switch should be in neutral before operating manual system" (320, 320-1, 320A)
 - (c) "Use main tanks for takeoff, landing and first 60 minutes of flight. Take off and land with auxiliary fuel pumps on. Use full rich mixture and auxiliary fuel pumps on low when switching fuel tanks. To extend gear manually, pull out crank to engage and turn clockwise. Caution: Gear switch should be in neutral before operating manual system. Push button and stow crank before operating electrically." (320B, 320C, 320D, 320E, 320F)
 - (d) If optional wing locker transfer tanks are installed:
 "Use main tank for takeoff, landing and emergency."
 "Take off and land with auxiliary fuel pumps on."
 "Use full rich mixture and auxiliary fuel pumps on 'Low' when switching fuel tanks."
 - (1) "Operate on main tanks until fuel quantity is less than 30 gal. per tank."
 - (2) "Transfer wing locker fuel while operating on main tanks in straight and level flight."
 - (3) "Turn transfer pumps off when lights illuminate."
 - (4) "Use fuel crossfeel system to balance main fuel quantities if one wing locker tank does not transfer or if a single wing locker tank is installed."
 - (5) "Switch to auxiliary tanks when main fuel is again less than 30 gal. per tank."
 - "To extend gear manually, pull out crank to engage and turn clockwise. Caution: (1) Gear switch should be in neutral before operating manual system. (2) Push button and stow crank before operating electrically." (320E, 320F)

NOTE 2. G. <u>Baggage facilities</u> (See Manufacturer's Optional Equipment List for detail requirements)

- (1) Baggage door
 - (a) "Maximum capacity 200 lb. See Weight and Balance data for detailed loading instructions." (320)
 - (b) "Maximum baggage capacity 200 lb. (Sta. 85 110) See Weight and Balance data for detailed loading instructions." (320-1, 320A, 320B, 320C, 320D, 320E, 320F)

NOTE 2. G. (2) On baggage wall, Sta. 132

- (a) "Maximum baggage capacity 60 lb. See Weight and Balance data for detailed loading instructions" (320A)
- or (b) "Maximum baggage capacity 80 lb. See Weight and Balance data for detailed loading instructions" (320A)
- or (c) "Maximum baggage capacity 160 lb. (Sta. 110 132) See Weight and Balance data for detailed loading instructions" (320A, 320B, 320C, 320D, 320E, 320F)
- (3) On nacelle baggage door
 - (a) "Maximum 120 lb. baggage" (320B, 320C, 320D, 320E, 320F)
 - (b) If wing locker transfer tanks are installed "Maximum 40 lb. baggage" (320E, 320F)

H. Adjacent to fuel strainer

(1) "Fuel strainer - drain daily. Note: If water is observed at the fuel strainer, fuel tank sumps must be drained"

I. On engine control pedestal

- (1) "Nose up takeoff nose down"
- (2) "Cowl flaps pull to close"
- (3) "L Nose R"
- (4) "L Roll R"
- (5) (a) "L Gen Batt R Gen Ammeter Select" (320, 320-1, 320A, 320B, 320C)
 - (b) "L Alt Batt R Alt Ammeter Select" (320D, 320E, 320F)
- (6) "Engine alternate Air pull out"
 - (a) On upper control handle "L"
 - (b) On lower control handle "R"

J. At appropriate locations

- (1) "Tank and sump drain"
- (2) "Cross feel line drains. Drain daily."
- (3) "Air filter"
- (4) 320, 320-1, 320A, 320B, 320C, 320D

"Maximum fuel 51 gal., minimum octane 100/130" 320E

"Fuel - 100/130 aviation grade, usable fuel 50 gal."

(5) 320, 320-1, 320A, 320B, 320C

"Auxiliary - maximum fuel 15.5 gal., minimum octane 100/130" 320D

"Auxiliary - maximum fuel 20.5 gal., minimum octane 100/130" 320E

"Auxiliary fuel - 100/130 aviation grade usable fuel 20 gal."

