

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

A00003SE
Revision 24
CESSNA
LC40-550FG
LC41-550FG
LC42-550FG
T240
June 13, 2013

TYPE CERTIFICATE DATA SHEET A00003SE

This data sheet, which is part of Type Certificate No. A00003SE, 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
(as of December 5, 2007) P.O Box 7704
Wichita, Kansas 67277

Previous Type Certificate Holder: Columbia Aircraft Manufacturing (previously The Lancair Company)
(prior to December 5, 2007) 22550 Nelson Road
Bend, Oregon 97701

I. Model LC40-550FG (Utility Category), Approved September 18, 1998

Engine: Teledyne Continental Model IO-550-N, Engine Type Certificate E3SO.

Fuel: 100 (green) or 100LL (blue) grade aviation fuel.

Engine Limits: Maximum takeoff power and maximum continuous power = 310 horsepower at 2700 rpm.
See Engine Type Certificate Data Sheet E3SO for additional limitations.

Propeller: Hartzell Model PHC-J3YF-1RF/F7691D-1, Propeller Type Certificate P36EA
Hartzell Spinner Assembly, Part No. C-6446-1 or C-6446-2(P)

Propeller Limits: Minimum diameter = 76 inches
Maximum diameter = 77 inches
Low Pitch = $14.1^\circ \pm 0.2^\circ$
High Pitch = $34.7^\circ \pm 1.0^\circ$
Pitch limits measured at 30 inches radial distance.
Do not exceed 20 inches manifold pressure with propeller RPM below 2200.
See Propeller Type Certificate Data Sheet P36EA for additional limits.

Airspeed Limits: V_o (3400 lbs) 149 KCAS (148 KIAS)
 V_o (2500 lbs) 128 KCAS (127 KIAS)
 V_{FE} (Fully Extended) 120 KCAS (119 KIAS)
 V_{FE} (Intermediate Setting) 130 KCAS (129 KIAS)
 V_{NO} 180 KCAS (178 KIAS)
 V_{NE} 235 KCAS (232 KIAS)
Note: V_{NO} decreases by 4 KIAS and V_{NE} decreases by 5 KIAS
for each 1000 feet above 12,000 feet (pressure altitude).

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I. Model LC40-550FG (cont'd)

C.G. Range:	Straight line variation between points.		
	Aft Limits	110 inches aft of datum from 2500 lbs to 3400 lbs.	
	Forward Limits	103 inches aft of datum from 2240 lbs to 2500 lbs then to 107 inches aft of datum at 3400 lbs.	
	Maximum zero fuel weight	103 inches aft of datum at 2725 lbs to 110 inches at 3228 lbs.	
	Minimum flying weight	103 inches aft of datum at 2240 lbs to 110 inches at 2500 lbs.	
Datum:	The forward edge of the wing saddle is located 97.05 inches aft of the reference datum. Refer to "Model LC40-550FG Maintenance Manual," Document No. 300MM02 or later revision for detailed instructions.		
Leveling Means:	Plumb target and plumb line hanger are located in the rear seat area.		
Weight limits:	Maximum ramp and takeoff = 3400 lbs. Maximum landing weight = 3230 lbs. Maximum empty weight = 2568 lbs. Maximum zero fuel weight = 2725 lbs at 103 inches varying linearly to 3228 lbs at 110 inches. Minimum flying weight = 2240 lbs at 103 inches varying linearly to 2500 lbs at 110 inches.		
Minimum Crew:	1 Pilot.		
No. of Seats:	4 seats total:	2 located at 110 inches aft of datum. 2 located at 141.4 inches aft of datum.	
Maximum Baggage:	20 pounds allowed on the hat shelf. 120 pounds total.		
Fuel Capacity:	106 gallons total; 98 gallons useable. (Two 53 gallon tanks in wings at 118.0 inches aft of datum).		
Oil Type and Capacity:	8 qts drainable. See Engine Type Certificate Data Sheet E3SO.		
Maximum Operating Altitude:	14,000 feet without FAA approved oxygen system installed. 18,000 feet with FAA approved oxygen system installed.		
Control Surface Movements:	Wing flaps:	Cruise $0^{\circ} \pm 1^{\circ}$	Take off $12^{\circ} \pm 1^{\circ}$ Landing $40^{\circ} \pm 1^{\circ}$
	Ailerons:	Up $21.6^{\circ} \pm 1^{\circ}$	Down $17.7^{\circ} \pm 1^{\circ}$
	Aileron Trim Tab:	Up $22.4^{\circ} \pm 1^{\circ}$	Down $19.6^{\circ} \pm 1^{\circ}$
	Aileron Servo Tab:	Up $13^{\circ} \pm 2^{\circ}$ at 17.7° aileron deflection Down $19^{\circ} \pm 2^{\circ}$ at 21.6° aileron deflection	
	Elevator:	Up $13^{\circ} + 0^{\circ} - 0.5^{\circ}$	Down $12^{\circ} \pm 1^{\circ}$
	Elevator trim tab:	Up $21^{\circ} \pm 1^{\circ}$	Down $30^{\circ} \pm 1^{\circ}$
	Rudder:	Right $17^{\circ} \pm 1^{\circ}$	Left $17^{\circ} \pm 1^{\circ}$ Left, rudder limiter $11.5^{\circ} \pm 0.5^{\circ}$
Additional Limitations:	Airframe life limit:	25200 flight hours.	
	Kinds of operations:	Day and Night, Visual Flight Rules (VFR) and Instrument Flight Rules (IFR).	
Required Maintenance:	The airplane must be maintained in accordance with the instructions for continued airworthiness contained in the FAA approved Chapter 4 of "Model LC40-550FG Maintenance Manual," Document No. 300MM02 or later revision.		

