DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

	3A19
	Revision 45
	CESSNA
150	150J
150A	150K
150B	A150K
150C	150L
150D	A150L
150E	150M
150F	A150M
150G	152
150H	A152
	June 1, 2007

TYPE CERTIFICATE DATA SHEET NO. 3A19

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

This data sheet which is a part of type certificate No. 3A19 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 150, 2 PCLM (Utility Category), Approved July 10, 1958

Model 150A, 2 PCLM (Utility Category), Approved June 14, 1960 Model 150B, 2 PCLM (Utility Category), Approved June 20, 1961

Model 150C, 2 PCLM (Utility Category), Approved June 15, 1962

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 1. Sensenich 69CK 24 lb. (-32)

propeller limits 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

2. McCauley 1A100/MCM 21 lb. (-32)

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

3. McCauley 1A101/DCM 21 lb. (-32)

Diameter: not over 69 in., not under 67.5 in.

Static r.p.m. at maximum permissible throttle setting:

not over 2600, not under 2500 No additional tolerance permitted

*Airspeed limits (CAS) Never exceed 157 m.p.h. (136 knots)

Maximum structural cruising 120 m.p.h. (104 knots) Maneuvering 106 m.p.h. (92 knots) Flaps extended 85 m.p.h. (74 knots)

Page No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Rev No.	45	43	43	41	42	41	41	41	41	41	41	38	39	30	30	32	32	45	44

<u>I - Model 150, Model 150A, Model 150B, Model 150C</u> (cont'd)

C.G. range (+33.4) to (+36.0) at 1500 lb.

(+32.2) to (+36.0) at 1250 lb. or less Straight line variation between points given

Empty weight C.G. range None

Leveling means Top edge of fuselage splice plate

*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

propeller limits

*Fuel 80/87 min. grade aviation gasoline

*Engine limits For all operations, 2750 r.p.m. (100 hp.)

Propeller and 1. Sensenich 69CK 24 lb. (-32)

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

2. McCauley 1A100/MCM 21 lb. (-32)

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

3. McCauley 1A101/DCM 21 lb. (-32)

Diameter: not over 69 in., not under 67.5 in.

Static r.p.m. at maximum permissible throttle setting:

not over 2600, not under 2500 No additional tolerance permitted Page 3 of 19 3A19

II - Model 150D, Model 150E, Model 150F (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 (+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

*Maximum weight 1600 lb.

2 at (+39); (for child's optional jump seat refer to Equipment List) No. of seats

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

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

Control Surface Movements Wing flaps (150D, 150E) Retracted 0° 1st Notch 10° 2nd Notch 20° 3rd Notch 30° 4th Notch 40° Wing flaps (150°F) Down 0°

Down 15° Ailerons Up 20° Elevator Up 25° Down 15° Up 10° Down 20° Elevator tab Rudder (150D, 150E) Right 16° Left 16° (150F)Right 23° Left 23°

(measured parallel to chord)

-40° ±2°

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

For all operations, 2750 r.p.m. (100 hp.) *Engine limits

Propeller and Sensenich 69CK 24 lb. (-32) propeller limits

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

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

2. McCauley 1A100/MCM 21 lb. (-32)

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

3. McCauley 1A90/CF (seaplane only) 24 lb. (-32)

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

4. McCauley 1A101/DCM 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

*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

Seaplane

(+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)

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 Down 0° - 40° ± 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 Page 5 of 19 3A19

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 1. McCauley 1A101/DCM 21 lb. (-32)

propeller limits 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

*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°

(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 1. McCauley 1A101/GCM 27.7 lb. (-34.5)

propeller limits (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 27.7 lb. (-34.5)

(1972, 1973 and 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 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

Propeller and propeller limits (cont'd)

4. McCauley 1A102/OCM 27.0 lb. (-34.5)

(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

*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

Page 7 of 19 3A19

V - Model 150L (cont'd)

Control surface movements Wing flaps Down 0° - 40° ± 2°

Ailerons $20^{\circ} + 2^{\circ}, -0^{\circ}$ $14^{\circ} + 2^{\circ}, -0^{\circ}$ Up Down Elevator 25° ±1° 15° ±1° Up Down Elevator tab Up 10° ±1° Down 20° ±1° Left $23^{\circ} + 0^{\circ}, -2^{\circ}$ Right $23^{\circ} + 0^{\circ}, -2^{\circ}$ Rudder

(measured perpendicularly to hinge line)

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 1. McCauley 1A101/GCM 27.7 lb. (-34.5)

propeller limits (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

Propeller and propeller limits (cont'd)

2. McCauley 1A101/HCM 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

3. McCauley 1A102/OCM 27.0 lb. (-34.5)

(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

*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 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)

VI - Model A150L (cont'd)

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 $20^{\circ} + 2^{\circ}, -0^{\circ}$ Down $14^{\circ} + 2^{\circ}, -0^{\circ}$ Up Elevator Up 25° ±1° Down 15° ±1° 20° ±1° Elevator tab 10° ±1° Down Up Rudder Right $23^{\circ} + 0^{\circ}, -2^{\circ}$ Left $23^{\circ} + 0^{\circ}, -2^{\circ}$

(measured perpendicularly to hinge line)

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.)

