

型号认可证数据单

TYPE VALIDATION CERTIFICATE DATA SHEET

编号/No: VTC0167A

版次/Revision: 5

型号/Type:

BOEING

737-300 Series

737-400 Series

737-500 Series

737-600 Series

737-700 Series

737-800 Series

737-900 Series

737-900ER Series

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日期/Date: 2015-01-27

本数据单是型号认可证（编号 VTC0167A）的组成部分，它规定了符合中国民用航空总局的适航要求所颁发此型号认可证的产品状态和限制。

This data sheet, which is a part of Validation Type Certificate (No: VTC0167A), prescribes conditions and limitations under which the product for which the Type Certificate was issued meets the airworthiness requirements of the Chinese Civil Aviation Regulation.

型号合格证持有人/Type Certificate Holder:

THE BOEING COMPANY

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Seattle, WA 98124

有效页清单/List of effective pages :

页数/ Pages	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
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I. 适用于所有型别的概述 / General for all models

CAAC 认可数据单和型号合格证数据单

CAAC Validation Data Sheet and Type Certificate Data Sheet

	中国民用航空总局认可数据单号、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	VTC0167A, Rev. 5, 2015-01-27.	FAA TCDS A16WE, Rev 53, June 19, 2014
历史 History	Validation letter for 737-300, Nov. 15, 1985	
	VTC055A for 737-400, Dec. 21, 1995	
	TV91024 for 737-500, Apr. 12, 1991	
	VTC126A for 737-600, Apr. 29, 2002	
	VTC082A for 737-700/-800, Jun. 10, 1998	
	VTC167A for 737-900, Sep. 6, 2005	
	VTC0167A February 6, 2009, Rev. 1	FAA TCDS A16WE, Rev 41, July 31, 2007
	VTC0167A December 23, 2010, Rev. 2	FAA TCDS A16WE, Rev 45, September 1, 2010
	VTC0167A July 7, 2011, Rev.3	FAA TCDS A16WE, Rev 48, June 30, 2011
	VTC0167A August 12, 2011, Rev.4	FAA TCDS A16WE, Rev 48, June 30, 2011

**II. Model 737-300/737-300 (Approved November 14, 1984; CAAC Validated on Nov 15, 1985)
Transport Aircraft**

发动机/Engines: 2台CFM-56-3-B1, CFM-56-3B-2 or CFM-56-3C-1涡轮风扇发动机 / 2 CFM-56-3-B1, CFM-56-3B-2 or CFM-56-3C-1 Turbofan Engines. 参见FAA批准的飞行手册关于发动机的限制。/Refer to the FAA Approved Airplane Flight Manual for engine limitations.

燃油/Fuel: 使用符合商业喷气机燃油规格ASTM-D-1655和G.E. 规格 D50PF2 Jet A, Jet A1, 和Jet B都是被认可的, 使用规格 MIL-T-5624 级别的JP-4, P-5,和 JP-8也是可接受的, 添加剂的使用参见飞行手册。/Fuel conforming to commercial jet fuel Specification ASTM-D-1655 or G.E. Specification D50PF2 Jet A, Jet A1, and Jet B are authorized for unlimited use. Fuels conforming to MIL-T-5624 grades JP-4, P-5, and JP-8 are acceptable alternatives. Consult flight manual for additive use.

Engine Ratings:发动机功率

Takeoff static thrust, standard day, sea level Maximum continuous static conditions (5 min) lb./ 海平面标准天气起飞 thrust, standard day, sea level 静推力, 磅 conditions lb./海平面标准天气

		最大连续静推力, 磅
CFM 56-3C-1	22,100*	20,500*
CFM 56-3-B1	20,100	18,900
CFM 56-3B-2	22,100	20,500

*CFM 56-3C-1 油门限制器限制推力到22,100 / Throttle limiter to limit full throttle thrust equivalent to 22,100

发动机运行限制看E2GL或E21EU发动机的数据单或者FAA批准的飞行手册 / For engine operating limits see engine TC Data Sheet No. E2GL or E21EU or the FAA Approved Airplane Flight Manual.

推力设置/Thrust Settings: 必须使用经过批准的飞机的飞行手册和AFM附录中相应的发动机功率设定曲线来控制发动机推力。/The appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

速度限制/Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)
关于其他的空速限制参见适当的FAA批准的飞行手册列出的注释2/For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

重心范围/C.G. Range: 参见适当的FAA批准的飞行手册列出的注释2/See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

最大重量/Maximum Weights: 参见适当的FAA批准的飞行手册列出的注释2/See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

III. Model 737-400 (Approved September 2, 1988; CAAC Validated on Dec 21, 1995) Transport Category.

发动机/Engines: 2台CFM-56-3C-1 or CFM-56-3B-2涡轮风扇发动机/2 CFM-56-3C-1 or CFM-56-3B-2 Turbofan Engines. 参见FAA批准的飞行手册关于发动机的限制/Refer to the FAA Approved Airplane Flight Manual for engine limitations.

燃油/Fuel: 使用符合商业喷气机燃油规格ASTM-D-1655和G.E. 规格D50PF2 Jet A, Jet A1, 和Jet B都是被认可的, 使用规格MIL-T-5624 级别的JP-4, P-5,和 JP-8也是可接受的, 添加剂的使用参见飞行手册./Fuel conforming to commercial jet fuel Specification ASTM-D-1655 or G.E. Specification D50PF2 Jet

A, Jet A1, and Jet B are authorized for unlimited use. Fuels conforming to MIL-T-5624 grades JP-4, JP-5, and JP-8 are acceptable alternatives. Consult flight manual for additive use.

Engine Ratings: 发动机功率	Takeoff static thrust, standard day, sea level conditions (5 min) lb./ 海平面标准天气起飞静推力, 磅	Maximum continuous static thrust, standard day, sea level conditions lb./海平面标准天气最大连续静推力, 磅
CFM-56-3C-1	23,500	21,860
CFM-56-3B-2	22,100	20,500

发动机运行限制看E2GL或E21EU发动机的数据单或者FAA批准的飞行手册/For engine operating limits see engine TC Data Sheet No. E2GL or E21EU or the FAA Approved Airplane Flight Manual.

推力设置/Thrust Settings: 必须使用经过批准的飞机的飞行手册和AFM附录中相应的发动机功率设定曲线来控制发动机推力。/The appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

速度限制/Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)
关于其他的空速限制参见适当的FAA批准的飞行手册列出的注释2/For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

重心范围/C.G. Range: 参见适当的FAA批准的飞行手册列出的注释2/See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

最大重量/Maximum Weights: 参见适当的FAA批准的飞行手册列出的注释2/See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

IV. Model 737-500 (Approved February 12, 1990; CAAC Validated on April 12, 1991) **Transport Aircraft**

发动机/Engines: 2台CFM-56-3C-1 or CFM-56-3-B1涡轮风扇发动机/2 CFM-56-3C-1 or CFM-56-3-B1 Turbofan Engines. 参见FAA批准的飞行手册关于发动机的限制/Refer to the FAA Approved Airplane Flight Manual for engine limitations.

燃油/Fuel: 使用符合商业喷气机燃油规格ASTM-D-1655和G.E. 规格 D50PF2 Jet A, Jet A1, 和Jet B都是被认可的, 使用规格 MIL-T-5624 级别的JP-4, P-5,和 JP-8也是可接受的, 添加剂的使用参见飞行手册./Fuel conforming to commercial jet fuel Specification ASTM-D-1655 or G.E. Specification D50PF2 Jet A, Jet A1, and Jet B are authorized for unlimited use. Fuels conforming to MIL-T-5624 grades JP-4, JP-5,and JP-8 are acceptable alternatives. Consult flight manual for additive use.

Engine Ratings:发动机功率	Takeoff static thrust, standard day, sea level conditions (5 min) lb./ 海平面标准天气起飞 静推力, 磅	Maximum continuous static thrust, standard day, sea level conditions lb./海平面标准天气最大连续静推 力, 磅
CFM-56-3C-1	20,100*	18,900*
CFM-56-3B1	20,100	18,900

*CFM 56-3C-1 throttle limiter to limit full throttle thrust equivalent to 20,100.

发动机运行限制看E2GL或E21EU发动机的数据单或者FAA批准的飞行手册/For engine operating limits see engine TC Data Sheet No. E2GL or E21EU or the FAA Approved Airplane Flight Manual.

推力设置/Thrust Settings: 必须使用经过批准的飞机的飞行手册和AFM附录中相应的发动机功率设定曲线来控制发动机推力。/The appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

速度限制/Airspeed Limits: $V_{MO}/M_{MO} - 340/0.82$ (KCAS)
关于其他的空速限制参见适当的FAA批准的飞行手册列出的注释2/For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

重心范围/C.G. Range: 参见适当的FAA批准的飞行手册列出的注释2/See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

最大重量/Maximum Weights: 参见适当的FAA批准的飞行手册列出的注释2/See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

除了 (737-700, -800, -600, -700C, -900 & -900ER) 的所有机型的相关数据 / **DATA PERTINENT TO ALL MODELS EXCEPT 737-700, -800, -600, -700C, -900 & -900ER:**

最小飞行机组/ 2 (飞行员和副驾驶/Pilot and Copilot)

Minimum Crew for All Flights:

最大载客数/

Maximum Passengers: 149 (737-300 系列飞机/Series Airplanes).
 188 (737-400系列飞机/Series Airplanes), limited by FAR
 25.803(c)
 140 (737-500系列飞机/Series Airplanes), limited by FAR
 25.807(d).

最大货舱载荷/

Maximum Baggage Cargo: 看适当的重量平衡手册， Boeing文件D6-15066号/See
 appropriate Weight & Balance Manual, Boeing Document No.
 D6-15066

燃油和滑油容量/

Fuel & Oil Capacities: 看适当的重量平衡手册， Boeing文件D6-15066号/See
 appropriate Weight & Balance Manual, Boeing Document No.
 D6-15066

最小燃油需求量/

Minimum Required Fuel: 参见适当的FAA批准的飞行手册列出的注释2/See
 appropriate FAA Approved Airplane Flight Manual listed in
 NOTE 2.

最大运行高度/

Maximum Operating Altitude: 37,000英尺/ ft. (737-300, 737-400, and 737-500系列飞机/
 Series Airplanes)

基准/Datum:

The airplane reference origin of coordinates is a point located
 540 inches forward of the center section wing front spar
 centerline, at buttock line zero, (i.e., aircraft fore/aft centerline
 as viewed in plane view) and at water line zero. (737-100 Series)
 All production body stations coincide numerically with moment
 arms. Horizontal distance of datum to nose gear jack point is
 286 inches for the 737-100 Series, 250 inches for the 737-200
 Series, and 207.7 inches for the 737-300 Series, 135.7 inches for
 the 737-400 Series, 261.7 inches for the 737-500 Series.

平均气动弦长/MAC:

134.5 /英寸inches (L.E. of MAC is 625.59 inches aft of the
 aircraft datum).

其他运行限制/

Other Operating Limitations: 参见FAA批准的飞行手册列出的注释2/See FAA Approved
 Airplane Flight Manual Appendices listed In NOTE 2 See

NOTE 12.

操纵面运动量/

Control Surface Movements:

为确保使用，不同操纵面运动量应通过相应的飞行控制系统的装配严格控制，飞机必须按照下述批准的图纸装配。/To insure proper operation of the airplane, the movements of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplanes must, therefore, be rigged according to the following FAA Approved data: Boeing Drawings No.

