

**DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION**

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

Engine Limits		<u>HP</u>	<u>RPM</u>	<u>MP IN.HG.</u>	<u>ALT.</u>
	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).				

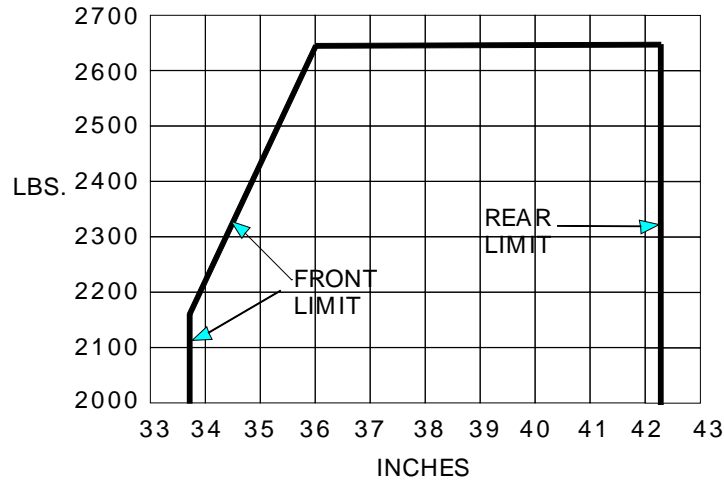
Airspeed Limits	Maneuvering	134 mph (116 knots)
	Maximum structural cruising	155 mph (135 knots)
	Never exceed	200 mph (174 knots)
	Flaps extended	105 mph ( 91 knots)

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	<table><tr><td>Wing flaps -</td><td>Maximum Takeoff</td><td>- 0 to 20°</td></tr><tr><td></td><td>Landing</td><td>- 40°</td></tr><tr><td>Ailerons</td><td>Up 20°</td><td>Down 14°</td></tr><tr><td>Stabilizer</td><td>Up 1.0°</td><td>Down 9.0°</td></tr><tr><td>Elevators</td><td>Up 28°</td><td>Down 22°</td></tr><tr><td>With Stabilizer Full Down</td><td></td><td></td></tr><tr><td>Rudder</td><td>Right 22°</td><td>Left 22°</td></tr></table>	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°
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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.																					



**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 Dwg. 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 FuelTake-off Power Limit One MinuteContinental O-470-2 Engine - McCauley 2A36C1/90M-0 Propeller

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	- - - -

- "(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"

**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:
- | <u>Maneuvers</u> | <u>Safe Entry Speeds</u>     |
|------------------|------------------------------|
| Stalls           | Slow Deceleration            |
| Steep Turns      | 116 knots (134 mph)          |
| Spins            | Intentional spins prohibited |
| Lazy Eights      | 116 Knots (134 mph)          |
| Chandelle        | 116 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.

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