Propeller and 1. McCauley 1A102/OCM 27.7 lb. (-34.5)

propeller limits 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) 15077006 through 15079405

(See Note 4 on use Never exceed 141 knots of (IAS) 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)

Page 9 of 19 3A19

VII - Model 150M (cont'd)

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 $20^{\circ} + 2^{\circ}, -0^{\circ}$ Down $14^{\circ} + 2^{\circ}, -0^{\circ}$ Up Elevator Up $25^{\circ} \pm 1^{\circ}, -0^{\circ}$ Down 15° ±1° 20° ±1° Elevator tab 10° ±1° Up Down Rudder Right $23^{\circ} + 0^{\circ}, -2^{\circ}$ Left $23^{\circ} + 0^{\circ}, -2^{\circ}$

(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.)

Propeller and 1. McCauley 1A102/OCM 27.0 lb. (-34.5)

propeller limits 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

*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) A1500610 through A1500734

(See NOTE 4 on Use Never exceed 164 knots of IAS) 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

VIII - Model A150M (cont'd)

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°

20° +2°, -0° Ailerons $14^{\circ} + 2^{\circ}, -0^{\circ}$ Up Down Down $15^{\circ} \pm 1^{\circ}$ Elevator $23^{\circ} \pm 1^{\circ}, -0^{\circ}$ Up Elevator tab 10° ±1° Down $20^{\circ} \pm 1^{\circ}$ Up Rudder Right $23^{\circ} + 0^{\circ}, -2^{\circ}$ Left $23^{\circ} + 0^{\circ}, -2^{\circ}$

(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 <u>S/N 15279406 through 15285594</u>

Lycoming O-235-L2C

<u>S/N 15285595</u> and on aircraft reworked per SK152-15 or SK152-16

Lycoming O-235-N2C

*Fuel 100LL/100 min. grade aviation gasoline

*Engine limits <u>S/N 15279406 through 15285594</u>

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 1. (a) McCauley 1A103/TCM

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

23.2 lb. (-36.5)

temperatures, refer to the Service Manual.

(b) Spinner: Dwg. 0450073

*Airspeed Limits (IAS) Never exceed 149 knots

(See NOTE 4 on Use Maximum structural cruising 111 knots of IAS) 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

propeller limits

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)

Page 11 of 19 3A19

IX - Model 152 (cont'd)

26 gal. (24.5 gal. usable, two 13 gal. tanks in wings at +42.0) Fuel capacity

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 $0^{\circ} - 30^{\circ} \pm 2^{\circ}$ Wing flaps Down

> Ailerons Down Up $20^{\circ} \pm 2^{\circ}$ $15^{\circ} \pm 1^{\circ}$

(aileron travel measured from $1^{\circ} \pm .5^{\circ}$ droop)

Elevator Up $25^{\circ} \pm 1^{\circ}$ 18° ±1° Down Elevator tab Up 10° ±1° Down 20° ±1° Right $23^{\circ} + 0^{\circ}, -2^{\circ}$ $23^{\circ} + 0^{\circ}, -2^{\circ}$ Rudder Left

(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 18285594 (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

S/N A1500433, A1520735, 681 through A521014 Engine

Lycoming O-235-L2C

S/N A1521015 and on aircraft reworked per SK152-15 or SK152-16

Lycoming O-235-N2C

*Fuel 100LL/100 min. grade aviation gasoline

*Engine limits S/N A1500433, A1520735, 681 through A1521014

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

S/N A1521015 and on

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

Propeller and (a) McCauley 1A103/TCM propeller limits

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

172 knots

23.2 lb. (-36.5)

temperatures, refer to the Service Manual.

(b) Spinner: Dwg. 0450073

*Airspeed Limits (IAS) Never exceed

(See NOTE 4 on Use Maximum structural cruising 125 knots of IAS) 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

X - Model A152 (cont'd)

*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 $20^{\circ} \pm 1^{\circ}$ Down $15^{\circ} \pm 1^{\circ}$

(aileron travel measured from $1^{\circ} \pm .5^{\circ}$ droop)

 Elevator
 Up
 $25^{\circ} \pm 1^{\circ}$ Down
 $18^{\circ} \pm 1^{\circ}$

 Elevator tab
 Up
 $10^{\circ} \pm 1^{\circ}$ Down
 $20^{\circ} \pm 1^{\circ}$

 Rudder
 Right
 $23^{\circ} + 0^{\circ}, -2^{\circ}$ Left
 $23^{\circ} + 0^{\circ}, -2^{\circ}$

(measured perpendicularly to hinge line)

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.