(6) "Power off stall speeds (CAS)

		Configuration		Angle	e of Bank	(
			0°	20°	40°	60°
(a)	Model 320	Gear Up - Flaps Up	86	89	98	121
		Gear Down - Flaps 45°	76	79	87	108
(b)	Model 320-1	Gear Up - Flaps Up	88	91	100	124
		Gear Down - Flaps 45°	78	81	89	111
(c)	Model 320A	Gear Up - Flaps Up	86	89	98	121
		Gear Down - Flaps 45°	78	81	89	111
(d)	Model 320B, 320C, 320D	Gear Up - Flaps Up	87	89	99	123
		Gear Down - Flaps 35°	79	82	91	112
(e)	Model 320E, 320F	Gear Up - Flaps Up	85	88	98	121
		Gear Down - Flaps 15°	81	83	92	114
		Gear Down - Flaps 35°	74	77	85	105"

(7) "Rotating beacon required for proper rudder mass balance. Do not remove" 320A, 320B, 320C, 320D, 320E, 320F

- NOTE 2. (8) With optional wing locker transfer tanks, "Transfer fuel - 100/130 aviation grade minimum - usable 20 gal."
 - (9) With optional wing locker transfer tanks, "Transfer Line Drain Daily."
 - K. Replace placard 2F on floor between front seats with the following placard when auxiliary tanks are installed:
 - (1) "Left engine 50 gal. left main left auxiliary 15 gal. right main 50 gal. - off" (320, 320-1, 320A, 320B, 320C) "Left engine - 50 gal. - left main - left auxiliary 20 gal. - right main 50 gal. - off" (320D) "50 gal. left main - 50 gal. right main - 20 gal. left auxiliary - left engine (320E, 320F)
 - "Right engine 50 gal. left main right auxiliary 15 gal. right main 50 gal. - off" (320, 320-1, 320A, 320B, 320C) "Right engine - 50 gal. - left main - right auxiliary 20 gal. - right main 50 gal. - off" (320D) "50 gal. right main - 50 gal. left main - 20 gal. right auxiliary - right engine off" (320E, 320F)
 - (3) (a) "Use main tanks for takeoff, landing and first 60 minutes of flight"
 - (b) "Set fuel selector valves to left main tank for left engine and right main tank for right engine in takeoff, landing and all normal operation."
 - (c) "Take off and land with auxiliary fuel pumps on. Use full rich mixture and auxiliary pumps when switching tanks." (320, 320-1, 320A) "Take off and land with auxiliary fuel pumps on. Use full rich mixture and auxiliary pumps on low when switching fuel tanks." (320B, 320C, 320D, 320E, 320F)
 - (d) "To extend gear manually, pull out crank to engage and turn clockwise. Caution: Push button and stow crank before operating electrically. Gear switch should be in neutral before operating manual system."

Model 340 Series

- Escape hatch:
 - (1) On emergency escape hatch window trim:
 - "EMERGENCY EXIT"
 - (a) "TURN HANDLE **►** OPEN"
 - (b) "PULL DOOR INBD AND DOWN"
 - (2) On emergency escape hatch release cover: "EMERGENCY EXIT HANDLE"
 - (3) On executive table top (outbd. side) and writing desk top (fwd. side): "TABLE MUST BE STOWED DURING TAKEOFF AND LANDING"
- M. On left engine fuel selector valve:
 - (1) "50 GAL. LEFT MAIN" (Green Sector)
 - "50 GAL. RIGHT MAIN" (Yellow Sector) (2)
 - (3) "LEFT ENGINE OFF" (Red Sector)
 - (4) If 20 gal. auxiliary tanks are installed:
 - "20 GAL. LEFT AUX." (Yellow and Green Sector)
 - (5) If 31.5 gal. auxiliary tanks are installed: "31.5 GAL. - RIGHT AUX." (Yellow and Green Sector)
- N. On right engine fuel selector valve:
 - (1) "50 GAL. RIGHT MAIN" (Green Sector)
 - (2) "50 GAL. LEFT MAIN" (Yellow Sector)(3) "RIGHT ENGINE OFF" (Red Sector)

 - (4) If 20 gal. auxiliary tanks are installed:
 - "20 GAL. LEFT AUX." (Yellow and Green Sector)
 - (5) If 31.5 gal. auxiliary tanks are installed: "31.5 GAL. - RIGHT AUX." (Yellow and Green Sector)