I. Model LC40-550FG (cont'd)

- Required Equipment:** The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for airworthiness certification.
- In addition to the above required equipment, the following equipment is also required:
The latest FAA Approved/Accepted Revision of "*Pilots Operating Handbook and FAA Approved Flight Manual*," Document No. RA050001.
- The required equipment for various types of operations is specified in Appendix A to Section 6 of the latest FAA Approved Revision of Document No. RA050001.
- Design Data:** The airplane shall be manufactured in accordance with the latest FAA approved revision of "*Master Drawing List*", Document No. RA011002, or other FAA approved data.
- Serial Numbers Eligible:** 40004 through 40079.
- Certification Basis:** Part 23 of the Federal Aviation Regulations (FAR) effective February 1, 1965, as amended by 23-1 through 23-46. FAR 36 as amended on the date of certification. Application for type certificate, dated June 14, 1995.
- Equivalent Level of Safety (ELOS) Findings:** Stall and spin requirements of FAR's 23.201, 23.203, and 23.221 in accordance with ELOS No. ACE-98-1 as detailed in the FAA memo dated September 3, 1998 (FAA memo reference no. 98-190S-581) and ELOS No. ACE-98-2 as detailed in the FAA memo dated October 7, 1998 (FAA memo reference no. 98-190S-608).
- Emergency exit requirements of FAR 23.807 in accordance with ELOS No. ACE-99-02 as detailed in FAA memo dated February 2, 1999 (FAA memo reference no. 99-190S-64).
- Production Basis:** Production Certificate No. 719NM, dated November 1, 2005.
- NOTE 1:** A current weight and balance report with a list of equipment included in the certificated empty weight must be provided for each aircraft at the time of original airworthiness certification.
- NOTE 2:** The placards specified in the latest FAA approved revision of "*Pilots Operating Handbook and FAA Approved Flight Manual*," Document No. RA050001 must be displayed.
- NOTE 3:** Major structural repairs must be accomplished by an appropriate FAA certified person qualified to perform maintenance on composite aircraft structure, using materials and processes in accordance with the FAA approved Cessna Aircraft Company "*LC-550FG Series Structural Repair Manual*," Document No. 30/40SR00 or later revision, or other methods approved by the FAA. Material compatibility, environmental effects, strength, fatigue, lightning protection, and flutter must be addressed in any major structural repair.
- NOTE 4:** Exterior colors are limited to those specified in the FAA approved Chapter 4 of "*Model LC40-550FG Maintenance Manual*," Document No. 300MM02 or later revision.

II. Model LC42-550FG (Utility Category), Approved March 30, 2003

Note: Cessna Aircraft Company refers to this aircraft as the Model 235.

- Engine:** Teledyne Continental Model IO-550-N (37) or IO-550-N (38), Engine Type Certificate E3SO.
- Fuel:** 100 (green) or 100LL (blue) grade aviation fuel.
- Engine Limits:** Maximum takeoff power and maximum continuous power = 310 horsepower at 2700 rpm. See Engine Type Certificate Data Sheet E3SO for additional limitations.
- Propeller:** Hartzell Model PHC-J3YF-1RF/F7691D-1 or PHC-J3YF-1RF/F7691DK-1, Propeller Type Certificate P36EA
Hartzell Spinner Assembly, Part No. C-6446-1 or C-6446-2(P)