65-45101 控制设备，副翼扰流板/Control Installation, Aileron Spoiler

65-45102 升降舵控制设备装配说明/Control Installation, Elevator

65-45103 方向舵控制设备装配说明/Control Installation, Rudder

65-45104 控制设备，水平安定面配平/Control Installation, Stabilizer Trim

65-45105 控制设备，副翼配平/Control Installation, Aileron Trim

65-45106 控制设备，方向舵配平/Control Installation, Rudder Trim

65-45116 减速板控制设备装配说明/Control Installation, Speed Brake

审定基础 / Certification Basis:

型号合格审定基础/Type Certification Basis, (737-300 系列飞机/Series Airplanes)

联邦航空规章25部1至3号修正案，7号修正案、8号修正案和15号修正案，下述条款除外（为25部1号修正案水平）/Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-3, 25-7, 25-8, and 25-15, except where superseded by the following sections of Part 25 as amended by Amendments 25-1 through:

25-11 (Section 25.939, 25.977, 25.1141);

25-16 (Section 25.1457);

25-17 (Section 25.813);

25-20 (Section 25.785);

25-23 (Section 25.701, 25.723, 25.729, 25.863, 25.1103, 25.1143, 25.1331, 25.1333, 25.1435);

25-31 (Section 25.1459);

25-32 (Section 25.787, 25.809, 25.811, 25.853, 25.1557);

25-36 (Section 25.1305(a), (c), (d)(1), and (d)(2));

25-40 (Section 25.1585);

25-51 (Section 25.2, 25.101, 25.107, 25.111, 25.113, 25.143, 25.343, *25.571(a) and (b), 25.571(d), 25.581, 25.629, *25.671, *25.672, 25.677, 25.683, *25.699, 25.703, 25.735, 25.771, 25.772, 25.773, 25.789, 25.791, 25.803, 25.812, 25.855, 25.865, 25.903, 25.933, 25.934, 25.979, 25.993, 25.994, 25.1001, 25.1019, 25.1041, 25.1043, 25.1093, 25.1183, 25.1203, 25.1303, **25.1305(d)(3), 25.1307, *25.1309, 25.1325(a) through (f), 25.1326, 25.1351(d), 25.1359, 25.1387, 25.1413, 25.1415, 25.1419, 25.1447, 25.1450, 25.1561, 25.1581, 25.1583, 25.1587; 25-53 (Section 25.1411).

联邦航空规章36部1981年8月1日生效的1至12号修正案
/Federal Aviation Regulations (FAR) Part 36 with Amendments 36-1 through 36-12, effective August 1, 1981.

特殊联邦航空规章27/Special Federal Aviation Regulation 27.

对联邦航空规章25部的豁免/Exemption from FAR 25:

25.901(c) Partial Exemption – No single powerplant or auxiliary power unit failure will jeopardize the safe operation of the airplane. (Exemption No. 7968, February 4, 2003) See NOTE 16.

*Applicable only to new or major modified structure or to new systems and components unique to the 737-300 series airplane with respect to the existing Model 737-200 Series airplane. For unmodified areas of Power Operated Control Systems, the original amendment level of FAR 25.695 remains in effect.

**Compliance with 25.1305(d)(3) has been mandated by the FAA in accordance with the provisions of FAR 21.101(b). Equivalency safety findings exist with respect to the following regulations: For 737-300 only:

FAR 25.723(a) Shock Absorption Tests

FAR 25.791 Passenger Information Signs and Placards

FAR 25.803(c)(8) Emergency Evacuation

FAR 25.809(f)(1)(ii) Escape Slides

FAR 25.853(c) Compartment Interiors

FAR 25.811(e)(3) Emergency Handle Illumination

FAR 25.812(b)(1)(i) Emergency Exit Signs

FAR 25.1093(b)(1) Induction System Deicing and Anti-Icing provisions.

FAR 25.811(f) Exterior Exit Markings

FAR 25.1415(d) Emergency Locator Transmitter (ELT)

型号合格审定基础/Type Certification Basis, (737-400 and 737-500 系列飞机/Series Airplanes)

联邦航空规章25部1至3号修正案, 7号修正案、8号修正案和15号修正案, 下述条款除外 (为25部1号修正案水平) /Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-3, 25-7, 25-8, and 25-15, except where superseded by the following sections of Part 25 as amended by Amendments 25-1 through:

25-11 (Section 25.939, 25.977, 25.1141);
 25-16 (Section 25.1457);
 25-17 (Section 25.813);
 25-20 (Section 25.785);
 25-23 (Section 25.701, 25.723, 25.729, 25.863, 25.1103, 25.1143, 25.1331, 25.1333, 25.1435);
 25-31 (Section 25.1459);
 25-32 (Section 25.787, 25.809, 25.811, 25.853, 25.1557);
 25-33 (Section 25.772);
 25-36 (Section 25.1305(a), (c), (d)(1), and (d)(2));
 25-40 (Section 25.1585);
 25-51 (Section 25.2, 25.101, 25.107, 25.111, 25.113, 25.143, 25.145, 25.147, 25.149, 25.177, 25.181, 25.201, 25.207, 25.233, 25.237, 25.253, 25.255, *25.305, 25.343, *25.571(a) and (b), 25.571(d), 25.581, 25.629, *25.671, *25.672, 25.677, 25.683, *25.699, 25.703, 25.735, 25.771, 25.773, 25.789, 25.791, 25.803, 25.812, 25.855, 25.865, 25.903, 25.933, 25.934, 25.979, 25.993, 25.994, 25.1001, 25.1019, 25.1041, 25.1093, 25.1183, 25.1203, 25.1303, *25.1305(d)(3), 25.1307, *25.1309, 25.1325(a) through (f), 25.1326, 25.1351(d), 25.1359, 25.1387, 25.1413, 25.1415, 25.1419, 25.1447, 25.1450, 25.1561, 25.1581, 25.1583, 25.1587);
 25.53 (Section 25.1411).

联邦航空规章36部修正案/Federal Aviation Regulations (FAR) Part 36 with Amendments 36-1 through 36-15, effective May 6, 1988.

特殊联邦航空规章27部/Special Federal Aviation Regulation 27.

*Applicable only to new or major modified structure or to new systems and components unique to the 737-400, and 737-500 series airplane with respect to the existing Model 737-200

Series airplane. For unmodified areas of Power Operated Control Systems, the original amendment level of FAR 25.695 remains in effect.

**Compliance with 25.1305(d)(3) has been mandated by the FAA in accordance with the provisions of FAR 21.101(b).

等效安全/Equivalent safety findings exist with respect to the following regulations: For 737-100/-200/-200C/-300/-400/-500:

FAR 25.1415(d) Emergency Locator Transmitter
An equivalent safety finding exists, with respect to incorporation of Boeing Service Bulletin 737-28A1141, for the following regulation: For 737-200/-200C/-300/-400/-500;
FAR 25.901(c) Single Failures

Equivalency safety findings exist with respect to the following regulations: For 737-400 and 737-500 only:

FAR 1.2 Abbreviations and symbols
FAR 25.21 Proof of compliance
FAR 25.103 Stalling Speed
FAR 25.107 Takeoff Speeds
FAR 25.119 Landing Climb: All-engine- operating
FAR 25.121 Climb - One engine-operative
FAR 25.125 Landing
FAR 25.145 Longitudinal Control
FAR 25.147 Directional and lateral control
FAR 25.149 Minimum Control Speed
FAR 25.161 Trim
FAR 25.175 Demonstration of static longitudinal stability
FAR 25.177 Static directional and lateral stability
FAR 25.201 Stall demonstration
FAR 25.207 Stall Warning
FAR 25.723(a) Shock Absorption Tests
FAR 25.735 Brakes
FAR 25.773 Pilot compartment view
FAR 25.803(c)(8) Emergency evacuation
FAR 25.809(f)(1)(ii) Escape slides
FAR 25.811(e)(3) Emergency handle illumination
FAR 25.811(f) Exterior Exit Markings
FAR 25.812(b)(1)(i) Emergency exit signs
FAR 25.1323 Airspeed indicating system
FAR 25.1325 Static pressure systems

FAR 25.1415(d) Emergency Locator Transmitter (ELT)
 FAR 36 Appendix C Use of the 1g Stall Speed instead of minimum speed in the stall as a basis for determining compliance.

Compliance with the following optional requirements has been established for all Models:

Ditching Provisions 25.801 (Overwater operation can be approved when the aircraft has been equipped and has been approved according to FAR 25.801. The 56-person life raft is not approved for use on 737-100/200/300/400 airplanes due to ditching evacuation capability).

Ice Protection Provisions 25.1419

生产基础/Production Basis:	生产许可证700号/Production Certificate No. 700
必要设备/Required Equipment:	适用的适航要求（见审定基础）所规定的基础设备必须安装到合格审定的飞机上。所要求的设备在型号设计资料中。/The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. The required equipment is noted in the Type Design Data.
服务信息/Service Information:	Boeing Document D6-15565 (For 737-100/200), D6-37635 (For 737-300), D6-38246 (For 737-400), D6-38441 (For 737-500), "Structural Repair Manual" is FAA-approved. Service Bulletins and other service information, when FAA-approved, will carry a statement to that effect.
重心范围/C.G. Range:	参见适当的FAA批准的飞行手册列出的注释2/See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.
注释/NOTE 1.	在初始审定时必须随每架飞机提供包含在经审定的空重和装载指令中的当前的重量和平衡控制和装载手册，包括设备目录(D6-15066飞机报告)，并且除运营人拥有经批准的重量控制系统之外必须遵守该手册。/Current Weight and Balance Control and Loading Manual, including list of equipment, (D6-15066 Airplane Report), included in certificated weight empty and loading instructions must be in each aircraft at the time of original certification and at all times thereafter except in the case of operators having an approved weight control system.

注释/NOTE 2.

飞机按照批准的飞行手册运行，由FAA批准的飞机飞行手册、使用运行规章或合格审定基础三者要求的所有标牌必须安装在飞机上。/Airplane operation must be in accordance with the FAA Approved AFM. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane.

FAA批准的关于737-300的飞行手册的文档号是
D6-8730/Boeing Document No. D6-8730 is the basic FAA Approved Airplane Flight Manual for Model 737-300 airplanes.

FAA批准的关于737-400的飞行手册的文档号是
D6-8734/Boeing Document No. D6-8734 is the basic FAA Approved Airplane Flight Manual for Model 737-400 airplanes.

FAA批准的关于737-500的飞行手册的文档号是
D6-8735/Boeing Document No. D6-8735 is the basic FAA approved Airplane Flight Manual for Model 737-500 airplanes.

注释/NOTE 3.

The retirement times of fatigue critical parts are listed in the following table. FAA engineering approval is required to increase these values of retirement time. These service lives may be converted to flight hours based on service route segments average time and must be approved by the FAA.

