TYPE CERTIFICATE DATA SHEET T00001SE

This data sheet, which is part of Type Certificate No. T00001SE, prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder: The Boeing Company
PO Box 3707
Seattle, WA 98124-2207

I - Model 777-200 Series (Approved April 19, 1995)

Engines:
2 Pratt and Whitney Turbofan Model: PW4074, PW4074D, PW4077, PW4077D, PW4090, PW4084D, and PW4090-3
(Engine Type Certificate No. E46NE)
(Engine Type Certificate No. E00049EN)
2 Rolls-Royce Turbofan Model: RB211-Trent 875-17, RB211-Trent 877-17, RB211-Trent 884-17, RB211-Trent 892-17, or RB211 Trent 892B-17, RB211 Trent 895-17
(Engine Type Certificate E00050EN)
Authorization for engine intermix is contained in the appropriate FAA approved Airplane Flight Manual.

Fuel:
Pratt and Whitney Engines:
Fuels conforming to:
ASTM D-1655 grades Jet-A and Jet A-1,
MIL-T-5624 grade JP-5, and
MIL-T-83133 grade JP-8 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 latest approved version of P&W Service Bulletin 2016.

General Electric Engines:
Fuels conforming to:
ASTM D-1655 grades Jet-A and Jet A-1,
MIL-T-5624 grade JP-5, and
MIL-T-83133 grade JP-8, and
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 latest approved version of GE Aviation Turbine Fuels Specification D50TF2.

Rolls-Royce Engines:
Fuels conforming to:
ASTM D-1655 grades Jet-A and Jet A-1,
MIL-T-5624 grade JP-5, and
MIL-T-83133 grade JP-8, and
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.
**I. Model 777-200 (cont’d):**

**Engine Ratings & Operating Limits:**

Pratt & Whitney Engines:

See the FAA 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 FAA approved Airplane Flight Manual.

General Electric Engines:

See the FAA approved Airplane Flight Manual for engine ratings. See the FAA approved Airplane Flight Manual and Note 6 for engine 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 FAA approved Airplane Flight Manual.

Rolls-Royce Engines:

See the FAA approved Airplane Flight Manual for engine ratings. See the FAA approved Airplane Flight Manual and Note 6 for engine 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 FAA approved Airplane Flight Manual.

**Airspeed Limits:**

\[ \text{VMO/MMO} = 330 \text{KIAS}/.87 \text{M} \]

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

**CG Range:**

See the appropriate FAA approved Airplane Flight Manual.

**Maximum Weights:**

See the appropriate FAA approved Airplane Flight Manual.

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I. Model 777-200 (cont’d):

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777-2U8  33681-33683, 36124
777-2Z9  28698, 28699, 29313, 35960

PERTINENT DATA
Minimum Crew: Two (2): pilot and copilot
Maximum Passengers: 440
Maximum Baggage/Cargo: See appropriate Weight and Balance Manual.
Fuel and Oil Capacities: See appropriate Weight and Balance Manual.
Leveling Means: A plumb bob attachment and leveling provision scale are provided in the right hand body wheel well.
Datum: Sta 0.0, located 92.5 in forward of airplane nose (B.S. 92.5).
MAC: 278.51 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:

Boeing Drawing Numbers:

- 251W1001  Rigging Instructions  Lateral Control
- 251W2001  Rigging Instructions  Elevator Control
- 251W3001  Rigging Instructions  Rudder Control
- 251W4001  Rigging Instructions  Stabilizer Trim Control System
- 256W2001  Systems Rigging  Leading Edge Slat
- 256W3001  Rigging Instructions  Drive System Flap Actuation

Certification Basis: A. Part 25 of the Federal Aviation Regulations:
Amendment 25-1 through 25-82, except for FAR 25.571(c)(1) which remains at amendment 25-71 level.

Optional Design Regulations:
Ditching: FAR 25.801, 25.1411(d), (e), (f), (g) and 25.1415
Ice Protection: FAR 25.1419

Part 34 of the Federal Aviation Regulations:
Amendment 34-1, and any later amendments in existence, at the time of Certification.

Part 36 of the Federal Aviation Regulations:
Amendment 36-1 through 36-20, and any later amendments in existence, at the time of Certification.

