DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

	3A21
	Revision 48
	CESSNA
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	September 9, 2011

TYPE CERTIFICATE DATA SHEET NO. 3A21

This data sheet which is part of Type Certificate No.3A21 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 210, 4 PCLM (Normal Category), Approved April 20, 1959

Engine

Continental IO-470-E

*Fuel

100/130 minimum grade aviation gasoline

*Engine Limits

For all operations, 2625 r.p.m. (260 b.hp.)

Propeller and Propeller Limits 1. (a) Hartzell HC-A2XF-1/8433-2

Diameter: not over 82 in., not under 80 in.

Pitch settings at 30 in. sta.: low 13.5°, high 28.0°

(b) Cessna spinner 0752006

or 2. (a) McCauley D2A36C33/90M-8 or D2A34C49/90A-8 or D2A34C58/90AT-8

Diameter: not over 82 in., not under 80 in.

Pitch settings at 36 in. sta.: low 10.8°, high 25.8°

(b) Cessna spinner 0752004

3. Woodward hydraulic governor 210270, 210280, 210340 or 210345

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XIII - Model 210K/T210K, Model 210L/T210L (cont'd)

Models 210K/210L/T210K/T210L (cont'd)

Serial Nos. Eligible Models 210K/T210K: 21059200 through 21059351 (1970 Model)

> 21059352 through 21059502 (1971 Model)

Models 210L/T210L: 21059503 through 21059719 (1972 Model)

21059720 through 21060089 (1973 Model)

21060090 through 21060539 1974 Model)

21060540 through 21061039

1975 Model)

21061040 through 21061041 1976 Model)

21061043 through 21061573 (1976 Model)

XIV - Model 210M/T210M, 6 PCLM (Normal Category), October 7, 1976

Model 210M

Engine

Continental IO-520-L

*Fuel

Model 210M (S/N 21061574 through 21062273) 100/130 minimum grade aviation gasoline

Model 210M (S/N 21062274 through 21062953) 100LL/100 minimum grade aviation gasoline

*Engine Limits

Takeoff (5 min.) at 2850 r.p.m. (300 hp.) For all other operations, 2700 r.p.m. (285 hp.)

Propeller and Propeller Limits

- 1. Model 210M (S/N 21061574 through 21062273)
 - (a) McCauley D3A32C88/82NC-2 Diameter: not over 80 in., not under 78.5 in. Pitch settings at 30 in. sta.: low 11.5°, high 28.1°
 - (b) Cessna spinner 1250419-2
 - (c) Woodward hydraulic governor 210462
 - (d) McCauley hydraulic governor C290D4/T4
- 2. Model 210M (S/N 21062274 and up)
 - (a) McCauley D3A34C404/80VA-0

Diameter: not over 80 in., not under 78.5 in.

Pitch settings at 30 in. sta.: low 11.0°, high 27.0°

- (b) Cessna spinner 1250419
- (c) McCauley hydraulic governor C290D4/T4

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

1. Model 210M (S/N 21061574 through 21062273)

Never exceed 199 knots Maximum structural cruising 168 knots Maneuvering 119 knots 105 knots Flaps extended Landing gear operating speed 140 knots Landing gear extended speed 140 knots

2. Model 210M (S/N 21062274 through 21062953) Never exceed 199 knots Maximum structural cruising 168 knots Maneuvering 119 knots Flaps extended 115 knots Landing gear operating speed 140 knots Landing gear extended speed 199 knots

XIV - Model 210M/T210M (cont'd)

M	odel	T2	10N	į

Engine

Continental TSIO-520-R

*Fuel

Model T210M (S/N 21061574 through 21062273) 100/130 minimum grade aviation gasoline

Model T210M (S/N 21062274 through 21062953) 100LL/100 minimum grade aviation gasoline

Engine Limits

Takeoff (5 min. at 2700 r.p.m., 36.5 in. Hg. mp. (310 hp.) For all other operations 2600 r.p.m., 35 in. Hg. mp. (285 hp.)

Propeller and Propeller Limits 1. (a) McCauley D3A34C402/90DFA-10

Diameter: not over 80 in., not under 78.5 in.