737主/前起落架使用寿命/LIFE LIMITS FOR MODEL 737 MAIN/NOSE LANDING GEARS

(3)

系列/SERIES	重量范围/WEIGHT RANGE (KIPS)		使用寿命/LIFE LIMIT (FLIGHTS)	
-100	TAXI	LANDING	MAIN	NOSE
-200 BGW	95 - 111.2	89.7 - 103	81,000 (1)	81,000
-200 HGWA -200HGWA -200HGWB	114 - 128.6	103-107	100,000 (1) (2)	90,000
-300	136.5 - 139	114	75,000	
-400	143	121	75,000	
-500	134-139	110	75,000	

(1)

Trunnion pins 65-46113-3 and -5 are to be replaced at 76,000

flights.

(2) Forward trunnion fuse bolts 65-42196-4, -5 and 69-58854-2, used on 737-100 and 737-200 series airplanes are to be replaced at 83,000 flights.

(3) For Detail Components Lives see Boeing Service Letter 737-SL-32-21.

注释/NOTE 4. 符合P & WA522规格及其后续版本的JP-1, JP-4和JP-5 号燃油可以被分离的或混合的用于无冲突的发动机运行和功率输出, 当变换可燃物类型时无需燃油控制调节。/ (a) JP-1, JP-4 and JP-5 fuels conforming to P & WA specification No. 522 and later revisions may be used separately or mixed in any proportions without adversely affecting the engine operation or power output. No fuel control adjustment is required when switching fuel types.

Phillips 除冰剂(b) Phillips anti-icing fuel additive PFA-55MB may be used if concentration delivered to airplane does not exceed 0.15% by volume. No fuel system anti-icing credit is allowed.

注释/NOTE 5. 737-100, 737-200, 737-200C, 737-300, 737-400, 和737-500系列飞机命名方法, 737-105, /737是前缀, 1表示是100系列, 05是按照用户需要的配置决定的。/Models designation of the 737-100, 737-200, 737-200C, 737-300, 737-400, and 737-500 Series airplanes are shown by the "Dash No." of the prefix "737," i.e. 737-105; the "1" represents the "-100 Series," and the "05" represents the customer's configuration for which initial approval was obtained.

注释/NOTE 6. 重量和平衡控制和着陆手册, 每个型号的重量和平衡控制和着陆手册(Boeing 文档D6-15066)均由基本手册和补充航空器报告组成。/ Weight and Balance Control and Loading Manual. For each Model the Weight and Balance Control and Loading Manual (Boeing Document D6-15066) consists of the Basic Manual and a Supplement Aircraft Report.

注释/NOTE 7. Boeing 737补充结构检查单D6-37089 (看Ad 84-21-06, 修正39-4933)中的包含737-300, 737-400, 的737-500部分将要被FAA的工程师修订, //The Boeing 737 Supplemental Structural Inspection Document D6-37089 (See Ad 84-21-06, Amendment 39-4933) will be revised to include the 737-300, 737-400, and

737-500 at a time to be determined by FAA engineering.

- 注释/NOTE 8. 不适用 / Not Applicable
- 注释/NOTE 9. 不适用 / Not Applicable
- 注释/NOTE 10. 个别的飞机于指定的飞机在重量限制方面有区别，查阅飞行手册和重量和平衡手册决定最大运行重量和平衡限制。
/Individual airplanes may be limited to weights different than those specified herein. Refer to the FAA Approved Airplane Flight Manual or the FAA Approved Weight and Balance Manual to determine maximum permissible operating weights and balance limitations.
- 注释/NOTE 11. JT8D-15 engines equipped with MOD 10 exhaust mixer (Pratt & Whitney Aircraft Part No. 5004027) have same engine limits as JT8D-15 engines with splitter type exhaust system.
- 注释/NOTE 12. 不适用 / Not Applicable
- 注释/NOTE 13. 对一些不按型号审定基础操作的修改这里会有服务通告来要求它们，这些服务通告在Boeing 文档号D6-19567中的737服务通告被列出，如果非FAA批准的服务通告被使用，飞机要进口美国要追溯更早的修正和完成确保符合性。/There are service bulletins which call for modifications which do not comply with the Type Certification Basis. These service bulletins are listed in Boeing Document D6-19567 titled "Service Bulletin 737". The records of airplanes imported into the USA should be reviewed to be sure that further modifications are accomplished to insure compliance, if the non FAA-approved service bulletins modifications have been installed.
- 注释/NOTE 14. 不适用 / Not Applicable
- 注释/NOTE 15. 737-200, -300, -400, 和 -500飞机的型号设计可靠性和性能已经按照FAA咨询通告AC 120-42A 进行了评估，在按照波音文件D6-38091《737-200构型，维护和程序》和 D6-38123的《737-300/-400/-500构型，维护和程序》使用和维护时，适合双发延程运行。/The type design reliability and performance of the Model 737-200, -300, -400, and -500 airplanes have been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when

operated and maintained in accordance with Boeing Document D6-38091 "CONFIGURATION, MAINTENANCE, AND PROCEDURES FOR EXTENDED RANGE (ER) OPERATION" for the Model 737-200, and Boeing Document D6-38123 for the Models 737-300, -400, and -500.

注释/NOTE 16. 不适用 / Not Applicable

注释/NOTE 17 不适用 / Not Applicable

V. Model 737-700 (Approved November 7, 1997; CAAC Validated on Oct 6,1998), 737-800 (Approved March 13, 1998; CAAC Validated on Oct 6,1998) , and 737-600 (Approved August 12, 1998; CAAC Validated on April 29,2002) Transport Aircraft.

发动机/Engines: 两台CFM56-7B, -7B/2, -7B/3 或-7BE系列涡轮发动机, 参见飞行手册的发动机限制。/Two CFM56-7B, -7B/2, -7B/3 or -7BE Series Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations.
The CFM56-7B/2 series have double annular combustors and provide the same thrust as the CFM56-7B series engines at the respective engine ratings and are approved for all models except the CFM56-7B-18/2 engine rating. The CFM56-7B/3 series have single annular combustors and provide the same thrust as the CFM56-7B series engines at the respective engine ratings. The CFM56-7BE series have single annular combustors and provide the same thrust as the CFM56-7B series engines at the respective engine ratings.

燃油/Fuel: 燃油满足下述规范及其经批准的混合使用 / Fuels meeting the following specifications and mixtures thereof are approved for use:

*Jet A, Jet A-1 as specified in ASTM-D1655

*JP-5 as specified in MIL-T-5624

*JP-8 as specified in MIL-T-83133

Fuels conforming to G.E. Specification D50TF2 (Class A, C, D and E) or fuels produced or certified to other specifications and having properties meeting the requirements of the above specifications are acceptable for use. Consult Flight Manual for additive use.

Engine Ratings/发 动机功率	Model 737-700	Takeoff static thrust, standard day, sea level conditions (5 min) lb./ 海平面标准天气起飞静推 力, 磅	Maximum continuous static thrust, standard day, sea level conditions lb./海平 面标准天气最大连续静推力, 磅
	CFM56-7B24	24,200	22,800
	CFM56-7B24/2*	24,200	22,800
	CFM56-7B24/3	24,200	22,800
	CFM56-7B24E	24,200	22,800
	CFM56-7B24/B1**	24,200	22,800
	CFM56-7B24/3B1**	24,200	22,800
	CFM56-7B24E/B1**	24,200	22,800
	CFM56-7B22	22,700	22,300
	CFM56-7B22/2*	22,700	22,300
	CFM56-7B22/3	22,700	22,300
	CFM56-7B22E	22,700	22,300
	CFM56-7B20	20,600	19,400
	CFM56-7B20/2*	20,600	19,400
	CFM56-7B20/3	20,600	19,400
	CFM56-7B20E	20,600	19,400
	CFM56-7B26	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/3	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26E	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/3B2	26,300	22,800
	CFM56-7B26E/B2	26,300	22,800
	CFM56-7B26/3B2F	26,300	22,800
	CFM56-7B26E/B2F	26,300	22,800
	CFM56-7B26/3F	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26E/F	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/2*	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/B2	26,300	22,800
Engine Ratings/发 动机功率	737增重型/Model 737-700 Increased Gross Weight (IGW)		
	CFM56-7B24	24,200	22,800
	CFM56-7B24/2*	24,200	22,800
	CFM56-7B24/3	24,200	22,800
	CFM56-7B24E	24,200	22,800
	CFM56-7B24/3B1**	24,200	22,800
	CFM56-7B24E/B1**	24,200	22,800

Engine Ratings/发 动机功率	Model 737-700	Takeoff static thrust, standard day, sea level conditions (5 min) lb./ 海平面标准天气起飞静推 力, 磅	Maximum continuous static thrust, standard day, sea level conditions lb./海平 面标准天气最大连续静推力, 磅
	CFM56-7B22	22,700	22,300
	CFM56-7B22/2*	22,700	22,300
	CFM56-7B22/3	22,700	22,300
	CFM56-7B22E	22,700	22,300
	CFM56-7B20	20,600	19,400
	CFM56-7B20/2*	20,600	19,400
	CFM56-7B20/3	20,600	19,400
	CFM56-7B20E	20,600	19,400
	CFM56-7B26	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/2*	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/3	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26E	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/3F	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26E/F	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/B1#	26,300	25,900
	CFM56-7B26E/B1#	26,300	25,900
	CFM56-7B27A	27,300	25,900
	CFM56-7B27/B3#	27,300	25,900
	CFM56-7B27/3B3#	27,300	25,900
	CFM56-7B27E/B3#	27,300	25,900
	CFM56-7B27E	27,300	25,900
	CFM56-7B27E/F	27,300	25,900

适用于737-700 IGW的限制请参见第5部分后面的注释4 /Please see note 4 at the end of
Section V for limitations which may be applicable to the 737-700 IGW airplanes.

Engine Ratings/发 动机功率	Model 737-800	Takeoff static thrust, standard day, sea level conditions (5 min) lb./ 海平面标准天气起 飞静推力, 磅	Maximum continuous static thrust, standard day, sea level conditions lb./海平面标准天气最大连续静 推力, 磅
	CFM56-7B24	24,200	22,800
	CFM56-7B24/2*	24,200	22,800
	CFM56-7B24/3	24,200	22,800
	CFM56-7B24E	24,200	22,800

CFM56-7B24/B1**	24,200	22,800
CFM56-7B24/3B1**	24,200	22,800
CFM56-7B24E/B1**	24,200	22,800
CFM56-7B26	26,300	25,900
CFM56-7B26/2*	26,300	25,900
CFM56-7B26/3	26,300	25,900
CFM56-7B26E	26,300	25,900
CFM56-7B26/3F*	26,300	25,900
CFM56-7B26E/F*	26,300	25,900
CFM56-7B27	27,300	25,900
CFM56-7B27/2*	27,300	25,900
CFM56-7B27/3	27,300	25,900
CFM56-7B27E	27,300	25,900
CFM56-7B27/3F	27,300	25,900
CFM56-7B27E/F	27,300	25,900
CFM56-7B27/B1**	27,300	25,900
CFM56-7B27/3B1**	27,300	25,900
CFM56-7B27E/B1**	27,300	25,900
CFM56-7B27/3B1F**	27,300	25,900
CFM56-7B27E/B1F**	27,300	25,900
CFM56-7B27/B3	27,300	25,900
CFM56-7B27/3B3	27,300	25,900
CFM56-7B27E/B3**#	27,300	25,900

Engine Ratings/发 动机功率	Model 737-600	Takeoff static thrust, standard day, Maximum continuous static thrust, sea level conditions (5 min) lb./ 海 standard day, sea level conditions 平面标准天气起飞静推力, 磅 lb./海平面标准天气最大连续静 推力, 磅	
	CFM56-7B20	20,600	19,400
	CFM56-7B20/2*	20,600	19,400
	CFM56-7B20/3	20,600	19,400
	CFM56-7B20E	20,600	19,400
	CFM56-7B22	22,700	22,300
	CFM56-7B22/2*	22,700	22,300
	CFM56-7B22/3	22,700	22,300
	CFM56-7B22E	22,700	22,300

** 特殊功率/Special Rating

特殊维修要求（仅适用于波音公务机）Special Maintenance Provisions (BBJ applications only).