Exemptions from FAR 25:
1. Floor Warpage for Flight Deck Seats Exemption from FAR 25.562(b)(2).
   (Exemption No. 5436, April 1, 1992).
2. Partial Exemption from FAR 25.1435(b)(1), Hydraulic Proof Pressure Test.
3. Partial Exemption from FAR 25.901(c), No single powerplant or auxiliary power unit failure will jeopardize the safe operation of the airplane. (Exemption No. 7955, January 17, 2003) See Note 8

Equivalent Safety Findings exist with respect to the following regulations:
FAR 25.125(a)(2) and 25.149 - Landing Minimum Control Speed.
FAR 25.562(b)(2) - Emergency Landing Dynamic Conditions
I. Model 777-200 (cont’d):

FAR 25.785(f)(3) - for Flexible Interior Items Track Mounted 1.33 Fitting Factor.
FAR 25.791(a) and FAR 25.853(d) – “No Smoking” Limitation in the passenger compartment
FAR 25.803(c) - for Inoperative Floor Proximity Light System during the Full Scale Evacuation Demonstration.
FAR 25.811 - Exterior Exit Markings
FAR 25.811(f) - Door sill reflectance
FAR 25.813(e) – Doors between passenger compartments
FAR 25.819 - Lower Lobe Attendant Rest (LLAR)
FAR 25.869(a)(4) - for Fiber Optic Cables used in the Model 777.
FAR 25.933(a)(1)(ii) - Inflight Thrust Reverser Deployment Demonstration.
FAR 25.1182(a) and 25.1183(a) - for Fire Resistant Requirement for Hydraulic Components Located in the Strut Aft Fairing.
FAR 25.1183(a) - Fire Resistance of Power Door Opening System on Engine Compartments (GE Engines)
FAR 25.1303(c)(1) - Overspeed Aural Warning.
FAR 25.1305(c)(7) - Warning Means for Engine Oil Filter Indication Contamination. (PW engines only)
FAR 25.1351(b)(5) - Flight Controls DC Power
FAR 25.1387(b) & (c) - for Forward Position Lights.
FAR 25.1389(b)(3) – Red and Green Position Lights - Aft Lamps Only
FAR 25.1459(a)(2) - for Flight Data Recorder Accelerometers.
FAR 25. (several sections) Use of 1g Speed Instead of Minimum Speed in the Stall as a Basis for Compliance. (All FAR 25 Sections, except structural, dealing with stall speeds/related factors for turbojet airplanes).

Special Conditions with respect to the following subjects apply to the Model 777-200:
Special Conditions No. 25-ANM-78, published in the Federal Register November 10, 1993, addressed the following issues:
1. Operation without Normal Electrical Power
2. Integrated Command Signal Integrity
3. Protection from Lightning and High-Intensity Radiated Fields Protection
4. Effect of Flight Control Systems on Structure
5. Design Maneuver Requirements
6. Limit Engine Torque Loads for Sudden Engine Stoppage
7. Flight Characteristics Compliance via Handling Qualities Rating Method
8. Electronic Flight Control System - Control Surface Awareness

Note: (Special Conditions on lightning are no longer part of the Type Certificate as a result of Boeing's voluntary compliance with FAR Amendment 25-80 which resulted in issuance of § 25.1316, "System Lightning Protection").

Special Conditions No. 25-ANM-84, published in the Federal Register on June 1, 1994, Addressed airplane type design approval for Extended Range Operation With Two-Engine Airplanes (ETOPS).


B. Joint Aviation Authorities (JAA) Certification Basis:
JAR 25 Change 13, Orange Papers 90/1 and 91/1, AWO Change 1, and Applicable NPAs. Special Conditions, Equivalent Safety Findings and Exemptions: For details refer to JAA Data Sheet JAA/25/95-013, Issue 1 and later issues.


