DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

3A11 Revision 7 Textron Aviation Inc. 321 (Navy OE-2) July 29, 2015

TYPE CERTIFICATE DATA SHEET NO. 3A11

This data sheet which is part of Type Certificate No. 3A11 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 Textron Aviation Inc.

One Cessna Boulevard Wichita, Kansas 67215

Type Certificate Holder Record Cessna Aircraft Company transferred to

Textron Aviation Inc. on July 29, 2015

I. Model 321 (NAVY OE-2), 2 PCLM (Utility Category), Approved May 13, 1955

Engine Continental O-470-2

Fuel 100/130 Min. grade aviation gasoline

(See NOTE 4 for alcohol-based fuels warning.)

MP IN.HG. **Engine Limits** HP **RPM** ALT. Takeoff (one minute) 265 2600 36.0 S.L. Takeoff (one minute) 265 2600 32.4 8,500' Maximum continuous 250 2600 34.0 S.L. Maximum continuous 250 2600 30.5 10.000'

(Straight line manifold pressure variation with altitude between

points shown).

Airspeed Limits Maneuvering 134 mph (116 knots)

Maximum structural cruising 155 mph (135 knots) Never exceed 200 mph (174 knots) Flaps extended 105 mph (91 knots)

C.G. Range (+33.6) to (+42.3) at 2150 lbs.

(+36.0) to (+42.3) at 2650 lbs.

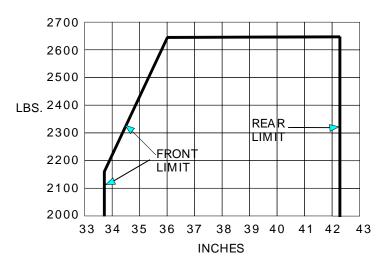
Straight line variation between points shown.

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I. Model 321 (cont'd)

C.G. Range (cont'd)



Empty Weight C.G. Range

None

Maximum Weight

2650 lbs.

No. Seats

2 (1 at +36, 1 at +76)

Maximum Baggage

100 lbs. (+100)

Fuel Capacity

52 gal. total, 44 gal. usable (two 26 gal. tanks in wings) (+45)

(See NOTE 1 for weight of unusable fuel.)

Oil Capacity

4 gal. (-15) (Unusable - 1.5 gal.) (See NOTE 1 for data on undrainable oil)

Control Surface

Movements

Wing flaps -	Maximum Takeoff	- 0 to 20°	
	Landing	- 40°	
Ailerons	Up 20°	Down 14°	
Stabilizer	Up 1.0°	Down 9.0°	
Elevators	Up 28°	Down 22°	

With Stabilizer Full Down

Rudder Right 22° Left 22°

Serial Nos. Eligible

611 and 37000 through 37999. Prior to civil certification, OE-2 airplanes must be modified in accordance with Cessna Dwg. No. 1000003 which may be obtained from Cessna Aircraft Company, Wichita, Kansas. An appropriate representative of the Administrator, upon determination of compliance with the above-mentioned modification drawing, may issue an airworthiness certificate.

Required Equipment

In addition to the pertinent required basic equipment specified in CAR 3, the following items of equipment must be installed:

Items 1(a), (b), and (c), 101(a) and (b), 102, 103, 106, 107, 108, 201(a),

202(a), 204(a), 301, 302, 402, 601, 602 and 603.

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Specifications Pertinent to all Models

Datum Front face of firewall

Leveling means Horizontal control stick torque tube

Certification Basis:

Type Certificate No. 3A11

(CAR 3 dated November 1, 1949, and Amendments through 3-10)

Production Basis:

(a) Production Certificate No. 4 for Serial Nos. 611, 37,000 through 37,024.

(b) All other and/or subsequent serial Nos.: None. Prior to original certification of each aircraft a FAA representative must perform a detailed inspection for workmanship, materials, and conformity with the approved technical data, and a check of flight characteristics.

Export eligibility Eligible for export to all countries subject to the provisions of MOP 2-4.

Equipment:

A plus (+) or minus (-) sign preceding the weight of an item of equipment indicates net weight change when that item is installed.