Pitch settings at 30 in. sta.: low 12.4°, high 28.5°

(b) Cessna spinner 1250419-10

(c) McCauley hydraulic governor C290D4/T2(d) Woodward hydraulic governor G210452

*Airspeed Limits (IAS) (See NOTE 4 on use of IAS) 1. Model T210M (S/N 21061574 through 21062273)

Never exceed 195 knots

Maximum structural cruising 165 knots

Maneuvering 119 knots

Flaps extended 105 knots

Landing gear operating speed 140 knots

Landing gear extended speed 140 knots

2. Model T210M (S/N 21062274 through 21062953 Never exceed 195 knots

Maximum structural cruising 165 knots 119 knots Flaps extended 115 knots

Landing gear operating speed 140 knots Landing gear extended speed 195 knots

Models 210M/T210M

C.G. Range (Landing Gear Extended)

(+42.5) to (+53.0) at 3800 lb. (+37.0) to (+53.0) at 3000 lb. or less Straight line variation between points given

Moment change due to retracting landing gear (+3207 in.-lb.)

Empty Wt. C.G. Range

None

*Maximum Weight

3800 lb.

No. of Seats

6 (2 at +34 to +46, 2 at +61 to +77, 2 at +101)

Maximum Baggage

Reference weight and balance data

Fuel Capacity

90 gal. (89 gal. usable), two 45.0 gal. tanks in wings at +43.

See NOTE 1 for data on unusable fuel

Oil Capacity

10 qt. (-12.5), 8 qt. usable

XIV - Model 210M/T210M (cont'd)

Models 210M/T210M (cont'd)

Control Surface Movements		Up Up Right	20° ±2° 23° ±1° 25° ±1° 24° ±1°	Down Down Down	30° +1°, -2° 15° ±2° 17° ±1° 10° ±1° 24° ±1°
	(measured parallel to	o 0.0 W	'.L.)		
	Rudder	Right	27° 13' ±1°	Left	27° 13′ ±1°

(measured perpendicular to hinge line)

Serial Nos. Eligible

Models 210M/T210M:

21061574 through 21062273 (1977 Model)

21061042, 21062274 through 21062954 (1978 Model)

XV - Model P210N, Pressurized Centurion, 6 PCLM (Normal Category), Approved August 10, 1977

Engine Model P210N (S/N P21000001 through P21000760: Continental TSIO-520-P

Model P210N (S/N P21000761 and up): Continental TSIO-520-AF

*Fuel

100LL/100 minimum grade aviation gasoline

*Engine Limits

Model P210N (S/N P21000001 through P21000760)

Takeoff (5 min.) at 2700 r.p.m., 36.5 in. Hg. mp. (310 hp.) For all other operations 2600 r.p.m., 33.5 in. Hg. mp. (285 hp.) Model P210N (S/N P21000761 and up)

Takeoff (5 min.) at 2700 r.p.m., 35.5 in. Hg. mp. (310 hp.) For all other operations, 2600 r.p.m., 34.5 in. Hg. mp. (285 hp.)

Propeller and Propeller Limits

1. (a) McCauley D3A34C402/90DFA-10

Diameter: not over 80 in., not under 78.5 in.

Pitch settings at 30 in. sta.: low 12.4°, high 28.5°

Model P210N (S/N P21000001 through P21000760)

Avoid continuous operation between 1850 and 2150 r.p.m. above 24 in. mp.

Model P210N (S/N P21000761 and up)

Avoid continuous operation between 1850 and 2150 r.p.m. above 23 in. mp.

- (b) Cessna spinner 1250419
- (c) McCauley hydraulic governor C290D4/T2

*Airspeed Limits (IAS) (See NOTE 4 on use of IAS) 1. Model P210N (S/N P21000001 through P21000150)

Never exceed 200 knots Maximum structural cruising 167 knots Maneuvering 130 knots Flaps extended 115 knots Landing gear operating speed 140 knots Landing gear extended speed 200 knots 2. Model P210N (S/N P21000151 and up) Never exceed 200 knots Maximum structural cruising 167 knots

Never exceed 200 knots
Maximum structural cruising
Maneuvering 130 knots
Flaps extended 115 knots
Landing gear operating speed
Landing gear extended speed 200 knots

Data Pertinent to All Models

Datum

Fuselage station 0.0 (front face of firewall)

Leveling Means

Baggage compartment floor (except for 210-5(205) and 210-5A(205A)) - Top of tailcone (except 210K/T210K/P210N and up, screws on left side tailcone)

Certification Basis

Models 210/210A: Part 3 of the Civil Air Regulations effective May 15, 1956, with no amendments.

Models 210B, 210C, 210D, 210E, 210F, T210F, 210G, T210G, 210H, T210H, 210J, T210J, 210K, T210K, 210L, T210L, 210M, T210M, 210N, T210N, 210R, 210-5(205), 210-5A(205A): Part 3 of the Civil Air Regulations effective May 15, 1956, and Paragraph 3.112 as amended October 1, 1959. FAR 36 dated December 1, 1969, plus Amendments 36-1 through 36-4 for Models 210M/T210M/210N/210R; Amendments 36-1 through 36-9 for the T210N. In addition, FAR 23.1559 effective March 1, 1978, for the Models 210N/T210N/210R.