II. Model LC42-550FG (cont'd)

Propeller Limits:	Minimum diameter = 76 inches Maximum diameter = 77 inches Low Pitch = $14.1^\circ \pm 0.2^\circ$ High Pitch = $34.7^\circ \pm 1.0^\circ$ Pitch limits measured at 30 inches radial distance. Do not exceed 20 inches manifold pressure with propeller RPM below 2200. See Propeller Type Certificate Data Sheet P36EA for additional limits.												
Airspeed Limits:	<table> <tr> <td>V_o (3400 lbs)</td> <td>149 KCAS (148 KIAS)</td> </tr> <tr> <td>V_o (2500 lbs)</td> <td>128 KCAS (127 KIAS)</td> </tr> <tr> <td>V_{FE} (Fully Extended)</td> <td>120 KCAS (119 KIAS)</td> </tr> <tr> <td>V_{FE} (Intermediate Setting)</td> <td>130 KCAS (129 KIAS)</td> </tr> <tr> <td>V_{NO}</td> <td>180 KCAS (178 KIAS)</td> </tr> <tr> <td>V_{NE}</td> <td>235 KCAS (235 KIAS)</td> </tr> </table> <p><u>Note:</u> V_{NO} decreases by 4 KIAS and V_{NE} decreases by 5 KIAS for each 1000 feet above 12,000 feet (pressure altitude).</p>	V_o (3400 lbs)	149 KCAS (148 KIAS)	V_o (2500 lbs)	128 KCAS (127 KIAS)	V_{FE} (Fully Extended)	120 KCAS (119 KIAS)	V_{FE} (Intermediate Setting)	130 KCAS (129 KIAS)	V_{NO}	180 KCAS (178 KIAS)	V_{NE}	235 KCAS (235 KIAS)
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C.G. Range:	<p>Straight line variation between points.</p> <table> <tr> <td>Aft Limits</td> <td>110 inches aft of datum from 2500 lbs to 3400 lbs.</td> </tr> <tr> <td>Forward Limits</td> <td>103 inches aft of datum from 2240 lbs to 2500 lbs then to 107 inches aft of datum at 3400 lbs.</td> </tr> <tr> <td>Maximum zero fuel weight</td> <td>103 inches aft of datum at 2725 lbs to 110 inches at 3228 lbs.</td> </tr> <tr> <td>Minimum flying weight</td> <td>103 inches aft of datum at 2240 lbs to 110 inches at 2500 lbs.</td> </tr> </table>	Aft Limits	110 inches aft of datum from 2500 lbs to 3400 lbs.	Forward Limits	103 inches aft of datum from 2240 lbs to 2500 lbs then to 107 inches aft of datum at 3400 lbs.	Maximum zero fuel weight	103 inches aft of datum at 2725 lbs to 110 inches at 3228 lbs.	Minimum flying weight	103 inches aft of datum at 2240 lbs to 110 inches at 2500 lbs.				
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Minimum flying weight	103 inches aft of datum at 2240 lbs to 110 inches at 2500 lbs.												
Datum:	The forward edge of the wing saddle is located 97.05 inches aft of the reference datum. Refer to the "Model LC42-550FG Maintenance Manual," Document No. 350MM02 or later revision for detailed instructions.												
Leveling Means:	Plumb target and plumb line hanger are located in the rear seat area.												
Weight limits:	<p>Maximum ramp and takeoff = 3400 lbs. Maximum landing weight = 3230 lbs. Maximum empty weight = 2568 lbs. Maximum zero fuel weight = 2725 lbs at 103 inches varying linearly to 3228 lbs at 110 inches. Minimum flying weight = 2240 lbs at 103 inches varying linearly to 2500 lbs at 110 inches.</p>												
Minimum Crew:	1 Pilot.												
No. of Seats:	4 seats total: 2 located at 110 inches aft of datum. 2 located at 141.4 inches aft of datum.												
Maximum Baggage:	20 pounds allowed on the hat shelf. 120 pounds total.												
Fuel Capacity:	106 gallons total; 98 gallons useable. (Two 53 gallon tanks in wings at 118.0 inches aft of datum).												
Oil Type and Capacity:	8 qts drainable. See Engine Type Certificate Data Sheet E3SO.												
Maximum Operating Altitude:	14,000 feet without FAA approved oxygen system installed. 18,000 feet with FAA approved oxygen system installed.												

