SAA
TYPE CERTIFICATE DATA SHEET № TL 0052

Cessna Model 560XL (Citation)

Type Certificate Holder: CESSNA AIRCRAFT COMPANY
PO Box 7704 Wichita, Kansas 67277 USA

Models: 560 XL (XLS+)

Issue 1, 10 October 2011

This Data Sheet which is integral part of Type Certificate № TL 0052 prescribes the conditions and limitations under which the product(s) for which the Type Certificate was granted meet(s) the airworthiness requirements and environmental protection requirements, stated in Certification basis mentioned in this Data Sheet.

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I. **General**

1. a) Model: 560 XL  
   b) Variant: XLS+  
2. Airworthiness Category: AR 25 Transport Category  
3. Type Certificate Holder: CESSNA AIRCRAFT COMPANY  
   P.O. Box 7704  
   Wichita, Kansas 67277  
   USA  
4. SAA Certification Application Date: 09 September 2008  
5. SAA Type Certification Date: 10 October 2011
II. Certification Basis

1. Reference Date for determining the applicable requirements: Same as FAA certification application date

2. SAA Certification Basis: AR-25 «Airworthiness Standards for Transport Category Airplane»

3. SAA Equivalent Level of Safety Findings:
   - AR-25.415 Ground gust conditions (CRI ST-2);
   - AR-25.515 Shimmy (CRI ST-3);
   - AR-25.631 Bird strike damage (CRI ST-8);
   - AR-25.809(A) Emergency equipment construction (CRI SL-8);
   - AR-25.1457 (g) CVR (CRI A-5);
   - AR-25.D25F.5.10.1.6 FDR and CVR (CRI A-8);
   - AR-25.D25F.5.10.1.4 FDR and CVR (CRI A-9);
   - AR-25.D25F.8.2.2.8 General requirements for flight and Navigation Equipment (CRI A-12);
   - AR-25.D25F.8.8.6 Power Supply from emergency source (CRI E-4);
   - AR-25.1305(a)(4), (a)(6) Indication of oil pressure and temperature of APU (CRI E-7).

4. Environmental Protection:
   
   Noise requirements: ICAO Annex 16, Volume I, Third edition, Chapter 3
   Emission requirements: ICAO Annex 16, Volume II, Part II (Fuel Venting) and Part III, Chapter 2
1. **Type Design Definition:**

   The Model 560XL is defined by Cessna Airplane 
   Assembly Drawing Number 6600000.

2. **Description:**

   The Cessna Citation XL is a mid-sized, pressurized, 
   low-wing business jet which is certified for up to 
   twelve person including a minimum crew of two

3. **Equipment:**

   The equipment required by the applicable 
   requirements shall be installed.

4. **Dimensions:**

<table>
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<tr>
<th>Spec</th>
<th>Value</th>
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<tbody>
<tr>
<td>Span</td>
<td>55 ft 8 in (16.97 m)</td>
</tr>
<tr>
<td>Length</td>
<td>52 ft 9 in (16.07 m)</td>
</tr>
<tr>
<td>Height</td>
<td>17 ft 2 in (5.23 m)</td>
</tr>
<tr>
<td>Wing Area</td>
<td>369.7 sq ft (34.4 sq m)</td>
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5. **Engines:**

   S/N 560-6001 and on. 
   Two Pratt & Whitney of Canada, Inc. 
   PW545C Turbofans 
   SAA TCDS # TD0054

**Engine Limits:**

   Static thrust standard day, sea level:
   
   - Takeoff (5 min.) 4119 lb.(1,868kg)
   - Max. continuous 3372 lb.(1,530kg)
   - Max. permissible engine rotor operating speeds:
     - $N_1$ (Fan) 100 percent 13,034 r.p.m.
     - $N_2$ (Gas Gen.) 102.8 percent 33,622 r.p.m.
   - Max. permissible interturbine gas temperatures:
     - Takeoff 740°C.
     - Max. continuous 720°C.
     - Starting 740°C.
     - Transient (20 seconds) 780°C.