NOTE 2. O. On floor forward of fuel selectors:

- (1) (a) For optional 40-gallon auxiliary tank prior to serial 340A0401, "SET FUEL SELECTOR VALVES TO LEFT MAIN TANK FOR LEFT ENGINE AND RIGHT MAIN TANK FOR RIGHT ENGINE IN TAKEOFF, LANDING, EMERGENCY AND FIRST 60 MIN. OF FLIGHT"
 - (b) For optional 63-gallon auxiliary tank prior to serial 340A0401, "SET FUEL SELECTOR VALVES TO LEFT MAIN TANK FOR LEFT ENGINE AND RIGHT MAIN TANK FOR RIGHT ENGINE IN TAKEOFF, LANDING, EMERGENCY AND FIRST 90 MIN. OF FLIGHT"
 - (c) For optional 40-gallon auxiliary tank after serial 340A0401, "SET FUEL SELECTOR VALVES TO LEFT MAIN TANK FOR LEFT ENGINE AND RIGHT MAIN TANK FOR RIGHT ENGINE IN TAKEOFF, DESCENT, LANDING, EMERGENCY AND FIRST 60 MIN. OF FLIGHT"
 - (d) For optional 63-gallon auxiliary tank after serial 340A0401, "SET FUEL SELECTOR VALVES TO LEFT MAIN TANK FOR LEFT ENGINE AND RIGHT MAIN TANK FOR RIGHT ENGINE IN TAKEOFF, DESCENT, LANDING, EMERGENCY AND FIRST 90 MIN. OF FLIGHT"
- (2) "TAKE OFF AND LAND WITH AUXILIARY FUEL PUMPS ON"
- (3) "USE FULL RICH MIXTURE AND AUXILIARY FUEL PUMPS ON 'LOW' WHEN SWITCHING TANKS"
- (4) "100/130 GRADE AVIATION FUEL, MINIMUM"
- (5) If optional wing locker tanks are installed:
 - (a) "OPERATE ON MAIN TANKS UNTIL FUEL QUANTITY IS LESS THAN 180 LB. PER TANK"
 - (b) "TRANSFER WING LOCKER FUEL WHILE OPERATING ON MAIN TANKS IN STRAIGHT AND LEVEL FLIGHT"
 - (c) "TURN TRANSFER PUMPS OFF WHEN LIGHTS ILLUMINATE"
 - (d) "USE FUEL CROSSFEED SYSTEM TO BALANCE MAIN FUEL QUANTITIES IF ONE WING LOCKER TANK DOES NOT TRANSFER OR IF A SINGLE WING LOCKER TANK IS INSTALLED"
 - (e) "SWITCH TO AUXILIARY TANKS WHEN MAIN FUEL IS AGAIN LESS THAN 180 LB. PER TANK"

P. On floor forward of fuel selectors:

- (1) "TO EXTEND LANDING GEAR MANUALLY:
 - (a) PLACE GEAR SWITCH IN NEUTRAL
 - (b) PULL GEAR MOTOR CIRCUIT BREAKER
 - (c) PULL CRANK TO ENGAGE
 - (d) TURN CLOCKWISE TO EXTEND
 - (e) PUSH BUTTON AND STOW CRANK"

Q. On pilot's sun visor:

- (1) On front side, "OPERATIONAL LIMITS ON REVERSE SIDE"
- (2) On reverse side, "OPERATIONAL LIMITS"

S/N 340-0001 through 340-0300

- (a) "THIS AIRCRAFT MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS (Pilot's Checklist)
- (b) NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED.
- (c) MINIMUM SINGLE ENGINE CONTROL SPEED 97 M.P.H. (CAS)
- (d) MAXIMUM GEAR EXTENSION SPEED: 160 M.P.H. (CAS)
- (e) MAXIMUM FLAP EXTENSION SPEED: 15° FLAP 180 M.P.H. (CAS)
- (f) MAXIMUM FLAP EXTENSION SPEED: 45° FLAP 160 M.P.H. (CAS)
- (g) MAXIMUM MANEUVERING SPEED: 179 M.P.H. (CAS)
- (h) LANDING WITH CABIN PRESSURIZED PROHIBITED.
- (i) THE STALL WARNING SYSTEM IS INOPERATIVE WHEN THE BATTERY SWITCH IS IN THE OFF POSITION