II. Model LC42-550FG (cont'd)

Control Surface Movements:	Wing flaps: Cruise $0^{\circ} \pm 1^{\circ}$ Take off $12^{\circ} \pm 1^{\circ}$ Landing $40^{\circ} \pm 1^{\circ}$ Ailerons: Up $21.6^{\circ} \pm 1^{\circ}$ Down $17.7^{\circ} \pm 1^{\circ}$ Aileron Trim Tab: Up $22.4^{\circ} \pm 1^{\circ}$ Down $19.6^{\circ} \pm 1^{\circ}$ Aileron Servo Tab: Up $13^{\circ} \pm 2^{\circ}$ at 17.7° aileron deflection Down $19^{\circ} \pm 2^{\circ}$ at 21.6° aileron deflection Elevator: Up $13^{\circ} +0^{\circ}-0.5^{\circ}$ Down $12^{\circ} \pm 1^{\circ}$ Elevator trim tab: Up $21^{\circ} \pm 1^{\circ}$ Down $30^{\circ} \pm 1^{\circ}$ Rudder: Right $17^{\circ} \pm 1^{\circ}$ Left $17^{\circ} \pm 1^{\circ}$ Left, rudder limiter $11.5^{\circ} \pm 0.5^{\circ}$
Additional Limitations:	Airframe life limit: 25,200 flight hours. Kinds of operations: Day and Night, Visual Flight Rules (VFR) and Instrument Flight Rules (IFR).
Required Maintenance:	The airplane must be maintained in accordance with the instructions for continued airworthiness contained in the FAA approved Chapter 4 of " <i>Model LC42-550FG Maintenance Manual</i> ," Document No. 350MM02 or later revision.
Required Equipment:	The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for airworthiness certification. In addition to the above required equipment, the following equipment is also required: The latest FAA Approved/Accepted Revision of " <i>Pilots Operating Handbook and FAA Approved Flight Manual</i> ," Document No. RB050000 or RB050005 as appropriate for the avionics package installed when the airplane was produced. The required equipment for various types of operations is specified in Appendix A to Section 6 of the latest FAA Approved Revision of Document No. RB050000 or RB050005.
Design Data:	The airplane shall be manufactured in accordance with the latest FAA approved revision of " <i>Master Drawing List</i> ", Document No. RB011000 or RB011003 (as appropriate for the avionics package installed), or other FAA approved data.
Serial Numbers Eligible:	42001 through 42084, 42501 through 42569, and 421001 through 421020.
Certification Basis:	Part 23 of the Federal Aviation Regulations (FAR) effective February 1, 1965, as amended by 23-1 through 23-46, except for FAR 23.1305 and FAR 23.1359. FAR 23.1305 as amended through 23-52 and FAR 23.1359 as amended through 23-49. FAR 36 as amended on the date of certification. Application for type certificate, dated October 24, 2002. For LC42-550FG aircraft equipped with Columbia factory installed Garmin G-1000 system the additional certification basis for installation specific items only is: FAR 23.143 as amended through 23-50; FAR 23.301 (a) (b) (c) as amended through 23-48; FAR 23.561 (a) (b)(3) as amended through 23-48; FAR 23.611 as amended through 23-48; FAR 23.777 (a) (b) (c)(3) (d) (f)(1) as amended through 23-51; FAR 23.867 as amended through 23-49; FAR 23.1303 (a) (b) (c) (f) as amended through 23-49; FAR 23.1305 (a)(1)(2)(3) (b)(2)(3)(i)(4)(i)(5)(6)(i) as amended through 23-52; FAR 23.1307 as amended through 23-49; FAR 23.1309 (a)(1)(2) (b) (c)(1)(2)(iii)(3) (d) (e) as amended through 23-49; FAR 23.1311 as amended through 23-49; FAR 23.1321 (a) (c) (d) (e) as amended through 23-49; FAR 23.1323 (a) as amended through 23-49; FAR 23.1325 (b)(1)(ii)(iii)(2)(i) as amended through 23-50; FAR 23.1329 as amended through 23-49; FAR 23.1337 (b)(1) as amended through 23-51; FAR 23.1351(a)(1)(2)(i) (b)(1)(2)(3) (c)(4)(d)(1) (g) as amended through 23-49; FAR 23.1353 (h) as amended through 23-49; FAR 23.1365 (a) (b) (d) (e) as amended through 23-49; FAR 23.1431 (a) (b) (d) (e) as amended through 23-49; FAR 23.1543 (b) (c) as amended through 23-50; FAR 23.1545 (a) (b)(1)(2)(3)(4) as amended through 23-50; FAR 23.1553 through amendment. 23-50; FAR 23.1555 (a) (b) (e)(2) as amended through 23-50; FAR 23.1563 (a) as amended through 23-50; FAR 23.1567 (a) as amended through 23-50; FAR 23.1581 (a) (b)(2)(3) (c) (f) as amended through 23-50; FAR 23.1583 (h) (m) (n) as amended through 23-50; FAR 23.1585 (j) through amendment. 23-50.

II. Model LC42-550FG (cont'd)

- Special Condition: Special Condition 23-160-SC is applicable to all airplanes regardless of which avionics package is installed.
- Equivalent Level of Safety (ELOS) Findings: Stall and spin requirements of FAR's 23.201, 23.203, and 23.221 in accordance with ELOS No. ACE-98-1 as detailed in the FAA memo dated September 3, 1998 (FAA memo reference no. 98-190S-581) and ELOS No. ACE-98-2 as detailed in the FAA memo dated October 7, 1998 (FAA memo reference no. 98-190S-608).
- Emergency exit requirements of FAR 23.807 in accordance with ELOS No. ACE-99-02 as detailed in FAA memo dated February 2, 1999 (FAA memo reference no. 99-190S-64).
- Production Basis: Production Certificate No. PC-4, dated December 5, 2007, for serial numbers 421001 and up.
- Previously Production Certificate No. 719NM, dated November 1, 2005.
- NOTE 1: A current weight and balance report with a list of equipment included in the certificated empty weight must be provided for each aircraft at the time of original airworthiness certification.
- NOTE 2: The placards specified in the latest FAA approved revision of "*Pilots Operating Handbook and FAA Approved Flight Manual*," Document No. RB050000 or RB050005, must be displayed.
- NOTE 3: Major structural repairs must be accomplished by an appropriate FAA certified person qualified to perform maintenance on composite aircraft structure, using materials and processes in accordance with the FAA approved Cessna Aircraft Company "*LC-550FG Series Structural Repair Manual*," Document No. 30/40SR00 or later revision, or other methods approved by the FAA. Material compatibility, environmental effects, strength, fatigue, lightning protection, and flutter must be addressed in any major structural repair.
- NOTE 4: Exterior colors are limited to those specified in the FAA approved Chapter 4 of the "*Model LC42-550FG Maintenance Manual*," Document No. 350MM02 or later revision.

