

THE VALIDATION DATA SHEET

日期/Date:

Av. Brigadeiro Faria Lima, 2.170
12227-901 – S.J dos Campos –SP
Brazil

[illegible]

第 1 部分 概述（所有机型）

SECTION 1 GENERAL (ALL MODELS)

1、 CAAC 认可数据单和型号合格证数据单

CAAC Validation Data Sheet and Type Certificate Data Sheet

	中国民用航空局认可数据单号、版次和颁发日期 CAAC Validation Data Sheet Number, Revision and issuance Date	型号合格证数据单号、版次和颁发日期 Type Certificate Data Sheet Number, Revision and issuance Date
当前 Current		ANAC Data Sheet: No. EA-2014T04 Revision 02, Date of Issue: April 16, 2015
历史 History		

2、 类别/Airworthiness Category: 运输类/ Transport Category

3、 认可当局/Validation Authority: CAAC
审定当局/Certifying Authority: ANAC

4、 型号合格证持有人/Type Certificate Holder: EMBRAER S.A.
Av. Brigadeiro Faria Lima, 2.170
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5、 双发延长：不适用/ETOPS: Not applicable

6、 CAAC Special Requirements:

交付到中国的每一架 EMB-550 飞机须满足下述特殊要求：

Each of AAA aircraft delivered to China shall meet the following special requirements:

（1）必须满足中国民用航空局的运行要求（例如标记标牌的中文要求）。

The operational requirements of CAAC must be met (e.g. Chinese language requirements for markings and placards).

（2）燃油符合“中国国标 3 号燃油-GB6537-2006”的规范。

Fuel conforming to Specification “PRC National Standard No.3 Jet Fuel -- GB6537-2006”.

（3）在每一航空器上必须安装快速存储器（QAR）或具有快速存取记录器（QAR）功能的其它设备（参照中国适航指令 CAD-97-MULT-38）。

Quick Access Recorder (QAR) or other equivalent equipment must be installed on each aircraft (reference to CAD97-MUST-38).

7、 中文标记标牌/Chinese marking and placards

下述文件（含后续批准版次）中包含的经 ANAC 批准的中文标记标牌已被中国民用航空局接受。

ANAC approved Chinese marking and placards included in the following document (including later approved versions) has been accepted by CAAC: CHINESE PLACARD TRANSLATION-CAAC VALIDATION For EMB-550(Document number:550IRD013)

第 2 部分

SECTION 2

1. 合格审定基础/CERTIFICATION BASIS

1. 巴西民用航空局型号合格审定基础：见巴西民用航空局型号合格证数据单 EA-2014T04, 第 02 版次。

ANAC Certification Basis: As defined in ANAC Type Certificate Data Sheet No. EA-2014T04, , Revision 02.

2. 中国民用航空总局认可美国联邦航空局确定的型号合格审定基础。

CAAC accepts the Certification Basis of Transport Canada as the Validation Basis.