Prope	llers and Propeller Accessories	
1.	McCauley, constant speed propeller	
	(a) McCauley hub 2A36C1, blade 90M-0	64 lbs. (-40)
	Diameter: Not over 90 in., not under 88 in.	` ,
	Pitch settings at 36 in. sta.: Low 9.5°, high 23°	
	(b) Propeller spinner (Cessna Dwg. 1052004)	4 lbs. (-40)
	(c) Propeller governor, Woodward 210105	4 lbs. (-34.5)
Engin	e and Engine Accessories - Fuel and Oil System	
101.	Fuel pumps:	
	(a) Engine-driven, Lear-Romec (RG-9080) Type G-18	1 lb. (-5)
	(b) Electric, Adel 29924	4 lbs. (+15)
102.	Oil cooler, Harrison AP13AU10-01	6 lbs. (-34)
103.	Carburetor air filter, Air Maze P/N 120310	1 lb. (-28)
104.	Starter, Eclipse Type J-1 (AN 4116R1)	16 lbs. (-6.5)
105.	Vacuum pump, Pesco 3P-194-F, Type B-11	5 lbs. (-5.5)
106.	Flexible fuel and oil hose assemblies MS28741 (Mil-H-5511)	2 lbs. (-5)
107.	Carburetor air heater (Cessna Dwg. 12321-79)	3 lbs. (-20)
108.	Supercharger oil filter, Continental P/N 539609	` ,
	(filter wt. included in engine wt.)	
	Installation per Cessna Dwg/ No. 1050000	1 lb. (-2)
Landi	ng Gear	
201.	2 Main wheel-brake assemblies, 6.00-6, Type III	
	(a) Goodyear Model LF6HBD	13 lbs. (+17.5)
	Wheel assembly No. 511960-S	
	Brake assembly No. 9530839	
202.	(a) 2 Main wheel 4-ply-rating tires, 7.00-6, Type III	22 lbs. (+17.5)
	(with regular tubes)	,
204.	Tail wheel assembly - 8" pneumatic	
	(a) Scott Model 3400, steerable, swiveling (Goodrich B-3 - 166AP	8 lbs. (+257)
	wheel, Goodyear tire 8x3.25, Type I, 6-ply nylon)	` ,
Electr	ical Equipment	
301.	Generator, 24V-50 amp., Eclipse 1345-3-A	14 lbs. (-6.5)
302.	Battery 24 Volt, 11 Amp. Hr. (AN 3154-1A)	34 lbs. (+4.5)
303.	Two landing lights, G. E. 4591	2 lbs. (+25)

Specifications Pertinent to all Models (cont'd)

Interior Equipment

401. Cabin heater valve assembly (Cessna Dwg. 1013035)

1 lb. (-2)

402. Pilot Check List, Cessna Dwg. 1000007 See NOTE 3 for details.

Miscellaneous (Not listed above)

601.	Safe Flight stall warning indicator (Cessna Dwg. 12305-129)	1 lb. (+21)
602.	Two rudder return springs (Cessna Dwg. 1033010)	2 lbs. (+55)
603.	Elevator down spring (Cessna Dwg. 1060281)	1 lb. (+179)
604.	Installation shoulder harness (Cessna Dwgs. 1010008 and 0610007)	Use actual weight

NOTE 1. Current weight and balance report including list of equipment included in certificated weight empty, and loading instructions, when necessary, must be in each aircraft at the time of original certification and at all times thereafter (except in the case of air carrier operators having an approved weight control system).

The certificated weight empty and corresponding center of gravity location must include unusable fuel of 44.0 lbs. at (+45), (included in total fuel capacity), and undrainable oil of 1.5 lbs. at (-15), (not included in oil capacity).

- NOTE 2. The following placards must be displayed in the locations noted:
 - A. In front of and in clear view of the pilot:
 - "(1) This airplane must be operated as a utility 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. See pilot's check list for approved maneuvers."
 - "(3)Maximum flap extended speed 91 knots (105 mph)."
 - "(4) POWER CHART 2600 RPM

100/130 Grade Fuel

<u>Take-off Power Limit One Minute</u> Continental O-470-2 Engine - McCauley 2A36C1/90M-0 Propeller

Continental	O 170 2 L	mgme wiece	tale	01/20111 01	TOPCHEL	
Altitude	S.L.	2,000	4,000	6,000	8,000	10,000
M.C. Power	34.0	33.3	32.5	31.9	31.3	F.T.
T.O. Power	36.0	34.5	33.6	33.0	32.5	"

[&]quot;(5)Solo front seat only."

B. On Left and Right rear windows:

"Do Not Open Window Above 126 knots (145 mph)"

C. On Left and Right front windows:

"Do Not Open Window Above 104 Knots (120 mph)"

- D. In baggage compartment: "Maximum Baggage 100 Pounds"
- E. Adjacent to fuel selector valve:

"Usable Fuel Left Tank - 22.0 gallons"

"Usable Fuel Right Tank - 22.0 gallons"

"With full tanks take-off on left tank"

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Specifications Pertinent to all Models (cont'd)

NOTE 3. The following information shall be provided in the form of placards, markings, or manuals (pilot's check list):

A. Maximum Weight - 2,650 lbs.

C.G. limits

(+33.6) to (+42.3) at 2,150 lbs.

(+36.0) to (+42.3) at 2,650 lbs.

Straight line variation between points.

Datum - Forward face of firewall.

B. The following limited acrobatic maneuvers are approved:

ManeuversSafe Entry SpeedsStallsSlow DecelerationSteep Turns116 knots (134 mph)SpinsIntentional spins prohibitedLazy Eights116 Knots (134 mph)Chandelle116 Knots (134 mph)

- C. Maximum Take-Off Flap Setting 20°.
- D. Airspeed and Load Factor Limitations:

Never Exceed Speed 173.5 Knots (200 mph)

Maximum Structural Cruise Speed 134.6 Knots (155 mph)

Maneuvering Speed 116 Knots (134 mph)

Flap Extended Speed 91 Knots (105 mph)

Maximum Load Factors 0° Flaps - +4.4 to -1.8

Flaps Extended - +3.5

- E. Fuel in tanks when gauges register "Empty" cannot be used safely in flight.
- F. With full fuel tanks, take off and operate on left tank for 30 minutes.
- G. Red arc on fuel gauge indicates no take-off.

NOTE 4.

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