III. Model LC41-550FG (Utility Category), Approved April 8, 2004

- Engine: Teledyne Continental Model TSIO-550-C (9), TSIO-550-C (10), TSIO-550-C (11), TSIO-550-C (12), or TSIO-550-C (13), Engine Type Certificate E5SO.
- Fuel: 100 (green) or 100LL (blue) grade aviation fuel.
- Engine Limits: Maximum takeoff power and maximum continuous power = 310 horsepower at 2600 rpm. See Engine Type Certificate Data Sheet E5SO for additional limitations.
- Propeller: Hartzell Model HC-H3YF-1RF/F7693DF or HC-H3YF-1RF/F7693DFK, Propeller Type Certificate P35EA
Hartzell Spinner Assembly, Part No. C-6446-1 or C-6446-2(P)
- Propeller Limits: Minimum diameter = 77 inches
Maximum diameter = 78 inches
Low Pitch = $16.5^\circ \pm 0.1^\circ$
High Pitch = $43.0^\circ \pm 1.0^\circ$
Pitch limits measured at 30 inches radial distance.
See Propeller Type Certificate Data Sheet P35EA for additional limits.

III. Model LC41-550FG (cont'd)

Airspeed Limits:	V_o (3600 lbs)	162 KCAS (158 KIAS)
	V_o (2600 lbs)	138 KCAS (135 KIAS)
	V_{FE} (Fully Extended)	120 KCAS (117 KIAS)
	V_{FE} (Intermediate Setting)	130 KCAS (127 KIAS)
	V_{NO}	185 KCAS (181 KIAS)
	V_{NE}	235 KCAS (230 KIAS)
Note:	V_{FE} decreases by 2.4 KIAS for each 1000 feet above 12,000 feet (pressure altitude)	
	V_{NO} decreases by 3.5 KIAS for each 1000 feet above 12,000 feet (pressure altitude)	
	V_{NE} decreases by 4.4 KIAS for each 1000 feet above 12,000 feet (pressure altitude).	
C.G. Range:	Straight line variation between points.	
	Aft Limits	112.0 inches aft of datum from 2900 lbs to 3600 lbs.
	Forward Limits	105.0 inches aft of datum from 2600 lbs to 2900 lbs then to 108.8 inches aft of datum at 3600 lbs.
	Maximum zero fuel weight	107.2 inches aft of datum at 3300 lbs to 112.0 inches at 3300 lbs.
	Minimum flying weight	105 inches aft of datum at 2600 lbs to 112 inches at 2900 lbs.
Datum:	The forward edge of the wing saddle is located 97.05 inches aft of the reference datum. Refer to the "Model LC41-550FG/T240 Maintenance Manual," Document No. 400MM02 or later revision for detailed instructions.	
Leveling Means:	Plumb target and plumb line hanger are located in the rear seat area.	
Weight limits:	Maximum ramp and takeoff = 3600 lbs. Maximum landing weight = 3420 lbs. Maximum empty weight = 2708 lbs. Maximum zero fuel weight = 3300 lbs at 107.2 inches varying linearly to 3300 lbs at 112.0 inches. Minimum flying weight = 2600 lbs at 105.0 inches varying linearly to 2900 lbs at 112.0 inches.	
Minimum Crew:	1 Pilot.	
No. of Seats:	4 seats total:	2 located at 110 inches aft of datum. 2 located at 141.4 inches aft of datum.
Maximum Baggage:	20 pounds allowed on the hat shelf. 120 pounds total.	
Fuel Capacity:	106 gallons total (Two 53 gallon tanks in wings at 118.0 inches aft of datum); S/N 41002 thru 41799 – 98 gallons, S/N 41800 and On – 102 gallons.	
Oil Type and Capacity:	8 qts drainable. See Engine Type Certificate Data Sheet E5SO.	
Maximum Operating Altitude:	14,000 feet without FAA approved oxygen system installed. 18,000 or 25,000 feet with FAA approved oxygen system installed (See the airplane flight manual for the specific limitation for the airplane as equipped).	
Control Surface Movements:	Wing flaps:	Cruise $0^\circ \pm 1^\circ$ Take off $12^\circ \pm 1^\circ$ Landing $40^\circ \pm 1^\circ$
	Ailerons:	Up $21.6^\circ \pm 1^\circ$ Down $17.7^\circ \pm 1^\circ$
	Aileron Trim Tab:	Up $22.4^\circ \pm 1^\circ$ Down $19.6^\circ \pm 1^\circ$
	Aileron Servo Tab:	Up $13^\circ \pm 2^\circ$ at 17.7° aileron deflection Down $19^\circ \pm 2^\circ$ at 21.6° aileron deflection
	Elevator:	Up $23^\circ \pm 1^\circ$ Down $14^\circ \pm 1^\circ$
	Elevator trim tab:	Up $21^\circ \pm 2^\circ$ Down $30^\circ \pm 2^\circ$
	Rudder:	Right $30^\circ \pm 1^\circ$ Left $30^\circ \pm 1^\circ$

III. Model LC41-550FG (cont'd)

Additional Limitations: Airframe life limit: 25,200 flight hours.
 Kinds of operations: Day and Night,
 Visual Flight Rules (VFR) and Instrument Flight Rules (IFR).

Required Maintenance: The airplane must be maintained in accordance with the instructions for continued airworthiness contained in the FAA approved Chapter 4 of the "*Model LC41-550FG/T240 Maintenance Manual*," Document No. 400MM02 or later revision.

Required Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for airworthiness certification.