3. CAAC 的附加技术条件 (ATC) / CAAC identifies the following Additional Technical Conditions

- a 必须符合 CAAC 的运行要求 / The operational requirements of CAAC must be met.
- b 应该符合所有适用的由 ANAC 颁发的适航指令 (ADs) / All applicable Airworthiness Directives (ADs) issued by ANAC shall be complied with.
- c 根据 CAAC 适航指令 CAD97-MULT-38, 应该安装快速存取记录器 (QAR) / Per CAAC Airworthiness Directives CAD1997-MULT-38(39-1983), the Quick Access Recorder(QAR)shall be installed.
- d 燃油符合规范 “PRC National Standard No.3 Jet Fuel -- GB6537-2006” / Fuel conforming to Specification “PRC National Standard No.3 Jet Fuel -- GB6537-2006”.
- e 环境标准 / Environmental Standards
 - i 排放: CCAR-34 涡轮发动机飞机燃油排泄和排气排出物规定 / Emissions:CCAR-34 Fuel Venting and Exhaust Emission Requirement Turbine Powered Airplanes (corresponding to 14 CFR Part 34 Amdt. 3).
 - ii 噪声: CCAR-36-R1 航空器型号和适航合格审定噪声标准 / Noise:CCAR-36-R1 Noise Standard: Aircraft Type and Airworthiness Certification (corresponding to 14 CFR Part 36 Amdt. 28).
- f 标牌要求 / Placard Requirement:
 - i 依据中国民用航空规章 CCAR 21.29(5)的要求, 机上所有对旅客进行的提示、警告和通知的文字标记和标牌; 机上所有向旅客或者机外营救人员指示应急出口和门的位置以及开启方法的文字标记和标牌; 旅客可能使用的机上所有应急设备的操作、使用说明 / Per CCAR 21.341, all on-board placard and marking for awareness, warning, and note to the passenger, all on-board placard and marking for opening method and location indication of the emergency exit and door to passenger and door to passenger and outside rescuer, and all operational instructions for on board emergency equipments possible operated by passengers shall be presented in Chinese at least.
 - ii 中文文字的 尺寸应该符合 CCAR 25.811 和 25.812 中的适用要求 / The Dimension of the Chinese characters shall comply with the provision of CCAR 25.811, 25.812 as applicable.
 - iii 在颁发 VTC 之前, 中文标记标牌应得到 CAAC 的接受和 ANAC 的批准 / The Chinese

markings and placards shall be accepted by CAAC and approved by ANAC before VTC

二. 技术特性和使用限制 / TECHNICAL CHARACTERISTICS AND OPERATIONAL LIMITATIONS

发动机/ENGINE

Two turbofans Honeywell AS907-3-1E

燃油/FUEL

ASTM D1655, JET A and A1

Brazilian standard CNP08 or later, QAV – 1

Chinese standard GB6537-2006, Jet fuel N°3

Standard MIL-DTL-83133, JP-8

Standard DEF STAN 91-91 AVTUR

发动机限制/ENGINE LIMITS

ITT 限制/ITT limits				
运行条件/Operation Conditions				运行限制 Operating Limits
推力设定/Thrust Setting	状态/State	时间限制 /Time limit	最大 ITT/Max. ITT (°C)	
地面启动/Ground Start	-	5 s	650	
空中启动/Inflight start	ITT < 250°C and N ₂ < 18% [1]	-	400	
	其它启动情况/All other start conditions	-	800	
起飞功率/Takeoff power	单发/OEI	稳态/Steady	10 min	955
		瞬态/Transient	2 min	970
	双发&WAI 关闭 /AEO & WAI OFF	稳态/Steady	5 min	955
		瞬态/Transient	2 min	970
	双发&WAI 开启 /AEO & WAI ON [2]	稳态/Steady	5 min	955
		瞬态/Transient	2 min	970
最大连续/Maximum Continuous	稳态/Steady	-	950	

1-在启动中, ITT 限制为 400°C 直到 N₂ 超过 18%/ITT limit remains 400°C until N₂ goes above 18% during the start.

2-低于 80 KIAS, 在稳定状态, 最大 ITT 是 923°C。对于转换状态, 最大 ITT 为 938°C/

Below 80 KIAS, the maximum ITT is 923°C for steady state. For transient state, the maximum ITT is 938°C.

N1 和 N2 限制/N1 AND N2 LIMITS				
运行条件/OPERATING CONDITIONS				运行限制 /OPERATING LIMITS
推力设定/Thrust Setting	状态/State	时间限制 /Time Limit	N ₁ (%)	N ₂ (%)

型号认证数据单/The Validation Data Sheet

起飞功率/Takeoff power	单发/OEI	稳态/Steady	-	96.8	98.5
		瞬态/Transient	7 s	98.0	99.9
	双发&WAI 关闭或开启/AEO & WAI OFF or ON	稳态/Steady	-	96.8	98.5
		瞬态/Transient	7 s	98.0	99.9
连续/Continuous		稳态/Steady	-	96.8	98.0
		瞬态/Transient	7 s	98.0	99.9

空速限制/AIRSPED LIMITS

最大运行速度/Maximum operating Speeds (V_{MO}/M_{MO}):	
高度/Altitude	速度/Speed
0 to 10 000 ft (0 a 3 048 m)	300 IAS (154 m/s)
10 000 a 30 000 ft (3 048 a 9 144 m)	320 IAS (165 m/s)
30 000 a 45 000 ft (9 144 a 13 716 m)	0.83 Mach

