型号认可证数据单

THE VALIDATION DATA SHEET

编号/No: VTC0274A

版次/Revision: 15

型号/Type: 787

型别/Model:

787-8

787-9

批准人/Approved By:

职务/Title: Deputy Director General

日期/Date: 2025-08-12

本数据单是型号认可证(编号：VTC0274A)的组成部分，它规定了符合中国民用航空局的适航要求所颁发此型号认可证的产品的状态和限制。

This data sheet，which is part of Validation of Type Certificate (No: VTC0274A), prescribes condition and limitation under which the product for which the type certificate was issued meets the airworthiness requirements of the Chinese Civil Aviation Regulation.

型号认可证持有人/Validation of Type Certificate Holder:

The Boeing Company

737 Logan Ave N Renton, WA 98057-0000

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第 1 部分总则（所有型别）

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	VTC0274A 15 2025/08/12	FAA T00021SE, Rev 38, Aug 5, 2024
历史/ History	VTC0274A 14 2025/05/19	FAA T00021SE, Rev 38, Aug 5, 2024
	VTC0274A 13 2024/10/12	FAA T00021SE, Rev 33, Mar 23, 2020
	VTC0274A 12 2024/06/11	FAA T00021SE, Rev 33, Mar 23, 2020
	VTC0274A 11 2023/12/05	FAA T00021SE, Rev 33, Mar 23, 2020
	VTC0274A 10 2019/02/14	FAA T00021SE, Rev 32, Jun 10, 2019
	VTC0274A 9 2019/03/15	FAA T00021SE, Rev 29, Sep 21, 2018
	VTC0274A 8 2018/08/10	FAA T00021SE, Rev 28, Mar 13, 2018
	VTC0274A 7 2017/05/02	FAA T00021SE, Rev 19, Aug20, 2015
	VTC0274A 6 2016/12/01	FAA T00021SE, Rev 19, Aug20, 2015
	VTC0274A 5 2016/06/06	FAA T00021SE, Rev 19, Aug 20, 2015
	VTC0274A 4 2016/05/09	FAA T00021SE, Rev 8, Dec09, 2013
	VTC0274A 3 2015/09/21	FAA T00021SE, Rev 8, Dec09, 2013
	VTC0274A 2 2015/03/20	FAA T00021SE, Rev 8, Dec09, 2013
	VTC0274A 1 2014/04/25	FAA T00021SE, Rev 7,Jun14, 2013
	VTC0274A 0 2013/05/23	FAA T00021SE, Rev 6, May10, 2013

2. 适航类别/Airworthiness Category: 运输类航空器/ Transport Category Aircraft

3. 认可当局/Validation Authority: 中国民用航空局/CAAC

审定当局/Certifying Authority: 美国联邦航空局/FAA

4. 型号合格证持有人/Type Certificate Holder: The Boeing Company
737 Logan Avenue N
Renton, WA 98057-0000

5. 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 T00021SE），和

CAAC 的附加技术条件组成。

The CAAC validation certification basis consists of the FAA certification basis (refer to FAA Type Certificate Data Sheet No.T00021SE), and the CAAC additional technical conditions.

6. CAAC 认可数据单修订情况说明 / CAAC VTCDS Change Record

CAAC 认可数据单版次/ CAAC VTCDS Revision	相对上一版次的修订情况/ CAAC VTCDS Change Record	备注/Remark
VTC0274A 15	787-8 在第 V 章增加了注释 21 Add Note21 to Section 2“787-8”part V“Notes” 787-9 在第 V 章增加了注释 13 Add Note13 to Section 3“787-9”part V“Notes”	
VTC0274A 14	787-8 禁止使用含有 Kathon™ FP 1.5 杀虫剂的燃油运行 GEnx-1B 系列发动机。 Operation of the General Electric GEnx-1B series engine with fuel containing Kathon™ FP 1.5 biocide is prohibited. 787-9 禁止使用含有 Kathon™ FP 1.5 杀虫剂的燃油运行 GEnx-1B 系列发动机。 Operation of the General Electric GEnx-1B series engine with fuel containing Kathon™ FP 1.5 biocide is prohibited.	
VTC0274A 13	在第 2 部分 II 章增加了等效安全判定“PS14-0470-P-15”； 在第 2 部分 III 章增加了罗罗发动机型号 Trent 1000-AE3, Trent 1000-CE3, Trent 1000-D3, Trent 1000-G3, Trent 1000-H3； 在第 3 部分 II 章增加了等效安全判定“PS14-0470-P-15 ”和“PS12-0038-SE-11”； 在第 3 部分 III 章增加了罗罗发动机型号 Trent 1000-AE3, Trent 1000-D3, Trent 1000-J3, Trent	

	1000-K3。 Add ELOS finding “PS14-0470-P-15” to Section 2 “787-8” part II. Add Trent 1000-AE3, Trent 1000-CE3, Trent 1000-D3, Trent 1000-G3, Trent 1000-H3 to Section 2 “787-8” part III. Add ELOS finding “PS14-0470-P-15” and “PS12-0038-SE-11” to Section 3 “787-9” part II. Add Trent 1000-AE3, Trent 1000-D3, Trent 1000-J3, Trent 1000-K3 to Section 3 “787-9” part III.	
VTC0274A 12	在第 2 部分 V 章增加了注释 20 在第 3 部分 V 章增加了注释 12 Add Note20 to Section 2“787-8”part V“Notes” Add Note12 to Section 3“787-9”part V“Notes”	

第 2 部分/SECTION 2: 787-8

I. 总则/General

1. **型别/Model:** 787-8
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
   737 Logan Avenue N Renton, WA 98057-0000
4. **FAA 批准日期/FAA Approved Date:** 2011.08.26/26 Aug 2011
5. **CAAC 批准日期/CAAC Approved Date:** 2013.05.23/23 May 2013

II. 认可审定基础/Validation Certification Basis

CAAC的认可审定基础由FAA的审定基础和CAAC的附加技术条件组成。见注释6和注释7。

The CAAC validation certification basis consists of the FAA certification basisand the CAAC additional technical conditions. See Note 6 and Note 7.

FAA审定基础//FAA certification basis

详见FAA型号合格证数据单T00021SE（版本29）中的787-8型别的审定基础，除以下内容外/ Refer to FAA Type Certificate Data Sheet No.T00021SE Revision 29, except:

Exemption No. 10868A
Exemption No.17613
ELOS PS08-0670-C-1
ELOS PS09-0987-CS-28
ELOS PS12-1032-CS-31
ELOS PS12-1033-C-32
ELOS PS13-0679-CS-33
ELOS PS13-0906-CS-37
ELOS PS06-0496-T-SE-15
ELOS TS15-0029-F-1
Special Conditions 25-431-SC
Special Conditions 25-458-SC

额外包括 :/additional including :

专用条件 25-745-SC/ Special Condition 25-745-SC

豁免 10879B/ Exemption 10879B

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 787-8 飞机须满足下述附加技术条件：

Each of Model 787-8 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记录器（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) 必须确定符合中华人民共和国国家标准“3 号喷气燃料”（GB6537）规范的燃油是可接受的；
The acceptance of fuel conforming the National Standard of the People’s Republic of China “No.3 Jet Fuel” (GB6537) 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（见注释 2）/Placard Requirements (See Note 2):

(a) 根据 CCAR21.29(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，应当用中文或英文书写；下列各项应当至少有简体中文表述

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；
2) 机上所有向旅客或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；
3) 旅客可能使用的机上所有应急设备的操作、使用说明应至少有中文表述。

(a) 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) All on-board placard and marking for awareness, warning, and note to the

passenger;

2) 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) All operational instructions for on-board emergency equipments possible operated by passengers shall be presented in Simplified Chinese at least.