Models P210N, P210R: Part 3 of the Civil Air Regulations dated May 15, 1956, Paragraph 3.112 as amended October 1, 1959, and 23.365, 23.571, 23.775, 23.841, 23.843, 23.901, 23.909, 23.1041, 23.1043, 23.1143, 23.1305, 23.1325, 23.1441 and 23.1527 of FAR 23 effective February 1, 1965, as amended to February 14, 1975. FAR 36 dated December 1, 1969, plus Amendments 36-1 through 36-6 for P210N; Amendments 36-1 through 36-12 for P210R. Also FAR 23.1559 effective March 1, 1978, for P21000151 and up. Also for P210R, FAR 23.1323 effective September 1, 1977, and FAR 23.1545 effective December 1, 1978.

Model T210R: Part 3 of the Civil Air Regulations dated May 15, 1956, Paragraph 3.112 as amended October 1, 1959, and 23.901, 23.909, 23.1041, 23.1043, 23.1143, 23.1305 of FAR 23 effective February 1, 1965, as amended to February 14, 1975; FAR 23.1323 effective September 1, 1977; FAR 23.1545 effective December 1, 1978; and FAR 23.1559 effective March 1, 1978; FAR 36 dated December 1, 1969, plus Amendments 36-1 through 36-12.

Compliance with ice protection has been demonstrated in accordance with FAR 23.1419, as amended through Amendment 23-14, when ice protection equipment is installed in accordance with the airplane equipment list (Models P210N, T210N, P210R, and T210R only).

Application for type certificate dated August 13, 1956.

Type Certificate No. 3A21 issued April 20, 1959, obtained by the manufacturer under delegation option procedures.

Equivalent Safety Items (S/N 21061040 through 21064897 (T210 only), and S/N P21000001 through P21000835)

Airspeed Indicator Operating Limitations CAR 3.757 (See NOTE 4 for effectivity)

CAR 3.778(a)

(210 S/N 21061040 through 21065009) (T210 S/N 21061040 through 21064897) (P210 S/N P21000001 through P21000834)

Airspeed Indicating System CAR 3.663

(210N, S/N 21062955 through 21064897) (210R, S/N 21064898 through 21065009)

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.

NOTE 2. (cont'd)

J. Applicable to Model 210M/T210M, 210N/T210N, 210R/T210R

(1) In full view of the pilot:

(a) Applicable to Model 210M/T210M (S/N 21061574 through 21062273) "This airplane must be operated as a normal category airplane in compliance with operating limitations as stated in the form of placards, markings and manuals.

MAXIMUMS

Maneuvering speed (IAS)
Gear extension speed (IAS)
Gross weight
Flight load factor

Haps up +3.8, -1.52
Flaps down +2.0

No acrobatic maneuvers, including spins, approved. Altitude loss in a stall recovery - 300 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) Applicable to Model 210M/T210M (S/N 21061042, 21062274 through 21062954 "This airplane must be operated as a normal category airplane in compliance with the operating limitations as stated in the form of placards, markings and manuals.

MAXIMUMS

Maneuvering speed (IAS)
Gross weight
Flight load factor
Flaps up
Flaps down
F

No acrobatic maneuvers, including spins, approved. Altitude loss in a stall recovery 300 ft. Flight into known icing conditions prohibited. This airplane is certified for the following flight operations as of date of original airworthiness certificate:

(c) Applicable to Models 210N/T210N (S/N 21062955 through 21064535) "The markings and placards installed in this airplane contain operating limitations which must be complied with when operating this airplane in the Normal Category. Other operating limitations which must be complied with when operating this airplane in this category are contained in the Pilot's Operating Handbook and FAA Approved Airplane Flight Manual.

No aerobatic maneuvers, including spins, approved.

Flight into known icing conditions prohibited.

This airplane is certified for the following flight operations as of date of original airworthiness certificate:

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

- (2) On control lock through 21064535: "Control Lock Remove Before Starting Engine."
- (3) On the hand pump cover:

(S/N 21061574 through 21062273)

"Manual gear extension: 1. Select gear down; 2. pull handle forward; 3. pump vertically."

(S/N 21061042, 21062274 through 21064535)

"Manual gear extension: 1. Select gear down; 2. pull handle forward; 3. pump vertically.

CAUTION: Do not pump with gear up selected"

NOTE 2. (cont'd)

J. (4) On fuel selector valve plate through 21064535:
 "Off. Left on - 44.5 gal. Right on - 44.5 gal.
 Takeoff and land on fuller tank."