机动速度/Maneuvering (V_A): 205 IAS (105 m/s)

襟翼展态速度/Flaps extended (V_{FE}):	
襟翼位置/Flap position	速度/Speed
Flap 1	210 IAS (108 m/s)
Flap 2	185 IAS (95 m/s)
Flap 3	185 IAS (95 m/s)
Flap full	170 IAS (88 m/s)

起落架最大收放/伸态速度/Landing gear maximum operation/extended speed ($V_{LO/LE}$):	
V_{LO} —起落架最大收放速度/Landing gear operation	250 IAS (129 m/s)
V_{LE} —起落架最大伸态速度 Landing gear extended	250 IAS (129 m/s)

APU Honeywell 36-150[EMB]

APU 限制/APU LIMITS

参数/Parameter			最小 Minimum	最大 Maximum
启动/Start	高度/Altitude	地面/Ground	[1]	[1]
		飞行/In-flight	-	31 000 ft (9 449 m)
	温度 /Temperature	地面/Ground	[2]	[2]
		飞行/In-flight	- 37°C	[2]

参数/Parameter			最小 Minimum	最大 Maximum
运行/Operation	高度/Altitude	电力限制/Electrical Power Limit	-	31 000 ft (9 449 m)
		空中辅助发动机启动 /In-flight Assisted Engine Start	-	23 000 ft (7 010 m)
		环控系统/ECS	-	20 000 ft (6 096 m)
	温度/Temperature		[2]	[2]
转子转速/Rotor Speed			-	106%
排气温度/EGT		启动/Start	-	985°C
		连续 /Continuous	-	757°C

1- APU 地面启动的海拔高度限制适配于飞机运行包线/APU altitude for ground start matches the Airplane Operational Envelope.

2- APU 使用温度限制适配于飞机运行温度包线/APU temperature matches the Airplane Operational Envelope temperature.

重心范围/CG RANGE 参见经批准飞机飞行手册/See the Approved Airplane Flight Manual - AFM 3621

基线/DATUM 参见经批准飞机飞行手册/See the Approved Airplane Flight Manual - AFM 3621

架水平方法/LEVELING MEANS 参见飞机维修手册/Check aircraft AMM – chapter 8

平均气动弦/MEAN AERODYNAMIC CHORD 参见经批准飞机飞行手册//See the Approved Airplane Flight Manual - AFM 3621

最大重量/MAXIMUM WEIGHT

最大停机坪重量/RAMP (MRW)	最大起飞重量 /TAKEOFF (MTOW)	最大着陆重量 /LANDING (MLW)	最大零燃油重量 /ZERO FUEL (MZFW)
38 096 lb (17 280 kg)	37 920 lb (17 200 kg)	34 128 lb (15 480 kg)	26 500 lb (12 020 kg)

最小飞行机组/MINIMUM CREW 2 飞行员/2 Pilots

最大成员数/MAXIMUM OCCUPANTS 11 名乘客/11 Passengers

最大行李舱重量/MAXIMUM BAGGAGE 衣橱/Wardrobe 88 lb. (153.15 in. aft of datum)

内部储物箱/Internal Stowage Compartment 330 lb. (452.76 in. aft of datum)

外部储物箱/External Cargo Compartment 881 lb. (543.30 in. aft of datum)

燃油容积/FUEL CAPACITY

最大燃油量/Total fuel capacity of 13 146.3 lb (5 963.1 kg), 两侧机翼/two wing tanks 6 573.2 lb (2 981.5 kg) each, @ 367.72 in (9.34 m) aft of datum

最大可用燃油/Total usable fuel of 13 058.0 lb (5 923.0 kg), 两侧机翼/two wing tanks 6 529.0 lb (2 961.5 kg) each.

最大不可用燃油/Total unusable fuel of 88.6 lb (40.2 kg), 两侧机翼/two wing tanks with 44.3 lb (20.1 kg) each.