NOTE 2. Q. (2) (j) POWER OFF STALLS - (CAS)

ANGLE (OF BAN	K		
Configuration	0°	20°	40°	60°
Gear and flaps up	91	94	105	129
Gear down flaps 15°	89	92	102	126
Gear down flaps 45°	82	85	94	116 "

(3) S/N 340-0301 and on

- (a) "THIS AIRCRAFT MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS (Pilot's Checklist)
- (b) NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED.
- (c) MINIMUM SINGLE ENGINE CONTROL SPEED 84 KCAS
- (d) MAXIMUM GEAR EXTENSION SPEED 140 KCAS
- (e) MAXIMUM FLAP EXTENSION SPEED: 15° FLAP, 160 KCAS
- (f) MAXIMUM FLAP EXTENSION SPEED: 45° FLAP, 140 KCAS
- (g) MAXIMUM MANEUVERING SPEED: 155 KCAS
- (h) LANDING WITH CABIN PRESSURIZED PROHIBITED.
- (i) POWER OFF STALLS (KCAS)

ANGLE OF BANK

Configuration	_0°	20°	40°	60°
Gear and flaps up	79	82	91	112
Gear down flaps 15°	71	80	88	109
Gear down flaps 45°	71	74	82	101"

(4) S/N 340A0001 through 340A0400

- (a) "THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS, AND MANUALS (Pilot's Checklist).
- (b) NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED.
- (c) AIR MINIMUM CONTROL SPEED: 82 KIAS
- (d) MAXIMUM GEAR OPERATING SPEED: 140 KIAS
- (e) MAXIMUM GEAR EXTENDED SPEED: 140 KIAS
- f) MAXIMUM FLAP EXTENDED SPEED: (15° FLAP) 160 KIAS
 - (45° FLAP) 142 KIAS
- (g) MAXIMUM MANEUVERING SPEED: 155 KIAS
- (h) LANDING WITH CABIN PRESSURIZED PROHIBITED.

IDLE POWER STALL SPEEDS (KIAS)

	Angle of Ba			nk
Configuration	0°	20°	40°	60°
Gear and flaps up	83	85	94	117
Gear down flaps 15°	76	78	87	109
Gear down flaps 45°	71	73	81	103"

(5) S/N 340A0401 and up

- (a) "THIS AIRPLANE MUST BE OPERATED AS A NORMAL CATEGORY AIRPLANE IN COMPLIANCE WITH THE OPERATING LIMITATIONS STATED IN THE FORM OF PLACARDS, MARKINGS AND HANDBOOKS (Pilot's Checklist).
- (b) NO ACROBATIC MANEUVERS, INCLUDING SPINS, APPROVED.
- (c) AIR MINIMUM CONTROL SPEED: 82 KIAS.
- (d) MAXIMUM GEAR OPERATING SPEED: 140 KIAS.
- (e) MAXIMUM GEAR EXTENDED SPEED: 140 KIAS.
- (f) MAXIMUM FLAP EXTENDED SPEED 15°: 160 KIAS.
- (g) MAXIMUM FLAP EXTENDED SPEED 45°: 142 KIAS.
- (h) MAXIMUM MANEUVERING SPEED: 155 KIAS.
- (i) LANDING WITH CABIN PRESSURIZED PROHIBITED.

Q. (5) (j) THIS AIRPLANE IS APPROVED FOR DAY/NIGHT VFR CONDITIONS. IT IS NOTE 2. APPROVED FOR DAY/NIGHT IFR CONDITIONS AND FLIGHTS INTO ICING CONDITIONS IF THE PROPER OPTIONAL EQUIPMENT IS INSTALLED AND OPERATIONAL.