(5) 210M/T210M (S/N 21061042, 21061574 through 21062954)

On baggage door: "Maximum baggage 120 lb. Refer to weight and balance data for baggage/cargo loading."

210N/T210N (S/N 21062955 through 21064535)

On baggage door: "Maximum baggage 200 lbs. total. Refer to weight and balance data for baggage/cargo loading."

(6) Near the wing filler caps:

(S/N 21061574 through 21062273)

"Service this airplane with 100/130 minimum aviation grade gasoline. Total capacity 45.0 gal."

(S/N 21061042, 21062274 through 21064535)

"Service this airplane with 100LL/100 minimum aviation grade gasoline. Total capacity 45.0 gal."

(7) Near fuel selector valve through 21064535:

"When switching from dry tank, turn auxiliary fuel pump on momentarily."

(8) In front of pilot on lower instrument panel:

(S/N 21061574 through 21062273)

"Alternate static air ↓ pull on."

(S/N 21061042, 21062274 through 21064535)

"Alternate static air pull on."

(9) 210M/T210M (S/N 21061042 through 21062954)

Adjacent to overvoltage light: "High Voltage."

210N/T210N (S/N 21062955 through 21064535)

Adjacent to low voltage light: "Low Voltage"

(10) Near the engine power instruments (Model 210M, S/N 21061574 through 21062954):

"Fuel Flow at Full Throttle

	2700 r.p.m.	2850 r.p.m.
S.L.	138 lbs/hr	144 lbs/hr
400 ft.	126 lbs/hr	132 lbs/hr
8000 ft.	114 lbs/br	120 lbs/br"

"Max. power setting

Takeoff (5 min. only) 2850 r.p.m.

Max. continuous power 2700 r.p.m."

Near the engine power instruments (Model 210N, S/N 21062955 through 21064535:

"Min. Fuel Flows at Full Throttle

	2700 r.p.m.	2850 r.p.m.
S.L.	138 lbs/hr	144 lbs/hr
4000 ft.	126 lbs/hr	132 lbs/hr
8000 ft.	114 lbs/hr	120 lbs/hr
12000 ft.	102 lbs/hr	108 lbs/br"

NOTE 2. (cont'd)

J. (11) Near the engine power instruments (T210M): (S/N 21061574 through 21062273)

"Maximum power setting & fuel flow

T.O. (5 min. only): 2700 r.p.m. No. 36.5 in. mp., 186 lbs/hr 30

Normal climb: 2500 r.p.m.

30.0 in. mp., 126 lbs/hr

Max. continuous power: 2600 r.p.m.

mun. commuous pow	01. 20001.	P.III.							
Altft/1000	SL-17	18	20	22	24	26	28	30	_
M.PIn. Hg.	35	34	32	30	28	26	24	22	
Fuel flow-lbs/hr	162	156	144	132	120	108	102	96"	

[&]quot;Avoid continuous operation between 1850 and 2150 r.p.m. above 24 in. M.P."

(S/N 21061042, 21062274 through 21062953)

"Maximum power setting & fuel flow

T.O. (5 min. only): 2700 r.p.m. 36.5 in. mp., 186 lbs/hr

Normal climb: 2500 r.p.m. 30.0 in. mp., 120 lbs/hr

Max. continuous power: 2600 r.p.m. 30 Alt.-ft/1000 26 28 SL-17 18 20 22 24 M.P.-In. Hg. 34 32 30 28 26 24 22 35 132 96" Fuel flow-lbs/hr 162 156 144 120 108

Near the engine power instruments (T210N, S/N 21062955 through 21064535):

"Minimum Fuel Flows

T.O.: 2700 r.p.m.

36.5 in. mp., 186 lbs/hr

Maximum continuous power: 2600 r.p.m.

Altft/1000	SL-17	18	20	22	24	26	28	30	
M.PIn. Hg.	35	34	32	30	28	26	24	22	
Fuel flow-lbs/hr	162	156	144	132	120	108	102	96"	1

[&]quot;Avoid continuous operation between 1850 and 2150 r.p.m. above 24 in, M.P."

(12) On lower surface of right hand wing just outboard of fuselage through 21064535: "Oxygen filler door." (All models with oxygen.)