滑油容积/OIL CAPACITY

Tank mounted on each engine: 7.6 U.S. quarts (7.19 liter) total on each engine

液压油容积/HYDRAULIC FLUID CAPACITY 109.6 lb. at 496.34 in. aft of datum

最大使用高度/MAXIMUM OPERATING ALTITUDE

45 000 ft (13 716 m)

温度运行限制/TEMPERATURE OPERATING LIMITS

AFM 3621 See the Approved Airplane Flight Manual - AFM 3621

操纵面角度/CONTROL SURFACE MOVEMENTS

平尾/Elevator	上/Up	25° ±1°
	下/Down	15° ±1°

方向舵/Rudder	右/Right	30° ±1°
	左/Left	30° ±1°

副翼/Aileron	上/Up	25° ±0.8°
	下/Down	15° ±0.8°

襟翼/Wing Flap	起飞/TO	7° ±1°
	TO/Land	37° ±1.5°

扰流板/Spoiler		内/Inboard	中/Middle	外/Outboard
	飞行/Inflight	30° ±1.3°	30° ±1.4°	30° ±1.9°
	地面/Ground	40.5° ±1.3°	43° ±1.4°	40.5° ±1.9°

水平安定面 /Horiz. Stabilizer	上/Up	12° ±0.5°
	下/Down	3° ±0.5°

系列号/SERIAL NUMBER 55000001 and up

注/ NOTES:

注 NOTE 1

重量和平衡 Weight and balance.

必须在每架飞机获得初始适航证件时提供现行有效的重量平衡报告, 包括按经审定的空重和装载要求的一部分的设备清单/ 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.

经审定的空重和相对应的重量重心位置必须包含/The certificated empty weight and corresponding center of gravity location must include:

不可用燃油/Unusable fuel	88.6 lb (40.2 kg) at 356.50 in. (9.06 m) aft of datum
满发动机滑油量 /Full engine oil	48.5 lb (22 kg) at 559.37 in. (14.21 m) aft of datum
APU滑油量/APU oil	4.4 lb (2 kg) at 673.50 in. (17.11 m) aft of datum
液压油油量 /Hydraulic Fluid	109.6 lb (49.7 kg) at 496.34 in (12.60 m) aft of datum

注 2/NOTE 2

标记标牌/Markings and placards.

所有适用的审定规章（见审定基础）和运行规章要求的标记标牌必须安装在正确的位置。飞机零件图解目录（AIPC）十一（11）章列出了所需的标记标牌。/All marking and placards required by the applicable certification requirements (see certification basics) and by the operational requirements must be installed in the appropriated locations. Required placards and marking are listed in chapter Eleven (11) of the Aircraft Illustrated Parts Catalog (AIPC).

注 3/NOTE 3

持续适航/Continuing Airworthiness.

飞机系统的“适航限制”，飞机结构的适航性限制项目（ALI）以及寿命限制项目（LLI）参见维修手册第四（4）章。/See Maintenance Manual, Chapter Four (4), "Airworthiness Limitations" for Systems Airworthiness

Limitations, Structure Airworthiness Limitations (ALI) and Life-Limited Items (LLI).

对于 AS907-3-1E 型发动机旋转部件的寿命限制参见发动机维护手册的适航限制部分。/The life limit for rotating parts on the AS907-3-1E engine is in engine Light Maintenance Manual, Airworthiness Limitations Section

注 4/NOTE 4

飞机必须按照经 ANAC 批准的现行有效或经 ANAC 批准的后续修订版的飞行手册运行，ANAC 目前批准的现行有效的飞行手册件号为 AFM-3621,批准日期为 2014 年 8 月 21 日。/Airplanes must be operated according to the ANAC Approved Airplane Flight Manual (AFM), part number AFM-3621 dated August 12th of 2014 or later approved revisions.

注 5/NOTE 5

Embraer 公司经常使用“Legacy 500”作为 EMB-550 飞机的商业名。严格的说“Legacy 500”仅仅是市场商业名而不是官方型号名称的一部分。/The EMB-550 is often referred to in Embraer marketing literature as the “Legacy 500”. This is strictly a marketing designation and is not part of the official model designation.

-结束/END-