发动机运行限制参见数据单E00055EN或 E00056EN 或飞行手册。/For engine operating limits see Engine Type Certificate Data Sheet No. E00055EN or E00056EN or the FAA Approved Airplane Flight Manual.

推力设置/Thrust Settings: 必须使用经过批准的飞机的飞行手册和AFM附录中相应的发动机功率设定曲线来控制发动机推力。/The appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

速度限制/Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)
关于其他的空速限制参见适当的FAA批准的飞行手册列出的注释2/For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in Note 2

重心范围/C. G. Range: 参见适当的FAA批准的飞行手册列出的注释2/See the appropriate FAA Approved Airplane Flight Manual listed in Note 2

最大重量/Maximum Weights:

737-700

最大滑行重量/Maximum Taxi Weight (MTW)	155,000 lbs.
最大起飞重量/Maximum Takeoff Weight (MTOW)	154,500 lbs.
最大着陆重量/ Maximum Landing Weight (MLW)	129,200 lbs.
最大零燃油重量/Maximum Zero Fuel Weight (MZFW)	121,700 lbs.

737增重型/737 700 Increased Gross Weight (IGW)

参见737-700增重型的限制部分在最后部分的注释4 /Please see Note 4 at the end of Section for limitations which may be applicable to the 737-700 IGW airplanes

最大滑行重量/Maximum Taxi Weight (MTW)	171,500 lbs.
最大起飞重量/Maximum Takeoff Weight (MTOW)	171,000 lbs.
最大着陆重量/ Maximum Landing Weight (MLW)	134,000 lbs.
最大零燃油重量/Maximum Zero Fuel Weight (MZFW)	126,000 lbs.

737-800

最大滑行重量/Maximum Taxi Weight (MTW)	174,700lbs.
最大起飞重量/Maximum Takeoff Weight (MTOW)	174,200lbs.
最大着陆重量/ Maximum Landing Weight (MLW)	146,300 lbs.
最大零燃油重量/Maximum Zero Fuel Weight (MZFW)	138,300 lbs.

737-600

最大滑行重量/Maximum Taxi Weight (MTW)	146,000 lbs.
最大起飞重量/Maximum Takeoff Weight (MTOW)	145,500 lbs.
最大着陆重量/ Maximum Landing Weight (MLW)	120,500 lbs.
最大零燃油重量/Maximum Zero Fuel Weight (MZFW)	114,000 lbs.

最小飞行机组/

Minimum Crew For All Flights: 2 (飞行员和副驾驶/Pilot and Copilot)

最大载客数/Maximum

Passengers:	<u>737-700</u>	<u>737-800</u>	<u>737-600</u>
	149	189	149

最大行李舱载荷/

Maximum Baggage Cargo: 参见适当的重量平衡手册, Boeing文件D043A560 737-600机型, D043A570 737-700机型, D043A580 737-800机型/See appropriate Weight and Balance Manual, Boeing Document No.:
D043A560 for Model 737-600
D043A570 for Model 737-700
D043A580 for Model 737-800

燃油和滑油容量/

Fuel & Oil Capacities: 参见适当的重量平衡手册, Boeing文件D043A570/See appropriate Weight and Balance Manual, Boeing Document No. D043A570

最小燃油需求量/

Minimum Required Fuel: 参见适当的FAA批准的飞行手册列出的注释2/See appropriate FAA Approved Airplane Flight Manual listed in Note 2

最大运行高度/

Maximum Operating /Altitude: 英尺/41,000 ft.

基准/Datum:

看适当的重量平衡手册, Boeing文件D043A570/See appropriate Weight & Balance Manual, Boeing Document No. D043A570

平均气动弦/MAC:

155.81 英寸/in

其他运行限制/

Other Operating Limitations: 参见FAA批准的飞行手册See FAA Approved Airplane Flight Manual Appendices

操纵面运动量/

Control Surface Movements: 为确保使用, 不同操纵面运动量应通过相应的飞行控制系统的装配严格控制, 飞机必须按照下述批准的图纸装配。/To insure proper operation of the airplane, the movements of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplanes, must,

therefore, be rigged according to the following FAA Approved data:

波音图纸号/Boeing Drawing Numbers:

114A1001, 克鲁格襟翼安装-机翼前缘内侧/Krueger Flap Instl - Inbd Wing L.E.

251A1001, 横向和减速板控制装备说明/Rigging Instructions, Lateral & Speedbrake Control

251A2001, 升降舵控制系统装备说明/Rigging Instructions, Elevator Control System

251A3001, 方向舵控制系统装备说明/Rigging Instructions, Rudder Control System

251A4001, 安定面配平控制系统装备说明/Rigging Instructions, Stabilizer Trim Control

256A3001, 襟翼作动装备说明 Rigging Instructions - Flap Actuation

256A2284, 襟翼前缘缝翼传感器安装-机翼前缘/ Flap.Slat Sensor Instl - Leading Edge, Wing

审定基础/Certification Basis:

A. 联邦航空规章 25 部修正案 1 至 77 号修正案, 下述条款除外/Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-77 with the exceptions listed below:

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 25.-</u>
25.365	Pressurized Compartment Loads	0****
25.561	Emergency Landing Conditions-General	0
25.562	Emergency Landing Dynamic Conditions	64*
25.571	Damage-tolerance and Fatigue Evaluation of Structure	0, 77, **
25.607	Fasteners	0,77**
25.631	Bird Strike Damage	0,77**
25.699	Lift and Drag Device Indicator	0, 77**
25.775	Windshields and Windows	0
25.783(f)	Doors	15,77**
25.807(c)(3)	Emergency Exits	15
25.813	Emergency Exit Access	45,77**
25.832	Cabin Ozone Concentration	0***
25.1141	Powerplant Controls: General	11****
25.1309	Equipment, Systems and Installations	0, 77**
25.1419(c)	Ice Protection	23,77**

* Flight attendant seats are qualified to Technical Standard Order C127, dated March 30, 1992, or qualified to TSO C127a, and

- a) Head Injury Criteria data collected and reported by TSO applicant is less than 1000, and
- b) Femur Injury Criteria data collected and reported by TSO applicant is less than 2250 pounds,

and

c) Permanent deformation data collected and reported by TSO applicant are in compliance with the requirements of FAA Advisory Circular (AC) 25.562-1A.

* Passenger and crew seats in the flight deck comply with § 25.562(a),(b),((c)(1),(2),(3),(4),(7), and (8)). In addition flight deck observer seats comply with § 25.562((c)(5)). Medical stretchers used to transport non-ambulatory occupants are not required to comply with § 25.562.

** Applicable to new and significantly modified structure and systems and portions of the airplane affected by these changes. Where two amendment levels are shown for the same paragraph, the number without the asterisk (*) applies to structures, systems and portions of the airplane which are not new or significantly modified. The structure, systems, and components which comply with the later amendment will be identified in Boeing document D010A001, approved by the FAA and JAA, and referenced on the TCDS.

*** Boeing provides FAA approved data (Document number D6-49779) to 737 operators to enable the operators to show ozone compliance per §121.578 for their specific route structures.

**** Exception applies to Auxiliary Power Unit spar mounted fuel shut off valve only. All other power plant controls were shown to comply with § 25.1141 at amendment 25-77.

***** For 737-800 airplanes configured with a flat aft pressure bulkhead, the airplane is also designed to withstand the effects of a sudden release of pressure venting aft through any 820 square inch opening in that bulkhead at any operating altitude. Amendment level "0" is the original published version of Part 25 (February 1, 1965).

此外，波音自愿符合下述规章作为审定基础的一部分

In addition, the following regulations, which Boeing has voluntarily complied with, are also part of the certification basis;

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 25.-</u>
25.733	Use of Inert Gas for Tire Inflation	78
25.811(e)	Emergency Handle Illumination	79
25.1316	Lightning Protection Requirements	80
25.143(c),(d),(e),(f)	General, Controllability & Maneuverability	84
25.145(b),(c)(1)	Longitudinal Control	84
25.149(f),(h)	Minimum Control Speed	84
25.203(c)	Stall Characteristics	84
25.253(b)	High-Speed Characteristics	84
25.305(d)	Strength and Deformation	86

25.321(c),(d)	Flight Loads - General	86
25.331(a),(d)	Flight Maneuver and Gust Conditions - General	86
25.333(a),(c)	Flight Envelope	86
25.341	Gust Loads	86
25.343(b)	Design Fuel and Oil Loads	86
25.345(a),(c)	High lift Devices	86
25.349	Rolling Conditions	86

In addition to the airworthiness standards, the type-certification basis for these derivative airplanes includes compliance with the emissions standards of part 34 as amended by any amendments effective at the time of certification and with the noise standards of part 36 as amended by Amendment 36-20 or any subsequent amendment effective at the time of certification.

专用条件 / Special Conditions

Special Conditions were proposed, in accordance with § 21.16. The Special Conditions for the following subjects were issued in Renton, Washington, September 17, 1997. Their effectivity was the same day as issuance:

- High Intensity Radiated Fields
- Limit Engine Torque Loads for Sudden Engine Stoppage

Special Conditions No.25-386-SC, published in the Federal Register on August 7, 2009, addressed 737-600/-700/-700C/-800/-900 and 900ER series airplanes with inflatable lapbelts installed
25-404-SC, published in the Federal Register on April 12, 2010, Modification to Boeing Model 737-600/-700/-700C/-800/-900 and -900ER Series Airplanes: Rechargeable Lithium Batteries and Rechargeable Lithium-Battery Systems

25-550-SC, published in the Federal Register on June 6, 2014, Airplane Electronic Systems Security Protection from Unauthorized External Access

25-551-SC, published in the Federal Register on June 6, 2014, Isolation [of] Airplane Electronic System Security Protection from Unauthorized Internal Access.