Page 13 of 19 3A19

X - Model A152 (cont'd)

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:

- Stall warning indicator, audible, Cessna Dwg. 0511062 (Model 150 through 150E)
- 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.

<u>Serial Nos. 17001 through 17999, 59001 through 59018, 15059019 through 15077005 and A1500001 through A1500609</u>

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.

Serial Nos. 15077006 through 15079405 and A1500610 through A1500734

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:

Entry Speed
106 m.p.h. (92 knots)
106 m.p.h. (92 knots)
106 m.p.h. (92 knots)
Use slow deceleration
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>	Entry Speed
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

Data Pertinent to All Models (cont'd)

NOTE 2. Intentional spins with flaps extended prohibited (cont'd) 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.

NOTE 2. A. In full view of the pilot:

(cont'd)

(3) (cont'd)

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.

The following aerobatic maneuvers are approved:

<u>Maneuver</u>	Entry Speed		<u>Maneuver</u>	Entry Speed	
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 decelera	tion
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			Stalls (except		
reversements	90 m.p.h.	(78 knots)	whip stalls)	Slow decelera	tion"

(4) <u>Model 150L and 150M</u> (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 spe	ed		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>	Max. Entry Speed	<u>Maneuver</u>	Max. Entry Speed
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)

Page 15 of 19 3A19

Data Pertinent to All Models (cont'd)

NOTE 2. (cont'd)

(5) <u>Model A150L and A150M</u> (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.

Maneuver	Max. Er	try Speed	Maneuver	Max.	Entry Speed
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 decelera	tion
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			Stalls (except		
reversements	90 m.p.h.	(78 knots)	whip stalls)	Slow decelera	tion

In full view of the pilot:

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.

Maximums

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

Maneuver	Max. Entry Speed	Maneuver	Max. Entry Speed
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) <u>A150M</u> (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.

Data Pertinent to All Models (cont'd)

NOTE 2. (cont'd)

<u>Maximums</u>

Maneuvering speed (IAS)

Gross weight

Flight load factor
Flaps up
Flaps Down

Flaps Down

105 knots
1600 lb.
+6.0, -3.0

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

Maneuver	Recm. Entry Speed	Maneuver	Recm. Entry Speed
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 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)

A. In full view of the pilot:

(8) <u>Model 152</u> (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 (1	(AS)	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>	Recm. Entry Speed	Maneuver	Recm. Entry Speed
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 <u>A152</u> (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.

|--|

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

Page 17 of 19 3A19

Data Pertinent to All Models (cont'd)

NOTE 2. (cont'd)

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>	Recm. Entry Speed	Maneuver	Recm. Entry Speed
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°"

On the flap handle:

(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) <u>S/N 15279406 through 15282031, A1500433, A15200735 through A1520808</u>

"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) <u>Models 150 through 150M (1977 Model) and A150K through A150M (1977 Model)</u> "Fuel 22.5 gals. ON-OFF."
- (2) <u>S/N 15279406 through 15282031, A1500433, A15200735 through A1520808</u> "Fuel 24.5 gals. ON-OFF."

F. On front door posts

(1) <u>S/N A15200735 through A1520808, A1500433</u>

"Emergency door release

- 1. Unlatch door
- 2. Pull 'D' ring."

Data Pertinent to All Models (cont'd)

NOTE 2. (cont'd)

- G. On door near window latch
 - (1) <u>Model A150K through A150M (1975 Model)</u>
 - "Do not open window above 165 m.p.h."
 - (2) <u>Model A150M (1976 and 1977 Model) (1978 Model A152)</u>
 - "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 15282031, 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)
	Cessna P/N D1056-13	(S/N A1500610 through A1500684)
150M,	Cessna P/N D1080-13	(S/N 1507506 through 15079405)
	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 D1171-13111	(S/N 15284542 through 15285161)
A152,	Cessna P/N D1190-13111	(S/N A1520944 through A1520983)
,		(S/N A1320944 through A1320983) (S/N 15285162 through 15285594)
152,	Cessna P/N D1210-13PH	` '
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,Ce	essna 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."

Page 19 of 19 3A19

Data Pertinent to All Models (cont'd)

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.

NOTE 7. For Models 150, A150, 152:

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

...END...