IDLE POWER STALL SPEEDS (KIAS)					
Angle of Bank					
Configuration	0°	20°	40°	60°	
Gear up - Flaps up	83	85	94	117	
Gear down - Flaps 15°	76	78	87	109	
Gear down - Flaps 45°	71	73	81	103 "	

R. On instrument panel:

- (1) If locator beacon is installed:
 - "LOCATOR BEACON" "EMER NORM"
- (2) "PRESS AIR PULL TO DUMP" "RAG AIR" "LEFT AIR" "RIGHT AIR"
- (3) "PRESS" "CABIN" "DEPRESS"
- (4) "LANDING GEAR" "UP" "DOWN"
- (5) "CABIN AIR" "FWD" "AFT" "DEFROST" "OPEN ONE CONTROL MINIMUM FOR **HEATER OPERATION"**
- (6) "CABIN HEAT" "INCR" "ON-OFF"
- (7) "PRESS AIR" "HEAT"
- (8) "CABIN FAN" "HIGH-OFF-LOW"
- (9) "WEMAC BLOWER" "HIGH-OFF-LOW"
- (10) If wing locker fuel tanks are installed: "FUEL TRANSFER" "ON" "OFF" "LH" "RH"
- (11) Near fuel tank quantity indicator selector switch: "MAIN-AUX" "LH AUX" "RH AUX"
- (12) If propeller unfeathering accumulators are installed: "PROPELLER UNFEATHERING ACCUMULATORS ARE INSTALLED ON THIS AIRPLANE"
- (13) When required with optional PN101 slaved gyro: "GYRO SLAVING - FAST - NORM"
- (14) If 76.6 cu. ft. oxygen system is installed:
 - "USE BLUE OXYGEN CONNECTOR ONLY" (S/N 340-0151 and on and Model 340A)
- (15) "PROP SYNC ON OFF MUST BE OFF FOR TAKEOFF, LDG. AND ONE ENGINE OPERATION" (S/N 340-0001 through 340-0150)
- (16) Near propeller synchrophaser switch: "PHASE - SYNC - OFF" "MUST BE OFF FOR TAKEOFF, LANDING AND SINGLE ENGINE OPERATION" (S/N 340A0001 through 340A0400)
- (17) Near amber indicator light:
 - "PROP-SYNC" (S/N 340A0001 and up)
- (18) Near phasing knob:
 - "PHASING" (S/N 340A0001 and up)
- (19) Near propeller synchrophaser switch: "PHASE OFF" "MUST BE OFF FOR TAKEOFF, LANDING AND SINGLE ENGINE OPERATION" (S/N 340A0401 and up).
- S. On engine control pedestal:
 - (1) "PROP SYNC ON OFF" "MUST BE OFF FOR TAKEOFF, LDG. AND ONE ENGINE **OPERATION"**
 - (2) "TAKEOFF" (Range on elevator trim tab indicator nose 2° down to nose 8° up)
 - (3) "NOSE DOWN NOSE UP" (4) "L NOSE R"

 - (5) "L ROLL R"
 - (6) "COWL FLAP PULL TO CLOSE" " (LOCK Y " " (LOCK Y "
 - (7) "ALTERNATE AIR" "PULL TO DETENT FOR COLD AIR" "FULL OUT FOR HEATED AIR (SEE CHECKLIST)"