等效安全 / Equivalent Safety Findings:

The Equivalent Safety Findings were proposed in accordance with § 21.21. The following have been identified as equivalent safety findings:

- § 1.1 General Definitions
- § 1.2 Abbreviations and Symbols
- § 25.21 Proof of Compliance
- § 25.101(I) Performance - General
- § 25.103 Stalling Speed
- § 25.105(c)(1) Takeoff
- § 25.107 Takeoff Speeds
- § 25.109 Accelerate Stop Distance; NPRM 93-8: Improved Standards for Determining Rejected Take-off and Landing Performance

§25.111 Takeoff Path
 §25.115(a) Takeoff Flightpath
 § 25.119 Landing - Climb: All engines operating
 § 25.121 Climb - One engine operative
 § 25.125 Landing
 § 25.143 General - Controllability and Maneuverability
 § 25.145 Longitudinal Control)
 § 25.147 Directional and Lateral Control
 § 25.149 Minimum Control Speed)
 § 25.161 Trim
 § 25.175 Demonstration of Static Longitudinal Stability
 § 25.177 Static Directional and Lateral Stability
 § 25.181 Dynamic Stability
 § 25.201 Stall Demonstration
 § 25.207 Stall Warning
 § 25.231 Longitudinal Stability and Control
 § 25.233 Directional Stability and Control
 § 25.237 Wind Velocities
 § 25.395(a) Control Systems
 § 25.613 Material Strength Properties and Design Values.
 § 25.735 Brakes
 § 25.773 Pilot Compartment View
 § 25.791(a) Passenger Information Signs and Placards
 § 25.810 (a)(1)(ii) Escape Slides
 § 25.811(f)(2) Exit Band Contrast
 § 25.812(b)(1)(i) Emergency Exit Signs
 § 25.813(c)(1) Emergency Exit Access (for Type III Manual Exit)
 § 25.813(c)(1) Emergency Exit Access (for Type III Automatic Overwing Exit)
 (Documented in Transport Airplane Directorate ELOS memo TD2464SE-T-C-1)
 § 25.853(d) Compartment Interiors
 § 25.933(a) Reversing Systems
 § 25.979(b)(1) Pressure Fueling System
 § 25.1001 Fuel Jettison System
 § 25.1323 Airspeed Indication Systems
 § 25.1325 Static Pressure Systems
 § 25.1389(b)(3) Wing Tip Position Lights
 §25.1415(d) Emergency Locator Transmitter (ELT)
 §25.1441(c) Oxygen Equipment and Supply
 §25.1443(c) Minimum Mass Flow of Supplemental Oxygen
 § 25.1587 Performance Information

豁免/Exemptions:

Exemptions granted for previously type-certificated 737 series

airplanes do not apply to these derivative models.

§ 25.1435(b)(1) Hydraulic Systems (Granted May 17, 1995, Exemption No. 6086 applicable to 737-700).

§ 25.562(b)(2) Emergency Landing Dynamic Conditions - related to Flight Deck Testing (Granted April 12, 1996, Exemption No. 6425).

§ 25.571(e)(1) Damage-Tolerance and Fatigue Evaluation of Structure - related to Bird Strike Velocity. (Granted April 8, 1997, Exemption No. 6601).

§ 25.901(c) Partial Exemption – No single powerplant or auxiliary power unit failure will jeopardize the safe operation of the airplane. (Exemption No. 7968, February 4, 2003) See NOTE 6.

§ 25.901(c), Amendment 25-126, and §25.981(a)(3), Amendment 25-102 or later, time-limited exemption for up to 48 months after the effective date of this exemption, as they pertain to fuel tank ignition prevention associated with the following FQIS changes on in-service and newly-produced 737-600/-700/-700C/-800/-900/-900ER airplanes:

- Replacement of the SCCC and the ARINC display card within the FQPU; and
- Changed areas for the re-routing and separation of FQIS wires where the changed areas of the FQIS wire routing meet the installation requirements for separation and fault tolerance required to comply with § 25.981(a)(3) as associated with the semi-monolithic side-of-body change, and forward bulkhead relocation. (Exemption No. 10905, December 18, 2013)

B. Joint Aviation Authorities (JAA) Certification Basis: For Models 737-600, 737-700 and 737-800, please see Boeing 737 JAA Data Sheet No. JAA/25/97-018.

C Certification basis for 25.981(c) at amendment 25-102, and Special Conditions 25.308-SC, issued on December 25, 2005, for the flammability reduction system (FRS), is applied if fuel tank inerting is installed in new airplane production or as a modification. Airworthiness limitations for the FRS are contained in Section 9 of the applicable Maintenance Planning Document.

审定维修要求

/Certification Maintenance
Requirements (CMR's)

The CMR's are listed in either the FAA approved Section 9 of Boeing Maintenance Planning Data Document D626A001-CMR or the applicable engine Type Certification Data Sheet. The more restrictive requirement from these two documents shall be in force. All 737-600/700/700IGW/800 airplanes with line numbers 715 and on must comply with the

damage tolerance structural inspections contained in revision June 2000 or later FAA-approved revision.

生产基础/Production Basis: 生产许可证700号/Production Certificate No. 700

必要设备/Required Equipment: 适用的适航要求（见审定基础）所规定的基础设备必须安装到合格审定的飞机上。所要求的设备在型号设计资料中。/The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. The required equipment is noted in the Type Design Data.

服务信息/Service Information: 参见波音的结构维修手册，如果服务通告和其他服务信息被批准的话，FAA会对其作出声明。/The following Boeing “Structural Repair Manual” Documents are FAA-approved. Service Bulletins and other service information, when FAA-approved, will carry a statement to that effect.

D634A201 for the 737-700

D634A210 for the 737-800

D634A220 for the 737-600

D634A330 for the 737-700 IGW

重心范围/C.G. Range: 参见适当的FAA批准的飞行手册列出的/ See the appropriate FAA Approved Airplane Flight Manual listed.

注释/NOTE 1.

下列编号飞机在TC Only状态下生产/The following Serial Numbers were produced under Type Certificate Only:

Model 737-700: 27841, 27842, 27843, 27835, 28100, 27836, 28004, 28005, 27837, 28209, 27838, 28100, 28101, 28102, 28088, 27839, 28210, 28103, 28840, 28089, 28006, 28107, 28108, 28099.

Model 737-800: 27977, 27978, 27979, 27980, 27981, 27982, 28068, 28069, 28213, 28373.

Model 737-600: 28288 thru 28293, 28296, 28297

注释/NOTE 2.

飞机按照批准的飞行手册运行，由FAA批准的飞机飞行手册、使用运行规章或合格审定基础三者要求的所有标牌必须安装在飞机上。737-600/-700/-800飞行手册的基础是波音文档D631A001/Airplane operation must be in accordance with the FAA Approved AFM. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane. Boeing Document No. D631A001 is the basic FAA Approved Airplane Flight Manual for Model 737-600/-700/-800 airplanes.

注释/NOTE 3.

符合CCAR25.571所要求的结构检查和安全寿命部件的到寿时间列在Boeing 737-600/700/800技术维修计划文档D626A001-CMR.关于适航限制和审定维修的第九部分。所有的生产线序列号715和往后的737-600/700/700IGW/800飞机必须满足2000年6月或者之后FAA批准的版本中包含的“损伤容限结构检查”。/Required structural inspections for compliance with FAR 25. 571 and the retirement times for safe-life parts are listed in the FAA Approved Airworthiness Limitations and Certification Maintenance Requirements Section 9 of Boeing 737-600/700/800 Maintenance Planning Document D626A001-CMR. All 737-600/700/700IGW/800 airplanes with line numbers 715 and on must comply with the Damage Tolerance Structural Inspections contained in revision June 2000 or later FAA-approved revision

注释/NOTE 4.

737增重型/Model 737-700 Increased Gross Weight (IGW):

当飞机不用于出租或者普通货运时批准下列豁免（批准日期1998年10月5日，第6820号豁免）

The following exemptions have been granted when the airplane is not operated for hire, or for common carriage (Granted October 5, 1998, Exemption No. 6820):

§25.785(h)(2) Flight Attendant Seat Locations which do not Provide for Direct View of the Cabin,

§25.813(e) Installation of Interior Doors in between passenger compartments,

§25.853(d) Interior materials that do not comply with Heat Release and Smoke Emissions Requirements.

(Granted February 17, 1999, Exemption No. 6820A); -

§25.807(d)(7) Distance Between Exits.

§25.813(e) Installation of Interior Doors in between passenger compartments

§25.853(d) Interior materials that do not comply with Heat Release and Smoke Emissions Requirements.

可以安装在737-700IGW上的发动机型号取决于其预期的运营用途。参见各个飞机飞行手册，安装CFM56-7B26 或 CFM56-7B26/B1 或CFM56-7B27/B3。/

Acceptable engine model installed on a 737-700 IGW is dependent on type of intended in-service use. See the

individual Airplane Flight Manual for approved installation of either the CFM56-7B26 or CFM56-7B26/B1 or CFM56-7B27/B3.

注释/NOTE 5.

737-600, -700,和-800飞机的型号设计可靠性和性能已经按照FAA咨询通告AC 120-42A 进行了评估, 在按照波音文件D044A007的《737-600/-700/-800构型, 维护和程序》使用和维护时, 适合双发延程运行。另外, 在2007年2月15日后进行的需申请ETOPS批准的型号设计更改已按14 CFR 25.1535进行了评估, 在按照波音文件D044A007运行和维护的情况下, 适合延程 (ETOPS) 运行。此条不构成ETOPS运行批准。/The type design reliability and performance of the Model 737-600, -700, and -800 airplanes have been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D044A007, "737-600/-700/-800 ETOPS CONFIGURATION, MAINTENANCE, AND PROCEDURES". Additionally, type design changes incorporated after February 15, 2007 that require ETOPS approval have been evaluated in accordance with 14 CFR 25.1535 and found suitable for Extended Operations (ETOPS) when operated and maintained in accordance with Boeing Document D044A007. This finding does not constitute approval to conduct ETOPS operations.

注释/NOTE 6.

The FAA has determined that the occurrence of any uncontrollable high thrust failure condition "may endanger the safe operation of an airplane" and hence is reportable under FAR 121.703, 125.409, and 135.415.

注释/NOTE 7:

Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with 14 CFR 25.981 are listed in the FAA-approved Airworthiness Limitations and Certification Maintenance Requirement, Section 9, of Boeing 737-600/700/700C/700IGW/800/900 Maintenance Planning Data Document D626A001-CMR, Revision December 2005 or later FAA-approved revision. All Model 737-700,-800, and -600

series airplanes, production line number 1679 and on, must comply with Revision March 2006, or a later FAA-approved revision. The FAA is planning to issue an airworthiness directive mandating compliance with Revision March 2006, or a later FAA-approved revision, applicable to all Model 737-600, -700, -700C, -800, and -900 series airplanes with production numbers lower than 1679.

VI. Model 737-900 (Approved April 17, 2001; CAAC Validated on June 9,2005) Transport Aircraft.

发动机/Engines: 两台CFM56-7B, -7B/3或-7BE系列涡轮发动机, 参见飞行手册的发动机限制。/Two CFM 56-7B, -7B/3或-7BE Series Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations.

燃油/Fuel: 燃油满足下述规范, 及经批准的混合使用/Fuels meeting the following specifications and mixtures thereof are approved for use:

- * Jet A, Jet A-1 as specified in ASTM-D1655
- * JP-5 as specified in MIL-T-5624
- * JP-8 as specified in MIL-T-83133

Fuels conforming to G.E. Specification D50TF2 (Class A, C, D and E) or fuels produced or certified to other specifications and having properties meeting the requirements of the above specifications are acceptable for use. Consult Flight Manual for additive use.

滑油消耗/Oil Consumption: For compliance with FAR 25.1011(b), the approved maximum oil consumption rate for the CFM56-7B engines installed on this model airplane has been established as 0.340 gallons per hour. Operation of the Model 737-900 airplane with engine oil consumption rates higher than this limit is not permitted.