In addition to the above required equipment, the following equipment is also required:

Airplane Serial Numbers 41002 through 41041 (18,000 ft. MSL max. operating altitude):
 The latest FAA Approved/Accepted Revision of "*Pilots Operating Handbook and FAA Approved Flight Manual*," Document No. RC050000. (NOTE: Maximum operating altitude is increased to 25,000 feet MSL if modified in accordance with Lancair Service Letter SL-04-010 and equipped with the latest FAA Approved/Accepted Revision of "*Pilots Operating Handbook and FAA Approved Flight Manual*," Document No. RC050002.)

Airplane Serial Numbers 41042 and on (25,000 ft. MSL max. operating altitude):
 The latest FAA Approved/Accepted Revision of "*Pilots Operating Handbook and FAA Approved Flight Manual*," Document No. RC050002 or RC050005 as appropriate for the avionics package installed when the airplane was produced.

The required equipment for various types of operations is specified in Appendix A to Section 6 of the latest FAA Approved Revision of Document No. RC050000, RC050002, or RC050005 (as required above).

Design Data: The airplane shall be manufactured in accordance with the latest FAA approved revision of "*Master Drawing List*", Document No. RC011000, or other FAA approved data.

Serial Numbers Eligible: 41002 through 41108, 41501 through 41533, 41563 through 41800, and 411001 through 411161.

Certification Basis: Part 23 of the Federal Aviation Regulations (FAR) effective February 1, 1965, as amended by 23-1 through 23-46, except for FAR 23.1305 and FAR 23.1359. FAR 23.1305 as amended through 23-52, and FAR 23.1359 as amended through 23-49. FAR 36 as amended on the date of certification. Application for type certificate, dated October 24, 2002.

For LC41-550FG aircraft equipped with Columbia factory installed Garmin G-1000 system the additional certification basis for installation specific items only is: FAR 23.143 as amended through 23-50; FAR 23.301 (a) (b) (c) as amended through 23-48; FAR 23.561 (a) (b)(3) as amended through 23-48; FAR 23.611 as amended through 23-48; FAR 23.777 (a) (b) (c)(3) (d) (f)(1) as amended through 23-51; FAR 23.867 as amended through 23-49; FAR 23.1303 (a) (b) (c) (f) as amended through 23-49; FAR 23.1305 (a)(1)(2)(3) (b)(2)(3)(i)(4)(i)(5)(6)(i) as amended through 23-52; FAR 23.1307 as amended through 23-49; FAR 23.1309 (a)(1)(2) (b) (c)(1)(2)(iii)(3) (d) (e) as amended through 23-49; FAR 23.1311 as amended through 23-49; FAR 23.1321 (a) (c) (d) (e) as amended through 23-49; FAR 23.1323 (a) as amended through 23-49; FAR 23.1325 (b)(1)(ii)(iii)(2)(i) as amended through 23-50; FAR 23.1329 as amended through 23-49; FAR 23.1337 (b)(1) as amended through 23-51; FAR 23.1351(a)(1)(2)(i) (b)(1)(2)(3) (c)(4)(d)(1) (g) as amended through 23-49; FAR 23.1353 (h) as amended through 23-49; FAR 23.1365 (a) (b) (d) (e) as amended through 23-49; FAR 23.1431 (a) (b) (d) (e) as amended through 23-49; FAR 23.1543 (b) (c) through amendment. 23-50; FAR 23.1545 (a) (b)(1)(2)(3)(4) as amended through 23-50; FAR 23.1553 through amendment. 23-50; FAR 23.1555 (a) (b) (e)(2) as amended through 23-50; FAR 23.1563 (a) as amended through 23-50; FAR 23.1567 (a) as amended through 23-50; FAR 23.1581 (a) (b)(2)(3) (c) (f) as amended through 23-50; FAR 23.1583 (h) (m) (n) as amended through 23-50; FAR 23.1585 (j) through amendment. 23-50.

III. Model LC41-550FG (cont'd)

- Special Condition: Special Condition 23-160-SC is applicable to all airplanes regardless of which avionics package is installed.
- Equivalent Level of Safety (ELOS) Findings: Emergency exit requirements of FAR 23.807 in accordance with ELOS No. ACE-99-02 as detailed in FAA memo dated February 2, 1999 (FAA memo reference no. 99-190S-64).
- Production Basis: Production Certificate No. PC-4, dated December 5, 2007, for serial numbers 411001 and up.
Previously Production Certificate No. 719NM, dated November 1, 2005.
- NOTE 1: A current weight and balance report with a list of equipment included in the certificated empty weight must be provided for each aircraft at the time of original airworthiness certification.
- NOTE 2: The placards specified in the latest FAA approved revision of "*Pilots Operating Handbook and FAA Approved Flight Manual*," Document No. RC050000, RC050002, or RC050005, must be displayed.
- NOTE 3: Major structural repairs must be accomplished by an appropriate FAA certified person qualified to perform maintenance on composite aircraft structure, using materials and processes in accordance with the FAA approved Cessna Aircraft Company "*LC-550FG Series Structural Repair Manual*," Document No. 30/40SR00 or later revision, or other methods approved by the FAA. Material compatibility, environmental effects, strength, fatigue, lightning protection, and flutter must be addressed in any major structural repair.
- NOTE 4: Exterior colors are limited to those specified in the FAA approved Chapter 4 of the "*Model LC41-550FG/T240 Maintenance Manual*," Document No. 400MM02 or later revision.

IV. Model T240 (Utility Category), Approved January 23, 2013

- Engine: Teledyne Continental Model TSIO-550-C (20) or TSIO-550-C (21), Engine Type Certificate E5SO.
- Fuel: 100.0 octane minimum (Aviation Lean Rating) Aviation Gasoline per ASTM D910.
- Engine Limits: Maximum takeoff power and maximum continuous power = 310 horsepower at 2600 rpm.
See Engine Type Certificate Data Sheet E5SO for additional limitations.
- Propeller: Hartzell Model HC-H3YF-1RF/F7693DF or HC-H3YF-1RF/F7693DFK,
Propeller Type Certificate P35EA
Hartzell Spinner Assembly, Part No. C-6446-1 or C-6446-2(P)
- Propeller Limits: Minimum diameter = 77 inches
Maximum diameter = 78 inches
Low Pitch = $16.5^\circ \pm 0.1^\circ$
High Pitch = $43.0^\circ \pm 1.0^\circ$
Pitch limits measured at 30 inches radial distance.
See Propeller Type Certificate Data Sheet P35EA for additional limits.
- Airspeed Limits:
- | | |
|---------------------------------|---------------------|
| V_o (3600 lbs) | 162 KCAS (158 KIAS) |
| V_o (2600 lbs) | 138 KCAS (135 KIAS) |
| V_{FE} (Fully Extended) | 120 KCAS (117 KIAS) |
| V_{FE} (Intermediate Setting) | 130 KCAS (127 KIAS) |
| V_{NO} | 185 KCAS (181 KIAS) |
| V_{NE} | 235 KCAS (230 KIAS) |
- Note: V_{FE} decreases by 2.4 KIAS for each 1000 feet above 12,000 feet (pressure altitude)
 V_{NO} decreases by 3.5 KIAS for each 1000 feet above 12,000 feet (pressure altitude)
 V_{NE} decreases by 4.4 KIAS for each 1000 feet above 12,000 feet (pressure altitude).

IV. Model T240 (cont'd)

C.G. Range:	Straight line variation between points.		
	Aft Limits	112.0 inches aft of datum from 2900 lbs to 3600 lbs.	
	Forward Limits	105.0 inches aft of datum from 2600 lbs to 2900 lbs then to 108.8 inches aft of datum at 3600 lbs.	
	Maximum zero fuel weight	107.2 inches aft of datum at 3300 lbs to 112.0 inches at 3300 lbs.	
	Minimum flying weight	105 inches aft of datum at 2600 lbs to 112 inches at 2900 lbs.	
Datum:	The forward edge of the wing saddle is located 97.05 inches aft of the reference datum. Refer to "Model LC41-550FG/T240 Maintenance Manual," Document No. 400MM02 or later revision for detailed instructions.		
Leveling Means:	Plumb target and plumb line hanger are located in the rear seat area.		
Weight limits:	Maximum ramp and takeoff = 3600 lbs. Maximum landing weight = 3420 lbs. Maximum empty weight = 2708 lbs. Maximum zero fuel weight = 3300 lbs at 107.2 inches varying linearly to 3300 lbs at 112.0 inches. Minimum flying weight = 2600 lbs at 105.0 inches varying linearly to 2900 lbs at 112.0 inches.		
Minimum Crew:	1 Pilot.		
No. of Seats:	4 seats total:	2 located at 110 inches aft of datum. 2 located at 141.4 inches aft of datum.	
Maximum Baggage:	20 pounds allowed on the hat shelf. 120 pounds total.		
Fuel Capacity:	106 gallons total; 102 gallons useable. (Two 53 gallon tanks in wings at 118.0 inches aft of datum).		
Oil Type and Capacity:	8 qts drainable. See Engine Type Certificate Data Sheet E5SO.		
Maximum Operating Altitude:	14,000 feet without FAA approved oxygen system installed. 18,000 or 25,000 feet with FAA approved oxygen system installed (See the airplane flight manual for the specific limitation for the airplane as equipped).		
Control Surface Movements:	Wing flaps:	Cruise $0^{\circ} \pm 1^{\circ}$	Take off $12^{\circ} \pm 1^{\circ}$ Landing $40^{\circ} \pm 1^{\circ}$
	Ailerons:	Up $21.6^{\circ} \pm 1^{\circ}$	Down $17.7^{\circ} \pm 1^{\circ}$
	Aileron Trim Tab:	Up $22.4^{\circ} \pm 1^{\circ}$	Down $19.6^{\circ} \pm 1^{\circ}$
	Aileron Servo Tab:	Up $13^{\circ} \pm 2^{\circ}$ at 17.7° aileron deflection Down $19^{\circ} \pm 2^{\circ}$ at 21.6° aileron deflection	
	Elevator:	Up $23^{\circ} \pm 1^{\circ}$	Down $14^{\circ} \pm 1^{\circ}$
	Elevator trim tab:	Up $21^{\circ} \pm 2^{\circ}$	Down $30^{\circ} \pm 2^{\circ}$
	Rudder:	Right $30^{\circ} \pm 1^{\circ}$	Left $30^{\circ} \pm 1^{\circ}$
Additional Limitations:	Airframe life limit:	25,200 flight hours.	
	Kinds of operations:	Day and Night, Visual Flight Rules (VFR) and Instrument Flight Rules (IFR).	

IV. Model T240 (cont'd)

- Required Maintenance:** The airplane must be maintained in accordance with the instructions for continued airworthiness contained in the FAA approved Chapter 4 of the “*Model LC41-550FG/T240 Maintenance Manual*,” Document No. 400MM02 or later revision.
- Required Equipment:** The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for airworthiness certification.
- In addition to the above required equipment, the FAA Approved/Accepted “*Pilots Operating Handbook and FAA Approved Flight Manual*,” Document No. T240PHCUS-00 or later revision, the following equipment is also required.
- The required equipment for various types of operations is specified in Appendix A to Section 6 of the latest FAA Approved Revision of Document No. T240PHCUS-00.
- Design Data:** The airplane shall be manufactured in accordance with the latest FAA approved revision of “*Airplane Assy, Turbo*”, Drawing No. 2800000-1, or other FAA approved data.
- Serial Numbers Eligible:** T24002001 and up.
- Certification Basis:** Part 23 of the Federal Aviation Regulations (FAR) effective February 1, 1965, as amended by 23-1 through 23-46, except for FAR 23.1305 and FAR 23.1359. FAR 23.1305 as amended through 23-52, 23.1308(a)(b) and (c) as amended through 23-57 and FAR 23.1359 as amended through 23-49. FAR 36 as amended on the date of certification. Application for type certificate, dated September 15, 2010.
- For T240 aircraft equipped with Cessna factory installed Garmin G-2000 system the additional certification basis for installation specific items only is: FAR 23.143 as amended through 23-50; FAR 23.301 (a) (b) (c) as amended through 23-48; FAR 23.561 (a) (b)(3) as amended through 23-48; FAR 23.611 as amended through 23-48; FAR 23.777 (a) (b) (c)(3) (d) (f)(1) as amended through 23-51; FAR 23.867 as amended through 23-49; FAR 23.1303 (a) (b) (c) (f) as amended through 23-49; FAR 23.1305 (a)(1)(2)(3) (b)(2)(3)(i)(4)(i)(5)(6)(i) as amended through 23-52; FAR 23.1307 as amended through 23-49; FAR 23.1308 (a) (b) (c) as amended through 23-57; FAR 23.1309 (a)(1)(2) (b) (c)(1)(2)(iii)(3) (d) (e) as amended through 23-49; FAR 23.1311 as amended through 23-49; FAR 23.1321 (a) (c) (d) (e) as amended through 23-49; FAR 23.1323 (a) as amended through 23-49; FAR 23.1325 (b)(1)(ii)(iii)(2)(i) as amended through 23-50; FAR 23.1329 as amended through 23-49; FAR 23.1337 (b)(1) as amended through 23-51; FAR 23.1351(a)(1)(2)(i) (b)(1)(2)(3) (c)(4)(d)(1) (g) as amended through 23-49; FAR 23.1353 (h) as amended through 23-49; FAR 23.1365 (a) (b) (d) (e) as amended through 23-49; FAR 23.1431 (a) (b) (d) (e) as amended through 23-49; FAR 23.1543 (b) (c) through amendment. 23-50; FAR 23.1545 (a) (b)(1)(2)(3)(4) as amended through 23-50; FAR 23.1553 through amendment. 23-50; FAR 23.1555 (a) (b) (e)(2) as amended through 23-50; FAR 23.1563 (a) as amended through 23-50; FAR 23.1567 (a) as amended through 23-50; FAR 23.1581 (a) (b)(2)(3) (c) (f) as amended through 23-50; FAR 23.1583 (h) (m) (n) as amended through 23-50; FAR 23.1585 (j) through amendment. 23-50.
- Special Condition:** Special Condition 23-160-SC is applicable to all airplanes regardless of which avionics package is installed.
- Equivalent Level of Safety (ELOS) Findings:** Emergency exit requirements of FAR 23.807 in accordance with ELOS No. ACE-99-02 as detailed in FAA memo dated February 2, 1999 (FAA memo reference no. 99-190S-64).
- Production Basis:** Production Certificate No. PC-4, dated December 5, 2007, for serial numbers T240002001 and up.

IV. Model T240 (cont'd)

- NOTE 1: A current weight and balance report with a list of equipment included in the certificated empty weight must be provided for each aircraft at the time of original airworthiness certification.
- NOTE 2: The placards specified in the latest FAA approved revision of "*Pilots Operating Handbook and FAA Approved Flight Manual*," Document No. T240PHCUS-00.
- NOTE 3: Major structural repairs must be accomplished by an appropriate FAA certified person qualified to perform maintenance on composite aircraft structure, using materials and processes in accordance with the FAA approved Cessna Aircraft Company "*LC-550FG Series Structural Repair Manual*," Document No. 30/40SR00 or later revision, or other methods approved by the FAA. Material compatibility, environmental effects, strength, fatigue, lightning protection, and flutter must be addressed in any major structural repair.
- NOTE 4: Exterior colors are limited to those specified in the FAA approved Chapter 4 of the "*Model LC41-550FG/T240 Maintenance Manual*," Document No. 400MM02 or later revision.

.....END.....