(13) On flap indicator:

(S/N 21061574 through 21062273)

- a. " 0° 10° (Partial flap range with blue color code and 140 knots callout; also, mechanical detent at 10°)"
- b. " 10° 20° Full (Indices at these positions with white color code and 105 knots callout; also, mechanical detent at 20°)"

(S/N 21061042, 21062274 through 21063640)

- a. "0° 10° (Partial flap range with blue color code and 150 knots callout; also, mechanical detent at 10°)"
- "10°- 20° Full (Indices at these positions with white color code and 115 knots callout; also, mechanical detent at 20°)"

(S/N 21063641 through 21064535)

- a. $^{\circ}0^{\circ}$ 10° (Partial flap range with dark blue color code and 160 knot callout; also, mechanical detent at 10°)"
- "10°- 20° (Indices at these positions with light blue color code and 130 knot callout; also, mechanical detent at 10°)"
- c. "20°-30° (Indices at these positions with white color code and 115 knot callout)"

[&]quot;Avoid continuous operation between 1850 and 2150 r.p.m. above 24 in. M.P."

NOTE 2. (cont'd)

. (14) On inside nose wheel doors, strut doors and main wheel doors through 21062954 and on inside of nose wheel doors S/N 21064535: "Warning - Before working in the wheel well area pull hydraulic pump circuit breaker off."

(15) Applicable to the Model 210M: (S/N 21062274 through 21062954)

Near the gear selector handle:

"Maximum speed IAS

Gear oper.

140 knots

Gear down

199 knots"

(16) Applicable to the Model T210M: (S/N 21061042, 21062274 through 21062953)

Near the gear selector handle:

"Maximum speed IAS

Gear oper.

140 knots

Gear down

195 knots"

(17) Applicable to the Model 210N: (S/N 21062955 through 21064535)

Near the gear selector handle:

"Maximum speed IAS

Gear oper.

165 knots

Gear down

200 knots"

(18) Applicable to the Model T210N: (S/N 21062955 through 21064535)

Near the gear selector handle:

"Maximum speed IAS

Gear oper.

165 knots

Gear down 203

203 knots"

(19) Near the airspeed indicator

(a) Model 210N (S/N 21062955 through 21064535) "Maneuver Speed 125 KIAS"

(b) Model T210N (S/N 21062955 through 21064535) "Maneuver Speed 130 KIAS"

(20) Near the fuel cap

Models 210N/T210N (S/N 21062955 through 21063640)

"For 32 gal. fuel load fill to bottom of filler neck extension."

Models 210N/T210N (S/N 21063641 through 21064535)

"Capacity 33.5 gallons to bottom of filler neck extension."

(21) Near the oil filler

Models 210N/T210N (S/N 21062955 through 21064135)

"Oil 10 qts."

(22) On the nose gear strut

Models 210N/T210N (S/N 21062955 through 21064135)

"WARNING

Release air and fluid pressure before removing any part of this assembly."

NOTE 2. (cont'd)

J. (23) In full view of the pilot:

(a) Models 210M/T210M (S/N 21061574 through 21062954) "MAJOR FUEL FLOW FLUCTUATIONS/POWER SURGES

1. AUX FUEL PUMP ON ADJUST MIXTURE

SELECT OPPOSITE TANK

- WHEN FUEL FLOW STEADY, RESUME NORMAL OPERATIONS 3. SEE PROCEDURE CARD D1189-13 FOR EXPANDED INSTRUCTIONS."
- (b) Model 210N (S/N 21062955 through 21063640)

"MAJOR FUEL FLOW FLUCTUATIONS/POWER SURGES

- AUX FUEL PUMP ON ADJUST MIXTURE
- SELECT OPPOSITE TANK
- WHEN FUEL FLOW STEADY, RESUME NORMAL OPERATIONS SEE P.O.H. FOR EXPANDED INSTRUCTIONS."
- Model T210N (S/N 21062955 through 21064535)

"MAJOR FUEL FLOW FLUCTUATIONS/POWER SURGES

- AUX FUEL PUMP ON, ADJUST MIXTURE
- SELECT OPPOSITE TANK
- WHEN FUEL FLOW STEADY, RESUME NORMAL OPERATIONS SEE P.O.H. FOR EXPANDED INSTRUCTIONS."
- (24) Effective S/N 21064536 and up:

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

K. Applicable to Model P210N and P210R

(1) In full view of the pilot:

Model P210N (S/N P21000001 through P21000150)

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

<u>M</u>	IAXIMUMS	
Operating altitude		23,000 ft.
Maneuvering speed	(IAS)	130 knots
Gross weight	Takeoff	4000 lbs.
	Landing	3800 lbs.
Flight load factor	Flaps up	+3.8, -1.52
	Flaps down	+2.0

No acrobatic maneuvers, including spins, approved. Landing with cabin pressurized is prohibited. Altitude loss in a stall recovery - 300 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)

Model P210N (S/N P21000151 and up)

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

No acrobatic maneuvers, including spins, apaproved. Landing with cabin pressurized is 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)