Engine Ratings/发动机功率	Model 737-900	Takeoff static thrust, standard day, sea level conditions (5 min) lb./海平面标准天气起飞静推力, 磅	Maximum continuous static thrust, standard day, sea level conditions lb./海平面标准天气最大连续静推力, 磅
	CFM56-7B24	24,200	22,800
	CFM56-7B24/3	24,200	22,800

CFM56-7B24E	24,200	22,800
CFM56-7B24/3B1**	24,200	22,800
CFM56-7B24E/B1**	24,200	22,800
CFM56-7B26	26,300	25,900
CFM56-7B26/3	26,300	25,900
CFM56-7B26E	26,300	25,900
CFM56-7B26/3F	26,300	25,900
CFM56-7B26E/F	26,300	25,900
CFM56-7B26/B1	26,300	25,900
CFM56-7B27	27,300	25,900
CFM56-7B27/3	27,300	25,900
CFM56-7B27E	27,300	25,900
CFM56-7B27/3F	27,300	25,900
CFM56-7B27E/F	27,300	25,900
CFM56-7B27/B1	27,300	25,900
CFM56-7B27/3B1	27,300	25,900
CFM56-7B27E/B1	27,300	25,900
CFM56-7B27/3B1F	27,300	25,900
CFM56-7B27E/B1F	27,300	25,900
CFM56-7B27/B3	27,300	25,900
CFM56-7B27/3B3	27,300	25,900
CFM56-7B27E/B3	27,300	25,900

** 特殊功率/Special Rating

发动机运行限制参见数据单E00055EN或 E00056EN 或飞行手册。/For engine operating limits see Engine Type Certificate Data Sheet No. E00055EN or E00056EN or the FAA Approved Airplane Flight Manual.

推力设置/Thrust Settings: 必须使用经过批准的飞机的飞行手册和AFM附录中相应的发动机功率设定曲线来控制发动机推力。/The appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

速度限制/Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)

关于其他的空速限制参见适当的FAA批准的飞行手册列出的注释2/For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

重心范围/C. G. Range: 参见适当的FAA批准的飞行手册列出的注释2/See the

appropriate FAA Approved Airplane Flight Manual listed in Note 2.

最大重量/Maximum Weights: 737-900

参见737-900的限制部分在第七部分后面的注释4 /Please see Note 4 at the end of Section VII for limitations which may be applicable

to the 737-900 airplanes

最大载客重量/Maximum Taxi Weight (MTW) 174,700
lbs.

最大起飞重量/Maximum Takeoff Weight 174,200
(MTOW) lbs.

最大着陆重量/Maximum Landing Weight (MLW) 146,300
lbs.

最大零燃油重量/Maximum Zero Fuel Weight 140,300
(MZFW) lbs.

Model 737-900

Eligible Serial Numbers:

737-9B5	29987-30002
737-9K2	29599-29602, 32944
737-97L	33644-33646, 33648, 33649
737-95R	30412, 33740
737-924	30118-30129
737-990	30013-30019, 30021, 30029, 30856, 30857, 33679, 33680

最小飞行机组

/Minimum Crew

for All Flights: 2 (飞行员和副驾驶/Pilot and Copilot)

最大载客数 全客型/Passenger only mode 189

/Maximum

Passengers:

最大行李舱载荷/

Maximum Baggage Cargo: 参见适当的重量平衡手册, Boeing文件D043A590/See appropriate Weight and Balance Manual, Boeing Document No. D043A590

燃油和滑油容量/

Fuel & Oil Capacities: 看适当的重量平衡手册, Boeing文件D043A590/See appropriate Weight and Balance Manual, Boeing Document No. D043A590

最小燃油需求量/

Minimum Required Fuel: 参见适当的FAA批准的飞行手册列出的注释2/See appropriate FAA Approved Airplane Flight Manual listed in Note 2.

最大运行高度/

Maximum Operating /Altitude: 41,000英尺/ft.

基准/Datum:

看适当的重量平衡手册, Boeing文件D043A590/See appropriate Weight & Balance Manual, Boeing Document No. D043A590

平均气动弦/MAC:

155.81英寸/ in

其他运行限制/

Other Operating Limitations: 参见FAA批准的飞行手册/see FAA Approved Airplane Flight Manual Appendices

操纵面运动量/

Control Surface Movements: 为确保使用, 不同操纵面运动量应通过相应的飞行控制系统的装配严格控制, 飞机必须按照下述批准的图纸装配。/To insure proper operation of the airplane, the movements of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplanes, must, therefore, be rigged according to the following FAA Approved data:

波音图纸号/Boeing Drawing Numbers:

114A1001, 克鲁格襟翼安装-机翼前缘内侧/Krueger Flap Instl - Inbd Wing L.E.

251A1001, 横向和减速板控制装备说明/Rigging Instructions, Lateral & Speedbrake Control

251A2001, 升降舵控制系统装备说明/Rigging Instructions, Elevator Control System

251A3001, 方向舵控制系统装备说明/Rigging Instructions, Rudder Control System

251A4001, 安定面配平控制系统装备说明/Rigging Instructions, Stabilizer Trim Control

256A3001, 襟翼作动装备说明 Rigging Instructions - Flap Actuation

256A2284, 襟翼前缘缝翼传感器安装-机翼前缘/ Flap.Slat Sensor Instl - Leading Edge, Wing

审定基础/Certification Basis:

A. 联邦航空规章 25 部修正案 1 至 91 号修正案, 下述条款除外/Part 25 of the Federal Aviation

Regulations as amended by Amendments 25-1 through 25-91 with the exceptions listed below:

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 25.-</u>
25.365	Pressurized Compartment Loads	0
25.562	Emergency Landing Dynamic Conditions	64*
25.607	Fasteners	0,91**
25.631	Bird Strike Damage	0,91**
25.699	Lift and Drag Device Indicator	0,91**
25.783(f)	Doors	15,91**
25.807(c)(3)	Emergency Exits	15
25.813	Emergency Exit Access	45,91**
25.831(a) & (g)	Ventilation	41
25.832	Cabin Ozone Concentration	0***
25.841(a)	Pressurized Cabins	38
25.853(d)(3)	Compartment Interiors	72
25.904	Automatic Takeoff Thrust Control System	不符合 (25-82新增)
25.1141	Power Plant Controls: General	11****
25.1309	Equipment, Systems and Installations	0,91**
25.1419(c)	Ice Protection	23,91**
25.1447(c)(3)(ii)	Equipment Standards for Oxygen Dispensing Units	41

* Flight attendant seats are qualified to:

1. Technical Standard Order (TSO) C127, dated March 30, 1992, or
2. TSO C127a, and

Head Injury Criteria data collected and reported by the TSO applicant is less than 1000 and,
Femur Injury Criteria data collected and reported by the TSO applicant is less than 2250 pounds,
and,

Permanent deformation data collected and reported by the TSO applicant are in compliance with
the requirements of FAA Advisory Circular (AC) 25.562-1A.

Passenger and crew seats in the flight deck comply with § 25.562(a),(b), ((c)(1),(2),(3),(4),(7), and
(8)). In addition flight deck observer seats will comply with § 25.562((c)(5)).

** Applicable to new and significantly modified structure and systems and portions of the
airplane affected by these changes. Where two amendment levels are shown for the
same paragraph, the number without the asterisk (*) applies to structures, systems
and portions of the airplane which are not new or significantly modified. The structure, systems,
and components which comply with the later amendment are identified in Boeing document
D010A001, approved by the FAA and JAA, and referenced on the TCDS..

*** Boeing provides FAA approved data (Document number D6-49779) to 737 operators to enable the operators to show ozone compliance per §121.578 for their specific route structures.

**** Exception applies to Auxiliary Power Unit spar mounted fuel shut off valve only. All other power plant controls were shown to comply with § 25.1141 at amendment 25-91.

Amendment level "0" is the original published version of Part 25 (February 1, 1965).

此外，波音自愿符合下述晚于91号修正案的修正案水平

In addition, Boeing has volunteered to comply with the following amendment levels later than amendment 25-91.

25.101	92	Performance; General
25.105	92	Takeoff
25.107	94	Takeoff Speeds
25.109	92	Accelerate Stop Distance
25.113	92	Takeoff Distance and Takeoff Run
25.115	92	Takeoff Flight Path
25.571(e)(1)	96	Damage Tolerance and Fatigue Evaluation of Structure
25.735	92	Brakes
25.855	93	Cargo or Baggage Compartments
25.857	93	Cargo Compartment Classification
25.858	93	Cargo or Baggage Compartment Smoke or Fire Detectio
25.1533	92	Additional Operating Limitations

专用条件/Special Conditions:

Limit Engine Torque Loads for Sudden Engine Stoppage.

High Intensity Radiated Fields (HIRF) Protection.

Special Conditions No.25-386-SC, published in the Federal Register on August 7, 2009, addressed 737-600/-700/-700C/-800/-900 and 900ER series airplanes with inflatable lapbelts installed.

等效安全/Equivalent Safety Findings:

§ 1.2	Abbreviations and Symbols
§ 25.21	Proof of Compliance
§ 25.103	Stalling Speed
§ 25.107	Takeoff Speeds
§ 25.111	Takeoff Path
§ 25.119	Landing - Climb: All engines operating
§ 25.121	Climb - One engine operative
§ 25.125	Landing
§ 25.143	General - Controllability and Maneuverability
§ 25.145	Longitudinal Control
§ 25.147	Directional and Lateral Control
§ 25.149	Minimum Control Speed

- § 25.161 Trim
- § 25.175 Demonstration of Static Longitudinal Stability
- § 25.177 Static Directional and Lateral Stability
- § 25.181 Dynamic Stability
- § 25.201 Stall Demonstration
- § 25.207 Stall Warning
- § 25.231 Longitudinal Stability and Control
- § 25.233 Directional Stability and Control
- § 25.237 Wind Velocities
- § 25.395(a) Control Systems
- § 25.613 Material Strength Properties and Design Values.
- § 25.735 Brakes
- § 25.773 Pilot Compartment View
- § 25.791 Passenger Information Signs and Placards
- § 25.810 (a)(1)(ii) Escape Slides
- § 25.811(f) Emergency Exit Markings
- § 25.813(c)(1) Emergency Exit Access (for Type III Automatic Overwing Exit)
- § 25.813(c)(2)(i) Emergency Exit Access (for Type III Automatic Overwing Exit)
- § 25.853(f) Compartment Interiors
- § 25.933(a) Reversing Systems
- § 25.979(b)(1) Pressure Fueling System
- § 25.1001 Fuel Jettison System
- § 25.1323 Airspeed Indication Systems
- § 25.1325 Static Pressure Systems
- § 25.1389(b)(3) Wing Tip Position Lights
- § 25.1587 Performance Information

豁免/Exemptions:

- § 25.1435(b)(1) Hydraulic Systems (Originally granted May 17, 1995, Exemption No. 6086).
- § 25.562(b)(2) Emergency Landing Dynamic Conditions - related to Flight Deck Testing (Originally granted August 20, 1999, Exemption No. 6425A).
- § 25.901(c) Partial Exemption – No single powerplant or auxiliary power unit failure will jeopardize the safe operation of the airplane. (Originally granted February 4, 2003, Exemption No. 7968) See NOTE 5.

FAR Part 34:

Part 34 of the FAR as amended at the time of certification.

FAR Part 36:

Part 36 of the FAR as amended at the time of certification.

B. Joint Aviation Authorities (JAA) Certification Basis: For Model 737-900 please see Boeing 737 JAA Data Sheet No.JAA/25/97-018.

