SAAU

TYPE CERTIFICATE DATA SHEET № TL 0061

Embraer EMB-505

Manufacturer: Embraer
Empresa Brasileira de Aeronáutica SA
Av. Brig. Faria Lima. 2170
12227-901 São Jose dos Campos SP
Brasil

Model: EMB-505

Issue 1, 18 July 2013

This Data Sheet which is integral part of Type Certificate № TL 0061 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 Chapter II of the Section 2.

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<th>6</th>
<th>7</th>
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<tr>
<td>Issue</td>
<td>1</td>
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SECTION 1: GENERAL EMB-505

1. Data Sheet No: TL 0051
2. Type Certificate Holder: Embraer S.A.
   Av. Brig. Faria Lima. 2170
   12227-901 São Jose dos Campos SP
   Brasil

3. Certifying Authority: ANAC Agência Nacional de Aviação Civil
   Gerência General de Certificação de Produtos Aeronáuticos
   P.O. Box 6001
   12228-901 - São Jose dos Campos SP,
   Brasil

4. Airworthiness Category: Commuter Category
SECTION 2:

I. General
   Model: EMB-505 (see Note 6)

II. Certification Basis:

1. Application Date for SAAU Certification: 24 December 2012

2. SAAU Certification Date: 18 July 2013

3. SAAU Certification Basis:
   AR-23 “Airworthiness Standards for civil light airplanes”

   Equivalent Level of Safety:
   CRI F-1: Landing distance – 23.75 (B);
   CRI ST-1: Ground gust conditions - 23.415(A);
   CRI SM-3: Hydraulic system - 23.1435(a)(4);
   CRI E-4: Powerplant parameters Indication and Warning Means - Д23F.8.8.3.1.7;
   CRI E-5: Digital only Display of Turbine Engine High/Intermediate Pressure Rotor Speed (N2) - 23.1305, 23.1309, 23.1321, 23.1549;
   CRI E-6: Digital Fuel Quantity Indication - 23.1553;
   CRI E-7: Control Markings – Usable Fuel Capacity - 23.1555(d)(1)
   CRI E-8: ATR-Automatic Thrust Reserve Function Deactivation - Appendix H 23.5(b)(4);
   CRI SL-3: Emergency exits – 23.807(e);
   CRI SL-4: Width of aisle – 23.815(b);
   CRI SL-5: Cargo and baggage compartment fire protection – 23.855;
   CRI SL-6: Passenger and crew compartment interiors – 23.853(d)(2);
   CRI SL-7: Pressurized cabins – 23.841(b)(6);
   CRI A-2: Flight and Navigation Instruments – Д23F.8.2.2.5, Д23F.8.2.2.6;
   CRI A-4: The equipment of radio communication – Д23F.8.4.2.3.

Environmental Standards:
   ICAO Annex 16:
   Volume I : Noise (fourth edition, July 2005),
III. Technical Characteristics and Operational Limitations

Low wing jet with a T-tail configuration, powered by two high bypass turbofan engines mounted on aft fuselage pylons.

The structure is conventional, with a predominant aluminum-allow fuselage, wing, tail-plane and fin. The landing gear is retractable tricycle type, and both main and nose landing gear are single wheeled.

1. **Type Design Definition:** Type Design Standard Document: 505TDSD002.

2. **Dimensions (m):**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>EMB-505</th>
</tr>
</thead>
<tbody>
<tr>
<td>Length</td>
<td>15.64</td>
</tr>
<tr>
<td>Span</td>
<td>15.91</td>
</tr>
<tr>
<td>Height</td>
<td>5.10</td>
</tr>
<tr>
<td>Wing Area</td>
<td>28.5 (m²)</td>
</tr>
</tbody>
</table>

3. **Maximum Certified Weights (kg):**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>EMB-505</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ramp and Taxi</td>
<td>8200</td>
</tr>
<tr>
<td>Take-Off</td>
<td>8150</td>
</tr>
<tr>
<td>Landing</td>
<td>7650</td>
</tr>
<tr>
<td>Zero Fuel</td>
<td>6350</td>
</tr>
</tbody>
</table>

4. **Centre of Gravity Range:** See Airplane Flight Manual

5. **Minimum Flight Crew:** One Pilot (in the left seat) plus additional equipment as specified in the Limitations Section of the Airplane Flight Manual or One Pilot and One Co-pilot (see Note 5)

6. **Maximum Passenger Capacity:** Seven

7. **Airspeeds:** $V_{MO} = 320$ KIAS, $M_{MO} = 0.78$ (see Airplane Flight Manual)

8. **Maximum Operating Altitude:** 13716 m (45000 ft)

9. **Engines:** Two Pratt & Whitney Canada PW535E turbofans (TCDS No. TD 0058)

10. **Fuels:** Refer to applicable approved Manuals
11. **Oils:** Refer to applicable approved Manuals

12. **Baggage/Cargo Compartment:**

<table>
<thead>
<tr>
<th>Compartment</th>
<th>Weight (kg)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forward Baggage Compartment</td>
<td>50</td>
</tr>
<tr>
<td>Aft Baggage Compartment</td>
<td>210</td>
</tr>
<tr>
<td>Wardrobe</td>
<td>40</td>
</tr>
<tr>
<td>Lavatory Cabinet</td>
<td>15</td>
</tr>
</tbody>
</table>

13. **Operational Capabilities:**
- One Pilot / Two Pilots
- VRF Day and Night
- IFR Day and Night
- RVSM
- Flight into known Icing

### IV. Operating and Maintenance Instructions

1. **Airplane Flight Manual:**

2. **Mandatory Maintenance Instruction:**
   Airplane Maintenance Manual, part number AMM-2757.

### V. Notes

**Note 1 – Weight and balance.**
Current weight and balance report, including the list of equipment that are part of the certificated basic empty weight and loading instructions, must be provided for each aircraft at the time of original certification. The certificated empty weight and corresponding center of gravity location must include:
- Unusable fuel: 22.8 kg (50.26 lb) at +6.508 m (256.22 in.) aft of datum
- Full oil: 16 kg (35.27 lb) at +9.826 m (386.85 in.) aft of datum
- Hydraulic Fluid: 8.8 kg (19.40 lb) at +7.954 m (313.15 in.) aft of datum

**Note 2 – Markings and placards.**
All markings and placard required by the applicable certification requirements (see certification basics) and by the operational requirements must be installed in the appropriated locations.

**Note 3 – Continuing Airworthiness.**

**Note 4 – All replacement seats (crew and passenger) must be approved SAAU.**

**Note 5 – Approval for operation with a minimum crew of one pilot (in the left seat) is based**
upon the cockpit equipment installation and arrangement evaluated during ANAC certification testing. No significant changes may be made to the installed cockpit equipment or arrangement (EFIC, autopilot, avionics, etc.), except as permitted by the approved MMEL, without prior approval SAAU.

Note 6 – The EMB-505 is often referred to in marketing literature as the “PHENOM 300”. This name is strictly marketing designation and is not part of the official model designation. Note 7 – Extended overwater operation without installed ditching equipment is prohibited.

Note 8 – On airplanes that operate in Ukraine Protective Breathing Equipment MR- PN 10022NEMB must be installed.

Note 9 – HF radio station must be installed when operating in cases or areas where the communication by VHF radio stations cannot be carried out.

The End

Head of Aeronautical Products Type Certification Department

Sergii Gaidenko