II - Model 777-300 Series (Approved May 4, 1998)

Engines: 2 Rolls-Royce Turbofan Model: RB211-Trent 884-17, RB211-Trent 884B-17, or RB211-Trent 892-17 (Engine Type Certificate E00050EN) 2 Pratt & Whitney Turbofan Model: PW4090, PW4098 (Engine Type Certificate E46NE)

Fuel: Rolls-Royce Engines:
Fuel conforming to:
ASTM D-1655 grades Jet-A and Jet A-1,
MIL-T-5624 grade JP-5, and
MIL-T-83133 grade JP-8, and
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.

Pratt & Whitney Engines:
ASTM D-1655 grades Jet-A and Jet A-1,
MIL-T-5624 grade JP-5, and
MIL-T-83133 grade JP-8 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 latest approved version of P&W Service Bulletin 2016.

Engine Ratings & Operating Limits:

Rolls-Royce Engines:
See the FAA approved Airplane Flight Manual for engine ratings. See the FAA approved Airplane Flight Manual and Note 6 for engine 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 FAA approved Airplane Flight Manual.

Pratt & Whitney Engines:
See the FAA 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 FAA approved Airplane Flight Manual.

Airspeed Limits: VMO/MMO = 330KIAS/.89M.
For other airspeed limits, see the appropriate FAA approved Airplane Flight Manual.

CG Range: See the appropriate FAA approved Airplane Flight Manual.

Maximum Weights: See the appropriate FAA approved Airplane Flight Manual.

Model

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</table>

PERTINENT DATA

Minimum Crew: Two (2): pilot and copilot. One flight attendant is required at each door no. 3 overwing exit.

Maximum Passengers: 550. For passenger capacity above 500, an 11th flight attendant is required at door 3 exit.
II.  777-300 (cont'd):

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

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


Maximum Operating Altitude:  43,100 feet

Leveling Means:  A plumb bob attachment and leveling provision scale are provided in the right hand body wheel well.

Datum:  Sta 0.0, located 92.5 in forward of airplane nose (B.S. 92.5).

MAC:  278.51 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:

Boeing Drawing Numbers:
251W1001  Rigging Instructions  Lateral Control
251W2001  Rigging Instructions  Elevator Control
251W3001  Rigging Instructions  Rudder Control
251W4001  Rigging Instructions  Stabilizer Trim Control System
256W2001  Systems Rigging  Leading Edge Slat
256W3001  Rigging Instructions  Drive System Flap Actuation

Certification Basis:  A. Part 25 of the Federal Aviation Regulations:
Amendment 25-1 through 25-86, except for FAR 25.201 which remains at Amendment 25-83 level, FAR 25.203 which remains at Amendment 25.83 level, FAR 25.571(c)(1), which remains at Amendment 25-71 level (remains from 777-200 certification basis), FAR 25.335(d) which remains at Amendment 25-85 level, and FAR 25.853(d)(3), which remains at Amendment 25-82 level.
Part 34 of the Federal Aviation Regulations:
Amendment 34-1, and any later amendments in existence, at the time of Certification.
Part 36 of the Federal Aviation Regulations:
Amendment 36-1 through 36-20, and any later amendments in existence, at the time of Certification.

Optional Design Regulations:
Ditching:  FAR 25.801, 25.1411(d), (e), (f), (g) and 25.1415
Ice Protection:  FAR 25.1419

Exemptions from FAR 25:
3. Partial Exemption from FAR 25.901(c), No single powerplant or auxiliary power unit failure will jeopardize the safe operation of the airplane.  (Exemption No. 7955, January 17, 2003)  See Note 8.

Equivalent Safety Findings exist with respect to the following regulations:
FAR 25.785(f)(3) - for Flexible Interior Items Track Mounted 1.33 Fitting Factor.
FAR 25.791(a) and FAR 25.853(d) – “No Smoking” Limitation in the passenger compartment
FAR 25.803(c) – Inoperative Floor Proximity Light System during Full Scale Evacuation Demonstration
II. **777-300 (cont’d):**

FAR 25.810 - Off-wing Escape System/Bottle Loss During Landing Gear Collapse  
FAR 25.811(f) - Door Sill Reflectance  
FAR 25.811(f) - Exterior Exit Marking  
FAR 25.813(e) - Doors between passenger compartments  
FAR 25.869(a)(4) - for Fiber Optic Cables used in the Model 777.  
FAR 25.933(a)(1)(ii) - