No. 72
Rev. 40
BOEING
787-8
787-9
787-10
November 11, 2026

Japan Civil Aviation Bureau

Ministry of Land, Infrastructure, Transport and Tourism

Type Certificate Data Sheet

No. 72

This data sheet, which is part of Type Certificate No. 72, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Japan Civil Aeronautics Law and Regulations.

Type Certificate Holder: The Boeing Company
737 Logan Ave N
Renton, WA 98057-0000

I. Model 787-8 (Transport Category) Airplane, Approved August 29, 2011

Engines: 2 Rolls Royce PLC Turbofan Engine Models: Trent 1000-A, Trent 1000-A2, Trent 1000-AE3, Trent 1000-C, Trent 1000-C2, Trent 1000-CE3, Trent 1000-E, Trent 1000-H, Trent 1000-H2, Trent 1000-H3 or Trent 1000-L2 (Engine Type Approval No. 703)
2 General Electric Turbofan Engine Models: GEnx-1B64, GEnx-1B64/P1, GEnx- 1B64/P2, GEnx-1B70, GEnx-1B70/P1 or GEnx-1B70/P2 (Engine Type Approval No. 710)

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

Fuel: Rolls Royce PLC Turbofan Engines:
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
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.

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Ⅰ.787-8(cont'd)

General Electric Turbofan Engines (also, see Note 9):

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

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.

Engine Limits:

	Static thrust lb, standard day, sea level	
	Takeoff (see Note 10)	Max. continuous
RR Trent 1000-A (see Note 11)	69,194	64,722
RR Trent 1000-C (see Note 12)	74,511	69,523
RR Trent 1000-E (see Note 12)	59,631	58,866
RR Trent 1000-H (see Note 12)	63,897	58,866
RR Trent 1000-A2	69,194	64,722
RR Trent 1000-C2	74,511	69,523
RR Trent 1000-H2	63,897	58,866
RR Trent 1000-L2	74,511	69,523
RR Trent 1000-AE3 (See Note 24 for ICAO env comp)	69,194	64,722
RR Trent 1000-CE3 (See Note 24 for ICAO env comp)	74,511	69,523
RR Trent 1000-H3 (See Note 24 for ICAO env comp)	63,897	58,866
GEnx-1B64 (See Note 21 for SDR Reporting) (See Note 13 for applicable BOM)	67,000	61,500
GEnx-1B64/P1 (See Note 21 for SDR Reporting) (See Note 16 for applicable BOM)	67,000	61,500
GEnx-1B64/P2 (See Note 21 for SDR Reporting) (See Note 24 for ICAO env comp) (See Note 18 for applicable BOM)	67,000	61,500
GEnx-1B70 (See Note 21 for SDR Reporting) (See Note 15 for applicable BOM)	72,300	66,500
GEnx-1B70/P1 (See Note 21 for SDR Reporting) (See Note 16 for applicable BOM)	72,300	66,500
GEnx-1B70/P2 (See Note 21 for SDR Reporting) (See Note 24 for ICAO env comp) (See Note 18 for applicable BOM)	72,300	66,500

For engine operating limits see the applicable Engine Type Approval Data Sheet or the appropriate JCAB-approved Airplane Flight Manual.

Ⅰ.787-8 (cont'd)

Airspeed Limits: VMO/MMO = 350KEAS / 360KIAS / 0.90M.
For other airspeed limits, see the appropriate JCAB-approved Airplane Flight Manual.

CG Range: See the appropriate JCAB-approved Airplane Flight Manual.

Empty Weight C.G.: None

Maximum Weights: See the appropriate JCAB-approved Airplane Flight Manual.

Model	Eligible Serial Numbers
787-8	34485, 34486, 34488, 34490, 34493, 34494, 34496, 34497, 34501-34503, 34506-34509, 34511, 34512, 34514- 34516, 34518, 34520, 34521, 34525, 34528, 34831-34840, 34842, 34844, 34846, 34847, 34849, 34850, 34853-34857, 34859, 34860, 35435-35440, 38135, 38136, 40748-40750, 40899, 42243-42249

PERTINENT DATA

Minimum Crew: Two (2): pilot and copilot

Maximum Passengers: The maximum number of passengers approved for emergency evacuation is:
381 with 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.
Maximum passenger capacity may be further limited by Environment Control System ventilation per occupant requirement defined in 25.831(a).

Max. Baggage/Cargo: See appropriate Weight and Balance Manual.

Fuel and Oil Capacities: See appropriate Weight and Balance Manual.

Maximum Operating Altitude: 43,100 feet

Certification Basis: Civil Aeronautics Regulations Annex 1

14CFR Part 25, including Amendment 25-1 through 25-120 (This is equivalent to Part III of TAIKUSEI-SHINSA-YORYO, KU-KEN-381, dated Oct. 20, 1966 including its Amendment to KOKU-KU-KI-5011, dated Oct. 1, 2007.) and Amendment 25-124, 25-125 and 25-128 with exceptions as noted below.

Section No.	Title	At Amdt. 25-
25.1309	For Cargo Fire Protection Systems and Uncommanded High Thrust	119

Amendment 25-118 was not published and therefore has no applicability.

14CFR Part 26, including Amendment 26-1 through 26-5, for §§ 26.11, 26.21, 26.37, 26.43, and 26.45.

Civil Aeronautics Regulations Annex 2 Chapter 2-2 (equivalent to ICAO Annex 16 Volume 1 Chapter 4) for Noise Requirements

Ⅰ.787-8 (cont'd)

Civil Aeronautics Regulations Annex 3, Chapter 1 for Fuel Venting and Chapter 2 for Exhaust Emissions Requirements. (equivalent to ICAO Annex 16, Volume II Amendment 10*)
* Amendment 7 for aircraft equipped with Rolls Royce PLC Trent 1000-A, Trent 1000-A2, Trent 1000-C, Trent 1000-C2, Trent 1000-E, Trent 1000-H, Trent 1000-H2, and Trent 1000-L2, and General Electric GEnx-1B64, GEnx -1B64/P1, GEnx-1B70 and GEnx-1B70/P1

The Following Optional Design Regulations have been complied with:

Ditching:	14CFR §§ 25.801, 25.1411(d), (e), (f), (g) and 25.1415
Ice Protection:	14CFR § 25.1419
ETOPS	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.

Exemptions from 14CFR Part 25:

1. Grant of Exemption, § 25.562(b)(2), Relief from floor warpage testing requirements for flightdeck seats on the Boeing Model 787 series airplanes; Exemption No. 9486, September 11, 2007.
2. Grant of Exemption, § 25.809(a), Relief from the requirement that flightcrew emergency exits have a means to view outside conditions under all lighting situations for the Boeing Model 787 series airplanes; Exemption No. 10114, August 11, 2010.
3. Grant of Exemption, § 25.809(a), Relief for a limited number of the Boeing Model 787 series airplanes from the requirement that passenger emergency exits have a means to view outside conditions under all lighting situations; Exemption No. 10235A, May 01, 2013 (Limited to aircraft below Line Number 127 for the 787-8 series only).
4. Partial Grant of Exemption, § 25.841(a)(2)(i)(ii), Relief for the Boeing Model 787 series airplanes from the requirement that, during a decompression caused by failures of the engines, airplane cabin pressure altitude not exceed 25,000 feet for more than 2 minutes or exceed 40,000 feet for any duration; Exemption No. 8857, March 30, 2007.
5. Time Limited Grant of Exemption, § 25.1309(c), Temporary relief from the requirement to provide indication of anticipated fuel system contamination to the flightcrew of Boeing Model 787-8 airplanes powered by Rolls-Royce Trent 1000 engines; Exemption No. 10199, January 28, 2011, and Exemption No. 10199A, August 18, 2011, Exemption No. 10199B, June 30, 2014.(Expires April 30,2017)
6. Grant of Exemption, § 25.1447(c)(1), Relief from the requirement for passenger oxygen masks to be automatically presented before the cabin pressure altitude exceeds 15,000 feet for the Boeing Model 787 series airplanes; Exemption No. 9801, December 12, 2008.
7. Time Limited Grant of Exemption, § 25.1305(c)(6) and 25.1309(c),Temporary relief from the requirements to provide indication of impending bypass of the engine oil fuel cooled oil coolers and to provide indication of impending bypass on the main fuel filters of multiple engines, for the Boeing Model 787-8 airplanes powered by General Electric GEnx-1B, or subsequent variants of the engine; Exemption No. 10268 (corrected copy) May 24, 2011, and Exemption No. 10268A, August 15, 2011, Exemption No. 10268B, June 30, 2014. (Expires April 30,2017)

Ⅰ.787-8 (cont'd)

8. Not Applicable

9. Grant of Exemption, Section 25.813(e) at Amendment 25-116 – No door may be installed between any passenger seats that is occupiable for takeoff and landing and any passenger emergency exit, such that the door crosses any egress path (including aisles, cross aisles and passageways); Exemption 10879, October 18, 2013. Partial Grant of Exemption 10879A, amended in entirety on March 7, 2018, Partial Grant of Exemption 10879B, amended in entirety on December 3, 2018. Grant of Exemption 10879C, amended in entirety on February 1, 2023.