(b) 中文字符的尺寸应满足 CCAR 25.811(e)(4)(iii) 款和 CCAR 25.812 条的要求。

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

(7)适坠性——乘员的安全与可生存性/ Crashworthiness—Occupants safety and survivability:

在直至 30 英尺/秒的下沉速度范围内，对于 787-8 飞机座椅/地板处加速度水平高于 25.562(b) 的要求且高于已取证宽体运输类飞机预期水平的情况，波音必须表明 787-8 飞机具有与现有规章要求等效的乘员安全和可存活性，即，乘员脊柱载荷不得超过 1500 磅力，并且座椅不得破坏或变形至可阻碍乘员快速撤离的程度。

For a range of vertical descent velocities up to 30 ft/s, in the case of acceleration levels at seat/floor of 787-8 aircraft are neither consistent with that specified in 25.562(b) nor consistent with levels expected for a previously certificated wide-body transport category airplane, Boeing must show compliance to an equivalent level of occupant safety and survivability, i.e., the occupant lumbar load should not exceed 1500lbs, and the seats will neither fail nor deform to the extent that will impede rapid evacuation of occupants.

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.

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》的要求已包括在审定基础中。

The requirements of Civil Aviation Order – Retrospective Requirements for Transport Category Airplane Ignition Sources Prevention (CAO No 2012-30) have been included in the certification basis.

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

发动机/Engines：

两台通用电气公司的涡扇发动机；型号：GEnx-1B64, GEnx-1B67, GEnx-1B70, GEnx-1B64/P1, GEnx-1B67/P1, GEnx-1B70/P1 或者 GEnx-1B70/75/P1

（发动机型号合格证编号：E00078NE，型号认可证编号：VTC0271E，型号认可证数据单版次 5）

两台罗-罗公司的涡扇发动机；型号：Trent 1000-AE3, Trent 1000-CE3, Trent 1000-D3, Trent 1000-G3, Trent 1000-H3（发动机型号合格证编号：E00076EN，型号认可证编号：VTC0321E，型号认可证数据单版次 03）

发动机的混装授权见适用的 FAA 批准的飞机飞行手册。

2 General Electric Turbofan Engines; Models: GEnx-1B64, GEnx-1B67, GEnx-1B70, GEnx-1B64/P1, GEnx-1B64/P2, GEnx-1B67/P1, GEnx-1B67/P2, GEnx-1B70/P1, GEnx-1B70/P2, GEnx-1B70/75/P1or GEnx-1B70/75/P2 (Engine Type Certificate No. E00078NE，VTC No. VTC0271E, the Validation Data Sheet Revision 5)

2 Rolls-Royce plc Turbofan Engines; Models: Trent 1000-AE3, Trent 1000-CE3, Trent 1000-D3, Trent 1000-G3, Trent 1000-H3 (Engine Type Certificate No. E00076EN, VTC0321E, the Validation Data Sheet Revision 03)

Authorization for engine intermix is contained in the appropriate FAA approved Airplane Flight Manual.

燃油/Fuel：

通用电气公司的涡扇发动机（见注释 8）：

符合如下规范的燃油为可接受：

ASTM D-1655 grades Jet-A 和 Jet A-1

MIL-DTL-5624 grade JP-5

MIL-DTL-83133 grade JP-8

GOST 10227-86 grade TS-1

GB6537 3 号喷气燃料

按照其它规范生产且特性满足上述规范要求的燃油可以接受。燃油和燃油添加剂必须符合相关的发动机使用说明书。禁止使用含有 Kathon™ FP 1.5 杀虫剂的燃油运行 GEnx-1B 系列发动机。

General Electric Turbofan Engines (also, see Note 8):

Fuels conforming to:

ASTM D-1655 grades Jet-A and Jet A-1

MIL-DTL-5624 grade JP-5

MIL-DTL-83133 grade JP-8

GOST 10227-86 grade TS-1

GB6537 No.3 Jet Fuel

are acceptable. Fuels produced to other specifications and having properties meeting the requirements of the above specifications are acceptable. The fuel and any fuel additives must conform to the relevant Engine Operating Instructions. Operation of the General Electric GEnx-1B series engine with fuel containing Kathon™ FP 1.5 biocide is prohibited.

批准使用满足中华人民共和国国家标准“3 号喷气燃料”（GB 6537）规范要求的燃油。

添加剂的使用见飞机飞行手册。

Approved to use the fuels that meet the requirements in the National Standard of the People’s Republic of China “No.3 Jet Fuel” (GB 6537) Specification. Consult the Airplane Flight Manual for additive use.

发动机限制/Engine Limits：

静态推力（磅），标准日，海平面高度

Static thrust lb, standard day, sea level

	起飞（见注释9） Takeoff(seeNote9)	最大连续 Maximum continuous
GEnx-1B64 (见注释10/seeNote10)	67,000	61,500
GEnx-1B67 (见注释11/seeNote11)	69,400	61,500
GEnx-1B70 (见注释12/seeNote12)	72,300	66,500
GEnx-1B64/P1 (见注释13/seeNote13)	67,000	61,500
GEnx-1B67/P1 (见注释13/seeNote13)	69,400	61,500
GEnx-1B70/P1 (见注释13/seeNote13)	72,300	66,500
GEnx-1B70/75/P1 (见注释13,14/seeNotes13,14)	72,300	66,500
GEnx-1B64/P2 (见注释15/seeNotes15)	67,000	61,500
GEnx-1B67/P2 (见注释15/seeNotes15)	69,400	61,500
GEnx-1B70/P2 (见注释15/seeNotes15)	72,300	66,500
GEnx-1B70/75/P2 (见注释15,16/seeNotes15,16)	72,300	66,500
Trent 1000 – AE3	69,194	64,722
Trent 1000 – CE3	74,511	69,523
Trent 1000 – D3	74,511	69,523
Trent 1000 – G3	72,066	64,722
Trent 1000 – H3	63,897	58,866

发动机的使用限制见适用的发动机型号合格证数据单或者 FAA 批准的飞机飞行手册。

For engine operating limits see the applicable Engine Type Certificate Data Sheet or the FAA approved Airplane Flight Manual.

空速限制/Airspeed Limits：

V_{MO}/M_{MO} = 350KEAS / 360KIAS / 0.90M.

对于其它空速限制，见适用的 FAA 批准的飞机飞行手册。

For other airspeed limits, see the appropriate FAA-approved Airplane Flight Manual.

重心范围/ CG Range：见适用的 FAA 批准的飞机飞行手册。

See the appropriate FAA-approved Airplane Flight Manual.

空重重心/

Empty Weight C.G.： 无/None

最大重量/Maximum Weights:

见适用的 FAA 批准的飞机飞行手册。

See the appropriate FAA-approved Airplane Flight Manual.

型号/Model	适用的生产序号/Eligible Serial Numbers
787-8	待定 Pending （见注释 17/see Note 17）

相关数据/PERTINENT DATA

最小机组：/Minimum Crew：

2 人/Two(2)：正驾驶和副驾驶/pilot and copilot

最大乘员/Maximum Passengers：

满足应急撤离标准的最大乘员数为：

381（4 对出口，（A, A, A, A）出口布局）

355（4 对出口，（C, A, A, A）出口布局）

330（4 对出口，（A, A, C, A）出口布局）

300（4 对出口，（C, A, C, A）出口布局）

同时，最大乘员数还进一步受到25.831(a)中关于环境控制系统通风要求的限制。目前由 787-8 飞机环境控制系统能力确定的最大乘员数为 371 人，包括客舱乘员 367 人（包括旅客和乘务员）和飞行驾驶员 4 人。当设置有上层飞行机组休息区和乘务员休息区时，由环境控制系统能力确定的最大乘员数为 364 人，包括客舱乘员 360 人（包括旅客和乘务员）和飞行驾驶员 4 人。

The maximum number of passengers approved for emergency evacuation is:

381with four pairs of exits in an (A, A, A, A) exit arrangement,

355 with four pairs of exits in a (C, A, A, A) exit arrangement,

330 with four pairs of exits in an (A, A, C, A) exit arrangement, and

300 with four pairs of exits in a (C, A, C, A) exit arrangement.

At the same time, the maximum passenger capacity may be further limited by Environmental Control System ventilation per occupant requirement defined in 25.831(a). Currently the maximum number of occupants determined by Environmental Control System is 371, including 367 cabin occupants (passengers and attendants) and 4 flight deck crew. When configured with both the Overhead Flight Crew Rest and Overhead Flight Attendant Rest Areas, the maximum number of occupants determined by Environmental Control System is 364, including 360 cabin occupants (passengers and attendants) and 4 flight deck crew.

最大行李/货物/ Max. Baggage/Cargo:

见适用的 FAA 批准的载重和平衡手册。见注释 1。

See appropriate FAA-approved Weight and Balance Manual. See NOTE 1.

燃油和滑油量/ Fuel and Oil Capacities:

见适用的 FAA 批准的载重和平衡手册。见注释 1。

See appropriate FAA-approved Weight and Balance Manual.See Note 1.

最大使用高度/ Maximum Operating Altitude：

43,100 英尺/43,100 feet

审定维修要求（CMR）/ Certification Maintenance Requirements (CMRs)：

见 FAA 批准的审定维修要求，文件编号：D011Z009-03-03。见注释 3。

See FAA-approved Certification Maintenance Requirements, document number D011Z009-03-03.See Note 3.

生产许可/ Production Basis：

生产许可证编号：700。见注释 4。

Production Certificate No. 700. See Note 4.

水平测量设施 / Leveling Means：

在左主起落架轮舱内，提供铅锤装置和水平标尺。

A plumb bob attachment and leveling provision scale are provided in the left

main gear wheel well.

基准 / Datum：

机身站位 0.0，位于称重基准顶点前 55.8 英寸。

Sta0.0, located 55.8 in forward of airplane nose (B.S. 55.8).

平均气动弦长 / Mean Aerodynamic Chord (MAC)：

246.9 英寸/246.9 inches

操纵面运动/ Control Surface Movements：

为了保证飞机的正常运行，必须通过飞行控制系统的正确校装来严格控制各种操纵面的运动。因此，飞机必须按以下 FAA 批准的波音公司文件进行校装：

B787-A-27-11-00-18A-270B-A – 副翼 –校装

B787-A-27-11-00-19A-270B-A – 襟副翼 –校装

B787-A-27-31-00-27A-270B-A – 升降舵 –校装

B787-A-27-21-00-31A-270B-A –方向舵–校装

B787-A-27-51-00-28A-270B-A－后缘襟翼系统–校装

B787-A-27-61-00-17A-270B-A –扰流板–校装

To insure proper operation of the airplane, the movement of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplane must, therefore, be rigged according to the following FAA-approved data in the following Boeing documents:

B787-A-27-11-00-18A-270B-A - Aileron – Rigging

B787-A-27-11-00-19A-270B-A - Flaperon – Rigging

B787-A-27-31-00-27A-270B-A - Elevator – Rigging

B787-A-27-21-00-31A-270B-A - Rudder – Rigging

B787-A-27-51-00-28A-270B-A - Trailing Edge Flap System – Rigging

B787-A-27-61-00-17A-270B-A - Spoiler – Rigging

操纵面最大行程：

Maximum control surface travel:

操纵面 **Control Surface**	**最大TED/TEL（度）** **Maximum TED/TEL (Deg.)**	**最大TEU/TER（度）** **Maximum TEU/TER (Deg.)**
副翼/Ailerons	16.94°	-32.20°
升降舵/Elevators	26.93°	-32.54°

襟副翼/Flaperon	39.26°	-31.61°
扰流板6,7,8,9/Spoilers6,7,8,9	-13.21°	60.95°
扰流板1,2,3,12,13,14/ Spoilers1,2,3,12,13,14	-13.24°	60.77°
扰流板4,5,10,11/Spoilers4,5,10,11	-13.16°	63.00°
方向舵/Rudder	32.10°	-30.12°
水平安定面/Horizontal Stabilizer	4.25°	-12.75°
内侧襟翼/Inboard Flaps	41.20°	-2.80°
外侧襟翼/Outboard Flaps	41.20°	-2.00°
内侧缝翼/Inboard Slats	23.47°	-0.34°
外侧缝翼/Outboard Slats	30.16°	-0.40°

后缘向下/Trailing Edge Down = TED
后缘向上/Trailing Edge Up = TEU
后缘向左/Trailing Edge Left = TEL
后缘向右/Trailing Edge Right = TER
度/Degrees =Deg.

必要设备 / Required Equipment：

在适用的适航规章（见审定基础）中规定的基本必备设备，必须安装在审定的飞机上。

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

“缩小垂直间隔”（RVSM）空域运行/Operation in (RVSM) airspace：

787 型飞机已经获准在“缩小垂直间隔”（RVSM）空域运行。有关 RVSM 在持续适航和运行方面的批准，必须按照 CAAC 咨询通告 AC-91-7“缩小垂直间隔（RVSM）空域的运行要求”和咨询通告 AC-21-13 “在 RVSM 空域实施 300 米（1000 英尺）垂直间隔标准运行的航空器适航批准”进行。

The Model 787 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 CAAC Advisory Circular (AC) 91-7 titled “Authorization of Aircraft and Operators for Flight in Reduced Vertical Separation Minimum Airspace” and AC-21-13, titled “Airworthiness Approval of Aircraft operating in Vertical Separation Minimum Airspace above 300 Meters (1000 Feet)”.

延程运行/ETOPS

787-8 飞机已经满足型号设计要求 14 CFR § 25.3(b)(2) 和 25.1535，当按照波音文件 D021Z002-01“787ETOPS 构型，维护和程序”运行和维护时，适合进

行大于 180 分钟的 ETOPS 运行。该判定不构成进行 ETOPS 运行的批准。

The 787-8 has been evaluated in accordance with the type design requirements of 14 CFR § 25.3(b)(2) and 25.1535 and found suitable for greater than 180- minute ETOPS operations when operated and maintained in accordance with Boeing Document No. D021Z002-01, “Model 787 ETOPS Configuration, Maintenance, and Procedures.” This finding does not constitute approval to conduct ETOPS

服务信息 / Service Information：

波音公司文件 B787-81205-Z0210-00“787-8 飞机结构维修手册”已经 FAA 的批准；服务通告和其它服务信息如果得到了 FAA 的批准，将包含 FAA 的批准声明。

Boeing Document B787-81205-Z0210-00, “787-8 Structural Repair Manual” is FAA-approved; Service Bulletins and other service information, when FAA-approved, will contain a statement declaring FAA approval.

IV.经批准的中文标记标牌/ The Approved Chinese Placards

以下资料中所包含的中文标记标牌的中文表述已由 CAAC 接受并由 FAA 批准：

The Chinese Placards involved in the following data have been accepted by CAAC and approved by FAA:

序号 Code	标题 Title	编号 Number	版本（见注释 18） Rev./See Note 18
1	787 Bilingual (Chinese) Placards and Markings	D6-36621-4	K

V. 注释/Notes

注释/NOTE 1： 除非运营人具有 FAA 批准的用于重量和平衡控制的装载系统，否则，从飞机首次获得适航证之时起及其以后的所有时间，必须为每架飞机提供一份现行有效的重量和平衡报告《波音公司文件 D043Z580-aaaa-xxxxx》（此处 aaaa 为所有者标识，xxxxx 为飞机序列号）。

A current Weight and Balance Report, Boeing Document D043Z580-aaaa-xxxxx (where aaaa is the owner identifier and xxxxx is the aircraft serial number) must be provided for each aircraft at the time of original airworthiness certification and at all times thereafter, except in the case of the operator having an FAA-approved loading system for weight and balance control.

注释/NOTE 2： 飞机运行必须依照 FAA 批准的飞机飞行手册（波音公司文件 D631Z003）。必须在飞机上安装按照 FAA 批准的飞行手册、适用的运行规章或审定基础所要求的所有标牌。

Airplane operation must be in accordance with the FAA-approved Airplane Flight Manual, Boeing Document D631Z003. All placards required by either the FAA-approved Flight Manual, the applicable operating rules, or the Certification Basis must be installed in the airplane.

中文标记、标牌和说明，如有，必须作为型号设计获得批准。

Placard, marking and instruction in Chinese, if any, must be approved as type design.

注释/NOTE 3： 根据 25.571、25.981 和 25.1529 的要求，局方已接受波音公司文档 D011Z009-03 及其子文档，波音 787 型号维修计划数据中第 9 章的持续适航文件。自飞机收到初始适航证或后续收到以下文件之日起，每个运营人必须尽快将经局方批准的最新版本的适用项目纳入到局方批准的航空公司的维修大纲中:

In accordance with 14 CFR 25.571, 25.981, 25.1529, the FAA has accepted the Boeing Model 787 Instructions for Continued Airworthiness in Section 9 of the 787 Maintenance Planning Data, Boeing Document D011Z009-03 and sub-tier documents. Each operator must incorporate into their airline's FAA-approved maintenance program as soon as practical the applicable items from the latest FAA-approved version as of the date that an airplane receives an original airworthiness certificate or later of the following documents:

D011Z009-03-01, 787 持续适航限制（AWLs）。包含关于安全寿命和限寿结构件的检查和报废时间。以及关于系统限寿件和其他系统限制的报废时间。/787 Airworthiness Limitations (AWLs). Contains required structural inspections and the retirement times for structural safe-life and life-limited parts. Also contains required retirement times for systems life limited parts and other systems limitations.

D011Z009-03-02, 787 适航限制（AWLs）-特定的生产线号。受到飞机制造不符合项影响的现有结构适航限制项目，可能导致对特定的生产线号飞机的检查要求和/或检查间隔进行修订。

787 Airworthiness Limitations (AWLs) - Line Number Specific. Existing structures AWLs that were impacted by airplane production non-conformances may result in

airplane specific revised inspection requirements and/or inspection intervals.

D011Z009-03-03, 787 审定维修要求（CMR），规定了对特定系统安装的必要的定期任务。

787 Certification Maintenance Requirements (CMRs). Required periodic tasks to specific Systems installations.

D011Z009-03-04, 787 特殊符合性项目（SCI） /适航限制。该文件列出了用于符合 14 CFR 第 25.981 条款所需的适航限制项目（ALI）和关键设计构型控制限制（CDCCL），并提供了相关说明。

787 Special Compliance Items (SCIs) /Airworthiness Limitations. This document lists and provides instructions for Airworthiness Limitation Instructions (ALIs) and Critical Design Configuration Control Limitations (CDCCLs) required to comply with 14 CFR Part 25.981.

注释/NOTE 4： 下列序列号的飞机为仅依据型号合格证生产：

The following Aircraft Serial Numbers were produced under the Type Certification only:

34486, 34832, 36277, 36278, 36281, 36282, 36283, 36284, 40693, 40694, 40695.

注释/NOTE 5： 在客舱的适用区域使用快卸设备来安装部件，如厨房、衣柜、厕所和储物箱，必须表明对 25.561(c)(2)款的符合性。

Installations using quick release hardware to install commodities such as galleys, closets, lavatories and stowage bins in adaptable zones in the passenger cabin shall be shown compliant to 25.561(c)(2).

注释/NOTE 6： FAA 关于波音 787-8 飞机审定基础中的 14CFR25 部（至 25-128 修正案）和 14CFR26 部（至 26-5 修正案）要求等同于民航发[2012]30 号文和 CCAR-26 第 26.11、26.37、26.43 和 26.45 条要求。

The requirements of 14 CFR Part 26 (through Amendment 26-5) and 14CFR Part 25 (through Amendment 25-128) identified in the FAA certification basis for Boeing 787-8 airplane are equal to the requirement of CAO No 2012-30 and CCAR-26 §§ 26.11, 26.37, 26.43 and 26.45.

注释/NOTE 7： CCAR-26 第 26.11, 26.37, 26.43, 26.45 条款和民航发[2012]30 号文(CAO No 2012-30)的符合性已确认。

Compliance findings have been addressed for the requirements of CCAR-26 §§ 26.11, 26.37, 26.43, 26.45 and Civil Aviation Order (CAO) No 2012-30.

注释/NOTE 8： 波音和通用电气公司已经确定，787-8 飞机上的 GEnx 发动机在停车后会间歇性地排出有时清晰可见的燃油蒸汽雾，这是由于少量燃油从发动机燃油系统中排出的原因所致。此排放量不构成安全问题或显著的环境影响。波音和通用电气公司已于 2012 年 12 月 31 日前完成了对飞机及发动机的设计更改，完全消除这种燃油排泄。生产线新飞机应在飞机交付前贯彻该设计更改。波音公司已经在持续适航文件中纳入一项适航限制，要求在 2014 年 12 月 31 日前贯彻对受影响的已交付飞机的设计更改。

Boeing and GE have determined that the GEnx engines on these 787-8 aircraft intermittently emit a sometimes clearly visible fuel vapor fog after shutdown, as a result of a small quantity of fuel being released from the engine's fuel system. These emissions do not present a safety issue or appreciable environmental impact. Boeing and GE have modified the design of the aircraft and engines before December 31, 2012 to completely eliminate this fuel venting. The design modification should be incorporated on production new aircraft before delivery. Boeing has included an airworthiness limitation in the instructions for continued airworthiness for the affected delivered aircrafts requiring incorporation of the modified design by December 31, 2014.

注释/NOTE 9： 在起飞阶段单发推力丧失的情况下，额定起飞推力可使用 10 分钟，除此之外的其它情况下额定起飞推力的使用限制为不超过 5 分钟。

The takeoff rating can be used for 10 minutes in the event of loss of thrust on one engine during takeoff, otherwise limited to not more than 5 minutes。

注释/NOTE 10： 适用于型别为 GEnx-1B64G03 或 GEnx-1B64G04 的发动机材料清单。

Applicable to Bill of Materials for GEnx-1B64G03 or GEnx-1B64G04.

注释/NOTE 11： 适用于型别为 GEnx-1B67G03 或 GEnx-1B67G04 的发动机材料清单。

Applicable to Bill of Materials for GEnx-1B67G03 or GEnx-1B67G04.

注释/NOTE 12： 适用于型别为 GEnx-1B70G03 或 GEnx-1B70G04 的发动机材料清单。

Applicable to Bill of Materials for GEnx-1B70G03 or GEnx-1B70G04.

注释/NOTE 13： 适用于型别为 GEnx-1B64/P1G01、GEnx-1B67/P1G01、GEnx-1B70/P1G01 和 GEnx-1B70/75/P1G01 的发动机材料清单。

Applicable to Bill of Materials for GEnx-1B64/P1G01, GEnx-1B67/P1G01, GEnx-1B70/P1G01 and GEnx-1B70/75/P1G01 respectively.

注释/NOTE 14： 除起飞平台推力的环境温度（38.8°C/101.8°F，海平面高度）有扩展之外，其它与 GEnx-1B70/P1 发动机相同。

Same as GEnx-1B70/P1 except for extended takeoff flat rating ambient temperature (38.8°C/101.8°F at sea level).

注释/NOTE 15： 适用于型别为 GEnx-1B64/P2G01、GEnx-1B64/P2G02、GEnx-1B67/P2G01、GEnx-1B67/P2G02、GEnx-1B70/P2G01、GEnx-1B70/P2G02 和 GEnx-1B70/75/P2G01 或者 GEnx-1B70/75/P2G02 的发动机材料清单。

Applicable to Bill of Materials for GEnx-1B64/P2G01 or GEnx-1B64/P2G02, GEnx-1B67/P2G01 or GEnx-1B67/P2G02, GEnx-1B70/P2G01 or GEnx-1B70/P2G02 and GEnx-1B70/75/P2G01 or GEnx-1B70/75/P2G02 respectively.

注释/NOTE 16： 除起飞平台推力的环境温度（38.8°C/101.8°F，海平面高度）有扩展之外，其它与 GEnx-1B70/P2 发动机相同。

Same as GEnx-1B70/P2 except for extended takeoff flat rating ambient temperature (101.8°F/38.8°C at sea level).

注释/NOTE 17： 将列出符合本型号认可证数据单的飞机生产序号。

Serial Number will be listed for any airplane conforms to this Validation Data Sheet.

注释/NOTE 18： 包含后续经批准的版本。

Including the subsequent approved version(s).

注释/NOTE 19： 豁免 11081A，2015 年 1 月 20 日颁发。时间限制豁免 25.939(a)，25-40 修正案。针对已贯彻发动机防冰系统改装和 AFM 相应限制的飞机，要求 2015 年 6 月 30 日后生产飞机必须完全符合，所有在役飞机 2015 年 6 月 30 日后不得安装不符合 939(a)的改装。

Time Limited Grant of Exemption § 25.939(a), at Amendment 25-40, for airplanes that have incorporated engine ice protection system modifications and

associated AFM limitations; Exemption 11081A, issued January 20, 2015, requires production airplanes to be fully compliant by June 30, 2015 and prohibits in-service fleet retrofit after June 30, 2015.

注释/NOTE 20： 批准 787-8 飞机增强型机载飞行记录器(含 25 小时舱音和数据链)水下定位信标（ULB）非充电锂电池（NRLB）设计更改。

Approve 787-8 design change of Enhanced Airborne Flight Recorder with 25 Hour Cockpit Voice and Data Link Recording ULB NRLB.

注释/NOTE 21： 认可了波音 787-8 飞机应急照明系统安装的设计更改。/ The design change of Boeing 787-8 Emergency Lighting Power System Installation has been validated.

第 3 部分/SECTION 3: 787-9

I. 总则/General

1. **型别/Model:** 787-9
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
   737 Logan Ave N Renton, WA 98057-0000
4. **FAA 批准日期/FAA Approved Date:** 2014.06.05/26 June 2014
5. **CAAC 批准日期/CAAC Approved Date:** 2016.05.09/09 May 2016

II. 认可审定基础/Validation Certification Basis

CAAC的认可审定基础由FAA的审定基础和CAAC的附加技术条件组成。见注释6和注释7。

The CAAC validation certification basis consists of the FAA certification basisand the CAAC additional technical conditions. See Note 6 and Note 7.

FAA 审定基础/FAA certification basis

详见 FAA 型号合格证数据单 T00021SE（版本 29）中的 787-9 型别的审定基础，除以下内容/ Refer to 787-9 certification basis in the FAA Type Certificate Data Sheet No.T00021SE Revision 29, except:

Exemption No. 11002
Exemption No. 17613
ELOS PS12-1033-C-32
ELOS PS13-0906-CS-37
ELOS TS15-0029-F-1
Special Conditions 25-458-SC
Special Conditions 25-552-SC

额外包括 :/additional including :

豁免 10879B/ Exemption 10879B

专用条件 25-745-SC/ Special Condition 25-745-SC

专用条件 25-626-SC/ Special Condition 25-626-SC

专用条件 25-580-SC/ Special Condition 25-580-SC

(注：25-626-SC 和 25-580-SC 都被 25-626A-SC 代替，这两个专用条件仅适用于已按此审定的斜向座椅/ Both are replaced by 25-626A-SC and only applicable to oblique seats already certified per them).

等效安全判定 PS14-1031-SE-28

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 787-9 飞机须满足下述附加技术条件：

Each of Model 787-9 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记录器（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) 必须确定符合中华人民共和国国家标准“3 号喷气燃料”（GB6537）规范的燃油是可接受的；
The acceptance of fuel conforming the National Standard of the People’s Republic of China “No.3 Jet Fuel” (GB6537) 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（见注释 2）/Placard Requirements (See Note 2):

(a) 根据 CCAR21.29(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，应当用中文或英文书写；下列各项应当至少有简体中文表述

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；
2) 机上所有向旅客或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；
3) 旅客可能使用的机上所有应急设备的操作、使用说明应至少有中文表述。

(a) 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) All on-board placard and marking for awareness, warning, and note to the passenger;
2) 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) All operational instructions for on-board emergency equipments possible operated by passengers shall be presented in Simplified Chinese at least.

(b) 中文字符的尺寸应满足 CCAR 25.811(e)(4)(iii) 款和 CCAR 25.812 条的要求。

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

(7)适坠性——乘员的安全与可生存性/ Crashworthiness—Occupants safety and survivability:

在直至 30 英尺/秒的下沉速度范围内，对于 787-9 飞机座椅/地板处加速度水平高于 25.562(b) 的要求且高于已取证宽体运输类飞机预期水平的情况，波音必须表明 787-9 飞机具有与现有规章要求等效的乘员安全和可存活性，即，乘员脊柱载荷不得超过 1500 磅力，并且座椅不得破坏或变形至可阻碍乘员快速撤离的程度。

For a range of vertical descent velocities up to 30 ft/s, in the case of acceleration levels at seat/floor of 787-9aircraft are neither consistent with that specified in 25.562(b) nor consistent with levels expected for a previously certificated wide-body transport category airplane, Boeing must show compliance to an equivalent level of occupant safety and survivability, i.e., the occupant lumbar load should not exceed 1500lbs, and the seats will neither fail nor deform to the extent that will impede rapid evacuation of occupants.

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.

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》的要求已包括在审定基础中。

The requirements of Civil Aviation Order – Retrospective Requirements for Transport Category Airplane Ignition Sources Prevention (CAO No 2012-30) have been included in the certification basis.

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

发动机/Engines：

两台罗-罗公司的涡扇发动机；Trent 1000-J2，Trent 1000-A2，Trent 1000-K2，

Trent 1000-AE3， Trent 1000-D3，Trent 1000-J3 和 Trent 1000-K3（发动机型号合格证编号：E00076EN，型号认可证编号：VTC0321E，型号认可证数据单版次 3）

两台通用电气公司的涡扇发动机；GEnx-1B74/75/P2，GEnx-1B76A/P2（发动机型号合格证编号：E00078NE，型号认可证编号：VTC0271E，型号认可证数据单版次 5）。

发动机的混装授权见适用的 FAA 批准的飞机飞行手册。

2 Rolls-Royce plc Turbofan Engines; Models: Trent 1000-J2, Trent 1000-A2, Trent 1000-K2, Trent 1000-AE3, Trent 1000-D3, Trent 1000-J3, and Trent 1000-K3 (Engine Type Certificate No. E00076EN, VTC0321E, the Validation Data Sheet Revision 3)

2 General Electric Turbofan Engines; GEnx-1B74/75/P2, GEnx-1B76A/P2 (Engine Type Certificate No. E00078NE, VTC0271E, the Validation Data Sheet Revision 5).

Authorization for engine intermix is contained in the appropriate FAA approved Airplane Flight Manual.

燃油/Fuel：

罗-罗涡轮风扇发动机

符合如下规范的燃油为可接受：

ASTM D-1655 grades Jet-A and Jet A-1

MIL-DTL-5624 grade JP-5

MIL-DTL-83133 grade JP-8

GOST 10227-86 grade TS-1

GB6537 3 号喷气燃料

按照其它规范生产且特性满足上述规范要求的燃油可以接受。燃油和燃油添加剂必须符合相关的发动机使用说明书。

通用电气涡轮风扇发动机（见注释 8）

符合如下规范的燃油为可接受：

ASTM D-1655 grades Jet-A and Jet A-1

MIL-DTL-5624 grade JP-5

MIL-DTL-83133 grade JP-8

GOST 10227-86 grade TS-1

GB6537 3 号喷气燃料

按照其它规范生产且特性满足上述规范要求的燃油可以接受。燃油和燃油添加剂必须符合相关的发动机使用说明书。禁止使用含有 Kathon™ FP 1.5 杀虫剂的燃油运行 GEnx-1B 系列发动机。

Rolls-Royce plc Turbofan
Fuels conforming to:
ASTM D-1655 grades Jet-A and Jet A-1
MIL-DTL-5624 grade JP-5
MIL-DTL-83133 grade JP-8
GOST 10227-86 grade TS-1
GB6537 No.3 Jet Fuel
are acceptable. Fuels produced to other specifications and having properties meeting the requirements of the above specifications are acceptable. The fuel and any fuel additives must conform to the relevant Engine Operating Instructions

General Electric Turbofan Engines (see Note 8):
Fuels conforming to:
ASTM D-1655 grades Jet-A and Jet A-1
MIL-DTL-5624 grade JP-5
MIL-DTL-83133 grade JP-8
GOST 10227-86 grade TS-1
GB6537 No.3 Jet Fuel
are acceptable. Fuels produced to other specifications and having properties meeting the requirements of the above specifications are acceptable. The fuel and any fuel additives must conform to the relevant Engine Operating Instructions. Operation of the General Electric GEnx-1B series engine with fuel containing Kathon™ FP 1.5 biocide is prohibited.

批准使用满足中华人民共和国国家标准“3 号喷气燃料”（GB 6537）规范要求的燃油。
添加剂的使用见飞机飞行手册。

Approved to use the fuels that meet the requirements in the National Standard of the People’s Republic of China “No.3 Jet Fuel” (GB 6537) Specification.
Consult the Airplane Flight Manual for additive use.

发动机限制/Engine Limits：

静态推力（磅），标准日，海平面高度

Static thrust lb, standard day, sea level

	起飞（见注释9） Takeoff(seeNote9for operating limits)	最大连续 Maximum continuous
Trent 1000-J2	78,129	71,818
Trent 1000-A2	69,194	64,722
Trent 1000-K2	78,129	71,818
Trent 1000-AE3	69,194	64,722
Trent 1000-D3	74,511	69,523
Trent 1000-J3	78,129	71,818
Trent 1000-K3	78,129	71,818
GEnx-1B74/75/P2 (适用的BOM见注释10/See Note 10 for applicable BOM)	76,700	68,600
GEnx-1B76A/P2 (适用的BOM见注释10/See Note 10 for applicable BOM)	78,500	68,600

发动机的使用限制见适用的发动机型号合格证数据单或者 FAA 批准的飞机飞行手册。

For engine operating limits see the applicable Engine Type Certificate Data Sheet or the FAA approved Airplane Flight Manual.

空速限制/Airspeed Limits：(见注释 2/See Note 2)

V_{MO}/M_{MO} = 350KEAS / 360KIAS / 0.90M.

对于其它空速限制，见适用的 FAA 批准的飞机飞行手册。

For other airspeed limits, see the appropriate FAA-approved Airplane Flight Manual.

重心范围/ CG Range：见适用的 FAA 批准的飞机飞行手册。

See the appropriate FAA-approved Airplane Flight Manual.

空重重心/

Empty Weight C.G.：无/None

最大重量/Maximum Weights:

见适用的 FAA 批准的飞机飞行手册。

See the appropriate FAA-approved Airplane Flight Manual.

型号/Model	生产序号/ Serial Numbers
787-9	待定/Pending

相关数据/PERTINENT DATA

最小机组：/Minimum Crew：

2 人/Two(2)：正驾驶和副驾驶/pilot and copilot

最大乘员/Maximum Passengers：

满足应急撤离标准的最大乘员数为：

420（4 对出口，（A, A, A, A）出口布局）

355（4 对出口，（C, A, A, A）出口布局）

355（4 对出口，（A, A, C, A）出口布局）

300（4 对出口，（C, A, C, A）出口布局）

同时，最大乘员数还进一步受到25.831(a)中关于环境控制系统通风要求的限制。目前由 787-9 飞机环境控制系统能力确定的最大乘员数如下：无机组休息区时为 415 人；设置有飞行机组休息区时为 407 人，设置有乘务员休息区时为 400 人，既有飞行机组休息区又有乘务员休息区时为 394 人。

The maximum number of passengers approved for emergency evacuation is:

420with four pairs of exits in an (A, A, A, A) exit arrangement,

355 with four pairs of exits in a (C, A, A, A) exit arrangement,

355 with four pairs of exits in an (A, A, C, A) exit arrangement, and

300 with four pairs of exits in a (C, A, C, A) exit arrangement.

At the same time, the maximum passenger capacity may be further limited by Environmental Control System ventilation per occupant requirement defined in 25.831(a). Currently the maximum number of occupants determined by Environmental Control System is as following:415 (No Crew Rests); 407 (With Flight Crew Rest); 400 (With Attendant Crew Rest); 394 (Both Flight & Attendant Crew Rests).

最大行李/货物/ Max. Baggage/Cargo:

见适用的 FAA 批准的载重和平衡手册。（见注释 1）

See appropriate FAA-approved Weight and Balance Manual.（See Note 1）

燃油和滑油量/ Fuel and Oil Capacities:

见适用的 FAA 批准的载重和平衡手册。（见注释 1）

See appropriate FAA-approved Weight and Balance Manual.（See Note 1）

最大使用高度/ Maximum Operating Altitude：

43,100 英尺/43,100 feet

审定维修要求（CMR）/ Certification Maintenance Requirements (CMRs)：

见 FAA 批准的审定维修要求，文件编号：D011Z009-03-03。见注释 3。

See FAA-approved Certification Maintenance Requirements, document number D011Z009-03-03.See Note 3.

生产许可/ Production Basis：

生产许可证编号：700。见注释 4。

Production Certificate No. 700. See Note 4.

水平测量设施 / Leveling Means：

在左主起落架轮舱内，提供铅锤装置和水平标尺。

A plumb bob attachment and leveling provision scale are provided in the left main gear wheel well.

基准 / Datum：

机身站位 0.0，位于称重基准顶点前 55.8 英寸。

Sta0.0, located 55.8 in forward of airplane nose (B.S. 55.8).

平均气动弦长 / Mean Aerodynamic Chord (MAC)：

246.9 英寸/246.9 inches

操纵面运动/ Control Surface Movements：

为了保证飞机的正常运行，必须通过飞行控制系统的正确校装来严格控制各种操纵面的运动。因此，飞机必须按以下 FAA 批准的波音公司文件进行校装：

B787-A-27-11-00-18A-270B-A – 副翼 –校装

B787-A-27-11-00-19A-270B-A – 襟副翼 –校装

B787-A-27-31-00-27A-270B-A – 升降舵 –校装

B787-A-27-21-00-31A-270B-A –方向舵–校装

B787-A-27-51-00-28A-270B-A－后缘襟翼系统–校装

B787-A-27-61-00-17A-270B-A –扰流板–校装

To insure proper operation of the airplane, the movement of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplane must, therefore, be rigged according to the following FAA-approved data in the following Boeing documents:

B787-A-27-11-00-18A-270B-A - Aileron – Rigging

B787-A-27-11-00-19A-270B-A - Flaperon – Rigging

B787-A-27-31-00-27A-270B-A - Elevator – Rigging

B787-A-27-21-00-31A-270B-A - Rudder – Rigging

B787-A-27-51-00-28A-270B-A - Trailing Edge Flap System – Rigging

B787-A-27-61-00-17A-270B-A - Spoiler – Rigging

操纵面最大行程：

Maximum control surface travel:

操纵面 **Control Surface**	**最大TED/TEL（度）** **Maximum TED/TEL (Deg.)**	**最大TEU/TER（度）** **Maximum TEU/TER (Deg.)**
副翼/Ailerons	16.94°	-32.20°
升降舵/Elevators	26.93°	-32.54°
襟副翼/Flaperon	39.26°	-31.61°
扰流板6,7,8,9/Spoilers6,7,8,9	-13.23°	61.15°
扰流板1,2,3,12,13,14/ Spoilers1,2,3,12,13,14	-13.24°	60.77°
扰流板4,5,10,11/Spoilers4,5,10,11	-13.40°	62.91°
方向舵/Rudder	32.40°	-32.00°
水平安定面/Horizontal Stabilizer	4.25°	-12.75°
内侧襟翼/Inboard Flaps	43°	-2.80°
外侧襟翼/Outboard Flaps	43°	-2.00°
内侧缝翼/Inboard Slats	26.52°	-0.34°
外侧缝翼/Outboard Slats	31.56°	-0.40°

后缘向下/Trailing Edge Down = TED

后缘向上/Trailing Edge Up = TEU

后缘向左/Trailing Edge Left = TEL

后缘向右/Trailing Edge Right = TER

度/Degrees =Deg.

必要设备 / Required Equipment：

在适用的适航规章（见审定基础）中规定的基本必备设备，必须安装在审定的飞机上。

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

certification.

“缩小垂直间隔”（RVSM）空域运行/Operation in (RVSM) airspace：

787 型飞机已经获准在“缩小垂直间隔”（RVSM）空域运行。有关 RVSM 在持续适航和运行方面的批准，必须按照 CAAC 咨询通告 AC-91-7“缩小垂直间隔（RVSM）空域的运行要求”和咨询通告 AC-21-13 “在 RVSM 空域实施 300 米（1000 英尺）垂直间隔标准运行的航空器适航批准”进行。

The Model 787 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 CAAC Advisory Circular (AC) 91-7 titled “Authorization of Aircraft and Operators for Flight in Reduced Vertical Separation Minimum Airspace” and AC-21-13, titled “Airworthiness Approval of Aircraft operating in Vertical Separation Minimum Airspace above 300 Meters (1000 Feet)”.

延程运行/ETOPS

787-9 飞机已经满足型号设计要求 14 CFR § 25.3(b)(2) 和 25.1535，当按照波音文件 D021Z002-01“787ETOPS 构型，维护和程序”运行和维护时，适合进行大于 180 分钟的 ETOPS 运行。该判定不构成进行 ETOPS 运行的批准。

The 787-9 has been evaluated in accordance with the type design requirements of 14 CFR § 25.3(b)(2) and 25.1535 and found suitable for greater than 180- minute ETOPS operations when operated and maintained in accordance with Boeing Document No. D021Z002-01, “Model 787 ETOPS Configuration, Maintenance, and Procedures.” This finding does not constitute approval to conduct ETOPS

服务信息 / Service Information：

波音公司文件 B787-81205-Z0310-00“787-9 飞机结构维修手册”已经 FAA 的批准；服务通告和其它服务信息如果得到了 FAA 的批准，将包含 FAA 的批准声明。

Boeing Document B787-81205-Z0310-00, “787-9 Structural Repair Manual” is FAA-approved; Service Bulletins and other service information, when FAA-approved, will contain a statement declaring FAA approval.

IV.经批准的中文标记标牌/ The Approved Chinese Placards

以下资料中所包含的中文标记标牌的中文表述已由 CAAC 接受并由 FAA 批准：

The Chinese Placards involved in the following data have been accepted by CAAC and approved by FAA:

序号 Code	标题 Title	编号 Number	版本（见注释 11） Rev./See Note 11
1	787 Bilingual (Chinese) Placards and Markings	D6-36621-4	K

V. 注释/Notes

注释/NOTE 1： 根据 14 CFR 25.29，从飞机首次获得适航证之时起，必须为每架飞机提供一份现行有效的重量和平衡报告，必要时应包括一份在审定空重和载重说明中所含有的设备的清单。

A current weight and balance report, including a 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. This is in accordance with 14 CFR 25.29

注释/NOTE 2： 飞机运行必须依照 FAA 批准的飞机飞行手册（波音公司文件 D631Z003）。必须在飞机上安装按照 FAA 批准的飞行手册、适用的运行规章或审定基础所要求的所有标牌。

Airplane operation must be in accordance with the FAA-approved Airplane Flight Manual, Boeing Document D631Z003. All placards required by either the FAA-approved Flight Manual, the applicable operating rules, or the Certification Basis must be installed in the airplane.

中文标记、标牌和说明，如有，必须作为型号设计获得批准。

Placard, marking and instruction in Chinese, if any, must be approved as type design.

注释/NOTE 3： 根据 25.571、25.981、25.1529 和 25.1729 的要求，局方已接受波音公司文档 D011Z009-03 及其子文档，波音 787 型号维修计划数据中第 9 章的持续适航文件。自飞机收到初始适航证或后续收到以下文件之日起，每个运营人必须尽快将经局方批准的最新版本的适用项目纳入到局方批准的航空公司的维修大纲中:

In accordance with 14 CFR 25.571, 25.981, 25.1529 and 25.1729, the FAA has accepted the Boeing Model 787 Instructions for Continued Airworthiness in Section 9 of the 787 Maintenance Planning Data, Boeing Document D011Z009-03 and sub-tier documents. Each operator must incorporate into their airline’s FAA-approved maintenance program as soon as practical the applicable

items from the latest FAA-approved version as of the date that an airplane receives an original airworthiness certificate or later of the following documents:

D011Z009-03-01, 787 适航限制（AWLs）-对于结构安全寿命件和寿命限制件，包含所需的结构检查和退役时间。另外，对于系统寿命限制件和其他系统限制，包括所需的退役时间。

787 Airworthiness Limitations (AWLs) - Contains required structural inspections and the retirement times for structural safe-life and life-limited parts. Also contains required retirement times for systems life-limited parts and other systems limitations.

D011Z009-03-02, 787 适航限制（AWLs）-特定的生产线号。受到飞机制造不符合项影响的现有结构适航限制项目，可能导致对特定的生产线号飞机的检查要求和/或检查间隔进行修订。

787 Airworthiness Limitations (AWLs) - Line Number Specific. Existing structures AWLs that were impacted by airplane production non-conformances may result in airplane specific revised inspection requirements and/or inspection intervals.

D011Z009-03-03, 787 审定维修要求（CMR），规定了对特定系统安装的必要的定期任务。

787 Certification Maintenance Requirements (CMRs). Required periodic tasks to specific Systems installations.

D011Z009-03-04, 787 特殊符合性项目（SCI） /适航限制。该文件列出了用于符合 14 CFR 第 25.981 条款所需的适航限制项目（ALI）和关键设计构型控制限制（CDCCL），并提供了相关说明。

787 Special Compliance Items (SCIs) /Airworthiness Limitations. This document lists and provides instructions for Airworthiness Limitation Instructions (ALIs) and Critical Design Configuration Control Limitations (CDCCLs) required to comply with 14 CFR Part 25.981.

注释/NOTE 4： 下列序列号的飞机为仅依据型号合格证生产：

The following Aircraft Serial Numbers were produced under the Type Certification only:

34334, 34522, 35422, 36404, 35405, 41988, 41989

注释/NOTE 5： 在客舱的适用区域使用快卸设备来安装部件，如厨房、衣柜、厕所和储物箱，必须表明对 25.561(c)(2)款的符合性。

Installations using quick release hardware to install commodities such as galleys, closets, lavatories and stowage bins in adaptable zones in the passenger cabin shall be shown compliant to 25.561(c)(2).

注释/NOTE 6： FAA 关于波音 787-9 飞机审定基础中的 14CFR25 部（至 25-128 修正案）和 14CFR26 部（至 26-5 修正案）要求等同于民航发[2012]30 号文和 CCAR-26 第 26.11、26.37、26.43 和 26.45 条要求。

The requirements of 14 CFR Part 26 (through Amendment 26-5) and 14CFR Part 25 (through Amendment 25-128) identified in the FAA certification basis for Boeing 787-9 airplane are equal to the requirement of CAO No 2012-30 and CCAR-26 §§ 26.11, 26.37, 26.43 and 26.45.

注释/NOTE 7： CCAR-26 第 26.11, 26.37, 26.43, 26.45 条款和民航发[2012]30 号文(CAO No 2012-30)的符合性已确认。

Compliance findings have been addressed for the requirements of CCAR-26 §§ 26.11, 26.37, 26.43, 26.45 and Civil Aviation Order (CAO) No 2012-30.

注释/NOTE 8： 波音和通用电气公司已经确定，787 飞机上的 GEnx 发动机在停车后会间歇性地排出有时清晰可见的燃油蒸汽雾，这是由于少量燃油从发动机燃油系统中排出的原因所致。此排放量不构成安全问题或显著的环境影响。波音和通用电气公司已于 2012 年 12 月 31 日前完成了对飞机及发动机的设计更改，完全消除这种燃油排泄。生产线新飞机应在飞机交付前贯彻该设计更改。波音公司已经在持续适航文件中纳入一项适航限制，要求在 2014 年 12 月 31 日前贯彻对受影响的已交付飞机的设计更改。

Boeing and GE have determined that the GEnx engines on these 787 aircraft intermittently emit a sometimes clearly visible fuel vapor fog after shutdown, as a result of a small quantity of fuel being released from the engine’s fuel system. These emissions do not present a safety issue or appreciable environmental impact. Boeing and GE have modified the design of the aircraft and engines before December 31, 2012 to completely eliminate this fuel venting. The design modification should be incorporated on production new aircraft before delivery. Boeing has included an airworthiness limitation in the instructions for continued airworthiness for the affected delivered aircrafts requiring incorporation of the

modified design by December 31, 2014.

注释/NOTE 9： 在起飞阶段单发推力丧失的情况下，额定起飞推力可使用 10 分钟，除此之外的其它情况下额定起飞推力的使用限制为不超过 5 分钟。

The takeoff rating can be used for 10 minutes in the event of loss of thrust on one engine during takeoff, otherwise limited to not more than 5 minutes。

注释/NOTE 10： 适用于 GEnx-1B74/75/P2G01 或 GEnx-1B74/75/P2G02，GEnx-1B76A/P2G01 或 GEnx-1B76A/P2G02 的材料清单。

Applicable to Bill of Materials for GEnx-1B74/75/P2G01 or GEnx-1B74/75/P2, GEnx-1B76A/P2G01 or GEnx-1B76A/P2G02 respectively.

注释/NOTE 11： 包含后续经批准的版本。

Including the subsequent approved version(s).

注释/NOTE 12： 批准 787-9 飞机增强型机载飞行记录器(含 25 小时舱音和数据链)水下定位信标（ULB）非充电锂电池（NRLB）设计更改/Approve 787-9 design change of Enhanced Airborne Flight Recorder with 25 Hour Cockpit Voice and Data Link Recording ULB NRLB.

注释/NOTE 13： 认可了波音 787-9 飞机应急照明系统安装的设计更改。/ The design change of Boeing 787-9 Emergency Lighting Power System Installation has been validated.