6. **Fluids**

   6.1 **Fuel:**

   RT and TS-1 with limitations according to Airplane Flight Manual. 
   For use of anti-icing additives, refer to the FAA Approved Airplane 

6.2 **Oil:**

   Aero Shell Turbine Oil 500, Royco Turbine Oil, Castrol 5000, BP 
   2380 Turbo Oil (Type II), Aero Shell Turbine Oil 560

6.3 **Coolant:**

   Not applicable

9. **Fluid capacities:**

   9.1 **Fuel (Gal/Liters):**

   Two wing tanks: Total 505.8/1,914.7 each; 
   usable 503.0/1,904.1 each

   9.2 **Oil (Quarts/Liters):**

   Two engine mounted tanks: Total 7.5/7.1 each; 
   usable 0.6/0.6 each
10. Airplane limits speed (KCAS)

\[ V_{MO} \text{ (MAXIMUM OPERATING)} \]
- Sea level to 8,000 ft. (2,438 m): 261 KCAS (260 KIAS)
- 8,000 ft. (2,438 m) to 26,515 ft. (8,082 m): 306 KCAS (305 KIAS)
- \( M_{MO} \): Above 26,515 ft. (8,082 m): 0.752 Mach (0.750 MIAS)

\[ V_A \text{ (Sea level)} \]
- 20,000 lb. (9,072 kg): 196 KCAS (195 KIAS)

See AFM for variations with weight and altitude and optional configurations.

\[ V_B \text{ (Speed for max. gust intensity)} \]
- 211 KCAS (210 KIAS)

\[ V_{FE} \text{ (Flaps extended)} \]
- 35° (Landing): 175 KCAS (174 KIAS)
- 15° (Takeoff and approach): 201 KCAS (200 KIAS)
- 7° (Takeoff and approach): 201 KCAS (200 KIAS)

\[ V_{MCA} \text{ (Air (Takeoff) [Min control speed])} \]
- 90 KCAS (90 KIAS)

\[ V_{MCL} \text{ (Air (Landing) [Min control speed])} \]
- 92 KCAS (92 KIAS)

\[ V_{MCG} \text{ (Minimum control speed) Ground} \]
- 98 KCAS (98 KIAS)

\[ V_{LO} \text{ (Landing gear operating extend)} \]
- 251 KCAS (250 KIAS)

11. Maximum Operating Altitude
- 45,000 ft. (13,716 m)

12. Control Surface Movements

\text{Elevator (with stabilizer at +1°)}
- Up 19° ± 1°, -0° Down 15° ± 1°

\text{Elevator trim tab (with stabilizer at +1°)}
- Up 5° ± 1° Down 15° ± 1°

\text{Rudder (perpendicular to hinge)}
- Right 22° ± 1° Left 22° ± 1°, -0°

For Aircraft with rudder bias system installed

\text{Rudder (perpendicular to hinge)}
- Right 28 ± 0.5°, -0° Left 28 ± 0.5°, -0°

\text{Rudder trim tab (perpendicular to hinge with Rudder centered)}
- Right 11.5° ± 0.5° Left 11.5° ± 0.5°

\text{Aileron}
- Up 19° ± 1° Down 15° ± 1°

\text{Aileron trim tab}
- Up 20° ± 2° Down 20° ± 2°

\text{Wing flap}
- 0°, and extend 7°, 15°, 35° ± 1°

\text{Speed brake - Upper}
- Up 60° ± 2° Lower Up 65° ± 2°

\text{2-position Horizontal stabilizer}
- \text{T/O & Landing} -2° ± 0°, -0.1°
- \text{Cruise} +1° ± 0.1°, -0°

See Airplane Maintenance Manual for rigging instructions.

13. Maximum Certified Weights in lbs (kg)

<table>
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<th>Maximum Weight</th>
<th>Takeoff</th>
<th>20,200 lb. (9,163 kg)</th>
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<tr>
<td></td>
<td>Landing</td>
<td>18,700 lb. (8,482 kg)</td>
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<tr>
<td></td>
<td>Zero fuel</td>
<td>15,100 lb. (6,849 kg)</td>
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<tr>
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<td>Ramp</td>
<td>20,400 lb. (9,253 kg)</td>
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| Minimum Weight | Inflight | 12,400 lb. (5,625 kg) |
14. Centre of Gravity Range
(Landing Gear Extended)

Forward Limits: Linear variation from 324.29 in. aft of datum (21.52% MAC) at 20,400 lb. to 318.92 in. aft of datum (15.00 % MAC) at 11,500 lb.

Aft Limits: 331.26 in. aft of datum (30.00% MAC) from 15,000 lb. Through 11,500 lb. Linear variation from 331.26 in. aft of datum (30.00% MAC) at 15,000 lb. to 330.74 in. aft of datum (29.37% MAC) at 17,800 lb. 330.74 in. aft of datum (29.37% MAC) from 17,800 lb. through 20,400 lb.

Empty Wt. C.G. Range None

15. Datum
Zero reference datum is 221.0 inches forward of the levelling screw just aft of the cabin door on W.L. 127.25.

16. MAC
82.231 in. (Leading edge of MAC 306,593 in. aft of datum)
NOTE: This is reference MAC for basic wing without tip.

17. Levelling means
Outboard floor panel inside of door parallel to B.L. 13.00.

18. Minimum Flight Crew
For all flights: 2 persons (pilot and co-pilot)

19. Maximum Passenger Seating Capacity:
2 to 14 (2 crew, 0 to 12 passengers) (See Note 2)

20. Baggage/Cargo Compartment Tailcone
700 lb. (318 kg) at 431.0 in. aft of datum

21. Wheels and Tyres
Maximum ground speed 165 knots

IV Operation and Service Instructions

Airplane Flight Manual (AFM)
Airplanes must be operated according to the FAA Approved Airplane Flight Manual (AFM), part number 56XFMB-00 (or later approved revision for Serials -6001 and On)

Airplane Maintenance Manual
Model 560XL Maintenance Manual, 56XMM-22 or later approved revision. See Chapter 4, “Airworthiness Limitations” for inspections, mandatory retirement life information and other requirements for continued airworthiness.

Airplane Flight Manual Supplement
Airplane Flight Manual Supplement – Ukraine Certified Airplanes, Document number 56XFMB-S18-00
NOTE 1 Certain models have been approved for high altitude operations (altitudes above 41,000 feet), either by Special Conditions or compliance with certain Part 25 sections. Any modifications to the pressure vessel must be approved in accordance with the requirements as shown in the appropriate certification basis. This includes modifications which could result in a pressure vessel opening, either through crack-growth or antenna loss, greater than the specified areas as follows:

Model 560XL 3.98 sq. in.

NOTE 2 Model 560XL width of aisle equivalent level of safety applies to passenger seating arrangements from 7 to 12 passengers, and allows a minimum aisle width of 13 inches when measured from 25 to 27.5 inches from the dropped aisle floor. Any further reduction in aisle width requires further FAA evaluation and is not included in this grant of equivalent level of safety.

NOTE 3 Cessna 560 XL (XLS+) airplanes serial numbers: 560-6001 and On

NOTE 4 For operation in Ukraine airplane should be equipped with:
- FDR;
- Emergency portable VHF radio station;
- Emergency portable ELT (for flights over difficult of access and rarely populated regions and large water surfaces);
- HF radio station (in cases when communication by VHF radio stations cannot be carried out);
- Emergency oxygen equipment (Cessna Ukraine Certification Kit – 4519619-1).

Head of Aeronautical Product
Type Certification Department

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