10. Time Limited Grant of Exemption §25.1305(c)(5) at Amendment 25-120, providing flight- deck annunciation of operation of the engine VBV ice-protection system; Exemption 11081, issued October 10, 2014, requires production airplanes to be fully compliant after June 30, 2015 and the in-service fleet to be fully compliant after March 31, 2016. 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. Exemption 11081B, issued June 10, 2015 extends the date of 11081A requiring production airplanes to be fully compliant to § 25.939(a), at Amendment 25-40, to December 31, 2015 and prohibits in-service fleet retrofit after December 31, 2015.

11. Time Limited Grant of Exemption, § 25.901(c), 25.1301(a)(4), 25.1309(a), and 25.1309(b).Temporary relief from the requirements as they relate to single failures of the thrust control module that could result in uncommanded high thrust conditions and to the extent necessary to allow type certification of new propulsion control system designs for Model 787-8 and 787-9 airplanes equipped with General Electric GEnx-1B engines; Exemption No. 17112 dated September 23, 2016. The conditions of TLE 17112 require production airplanes to be fully compliant after December 31, 2018, and the in-service fleet to be fully compliant by December 31, 2020.

12. Grant of Exemption, § 25.901(c) to allow type certification of new propulsion control system designs for the Model 787 airplanes without an exact showing of compliance with the "no single failure" requirement of § 25.901(c) relating to UHT in combination with high crosswinds in certain takeoff and approach-and-landing scenarios. This exemption applies only to those UHT failure conditions that, when combined with high crosswinds, do not comply with § 25.901(c).; Exemption 17319, issued May 2, 2017

13. Time Limited Grant of Exemption, § 25.903(a)(1) to allow type certification of the Model 787 airplanes equipped with Rolls-Royce Trent 1000-AE3, Trent 1000-CE3, Trent 1000-D3, Trent 1000-G3 and Trent 1000-H3 engines from the engine requirement that mandates engines comply with the smoke emissions requirements of 14 CFR Part 34. This exemption is based on Time-Limited Grant of Exemption 17550A which was issued to Rolls-Royce plc and is required to meet the conditions and limitations of, that time-limited exemption for their engines. Exemption No. 17613, issued October 25, 2017. The conditions of TLE 17613 requires that all in-service airplanes be fully compliant by December 31, 2022. On February 12, 2018 Rolls-Royce plc met condition 6.b of exemption 17550A showing full compliance to 14 CFR Part 34 which meets the requirement of § 25.903(a)(1).

14. Grant of Exemption, §§ 25.863(a), 25.863(b)(3), 25.901(c), 25.981(a)(3), 25.981(b), 25.981(d), 25.1309(b), and Special Conditions 25-414-SC will either improve or maintain the current level of safety on existing inservice Boeing Model 787 airplanes by incorporation of design changes required to address the unsafe condition in AD 2018-11-13 for the upper wing stringer-to-skin joints and address the installation of cap seals in lighting Zone 3 and the separate installation of edge sealant; Exemption 20370, issued June 11, 2023.

Equivalent Level of Safety (ELOS) are identified as:

TC6918SE-T-A-9	§§ 25.341, 25.343, 25.345, 25.371, 25.373 and 25.391	ELOS Finding for Gust and Continuous Turbulence Design Loads
TC6918SE-T-A-10	§ 25.335(b)	ELOS Finding for Design Airspeeds
TC6918SE-T-A-11	§§ 25.391, 25.393 and 25.415	ELOS Finding for the Ground Gust Requirements
TC6918SE-T-A-12	§ 25.331(c)	ELOS for Symmetric Maneuvering Conditions
TC6918SE-T-A-13	§ 25.629	ELOS for Aeroelastic Stability

Ⅰ.787-8 (cont'd)

PS08-0670-C-1	§ 25.853(a)	ELOS Finding for Adhesives Used in Interior Panel Bent Joint Potting Applications
PS13-1000-C-5	§ 25.853(a)(d)	ELOS Finding for Flammability Testing Hierarchy
PS19-0580-C-44	Exemption 10879B	ELOS Finding for Moveable Privacy Dividers between Adjacent Mini-suites
TC6918SE-T-CS-1	§ 25.810(a)(1)(ii)	ELOS Finding for Escape Slide Inflation Times
TC6918SE-T-CS-2	§ 25.811(f)	ELOS Finding for Emergency Exit Markings and Door Sill Reflectance
PS07-0585-CS-10 and JCAB IP G-1 Appendix A	§§ 25.811(d), 25.811(g), 25.812(b)(1)(i), and 25.812(b)(1)(ii)	ELOS Finding for Graphical Exit Signs
TC6918SE-T-CS-12	§ 25.791(a)	ELOS Finding for Lighted "No smoking" Signs in Lieu of Placards
TC6918SE-T-CS-14	§§25.853 and 25.856(b),	ELOS Finding Associated to Post-Crash Fire Survivability
PS07-0585-CS-18 and JCAB IP G-1 Appendix B	§ 25.811(e)(4)(i), (ii), and (iii)	ELOS Finding for the Passenger Door Operational Arrow Location and Color
PS06-0413-CS-25	§ 25.783(e)(2)	ELOS Finding for Passenger and Large Cargo Door Indication
(Not Applicable)		
(Not Applicable)		
(Not Applicable)		
PS13-0679-CS-33	§§ 25.561 and 25.621	ELOS Finding for Critical Casting Factor Requirements for Model 787 Series Aircraft
(Not Applicable)		
PS18-0046-EE-10	§ 25.1535 and K25.2.2	ELOS Finding for 787 Rolls-Royce Trent 1000-TEN Early ETOPS Airplane Demonstration Tests
TC6918SE-T-ES-5	§ 25.831(g)	ELOS Finding for Acceptable High Temperature Physiological Environment During Failure Conditions
TC6918SE-T-ES-16	§ 25.1443(c)	ELOS Finding for the Passenger Oxygen System
TC6918SE-T-ES-18	§ 25.1441(c)	ELOS Finding for Pulse Oxygen System for Passenger
TC6918SE-T-ES-19	§ 25.841(b)(6)	ELOS Finding on Cabin Altitude Warning System for Operations into High Altitude Airports
TC6918SE-T-ES-20	§ 25.1443(d)	ELOS Finding for Portable Pulse Oxygen System
(Not Applicable)		
TC6918SE-T-F-4	§ 25.1517	ELOS Finding for Rough Air Speed (VRA)
TC6918SE-T-F-6	§ 25.107(e)(1)(iv)	ELOS Finding for Minimum Unstick (VMU) Speed Margin
TC6918SE-T-F-14	§ 25.677(b)	ELOS Finding for Trim Displays
TC6918SE-T-F-17	§ 25.255	ELOS Finding for Out-of-Trim Characteristics
PS06-0496-F-18	§ 25.1555	ELOS Finding for Engine and APU Fire Handle Design
PS06-0413-F-20	§ 25.1325(e)	ELOS Finding for the Standby Air Data System
PS14-0452-F-23A	§ 25.251	ELOS Finding for Vibration/Buffeting Compliance Criteria, Panasonic Ku-Band Radome Antenna
TC6918SE-T-G-8	§§ 25.1529, Appendix H25.4	ELOS Finding for formatting of Boeing ICA Manuals – Airworthiness Limitations

Ⅰ.787-8 (cont'd)

PS05-0177-P-2	§ 25.981(b)(2)	ELOS Finding for the Fuel Tank Flammability Rule (FTFR)
TC6918SE-T-P-2	§ 25.933(a)(1)(i) & 25.933(a)(1)(ii)	ELOS Finding for Flight Critical Thrust Reverser
TC6918SE-T-P-3	§ 25.1182(a)	ELOS Finding for Fire Safety Requirements for the Aft Strut Fairing Compartment
TC6918SE-T-P-13	§§ E25.1, F25.1 and G25.1	ELOS Finding for the Auxiliary Power Unit (APU) Installation
PS14-0470-P-15	K25.2.2(d)(1)	ELOS Finding for the 787-8/-9 Rolls-Royce Trent 1000-TEN ETOPS Ground Test
TC6918SE-T-P-17	§ 25.934	ELOS Finding for the Engine and Thrust Reverser System Testing
TC6918SE-T-P-19	§§ 25.1023(b) and 25.1121(c)	ELOS Finding for Auxiliary Power System
TC6918SE-T-P-20	§§ 25.997 and 25.1305(c)(6)	ELOS Finding for Warning Means for Engine Fuel Filter Contamination
TC6918SE-T-P-27	§ 25.1145(a)	ELOS Finding for Engine Igniter Flight-deck Switch Configuration
PS06-0414-P-34	§§25.1181(a)(6), 25.1181(b), 25.1182, and 25.1183(a)	ELOS Finding for Fire Safety Requirements for GEnx-1B
PS13-0546-P-36	§§ 25.1549(a) and 25.1549(b)	ELOS Finding for the Display of Powerplant Instruments
TC6918SE-T-SA-7	§§ 25.1301, 25.1309 and 25.1310	ELOS Finding for use of ARAC Recommended Revision
TC6918SE-T-SA-10	§ 25.1459(a)(2)	ELOS Finding for Flight Recorders
TC6918SE-T-SA-11	§ 25.1301(c)(1)	ELOS Finding for Overspeed Aural Warning
TC6918SE-T-SA-29	§ 25.1333(a)	ELOS Finding for Instrument Systems
TC6918SE-T-SE-14	§ 25.1351(b)(5)	ELOS Finding for the Flight Control Electronics DC Power System
PS06-0496-T-SE-15	§ 25.1317(b)	ELOS Finding for High Intensity Radiated Fields(HIRF)
TC6918SE-T-SF-1	§ 25.671(c)(2)	ELOS Finding for Flight Control System Failure Criteria
TC6918SE-T-SF-5	§ 25.777(e)	ELOS Finding on the Wing Flap Control Lever
PS06-0496-SF-7	§ 25.675	ELOS Finding for Seal Krueger Flap Stops

Special Conditions with respect to the following subjects apply to the Model 787-8: SC

No.,	Subject
25-348-SC	Composite Wing and Fuel Tank Structure—Fire Protection Requirements
25-354A-SC	Interaction of Systems and Structures, Electronic Flight Control System-Control Surface Awareness, High Intensity Radiated Fields (HIRF) Protection, Limit Engine Torque Loads for Sudden Engine Stoppage, and Design Roll Maneuver Requirement
25-355-SC	Reinforced Flightdeck Bulkhead
25-356-SC	Systems and Data Networks Security-Isolation or Protection From Unauthorized Passenger Domain Systems Access
25-357-SC	Systems and Data Networks Security-Protection of Airplane Systems and Data Networks from Unauthorized External Access
25-359-SC	Lithium Ion Battery Installation
25-360-SC	Composite Fuselage In-Flight Fire/Flammability Resistance
25-362-SC	Crashworthiness Emergency Landing Conditions

Ⅰ.787-8 (cont'd)

25-363-SC	Tire Debris Penetration of Fuel Tank Structure
25-365-SC	Operation Without Normal Electrical Power
25-370-SC	Seats With Non-Traditional, Large, Non-Metallic Panels
25-414-SC	Lightning Protection of Fuel Tank Structure to Prevent Fuel Tank Vapor Ignition
25-418-SC	Overhead Flight Crew Rest Compartment Occupiable during Taxi, Takeoff, and Landing
25-419-SC	Overhead Crew Rest Compartment
25-431-SC	Seats with Inflatable Lapbelts
(Not Applicable)	
(Not Applicable)	
25-626A-SC	Dynamic Test Requirements for Single-Occupant Oblique (Side- Facing) Seats With or Without Airbag Devices or 3-Point Restraint Systems
25-682-SC	Non-Rechargeable Lithium Battery Installations
(Not Applicable)	
(Not Applicable)	
(Not Applicable)	

JCAB Additional Special Requirements

1. Requirements for markings and placards as shown in JCAB Circular No.1-008 "Marking which shall be indicated in Japanese for Emergency Exit, Safety Equipment, etc."

2. Requirement for contents of Airplane Flight Manual as shown in JCAB Circular No.1-001

3. JCAB Additional Special Requirements for Early ETOPS as shown in JCAB IP G-1 Appendix C

4. JCAB Additional Special Requirements for Fuel Tank System Flammability Reduction Means as shown in JCAB IP G-1 Appendix D

5. JCAB Additional Special Requirements for 14CFR Part 26 Subpart E as shown in JCAB IP G-1 Appendix E

II. Model 787-9 (Transport Category) Airplane, Approved July 18, 2014

Engines: 2 Rolls Royce PLC Turbofan Engine Models: Trent 1000-A2, Trent 1000-AE3, Trent 1000-D2, Trent 1000-K2, Trent 1000-D3 or Trent 1000-K3 (Engine Type Approval No. 703)
2 General Electric Turbofan Engine Models: GEnx-1B74/75/P1, GEnx-1B74/75/P2 or GEnx-1B64/P2 (Engine Type Approval No. 710)

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

Fuel: Rolls Royce PLC Turbofan Engines:
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
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 (also, see Note 9):
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
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.

Engine Limits:

	Static thrust lb, standard day, sea level	
	Takeoff (see Note 10)	Max. continuous
RR Trent 1000-A2	69,194	64,722
RR Trent 1000-D2	74,511	69,523
RR Trent 1000-K2	78,129	71,818
RR Trent 1000-AE3 (See Note 24 for ICAO env comp)	69,194	64,722
RR Trent 1000-D3 (See Note 24 for ICAO env comp)	74,511	69,523
RR Trent 1000-K3 (See Note 24 for ICAO env comp)	78,129	71,818
GEnx-1B64/P2 (See Note 21 for SDR reporting) (See Note 24 for ICAO env comp) (See Note 18 for applicable BOM)	67,000	61,500
GEnx-1B74/75/P1 (See Note 21 for SDR Reporting) (See Note 16 for applicable BOM)	76,700	68,600
GEnx-1B74/75/P2 (See Note 21 for SDR Reporting) (See Note 24 for ICAO env comp) (See Note 18 for applicable BOM)	76,700	68,600

For engine operating limits see the applicable Engine Type Approval Data Sheet or the appropriate JCAB-approved Airplane Flight Manual.

Ⅱ.787-9 (cont'd)

Airspeed Limits: VMO/MMO = 350KEAS / 360KIAS / 0.90M.
For other airspeed limits, see the appropriate JCAB-approved Airplane Flight Manual.

CG Range: See the appropriate JCAB-approved Airplane Flight Manual.

Empty Weight C.G.: None

Maximum Weights: See the appropriate JCAB-approved Airplane Flight Manual.

Model	Serial Numbers
787-9	34504, 34499, 34500, 34513, 34517, 34519, 34522, 34523, 34524, 34526, 34527, 34529-34534, 34841, 34843, 34845, 34848, 34851, 34852, 34858, 35422-35431, 38134, 38137, 38138, 40751, 40752, 43864-43874, 61519-61529, 66514, 66515, 66522-66524

PERTINENT DATA

Minimum Crew: Two (2): pilot and copilot

Maximum Passengers: The maximum number of passengers approved for emergency evacuation is:
420 with 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.
Maximum passenger capacity may be further limited by Environmental Control System ventilation per occupant requirement defined in 25.831(a).

Max. Baggage/Cargo: See appropriate Weight and Balance Manual.

Fuel and Oil Capacities: See appropriate Weight and Balance Manual.

Maximum Operating Altitude: 43,100 feet

Certification Basis: Civil Aeronautics Regulations Annex 1

14CFR Part 25, including Amendment 25-1 through 25-125 (This is equivalent to Part III of TAIKUSEI-SHINSA-YORYO, KU-KEN-381, dated Oct. 20, 1966 including its Amendment to KOKU-KU-KI-5020, dated Nov. 27, 2008.) and Amendment 25-127 and 25-128 with exceptions as noted below.

Section No.	Title	At Amdt. 25-
25.795(b)(1)	For Security Consideration	N/A
25.795(c)(2)	For Security Consideration	N/A
25.795(c)(3)(i)	For Security Consideration	N/A
25.125(b)(2)(ii)(B)	For Landing	108

Ⅱ.787-9 (cont'd)

25.1317	which remains at FAA Special Condition 25-354A-SC for the Integrated Standby Flight Display (ISFD)	

Boeing elected to comply at higher amendment levels than the certification basis for the following regulation:

25.107(e)	For Takeoff Speeds	135

14CFR Part 26, including Amendment 26-1 through 26-5, for §§26.21, 26.37, 26.43, and 26.45.

Civil Aeronautics Regulations Annex 2 Chapter 2-2 (equivalent to ICAO Annex 16 Volume 1 Chapter 4) for Noise Requirements

Civil Aeronautics Regulations Annex 3, Chapter 1 for Fuel Venting and Chapter 2 for Exhaust Emissions Requirements. (equivalent to ICAO Annex 16, Volume II Amendment 10*)
* Amendment 7 for aircraft equipped with Rolls Royce PLC Trent 1000-A2, Trent 1000-D2, and Trent 1000-K2, and General Electric GEnx-1B74/75/P1

The Following Optional Design Regulations have been complied with:

Ditching:	14CFR §§ 25.801, 25.1411(d), (e), (f), (g) and 25.1415
Ice Protection:	14CFR § 25.1419
ETOPS	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.

Exemptions from 14CFR Part 25:

1. Grant of Exemption, § 25.562(b)(2), Relief from floor warpage testing requirements for flightdeck seats on the Boeing Model 787 series airplanes; Exemption No. 9486, September 11, 2007.
2. Grant of Exemption, § 25.809(a), Relief from the requirement that flightcrew emergency exits have a means to view outside conditions under all lighting situations for the Boeing Model 787 series airplanes; Exemption No. 10114, August 11, 2010.
3. Partial Grant of Exemption, § 25.841(a)(2)(i)(ii), Relief from the requirement that the airplane must be designed so that occupants will not be exposed to a cabin pressure altitude that exceeds the following after decompression from any failure condition not shown to be extremely improbable: (i) Twenty-five thousand (25,000) feet for more than 2 minutes; or
(ii) Forty thousand (40,000) feet for any duration for the Boeing Company's Model 787-9 airplanes. Exemption No. 10962, March 3, 2014.
4. Grant of Exemption, § 25.1447(c)(1), Relief from the requirement for passenger oxygen masks to be automatically presented before the cabin pressure altitude exceeds 15,000 feet for the Boeing Model 787 series airplanes; Exemption No. 9801, December 12, 2008.
5. Time Limited Grant of Exemption §25.1301(a)(1), Relief from the requirements that the airplane must function properly when installed be designed appropriate to its intended function for Ram Air Turbine (RAT) Generator Control Unit (GCU) on the Boeing model 787-9 airplane and Time Limited Grant of Exemption §25.1301(a)(4), §25.1309(a) and
§25.1309(b)(2), Relief from the requirements that Systems and equipment must function properly when installed; Systems and equipment must perform intended function and Hazardous effects must be improbable for the Altitude-Select knob on the Boeing model 787-9 Autoflight Mode Control Panel; Exemption No. 11002, June 12, 2014. (Expires August 31, 2015 for the RAT GCU, November 30,2015 for the MCP Altitude select knob.)

Ⅱ.787-9 (cont'd)

6. Not Applicable

7. Grant of Exemption, Section 25.813(e) at Amendment 25-116 – No door may be installed between any passenger seats that is occupiable for takeoff and landing and any passenger emergency exit, such that the door crosses any egress path (including aisles, cross aisles and passageways); Exemption 10879, October 18, 2013. Partial Grant of Exemption 10879A, amended in entirety on March 7, 2018, Partial Grant of Exemption 10879B, amended in entirety on December 3, 2018. Grant of Exemption 10879C, amended in entirety on February 1, 2023.

8. Time Limited Grant of Exemption §25.1305(c)(5) at Amendment 25-120, providing flight-deck annunciation of operation of the engine VBV ice-protection system; Exemption 11081, issued October 10, 2014, requires production airplanes to be fully compliant after June 30, 2015 and the in- service fleet to be fully compliant after March 31, 2016. 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. Exemption 11081B, issued June 10, 2015 extends the date of 11081A requiring production airplanes to be fully compliant to § 25.939(a), at Amendment 25-40, to December 31, 2015 and prohibits in-service fleet retrofit after December 31, 2015.

9. Time Limited Grant of Exemption, § 25.901(c), 25.1301(a)(4), 25.1309(a), and 25.1309(b).Temporary relief from the requirements as they relate to single failures of the thrust control module that could result in uncommanded high thrust conditions and to the extent necessary to allow type certification of new propulsion control system designs for Model 787-8 and 787-9 airplanes equipped with General Electric GEnx-1B engines; Exemption No. 17112 dated September 23, 2016. The conditions of TLE 17112 require production airplanes to be fully compliant after December 31, 2018, and the in-service fleet to be fully compliant by December 31, 2020.

10. Grant of Exemption, § 25.901(c) to allow type certification of new propulsion control system designs for the Model 787 airplanes without an exact showing of compliance with the "no single failure" requirement of § 25.901(c) relating to UHT in combination with high crosswinds in certain takeoff and approach-and-landing scenarios. This exemption applies only to those UHT failure conditions that, when combined with high crosswinds, do not comply with § 25.901(c).; Exemption 17319, issued May 2, 2017

11. Time Limited Grant of Exemption, § 25.903(a)(1) to allow type certification of the Model 787 airplanes equipped with Rolls-Royce Trent 1000-AE3, Trent 1000-D3, Trent 1000-J3 and Trent 1000-K3 engines from the engine requirement that mandates engines comply with the smoke emissions requirements of 14 CFR Part 34. This exemption is based on Time-Limited Grant of Exemption 17550A which was issued to Rolls-Royce plc and is required to meet the conditions and limitations of, that time-limited exemption for their engines. Exemption No. 17613, issued October 25, 2017. The conditions of TLE 17613 requires that all in-service airplanes be fully compliant by December 31, 2022. On February 12, 2018 Rolls-Royce plc met condition 6.b of Exemption 17550A showing full compliance to 14 CFR Part 34 which meets the requirement of § 25.903(a)(1).

12. Grant of Exemption, §§ 25.863(a), 25.863(b)(3), 25.901(c), 25.981(a)(3), 25.981(b), 25.981(d), 25.1309(b), and Special Conditions 25-414-SC will either improve or maintain the current level of safety on existing inservice Boeing Model 787 airplanes by incorporation of design changes required to address the unsafe condition in AD 2018-11-13 for the upper wing stringer-to-skin joints and address the installation of cap seals in lighting Zone 3 and the separate installation of edge sealant; Exemption 20370, issued June 11, 2023.

Equivalent Level of Safety (ELOS) are identified as:

TC6918SE-T-A-9	§§25.341, 25.343, 25.345, 25.371, 25.373, and 25.391	ELOS Finding for Gust and Continuous Turbulence Design Loads
TC6918SE-T-A-10	§25.335(b)	ELOS Finding for Design Airspeeds
TC6918SE-T-A-11	§§25.391, 25.393, and 25.415	ELOS Finding for Ground Gust Requirements
TC6918SE-T-A-12	§25.331(c)	ELOS Finding for Symmetric Maneuvering Conditions

Ⅱ.787-9 (cont'd)

TC6918SE-T-A-13	§§25.629, 25.671(c)(2)	ELOS Finding for Aeroelastic Stability
PS13-1000-C-5	§ 25.853(a)(d)	ELOS Finding for Flammability Testing Hierarchy
(Not Applicable)		
PS19-0580-C-44	Exemption 10879B	ELOS Finding for Moveable Privacy Dividers between Adjacent Mini-suites
TC6918SE-T-CS-1	§25.810(a)(1)(ii)	ELOS Finding for Escape Slide Inflation Times
TC6918SE-T-CS-2	§25.811(f)	ELOS Finding for Emergency Exit Markings and Door Sill Reflectance
PS07-0585-CS-10 and JCAB IP G-1 Appendix A	§§25.811(d) and (g), 25.812(b)(1)(i) and (b)(1)(ii)	ELOS Finding for Graphical Exit Signs
TC6918SE-T-CS-12	§25.791	ELOS Finding for Lighted "No Smoking" Signs in Lieu of Placards
TC6918SE-T-CS-14	§§25.853 and 25.856(b)	ELOS Finding Associated to Fuselage Post-Crash Fire Survivability
PS07-0585-CS-18 and JCAB IP G-1 Appendix B	§25.811(e)(4)(i), (ii) and (iii)	ELOS Finding for the Passenger Door Operational Arrow Location and Color
PS06-0413-CS-25	§25.783(e)(2)	ELOS Finding for Passenger and Large Cargo Door Indication
PS13-0679-CS-33	§§ 25.561 and 25.621	ELOS Finding for Critical Casting Factor Requirements for Model 787 Series Aircraft
(Not Applicable)		
PS18-0046-EE-10	§25.1535 and K25.2.2	ELOS Finding for 787 Rolls-Royce Trent 1000- TEN Early ETOPS Airplane Demonstration Tests
TC6918SE-T-ES-5	§25.831(g)	ELOS Finding for Acceptable High Temperature Physiological Environment During Failure Conditions
TC6918SE-T-ES-16	§25.1443(c)	ELOS Finding for Passenger Oxygen System
TC6918SE-T-ES-18	§25.1441(c)	ELOS Finding for Pulse Oxygen System for Passengers
TC6918SE-T-ES-19	§25.841(b)(6)	ELOS Finding for Cabin Altitude Warning System for Operations into High Altitude Airports
TC6918SE-T-ES-20	§25.1443(d)	ELOS Finding for Portable Pulse Oxygen System
(Not Applicable)		
TC6918SE-T-F-4	§25.1517	Rough Air Speed (VRA)
TC6918SE-T-F-14	§25.677(b)	ELOS Finding for Trim Displays
TC6918SE-T-F-17	§25.255	ELOS Finding for Out-of-Trim Characteristics
PS06-0496-F-18	§25.1555(d)(1)	ELOS Finding for Engine and APU Fire Handle Design
PS06-0496-T-F-21	§25.1325(e)	ELOS Finding for Standby Air Data System
PS06-0496-F-22	§25.123(a) and (b)	ELOS Finding for Speeds for En Route Flight Paths
PS14-0452-F-23A	§25.251	ELOS Finding for Vibration/Buffeting Compliance Criteria, Panasonic Ku-Band Radome Antenna
TC6918SE-T-G-8	§§25.1529, 25.1729, Appendix H25.4 (a)and (b)	ELOS Finding for Formatting of Boeing Instructions for Continued Airworthiness Manuals -Airworthiness Limitations

Ⅱ.787-9 (cont'd)

PS05-0177-P-2	§25.981(b)(2)	ELOS Finding for Fuel Tank Flammability Rule
TC6918SE-T-P-2	§25.933(a)(1)(i) and (a)(1)(ii)	ELOS Finding for Flight Critical Thrust Reverser
TC6918SE-T-P-3	§25.1182(a)	ELOS Finding for Fire Safety Requirements for the Aft Strut Fairing Compartment
TC6918SE-T-P-13	Part 25 subpart E, F, and G	ELOS Finding for Auxiliary Power Unit (APU) Installation
PS14-0470-P-15	K25.2.2(d)(1)	ELOS Finding for the 787-8/-9 Rolls-Royce Trent 1000-TEN ETOPS Ground Test
TC6918SE-T-P-17	§ 25.934	ELOS Finding for Engine and Thrust Reverser System Testing
TC6918SE-T-P-19	§§25.1023(b), 25.1121(c)	ELOS Finding for Auxiliary System
TC6918SE-T-P-20	§§25.997 and 25.1305(c)(6)	ELOS Finding for Warning Means for Engine Fuel Filter Contamination
TC6918SE-T-P-27	§25.1145(a)	ELOS Finding for Engine Igniter Flight-deck Switch Configuration
PS06-0414-P-34	§§ 25.1181(a)(6), 25.1181(b), 25.1182, and 25.1183(a)	ELOS Finding for Fire Safety Requirements for GEnx-1B
PS13-0546-P-36	§§ 25.1549(a) and 25.1549(b)	ELOS Finding for the Display of Powerplant Instruments
TC6918SE-T-SA-10	§25.1459(a)(2)	ELOS Finding for Flight Recorders
TC6918SE-T-SA-11	§25.1303(c)(1)	ELOS Finding for Overspeed Aural Warning
TC6918SE-T-SA-29	§25.1333(a)	ELOS Finding for Instrument Systems
PS06-0496-SA-31	§§25. 25.1301, 25.1309 and 25.1310	ELOS Finding for Use of ARAC Recommended Revision
PS12-0038-SE-11	§25.1713(c)	ELOS Finding for the Engine Wiring Interconnection System (EWIS)
PS14-1031-SE-28	§25.1713(c)	ELOS Finding for Engine Electrical Wiring Interconnection System (EWIS) - Fire Protection
TC6918SE-T-SE-14	§25.1351(b)(5)	ELOS Finding for Flight Control Electronics DC Power System
PS06-0496-T-SE-15	§25.1317(b)	ELOS Finding for High intensity Radiated Fields (HIRF)
TC6918SE-T-SF-1	§25.671(c)(2)	ELOS Finding for Flight Control System Failure Criteria
TC6918SE-T-SF-5	§25.777(e)	ELOS Finding for Wing Flap Control Lever
PS06-0496-SF-7	§25.675	ELOS Finding for Seal Krueger Flap Stops

Special Conditions with respect to the following subjects apply to the Model 787-9: SC

No.,	Subject
25-348-SC	Composite Wing and Fuel Tank Structure—Fire Protection Requirements
25-354A-SC	Interaction of Systems and Structures, Electronic Flight Control System-Control Surface Awareness, High Intensity Radiated Fields (HIRF) Protection, Limit Engine Torque Loads for Sudden Engine Stoppage, and Design Roll Maneuver Requirement
25-356-SC	Systems and Data Networks Security-Isolation or Protection From Unauthorized Passenger Domain Systems Access
25-357-SC	Systems and Data Networks Security-Protection of Airplane Systems and Data Networks from Unauthorized External Access
25-359-SC	Lithium Ion Battery Installation
25-360-SC	Composite Fuselage In-Flight Fire/Flammability Resistance
25-362-SC	Crashworthiness Emergency Landing Conditions
25-363-SC	Tire Debris Penetration of Fuel Tank Structure
25-365-SC	Operation Without Normal Electrical Power

Ⅱ.787-9 (cont'd)

25-370-SC	Seats With Non-Traditional, Large, Non-Metallic Panels
25-414-SC	Lightning Protection of Fuel Tank Structure to Prevent Fuel Tank Vapor Ignition
25-418-SC	Overhead Flight Crew Rest Compartment Occupiable during Taxi, Takeoff, and Landing
25-419-SC	Overhead Crew Rest Compartment
25-431-SC	Seats With Inflatable Lapbelts
(Not Applicable)	
(Not Applicable)	
(Not Applicable)	
25-626A-SC	Dynamic Test Requirements for Single-Occupant Oblique (Side- Facing) Seats With or Without Airbag Devices or 3-Point Restraint Systems
25-682-SC	Non-Rechargeable Lithium Battery Installations
(Not Applicable)	
(Not Applicable)	
(Not Applicable)	

JCAB Additional Special Requirements

1. Requirements for markings and placards as shown in JCAB Circular No.1-008 "Marking which shall be indicated in Japanese for Emergency Exit, Safety Equipment, etc."

2. Requirement for contents of Airplane Flight Manual as shown in JCAB Circular No.1-001

3. JCAB Additional Special Requirements for Early ETOPS as shown in JCAB IP G-1 Appendix C

4. JCAB Additional Special Requirements for Fuel Tank System Flammability Reduction Means as shown in JCAB IP G-1 Appendix D

5. JCAB Additional Special Requirements for 14CFR Part 26 Subpart E as shown in JCAB IP G-1 Appendix E

III. Model 787-10 (Transport Category) Airplane, Approved March 19, 2019

Engines: 2 Rolls Royce PLC Turbofan Engine Models: Trent 1000-K3 (Engine Type Approval No. 703)
2 General Electric Turbofan Engine Models: GEnx-1B67/P2, GEnx-1B74/75/P2 (Engine Type Approval No. 710)

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

Fuel: Rolls Royce PLC Turbofan Engines:
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
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.

Engine Limits:

	Static thrust lb, standard day, sea level	
	Takeoff (see Note 10)	Max. continuous
RR Trent 1000-K3 (See Note 24 for ICAO env comp)	78,129	71,818
GEnx-1B67/P2 (See Note 21 for SDR Reporting) (See Note 24 for ICAO env comp) (See Note 18 for applicable BOM)	69,400	61,500
GEnx-1B74/75/P2 (See Note 21 for SDR Reporting) (See Note 24 for ICAO env comp) (See Note 18 for applicable BOM)	76,700	68,600

For engine operating limits see the applicable Engine Type Approval Data Sheet or the appropriate JCAB-approved Airplane Flight Manual.

Airspeed Limits: VMO/MMO = 350KEAS / 360KIAS / 0.90M.
For other airspeed limits, see the appropriate JCAB-approved Airplane Flight Manual.

CG Range: See the appropriate JCAB-approved Airplane Flight Manual.

Empty Weight C.G.: None

Maximum Weights: See the appropriate JCAB-approved Airplane Flight Manual.

Model	Serial Numbers
787-10	62684-62686, 66995-67000

PERTINENT DATA

Minimum Crew: Two (2): pilot and copilot

Ⅲ.787-10 (cont'd)

Maximum Passengers: The maximum number of passengers approved for emergency evacuation is: 440 with 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.
Maximum passenger capacity may be further limited by Environmental Control System ventilation per occupant requirement defined in 25.831(a).

Max. Baggage/Cargo: See appropriate Weight and Balance Manual.

Fuel and Oil Capacities: See appropriate Weight and Balance Manual.

Maximum Operating Altitude: 41,100 feet

Certification Basis: Civil Aeronautics Regulations Annex 1

TAIKUSEI-SHINSA-YORYO (JCAB Airworthiness Inspection Manual) Part III dated March.4, 2015. (equivalent to Title 14, Code of Federal Regulations (14 CFR) part 25 as amended through Amendment 25-137) plus amendment 25-141, 25-140 for 25.1093(b)(1) for ice crystal icing (ICI) conditions only (remains at amendment 72 for icing conditions in part 25 appendix C and falling and blowing snow), and 25- 139 for structures to §§ 25.307, 25.621, 25.721, 25.787, 25.963 with the exceptions listed below:

SECTION NO.	TITLE	AT AMDT. 25-
25.795(b)(1), (c)(2) and (c)(3)(i)	Security Considerations	N/A
25.125(b)(2)(ii)(B)	Landing	108
25.1302	Installed systems and equipment for use by the flightcrew	N/A
25.1316	ECS components: Pack Control Unit (PCU) Common Motor/Starter Controller (CMSC) Auto Transformer Rectifier Unit (ATRU) E5 and E6 Power Panels Power Electronics Cooling Systems (PECS) Pumps PECS Diverter Valve Overheat Detection System Valve Control Unit (Cabin Pressure Control System)	80

FAR Part26 including amendment 26-6, for §§ 26.37, 26.43 and 26.45

Civil Aeronautics Regulations Annex 2 Chapter 2-2 (equivalent to ICAO Annex 16 Volume 1 Chapter 4) for Noise Requirements

Civil Aeronautics Regulations Annex 3, Chapter 1 for Fuel Venting and Chapter 2 for Exhaust Emissions Requirements. (equivalent to ICAO Annex 16, Volume II Amendment 10)

The Following Optional Design Regulations have been complied with:

Ditching: 14CFR §§ 25.801, 25.1411(d), (e), (f), (g) and 25.1415
Ice Protection: 14CFR § 25.1419
ETOPS The 787-10 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.

Ⅲ.787-10 (cont'd)

Exemptions from 14CFR Part 25:

1. Partial Grant of Exemption, § 25.841(a)(2)(i)(ii), Relief from the requirement that the airplane must be designed so that occupants will not be exposed to a cabin pressure altitude that exceeds the following after decompression from any failure condition not shown to be extremely improbable:
   (i) Twenty-five thousand (25,000) feet for more than 2 minutes but not more than 3 minutes; or
   (ii) Forty thousand (40,000) feet for 1 minute but not to exceed 41,100 feet for any duration for the Boeing Company's Model 787-10 airplanes. Exemption No. 14821, February 12, 2016.
2. Not Applicable
3. Grant of Exemption, § 25.562(b)(2), Relief from floor warpage testing requirements for flightdeck seats on the Boeing Model 787 series airplanes; Exemption No. 9486, September 11, 2007.
4. Grant of Exemption, § 25.809(a), Relief from the requirement that flightcrew emergency exits have a means to view outside conditions under all lighting situations for the Boeing Model 787 series airplanes; Exemption No. 10114, August 11, 2010.
5. Grant of Exemption, § 25.1447(c)(1), Relief from the requirement for passenger oxygen masks to be automatically presented before the cabin pressure altitude exceeds 15,000 feet for the Boeing Model 787 series airplanes; Exemption No. 9801, December 12, 2008.
6. Grant of Exemption, § 25.901(c) to allow type certification of new propulsion control system designs for the Model 787 airplanes without an exact showing of compliance with the "no single failure" requirement of § 25.901(c) relating to UHT in combination with high crosswinds in certain takeoff and approach-and-landing scenarios. This exemption applies only to those UHT failure conditions that, when combined with high crosswinds, do not comply with § 25.901(c).; Exemption 17319, issued May 2, 2017
7. Not Applicable
8. Not Applicable
9. Partial Grant of Exemption, Section 25.813(e) at Amendment 25-128 – No door may be installed between any passenger seats that is occupiable for takeoff and landing and any passenger emergency exit, such that the door crosses any egress path (including aisles, cross aisles and passageways); Exemption 10879B, amended in entirety on December 3, 2018. Grant of Exemption 10879C, amended in entirety on February 1, 2023.
10. Grant of Exemption, §§ 25.863(a), 25.863(b)(3), 25.901(c), 25.981(a)(3), 25.981(b), 25.981(d), 25.1309(b), and Special Conditions 25-414-SC will either improve or maintain the current level of safety on existing inservice Boeing Model 787 airplanes by incorporation of design changes required to address the unsafe condition in AD 2018-11-13 for the upper wing stringer-to-skin joints and address the installation of cap seals in lighting Zone 3 and the separate installation of edge sealant; Exemption 20370, issued June 11, 2023.

Equivalent Level of Safety (ELOS) are identified as:

TC6918SE-T-A-9	§§25.341, 25.343, 25.345, 25.371, 25.373, and 25.391	ELOS Finding for Gust and Continuous Turbulence Design Loads
TC6918SE-T-A-10	§ 25.335(b)	ELOS Finding for Design Airspeeds
TC6918SE-T-A-13	§§ 25.629, §§25.671(c)(2)	ELOS Finding for Aeroelastic Stability
PS13-0546-A-21	§§ 25.571(b)	ELOS Finding for Damage Tolerance and Fatigue Evaluation of Structure
PS08-0670-C-1	§ 25.853(a)	ELOS Finding for Adhesives Used in Interior Panel Bent Joint Potting Applications
PS13-1000-C-5	§§ 25.853(a)(d)	ELOS Finding for Flammability Testing Hierarchy
PS19-0580-C-44	Exemptions 10879B	ELOS Finding for Moveable Privacy Dividers between Adjacent Mini-suites
TC6918SE-T-CS-1	§ 25.810(a)(1)(ii)	ELOS Finding for Escape Slide Inflation Times
TC6918SE-T-CS-2	§ 25.811(f)	ELOS Finding for Emergency Exit Markings and Door Sill Reflectance
PS07-0585-CS-10 and JCAB IP G-1 Appendix A	§§25.811(d) and (g), 25.812(b)(1)(i) and (b)(1)(ii)	ELOS Finding for Graphical Exit Signs

Ⅲ.787-10 (cont'd)

TC6918SE-T-CS-12	§ 25.791	ELOS Finding for Lighted "No smoking" Signs in Lieu of Placards
TC6918SE-T-CS-14	§ 25.856(b)	ELOS Finding for Fuselage Post-Crash Fire Survivability
PS07-0585-CS-18 and JCAB IP G-1 Appendix B	§ 25.811(e)(4)(i), (ii) and (iii)	ELOS Finding for Passenger Door Operational Arrow Location and Color
PS06-0413-CS-25	§ 25.783(e)(2)	ELOS Finding for Passenger and Large Cargo Door Indication
PS13-0679-CS-33	§§ 25.561 and 25.621	ELOS Finding for Critical Casting Factor Requirements for Model 787 Series Aircraft
PS18-0046-EE-10	§ 25.1535 and K25.2.2	ELOS Finding for 787 Rolls-Royce Trent 1000-TEN Early ETOPS Airplane Demonstration Tests
TC6918SE-T-ES-5	§ 25.831(g)	ELOS Finding for Acceptable High Temperature Physiological Environment During Failure Conditions
TC6918SE-T-ES-16	§ 25.1443(c)	ELOS Finding for Passenger Oxygen System
TC6918SE-T-ES-18	§ 25.1441(c)	ELOS Finding for Pulse Oxygen System for Passengers
TC6918SE-T-ES-19	§ 25.841(b)(6)	ELOS Finding for Cabin Altitude Warning Systems for Operation into High Altitude Airports
TC6918SE-T-ES-20	§ 25.1443(d)	ELOS Finding for Portable Pulse Oxygen System
TC6918SE-T-F-14	§ 25.677(b)	ELOS Finding for Trim Displays
TC6918SE-T-F-17	§ 25.255	ELOS Finding for Out of Trim Characteristics
PS06-0496-F-18	§ 25.1555(d)(1)	ELOS Finding for Engine and APU Fire Handle Design
PS06-0496-F-22	§ 25.123(a) and (b)	ELOS Finding for Speeds for En Route Flight Paths
PS14-0452-F-23A	§ 25.251	ELOS Finding for Vibration/Buffeting Compliance Criteria, Panasonic Ku-Band Radome Antenna
TC6918SE-T-G-8	§§ 25.1529, §§ 25.1729, Appendix H25.4(a) and (b)	ELOS Finding for Formatting of Boeing Instructions for Continued Airworthiness Manuals- Airworthiness Limitations
PS05-0177-P-2	§§ 25.981(b)(2)	ELOS Finding for Fuel Tank Flammability Reduction Rule
TC6918SE-T-P-2	§ 25.933(a)(1)(i) and (a)(1)(ii)	ELOS Finding for Flight Critical Thrust Reverser
TC6918SE-T-P-3	§ 25.1182(a)	ELOS Finding for Fire Safety Requirements for the Aft Strut Fairing Compartment
TC6918SE-T-P-13	Part 25 subpart E, F & G	ELOS Finding for Auxiliary Power Unit (APU) Installation
PS14-0470-P-15	K25.2.2(d)(1)	ELOS Finding for the 787-8/-9 Rolls-Royce Trent 1000-TEN ETOPS Ground Test
TC6918SE-T-P-17	§ 25.934	ELOS Finding for Engine and Thrust Reverser System Testing
TC6918SE-T-P-19	§§ 25.1023(b), 25.1121(c)	ELOS Finding for Auxiliary Power System
TC6918SE-T-P-20	§§25.997 and 25.1305(c)(6)	ELOS Finding for Warning Means for Engine Fuel Filter Contamination
TC6918SE-T-P-27	§25.1145(a)	ELOS Finding for Engine Igniter Flight-deck Switch Configuration
PS06-0414-P-34	§§ 25.1181(a)(6), 25.1181(b), 25.1182, and 25.1183(a)	ELOS Finding for Fire Safety Requirements for GEnx-1B
PS13-0546-P-36	§§ 25.1549(a) and 25.1549(b)	ELOS Finding for the Display of Powerplant Instruments
TC6918SE-T-SA-10	§ 25.1459(a)(2)	ELOS Finding for Flight Recorders
TC6918SE-T-SA-11	§ 25.1303(c)(1)	ELOS Finding for Overspeed Aural Warning
TC6918SE-T-SA-29	§ 25.1333(a)	ELOS Finding for Instrument Systems

Ⅲ.787-10 (cont'd)

PS06-0496-T-SA-31	§§ 25.1301, 25.1309, and 25.1310	ELOS Finding for Use of ARAC Recommended Revision
PS12-0038-SE-11	§ 25.1713(c)	ELOS Finding for the Engine Wiring Interconnection System (EWIS)
PS14-1031-SE-28	§25.1713(c)	ELOS Finding for Engine Electrical Wiring Interconnection System (EWIS) - Fire Protection
TC6918SE-T-SE-14	§ 25.1351(b)(5)	ELOS Finding for Flight Control Electronics DC Power System
PS06-0496-T-SE-15	§ 25.1317(b)	ELOS Finding for High Intensity Radiated Fields(HIRF)
TC6918SE-T-SF-1	§ 25.671(c)(2)	ELOS Finding for Flight Control System Failure Criteria
TC6918SE-T-SF-5	§ 25.777(e)	ELOS Finding for Wing Flap Control Lever
PS06-0496-SF-7	§ 25.675	ELOS Finding for Seal Krueger Flap Stops

Special Conditions with respect to the following subjects apply to the Model 787-10: SC

No.	Subject
25-348-SC	Composite Wing and Fuel Tank Structure-Fire Protection Requirements
25-354A-SC	Interaction of Systems and Structures, Electronic Flight Control System-Control Surface Awareness, and Design Roll Maneuver Requirement
25-356-SC	Systems and Data Networks Security-Isolation or Protection From Unauthorized Passenger Domain Systems Access
25-357-SC	Systems and Data Networks Security-Protection of Airplane Systems and Data Networks from Unauthorized External Access
25-359-SC	Lithium Ion Battery Installation
25-360-SC	Composite Fuselage In-Flight Fire/Flammability Resistance
25-362-SC	Crashworthiness Emergency Landing Conditions
25-363-SC	Tire Debris Penetration of Fuel Tank Structure
25-365-SC	Operation Without Normal Electrical Power
25-370-SC	Seats with Non-Traditional, Large, Non-Metallic Panels
25-414-SC	Lightning Protection of Fuel Tank Structure to Prevent Fuel Tank Vapor Ignition
25-418-SC	Overhead Flight Crew Rest Compartment Occupiable during Taxi, Takeoff, and Landing
25-419-SC	Overhead Crew Rest Compartment
25-431-SC	Seats With Inflatable Lapbelts
(Not Applicable)	
(Not Applicable)	
25-626A-SC	Dynamic Test Requirements for Single-Occupant Oblique (Side- Facing) Seats With or Without Airbag Devices or 3-Point Restraint Systems
25-644-SC	Flaps Up Vertical Modal Suppression (F0VMS)
25-682-SC	Non-Rechargeable Lithium Battery Installations
(Not Applicable)	
(Not Applicable)	
(Not Applicable)	

JCAB Additional Special Requirements

1. Requirements for markings and placards as shown in JCAB Circular No.1-008 "Marking which shall be indicated in Japanese for Emergency Exit, Safety Equipment, etc."

2. Requirement for contents of Airplane Flight Manual as shown in JCAB Circular No.1-001

Ⅲ.787-10 (cont'd)

3. JCAB Additional Special Requirements for Early ETOPS as shown in JCAB IP G-1 Appendix C about the contents of changes.

4. JCAB Additional Special Requirements for Fuel Tank System Flammability Reduction Means as shown in JCAB IP G-1 Appendix D

5. JCAB Additional Special Requirements for FAR Part 26 Subpart E as shown in JCAB IP G-1 Appendix E

THE FOLLOWING INFORMATION AND NOTES APPLY TO ALL MODELS UNLESS OTHERWISE NOTED

ADDITIONAL DESIGN REQUIREMENTS AND CONDITIONS:

The following design details or information must be maintained to ensure that an unsafe design condition is not present:

In-flight Engine Restart

The Boeing Model 787 engines incorporate numerous technological advances intended to increase efficiency and reliability. However, some of these features have the potential to decrease engine in-flight starting performance relative to the engines envisioned when the applicable sections of 14CFR Part 25 were promulgated. The following criteria for engine in-flight starting performance must be met to ensure that the level of safety intended by §§ 25.903(e) and 25.1351(d) is maintained on airplanes powered by current technology engines.

1. Appropriate procedures for restarting the engines in the following cases must be provided in the airplane flight manual (AFM):
   a. a fuel cut during climb after the takeoff phase (defined as the flight phase from start of the takeoff roll to 1500 feet above the runway altitude),
   b. loss of all alternating current (AC) power in combination with an all engine flameout, and
   c. all engine flame-out at or below 20,000 feet.

Uncontrollable High Engine Thrust or Power

Numerous single and anticipated combinations of failures within traditional engine control systems result in losing the normal means to control the magnitude and/or direction of engine thrust (power). For some of these anticipated failure conditions, the flight crew cannot be relied upon to recognize and mitigate the failures before they become hazardous or catastrophic. The following design features are required to ensure an unsafe condition does not exist with regards to the loss of the normal means to control engine thrust (power).

1. Dual channel full authority digital electronic (engine) control (FADEC) which monitors engine conditions to trim fuel flow,
2. Thrust control malfunction accommodation to address conditions where fuel metering is not responding to pilot input on the ground, and
3. Redundant mechanical control interface between the flight crew and the FADEC.

Engine Rotor-Lock Evaluation

Service experience has shown that some engines are susceptible to a condition known as rotor-lock following an in-flight shut-down from power settings ranging from high power to idle. The engine design must be free from engine rotor lock.

Fuel Feed System Icing Threats

Under certain conditions, over a period of low fuel temperatures, ice may accumulate in the airplane fuel feed system and then be fed or released downstream to the engine, and result in failure to achieve a commanded thrust level, and this is considered an unsafe condition. As such, each aircraft/engine and aircraft/auxiliary power system (APS) fuel feed system must either be designed to prevent an accumulation of ice anywhere within the fuel tank and feed system from being released into the engine and APS fuel system, or be designed so no loss of engine thrust occurs due to release of any ice accumulation anywhere within the airplane/engine operating envelope.

Return Landing Capability

Examination of takeoff performance capabilities of current and proposed large transport aircraft indicates that requirements other than climb performance should be addressed when considering safe return operations and the need for a fuel jettison system. The 787 fuel jettison system must be installed, and the jettison rate should be such that there is adequate return to landing capability, when considering the following items, in a 30-minute flight with 15 minutes of active fuel jettisoning in conjunction with operational procedures.

1. Exceedance of certificated maximum brake energies;
2. Exceedance of tire speed limits;
3. Controllability (e.g., hydraulic or flight control system failures);
4. Margins to flap placard, or load relief operation speeds in turbulent air;
5. Climb capability, engine inoperative procedure;
6. Landing distances (actual distances, including contaminated runway).

25.125 – Landing (787-9/-10)

The enhanced stall protection (ESP) is a required by design to ensure the intended level of safety. Any subsequent type design change, modification, or repair that disable or modify ESP are not acceptable.

Security Considerations (787-9/-10)

The Boeing Model 787-9/-10 was granted an exception per 14 CFR 21.101(b) for §§25.795(b)(1), (c)(2) and (c)(3) (i) based on design feature similar to but not equivalent to their intent. These security features must be in consideration in any subsequent type design change, modification, or repair to ensure the level of safety designed into the 787-9/-10 is maintained. Modifications that reduce flight critical system separation or adversely impact flight deck smoke protection, system separation and protections for searching above the overhead stowage compartments are not acceptable.