C Certification basis for 25.981(c) at amendment 25-102, and Special Conditions 25.308-SC, issued on December 25, 2005, for the flammability reduction system (FRS), is applied if fuel tank inerting is installed in new airplane production or as a modification. Airworthiness limitations for the FRS are contained in Section 9 of the applicable Maintenance Planning Document.

审定维修要求/

Certification Maintenance

Requirements (CMR's)

The CMR's are listed in either the FAA approved Section 9 of Boeing Maintenance Planning Data Document D626A001-CMR, revision March 2001 or later FAA approved revision, or the applicable engine Type Certification Data Sheet. The more restrictive requirement from these two documents shall be in force.

生产基础/Production Basis: 生产许可证700号/Production Certificate No. 700

必要设备/Required Equipment: 适用的适航要求（见审定基础）所规定的基础设备必须安装到合格审定的飞机上。所要求的设备在型号设计资料中。The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. The required equipment is noted in the Type Design data.

服务信息/Service Information: 参见波音的结构维修手册，如果服务通告和其他服务信息被批准的话，FAA会对其作出声明。/The following Boeing "Structural Repair Manual" Documents are FAA-approved. Service Bulletins and other service information, when FAA-approved, will carry a statement to that effect. D634A211 for the 737-900.

重心范围/C.G. Range: 参见适当的FAA批准的飞行手册列出的/ See the appropriate FAA Approved Airplane Flight Manual listed.

第6部分注释NOTES FOR SECTION VI:

注释/NOTE 1. 包括合格审定空重的设备清单和必要的装载说明的现行的重量平衡报告必须在最初的审定时提供给每一架飞机/A current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary

must be provided for each aircraft at the time of original certification.

注释/NOTE 2.

飞机按照批准的飞行手册运行，由FAA批准的飞机飞行手册、使用运行规章或合格审定基础三者要求的所有标牌必须安装在飞机上。737-900飞行手册的基础是波音文档D631A001/Airplane operation must be in accordance with the FAA Approved AFM. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane. Boeing Document No. D631A001 is the basic FAA Approved Airplane Flight Manual for Model 737-900 airplane.

注释/NOTE 3.

符合CCAR25.571所要求的结构检查和安全寿命部件的到寿时间列在Boeing 737-600/700/800/900技术维修计划文档D626A001-CMR.关于适航限制和审定维修的第九部分（2001年3月及其后续版本）。/Required structural inspections for compliance with FAR 25.571 and the retirement times for Safe-life parts are listed in the FAA Approved Airworthiness Limitations and Certification Maintenance Requirements Section 9 of Boeing 737-600/700/800/900 Maintenance Planning Document D626A001-CMR, Revision March 2001 or later FAA-approved revision.

注释/NOTE 4.

737-900飞机的型号设计可靠性和性能已经按照FAA咨询通告AC 120-42A 进行了评估，在按照波音文件D044A007的《737-600/-700/-700C/-800/-900构型，维护和程序》使用和维护时，适合双发延程运行。另外，在2007年2月15日后进行的需申请ETOPS批准的型号设计更改已按14 CFR 25.1535进行了评估，在按照波音文件D044A007运行和维护的情况下，适合延程（ETOPS）运行。此条不构成ETOPS运行批准。/The type design reliability and performance of the Model 737-900, airplane has been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D044A007, “737-600/-700/-700C/-800/-900 ETOPS CONFIGURATION, MAINTENANCE, AND PROCEDURES”. Additionally, type design changes incorporated after February 15, 2007 that require ETOPS approval have been evaluated in accordance with 14 CFR 25.1535 and found suitable for Extended Operations (ETOPS) when operated and maintained in accordance with Boeing Document D044A007. This finding does not constitute approval to conduct ETOPS operations.

注释/NOTE 5.

The FAA has determined that the occurrence of any uncontrollable high thrust failure condition “may endanger the

safe operation of an airplane” and hence is reportable under FAR 121.703, 125.409, and 135.415.

注释/NOTE 6:

Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with 14 CFR 25.981 and Special Conditions 25-308-SC are listed in the FAA-approved Airworthiness Limitations and Certification Maintenance Requirement, Section 9, of Boeing 737-600/700/700C/700IGW/800/900 Maintenance Planning Data Document D626A001-CMR, Revision November 2005 or later FAA-approved revision. All Model 737-900 series airplanes, production line number 1679 and on, must comply with Revision March 2006, or a later FAA-approved revision. The FAA is planning to issue an airworthiness directive mandating compliance with Revision March 2006, or a later FAA-approved revision, applicable to all Model 737-600, -700, -700C, -800, and -900 series airplanes with production numbers lower than 1679.

VII. Model 737-900ER (Approved April 20, 2007; CAAC Validated on January 27, 2015)
Transport Aircraft.

I. 总则/General

- | | |
|--------------------------------------|---|
| 1. 型别/Model: | 737-900ER |
| 2. 适航类别/Airworthiness Category: | 运输类航空器/Transport Category Aircraft |
| 3. 型号合格证持有人/Type Certificate Holder: | The Boeing Company
1301 Second Avenue
Seattle, Washington 98101 |
| 4. FAA 批准日期/FAA Approved Date: | 2007.4.20/20 Apr 2007 |
| 5. CAAC 批准日期/CAAC Approved Date: | 2015.1.27/27 Jan 2015 |

II. 认可审定基础/Validation Certification Basis

CAAC的认可审定基础由FAA的审定基础（详见FAA型号合格证数据单：编号A16WE, Revision 53中的737-900ER型别的审定基础），和CAAC的附加技术条件组成，并增加FAA豁免：

“FAA exemption No. 10905 – Time-limited exemption for up to 48 months after the effective date of this exemption for 14 CFR 25.901(c), Amendment 25-126, and 25.981(a)(3), Amendment 25-102 or later, as they pertain to fuel tank ignition prevention associated with the following FQIS changes on in-service and newly-produced 737-600/-700/-700C/-800/-900/-900ER airplanes.”

此外，不包括FAA审定基础中的豁免：“FAA Exemption 9791, FAA Exemption 9791B, FAA Exemption 9791C.”

CCAR-26《运输类飞机的持续适航与安全改进》：适用条款已包括在审定基础中，对于

CCAR-26 的任何修订，本 TC 持有人必须证明对适用条款的符合性。

CCAR-26 – Continued Airworthiness and Safety Improvements for Transport Category Airplanes: applicable provisions of Part 26 have been included in the certification basis. For any future Part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections.

中国民用航空局附加技术条件/CAAC Additional Technical Conditions.

交付到中国的每一架 737-900ER 飞机须满足下述附加技术条件：

Each of Model 737-900ER aircraft delivered to China shall meet the following Additional Technical Conditions:

- (1) 必须符合 FAA 颁布的所有适用的适航指令；

All applicable airworthiness directives (ADs) issued by the FAA shall be complied with.

- (2) 在每一航空器上必须安装快速存储器（QAR）（参照中国适航指令 CAD-97-MULT-38）；

Quick Access Recorder (QAR) must be installed on each aircraft (reference to CAD97-MULT-38).

- (3) 高度测量组件应至少采用米制高度显示（参照 CCAR 121.301(d)）；

The altimeter measure unit shall be indicated in meter at least (reference to CCAR 121.301(d)).

- (4) 必须确定符合“GB6537-2006 3 号喷气燃料”规范的燃料的可接受性；

The acceptance of fuel conforming the Specification GB6537-2006 “No.3 Jet Fuel” must be defined.

- (5) 厕所垃圾箱灭火器所使用的灭火剂的要求（参照 CAAC 适航指令 CAD2012-MULT-09）；

The requirements about lavatory disposal receptacle Fire Extinguishing agent (reference to CAAC Airworthiness Directive CAD2012-MULT-09).

- (6) 标牌要求/Placard Requirements：

(a) 根据 CCAR 21.29(5)，有关适航规章、噪声规定所要求的手册、标牌、目录清单和仪表标记应当用中文或者英文书写，下列各项应当至少有中文表述：/Per CCAR 21.29(5), the manuals, placards, listings and instrument markings required by the applicable airworthiness regulations and noise requirements are presented in the Chinese or English language. The following items must be presented in Simplified Chinese at least:

1) 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；/All on-board placard and marking for awareness, warning, and note to the passenger;

2) 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；/All on-board placard and marking for opening method and location indication of the emergency exit and door to passenger and outside rescuer; and

3) 旅客可能使用的机上所有应急设备的操作、使用说明。/All operational instructions for on-board emergency equipments possible operated by passengers shall be presented in Simplified Chinese at least.

- (b) 中文字符的尺寸需符合 CCAR 25.811(e)(4)(iii)和 CCAR25.812 的要求。/ The

dimension of the Chinese characters shall comply with the provision of the CCAR 25.811 (e) (4) (iii) and CCAR 25.812 as applicable.

(c) 所有中文手册、标牌、目录清单和仪表标记必须表达正确。/All of the manuals, placards and marking, listings and instrument markings presented in the Chinese must be correct.

(7) 民航发[2012]30 号文《关于运输类飞机点火源防护追溯要求的通知》的要求，技术上与 SFAR88 等效。

The requirements of CAAC Civil Aviation Order – Retrospective Requirements for Transport Category Airplane Ignition Sources Prevention (CAO No. 2012-30), which are technically covered by SFAR88.

III.技术特征和运行限制/Technical Characteristics and Operational Limitations

发动机/Engines: 两台CFM56-7B, -7B/3或-7BE系列涡轮发动机，参见FAA批准的飞行手册的发动机限制。(见注释2) /Two CFM 56-7B, -7B/3或-7BE Series Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations. (See Note 2)

燃油/Fuel: 燃油满足下述规范，及经批准的混合使用/Fuels meeting the following specifications and mixtures thereof are approved for use:

- * Jet A, Jet A-1 as specified in ASTM-D1655
- * JP-5 as specified in MIL-T-5624
- * JP-8 as specified in MIL-T-83133
- * GB 6537-2006 No.3 Jet Fuel (See Note 3)

Fuels conforming to G.E. Specification D50TF2 (Class A, C, D and E) or fuels produced or certified to other specifications and having properties meeting the requirements of the above specifications are acceptable for use. Consult Flight Manual for additive use.

滑油消耗/Oil Consumption: 关于25.1101(b)的符合性，安装CFM56-7B发动机的该型飞机批准的最大滑油消耗率为0.340美加仑每小时，运行中不允许超过该限制。For compliance with FAR 25.1101(b), the approved maximum oil consumption rate for the CFM56-7B engines installed on this model airplane has been established as 0.340 gallons per hour. Operation of the Model 737-900ER airplane with engine oil consumption rates higher than this limit is not permitted.