- NOTE 2. T. Adjacent to alternate static source selector:
 - (1) (a) (340-0001 through 340-0500) "Alternate Static Source" "Normal" "Alternate"
 - (b) (340-0501 and on and Model 340A) "Static Pressure Source" "Normal" "Alternate"
 - U. On control lock:
 - (1) "CONTROL LOCK REMOVE BEFORE STARTING ENGINES" "RUDDER LOCK"
 - V. Flap position:
 - (1) Blue Segment 180 m.p.h. 0° to 15°
 - (2) White Segment- 160 m.p.h. 15° to 45°
 - W. On rudder horn:
 - (1) (a) (340-0001 through 340-0500) "Rotating Beacon Required for Proper Rudder Mass Balance. Do Not Remove"
 - (b) (340-0501 and on and Model 340A) "Anti-Collision Light Required for Proper Rudder Mass Balance. Do Not Remove"
 - X. On wing locker doors:
 - (1) "MAX. BAGGAGE 120 POUNDS"
 - (2) If optional wing locker tanks are installed: Change Item (1) to "MAX. BAGGAGE - 40 POUNDS"
 - Y. On nose bay aft partition:
 - (1) (a) (340-0001 through 340-0500) "Maximum Baggage Allowance xx.x With Factory Installed Optional Equipment (Maximum Capacity 350 Pounds)"
 - (b) (340-0501 and on and Model 340A) "Maximum Baggage xx.x. Maximum Capacity 350 pounds Less xx.x Optional Equipment"
 - Z. On aft cabin wall:
 - (1) "MAXIMUM BAGGAGE CAPACITY 340 POUNDS"
 - (2) "FOR BAGGAGE LOADING SEE WEIGHT AND BALANCE SECTION OF OWNER'S MANUAL"
 - AA. At appropriate locations (exterior):
 - (1) "TANK AND SUMP DRAINS"
 - (2) "CROSSFEED LINE DRAINS" "DRAIN DAILY"
 - (3) "AIR FILTERS"
 - (4) "FUEL 100/130 AVIATION GRADE MINIMUM USABLE 50 GAL."
 - (5) With 20 gal. auxiliary fuel tanks installed: "AUXILIARY FUEL - 100/130 AVIATION GRADE MINIMUM - USABLE 20 GAL."
 - (6) With optional wing locker fuel tanks installed:
 - (a) "TRANSFER FUEL 100/130 AVIATION GRADE MINIMUM USABLE 20 GAL."
 - (b) "TRANSFER LINE DRAIN DAILY"
 - (7) "FUEL STRAINER DRAIN DAILY" "NOTE: IF WATER IS OBSERVED AT THE FUEL STRAINER, FUEL TANK SUMPS AND CROSSFEED LINES MUST BE DRAINED"
 - (8) "LEVEL POINT LEVEL POINT"
 - (9) On nose gear:
 - " \downarrow TURN LIMITS \downarrow " "TURN \uparrow LIMITS ALL RUDDER LOCKS MUST BE REMOVED BEFORE GROUND HANDLING"
 - (10) With optional locator beacon installed:
 - (a) "LOCATOR BEACON" "OFF DISARM SWITCH NORM DEACTIVATE AFTER RESCUE"
 - (b) "LOCATOR BEACON" "NORM TEST & EMER ON & TEST"
 - (11) With 31.5 gal. auxiliary fuel tanks installed:
 - "AUXILIARY FUEL 100/130 AVIATION GRADE MINIMUM USABLE 31.5 GAL."
 - BB. On side console:
 - (1) "AMMETER SELECT AMPS L ALT R ALT BATT VOLTS"
 - (2)"MASTER PANEL ON OFF" "LIGHT DIMMING CONTROLS" "SIDE CONSOLE STA PANEL ENGINE INSTR RADIO PANEL FLIGHT INSTR COMPASS LIGHT"

NOTE 3. The Model 340 and 340A service manual contains a structural retirement life which may not be changed without FAA Engineering approval, for the following components:

 Item
 Part Number
 Hours
 Model

 Windshields
 5311266-1 and -29,000
 340, 340A

- NOTE 4. The following information shall be provided in the form of markings, placards or manuals: (Pilot's Check List)
 - A. Takeoff flap setting 0°
 - B. Maximum positive maneuvering load factor +3.8; flap up +2.0, flap extended.
 - C. Maximum loss of altitude during normal stall recovery is 400 ft. and maximum pitch in power off stall is 45° (320, 320-1, 320A, 320B, 320C, 320D, 320E, 320F).
 - D. Maximum loss of altitude during normal stall recovery is 350 ft. and maximum pitch in power off stall is 25° (340).
 - E. Maximum altitude without oxygen is 23,500 ft., with oxygen 30,000 ft. (340, 340A).
 - F. Landing with cabin pressurized is prohibited (340, 340A).
 - G. Loading schedule information.
 - H. Maximum loss of altitude during normal stall recovery is 400 ft. for Models 340A and 335.
- NOTE 5. 1%, by volume, isopropyl alcohol approved for use as fuel anti-icing additive when used as outlined in Cessna Service Letter ME73-25, dated November 2, 1973, or subsequent revisions.
- NOTE 6. Model 340A: New propellers or propellers modified to Cessna Drawing 5399005 with a maximum propeller diameter of 75.5 inches and a low pitch setting of 15.2° meet ICAO, Annex 16, noise requirements.

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

.....END.....