Certification Maintenance Requirements (CMRs):	See Certification Maintenance Requirements, document number D011Z009-03-03.
Production Basis:	FAA Production Certificate 700. See Note 4. (JCAB approved production in Everett (Washington) and Charleston (South Carolina) only.)
Leveling Means:	A plumb bob attachment and leveling provision scale are provided in the left main gear wheel well.
Datum:	Sta 0.0, located 55.8 in forward of airplane nose (B.S. 55.8).
Mean Aerodynamic Chord (MAC):	246.9 inches

Control Surface Movements: 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

787-8 Maximum control surface travel:

Control Surface	**Maximum TED/TEL (Deg.)**	**Maximum TEU/TER (Deg.)**
Ailerons	16.94°	-32.20°
Elevators	26.93°	-32.54°
Flaperon	39.26°	-31.61°
Spoilers 6, 7, 8, 9	-13.21°	60.95°
Spoilers 1, 2, 3, 12, 13, 14	-13.24°	60.77°
Spoilers 4, 5, 10, 11	-13.16°	63.00°
Rudder	32.10°	-31.83°
Horizontal Stabilizer	4.25°	-12.75°
Inboard Flaps	41.20°	-2.80°
Outboard Flaps	41.20°	-2.00°
Inboard Slats	23.47°	-0.34°
Outboard Slats	30.16°	-0.40°

787-9 Maximum control surface travel:

Control Surface	**Maximum TED/TEL (Deg.)**	**Maximum TEU/TER (Deg.)**
Ailerons	16.94°	-32.20°
Elevators	26.93°	-32.54°
Flaperon	39.26°	-31.61°
Spoilers 6, 7, 8, 9	-13.23°	61.15°
Spoilers 1, 2, 3, 12, 13, 14	-13.24°	60.77°
Spoilers 4, 5, 10, 11	-13.40°	62.91°
Rudder	32.40°	-32.00°
Horizontal Stabilizer	4.25°	-12.75°
Inboard Flaps	43.00°	-2.80°
Outboard Flaps	43.00°	-2.00°
Inboard Slats	26.52°	-0.34°
Outboard Slats	31.56°	-0.40°

787-10 Maximum control surface travel:

Control Surface	**Maximum TED/TEL (Deg.)**	**Maximum TEU/TER (Deg.)**
Ailerons	16.94°	-32.20°
Elevators	26.93°	-32.54°
Flaperon	39.26°	-31.61°
Spoilers 6, 7, 8, 9	-13.23°	61.15°
Spoilers 1, 2, 3, 12, 13, 14	-13.24°	60.77°
Spoilers 4, 5, 10, 11	-13.40°	62.91°
Rudder	32.40°	-32.00°
Horizontal Stabilizer	4.25°	-12.75°
Inboard Flaps	43.00°	-2.80°
Outboard Flaps	43.00°	-2.00°
Inboard Slats	26.52°	-0.34°
Outboard Slats	31.56°	-0.40°

Trailing Edge Down = TED
Trailing Edge Up = TEU
Trailing Edge Left = TEL
Trailing Edge Right = TER
Degrees = Deg.

Required Equipment: The basic required equipment as prescribed in the applicable Japan Civil Aeronautics Law and regulations must be installed in the aircraft for certification.

Service Information: The following documents are FAA-approved and will carry a statement to that effect. This statement may be interpreted as constituting JCAB approval.
B787-81205-Z0210-00, "787-8 Structural Repair Manual"
B787-81205-Z0310-00, "787-9 Structural Repair Manual"
B787-81205-Z0410-00, "787-10 Structural Repair Manual"

Service Bulletins and other service information, when FAA-approved, will contain a statement declaring FAA approval. This statement may be interpreted as "JCAB-approved". All Service Bulletins that are subject to an Airworthiness Directive of the FAA will carry a statement to that effect.

INFORMATION AND NOTES:

Note 1 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

Note 2 Airplane operation must be in accordance with the JCAB-approved Airplane Flight Manual, Boeing Document D631Z003. All placards required by either the JCAB- approved Flight Manual, the applicable operating rules, or the Certification Basis must be installed in the airplane in accordance with 14 CFR 25.1541 through 25.1563.

Note 3 For airplanes delivered after August 5, 2019, the applicable revision level of each of these documents is listed on the airplane-specific Revision Effectivity Record (RER) MPE-RER-787-LNXXXX letter of each airplane. Airplane operators are required to observe the limitations and perform the maintenance tasks per the specified revision level or a later FAA-approved revision of the documents. To maintain compliance with Type Certification requirements of the 787 airplane, each operator must incorporate into their airline's JCAB-approved maintenance program the applicable items from the following FAA-approved documents (as cited in Section 9 of the 787 Maintenance Planning Data, Boeing Document D011Z009-03):

D011Z009-03-01,	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 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 Certification Maintenance Requirements (CMRs). Required periodic tasks to specific Systems installations.
D011Z009-03-04,	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 14CFR Part 25.981.
D925W704-04,	The Boeing Commercial Airplanes Universal Airplane Network Security Operator Guidance, D925W704-04, contains required Instructions for Continued Airworthiness and security guidance that when followed meets compliance requirements of the Network Cybersecurity Special Conditions.

Note 4 The following Aircraft Serial Numbers were produced under FAA Type Certification only:

787-8:

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

787-9:

34334, 34522, 35422, 36404, 36405, 41988, 41989

787-10:

40929, 60256, 60253, 60257

Note 5	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).
Note 6	The Models 787-8,787-9 and 787-10 have been approved to operate in "Reduced Vertical Separation Minimum" (RVSM) airspace. Continued airworthiness and operational approval aspects of RVSM must be constructed according to FAA document 91-RVSM Change 2, dated 19 February 2004 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."
Note 7	Not Applicable
Note 8	Not Applicable
Note 9	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 will modify the design of the aircraft and engines by December 31, 2012 to completely eliminate this fuel venting on new aircraft. Boeing has included an airworthiness limitation in the instructions for continued airworthiness for the affected aircraft requiring incorporation of the modified design by December 31, 2014.
Note 10	See the JCAB-approved Flight Manual for engine ratings and operating limits. The normal 5 minute takeoff time limit may be extended to 10 minutes for engine out contingency if permitted by the Limitations Section of the JCAB-approved Airplane Flight Manual.
Note 11	Applicable only to Trent 1000-A Engines with or without M/SB 72-G319 incorporated.
Note 12	Applicable only to Trent 1000-C, Trent 1000-E and Trent 1000-H Engines with M/SB 72-G319 incorporated.
Note 13	Applicable to Bill of Materials for GEnx-1B64G03 or GEnx-1B64G04.
Note 14	Not Applicable
Note 15	Applicable to Bill of Materials for GEnx-1B70G03 or GEnx-1B70G04.
Note 16	Applicable to Bill of Materials for GEnx-1B64/P1G01, GEnx-1B67/P1G01, GEnx-1B70/P1G01, GEnx-1B70/75/P1G01 and GEnx-1B74/75/P1G01 respectively.
Note 17	Not Applicable
Note 18	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, GEnx-1B70/75/P2G01 or GEnx-1B70/75/P2G02 and GEnx-1B74/75/P2G01 or GEnx-1B74/75/P2G02 respectively.

Note 19 Not Applicable

Note 20 Not Applicable

Note 21 The JCAB has concluded that the occurrence of any uncommanded high-thrust failure condition, or any of the associated causal failures listed within Boeing Document D011Z009-03-01, may endanger the safe operation of an airplane. Consequently, the JCAB recommends that operators report any such failures in accordance with JCAB Circular No.6-001.

Note 22 Not Applicable

Note 23 The 787-8, 787-9, and 787-10 Airplane Condition Monitoring Function (ACMF), a 787 Maintenance System (MS) functionality, was certified to enable the monitoring, recording, engine reporting, and airplane systems performance, in accordance with Title 14 Code of Federal Regulations Part 25.1301; allowing collected data to be used by airlines for purposes including but not limited to trend analysis and scheduled maintenance credits, as applicable and appropriate.

Note 24 In addition to the FAA's finding of compliance based on the certification requirements defined in this TCDS, the engine manufacturer has declared that the ICAO emissions standards identified in Annex 16, Volume II, Fourth Edition, Amendment 10, effective July 20, 2020, have also been demonstrated for the following:

Part II, Chapter 2 for Fuel Venting

Part III, Chapter 2, Section 2.2.2 for Smoke Number

Part III, Chapter 2, Section 2.3.2 for Carbon Monoxide and Hydrocarbons

Part III, Chapter 2, Section 2.3.2 for Oxides of Nitrogen (also known as CAEP/8), and

Part III, Chapter 4, Section 4.2.2 for non-volatile Particulate Matter (also known as CAEP/10 & CAEP/11)

Note 25 Not Applicable

Note J1 This Type Certificate Data Sheet (TCDS) is based on FAA TCDS No. T00021SE revision 40, dated September 22, 2025.

Note J2 Dates of application for FAA and JCAB Type Certification for Model 787-8/787- 9/787-10 are as follows.

Model	FAA TC No. T00021SE	JCAB TC No. 72
787-8	March 28, 2003	April 12, 2006
787-9	May 28, 2009	July 12, 2013
787-10	July 30,2013	March 19, 2019

Note J3 Import Requirements/Import Eligibility
To be considered eligible for operation in Japan, each aircraft manufactured under this Type Certificate must be accompanied by a Certificate of Airworthiness for Export or certifying statement endorsed by the exporting foreign civil airworthiness authority which states the following (in the English language)
"This aircraft has been examined, tested and found to conform to the type design approved under JCAB Type Certificate No. 72-22 and to be in a condition for safe operation."

… END …