发动机功率 Engine Ratings	Model 737-900ER	Takeoff static thrust, standard day, sea level conditions (5 min) lb./ 海 平面标准天气起飞静推 力, 磅	Maximum continuous static thrust, standard day, sea level conditions lb./海平面标准天 气最大连续静推力, 磅
	CFM56-7B24	24,200	22,800
	CFM56-7B24/3	24,200	22,800
	CFM56-7B24E	24,200	22,800
	CFM56-7B24/3	24,200	22,800
	CFM56-7B24E	24,200	22,800
	CFM56-7B24/3B1**	24,200	22,800
	CFM56-7B24E/B1**	24,200	22,800
	CFM56-7B26	26,300	25,900
	CFM56-7B26/3	26,300	25,900
	CFM56-7B26E	26,300	25,900
	CFM56-7B26/3F	26,300	25,900
	CFM56-7B26E/F	26,300	25,900
	CFM56-7B26/B1	26,300	25,900
	CFM56-7B27	27,300	25,900
	CFM56-7B27/3	27,300	25,900
	CFM56-7B27E	27,300	25,900
	CFM56-7B27/3F	27,300	25,900
	CFM56-7B27E/F	27,300	25,900
	CFM56-7B27/B1	27,300	25,900
	CFM56-7B27/3B1	27,300	25,900
	CFM56-7B27E/B1	27,300	25,900
	CFM56-7B27/3B1F	27,300	25,900
	CFM56-7B27E/B1F	27,300	25,900
	CFM56-7B27/B3	27,300	25,900
	CFM56-7B27/3B3	27,300	25,900
	CFM56-7B27E/B3	27,300	25,900
** 特殊功率/Special Rating			

发动机和重量限制/Engine and Weight Limits

发动机运行限制参见数据单E00055EN或 E00056EN 或FAA批准的飞行手册(见注释2)。适用于737-900ER型飞机的其他限制见注释8。/For engine operating limits see Engine Type Certificate Data Sheet No. E00055EN or E00056EN or the FAA Approved Airplane Flight Manual. (See Note 2) . Additional limitations may apply to 737-900ER model airplanes. (See Note 8).

推力设置/Thrust Settings: 必须使用经过FAA批准的飞机的飞行手册和AFM附录中相应的发动机功率设定曲线来控制发动机推力。/The

appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

速度限制/Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)
关于其他的空速限制参见适当的FAA批准的飞行手册列出的注释2。/For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

重心范围/C. G. Range: 参见注释2列出的适当的FAA批准的飞行手册。/See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

最大重量/Maximum Weights: 737-900ER

最大载客重量/Maximum Taxi Weight (MTW)	188,200 lbs.
最大起飞重量/Maximum Takeoff Weight (MTOW)	187,700 lbs.
最大着陆重量/Maximum Landing Weight (MLW)	157,300 lbs.
最大零燃油重量/Maximum Zero Fuel Weight (MZFW)	149,300 lbs.

型号/Model	适用的生产序号/Eligible Serial Numbers:
737-9KFER	41114

最小飞行机组
/Minimum Crew

for All Flights: 2 (飞行员和副驾驶/Pilot and Copilot)

最大载客数
/Maximum
Passengers: 基于中间机身应急门的启用情况和分类情况有三种出口构型/ Three exit configuration based on the activation and classification of the Mid-Cabin Emergency Door (MED)
中间机身应急门未启用，两种舱门布置时最大客座量189 /Two door arrangement with MED de-activated has 189 maximum passenger capacity
中间机身应急门启用且定义为II型出口，三种舱门布置时最大客座量为215座/Three door arrangement with MED activated and rated as a Type II exit – 215 maximum passenger capacity
中间机身应急门启用且定义为I型出口，三种舱门布置时最大客座量为220座/ Three door arrangement with MED activated and rated as a Type I exit – 220 maximum passenger Capacity.

最大行李舱载荷/ Maximum Baggage Cargo:	参见注释1和适当的重量平衡手册, Boeing文件 D043A590/See Note 1 and appropriate Weight and Balance Manual, Boeing Document No. D043A590
燃油和滑油容量/ Fuel & Oil Capacities:	参见注释1和适当的重量平衡手册, Boeing文件D043A590/See Note 1 and appropriate Weight and Balance Manual, Boeing Document No. D043A590
最小燃油需求量/ Minimum Required Fuel:	参见注释2列出的适当的FAA批准的飞行手册/See appropriate FAA Approved Airplane Flight Manual listed in Note 2.
最大运行高度/ Maximum Operating /Altitude:	41,000英尺/ft.
基准/Datum:	参见适当的重量平衡手册, Boeing文件D043A590/See appropriate Weight & Balance Manual, Boeing Document No. D043A590.
平均气动弦/MAC:	155.81英寸/in
其他运行限制/ Other Operating Limitations:	参见注释4 – 双发延程飞行/See Note 4 – Extended Range Two – Engine Operations (ETOPS).
操纵面运动量/ Control Surface Movements:	为确保使用, 不同操纵面运动量应通过相应的飞行控制系统的 装配严格控制, 飞机必须按照下述批准的图纸装配。/To insure proper operation of the airplane, the movements of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplanes, must, therefore, be rigged according to the following FAA Approved data: 波音图纸号/Boeing Drawing Numbers: 114A1001, 克鲁格襟翼安装-机翼前缘内侧/Krueger Flap Instl - Inbd Wing L.E. 251A1001, 横向和减速板控制装备说明/Rigging Instructions. Lateral & Speedbrake Control 251A2001, 升降舵控制系统装备说明/Rigging Instructions, Elevator Control System

251A3001, 方向舵控制系统装备说明/Rigging Instructions, Rudder Control System

251A4001, 安定面配平控制系统装备说明/Rigging Instructions, Stabilizer Trim Control

256A3001, 襟翼作动装备说明 Rigging Instructions - Flap Actuation

256A2284, 襟翼前缘缝翼传感器安装-机翼前缘/ Flap.Slat Sensor Instl - Leading Edge, Wing

生产许可/Production Basis: 生产许可证700号/Production Certificate No. 700

必要设备/Required Equipment: 适用的适航要求（见审定基础）所规定的基础设备必须安装到合格审定的飞机上。所要求的设备在型号设计资料中。The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. The required equipment is noted in the Type Design data.

服务信息/Service Information: 参见波音的结构维修手册，如果服务通告和其他服务信息被批准的话，FAA会对其作出声明。/The following Boeing “Structural Repair Manual” Documents are FAA-approved. Service Bulletins and other service information, when FAA-approved, will carry a statement to that effect. D634A213 for the 737-900ER.

重心范围/C.G. Range: 参见适当的FAA批准的飞行手册列出的。/ See the appropriate FAA Approved Airplane Flight Manual listed.

IV. 经批准的中文标记标牌/ The Approved Chinese Placard and Markings

以下中文标记标牌已由 CAAC 接受并由 FAA 批准:

The following Chinese Placards have been accepted by CAAC and approved by FAA:

序号 Code	标题 Title	编号 Number	版本（见注释5） Rev./See Note 5
I	737 Bilingual (Chinese) Placards and Markings	D6-36621-7	D

V. 注释/Notes

注释/NOTE 1: 包括合格审定空重的设备清单和必要的装载说明的现行的重量平衡报告必须在最初的审定时提供给每一架飞机/A current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary

must be provided for each aircraft at the time of original certification.

注释/NOTE 2:

飞机按照FAA批准的飞行手册运行，由FAA批准的飞机飞行手册、使用运行规章或合格审定基础三者要求的所有标牌必须安装在飞机上。737-900ER飞行手册的基础是波音文档D631A001。
/Airplane operation must be in accordance with the FAA Approved AFM. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane. Boeing Document No. D631A001 is the basic FAA Approved Airplane Flight Manual for Model 737-900ER airplane.

注释/NOTE 3:

批准使用以下中国燃油

/The following Chinese fuels are approved for use:

1. 满足中国GB6537-2006规范要求的燃油。

/Fuels that meet the requirements in the Chinese GB6537-2006 Specification.

2. 批准按GB6537-2006规范中规定的浓度使用以下添加剂。

/The following additives in the GB6537-2006 Specification are approved for use at the concentration specified in the specification.

(1). 抗静电剂/Static Dissipater Additive: Statis 450.

(2). 抗氧剂/Antioxidant: 2, 6-ditertiary-butyl-4-methyl-phenol.

(3). 防冰剂/Icing Inhibitor: Diethylene glycol monomethyl ether.

(4). 金属钝化剂/Metal Deactivator Additive: N, N'-disalicylidene-1, 2-propanediamine.

抗静电剂T1502、防冰剂 ethylene glycol monomethyl ether 及抗磨剂T1601、 T1602 未被批准使用。

/Static dissipater additive T1502, anti-icing additive ethylene glycol monomethyl ether and antifriction additives T1601, and T1602 are not approved for use.

注释/NOTE 4:

737-900ER飞机的型号设计可靠性和性能已经按照FAA咨询通告AC 120-42A 进行了评估，在按照波音文件D044A007的

《737-600/-700/-700C/-800/-900/-900ER构型，维护和程序》使用和
维护时，适合双发延程运行。另外，在2007年2月15日后进行的需
申请ETOPS批准的型号设计更改已按14 CFR 25.1535进行了评估，
在按照波音文件D044A007运行和维护的情况下，适合延程

(ETOPS) 运行。此条不构成ETPOS运行批准。/The type design reliability and performance of the Model 737-900ER, airplane has been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D044A007, "737-600/-700/-700C/-800/-900 /-900ER ETOPS CONFIGURATION, MAINTENANCE, AND

PROCEDURES”. Additionally, type design changes incorporated after February 15, 2007 that require ETOPS approval have been evaluated in accordance with 14 CFR 25.1535 and found suitable for Extended Operations (ETOPS) when operated and maintained in accordance with Boeing Document D044A007. This finding does not constitute approval to conduct ETOPS operations.

注释/NOTE 5:

包含后续经批准的版本。
Including the subsequent approved version(s).

注释/NOTE 6:

符合SFAR 88和14 CFR 25.981要求的强制更换时间，检查间隔，相关检查程序和所有关键设计构型控制限制列在FAA批准的适航性限制和波音737-600/700/800/900维修计划数据文档D626A001-CMR, Revision R2, dated March, 2007（或FAA批准的后续版本）审定维修要求第9章。/Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with 14 CFR 25.981 are listed in the FAA-approved Airworthiness Limitations and Certification Maintenance Requirement, Section 9, of Boeing 737-600/700/800/900 Maintenance Planning Data Document D626A001-CMR, Revision R2, dated March, 2007, or later FAA-approved revision.

注释/NOTE 7:

B737-900ER已经批准RVSM运行。RVSM的持续适航和运行批准必须依据FAA AC 91-RVSM, 文件名“Approval of Aircraft and Operators for Flight in Airspace Above Flight Level (FL) 290 Where a 1,000 Foot Vertical Separation Minimum is Applied.”/The Model 737-900ER has been approved to operate in “Reduced Vertical Separation Minimum” (RVSM) airspace. Continued airworthiness and operational approval aspects of RVSM must be constructed according to Advisory Circular (AC) 91-RVSM, titled “Approval of Aircraft and Operators for Flight in Airspace Above Flight Level (FL) 290 Where a 1,000 Foot Vertical Separation Minimum is Applied.”

注释/NOTE 8:

B737-900ER的发动机型号取决于服役类型。参见AFM中已批准安装的CFM56-7B26, CFM56-7B26/B1, 或CFM56-7B27/B3或CFM56-7B27E/B3。本注释只适用于飞机在低循环小时维修项目下运行。/The acceptable engine models on 737-900ER model aircraft are dependent on the type of in-service use. See the Airplane Flight Manual for approved installation of the CFM56-7B26, CFM56-7B26/B1, or CFM56-7B27/B3 or CFM56-7B27E/B3. This

applies only when the airplane is operating under the low cycles/hours maintenance program.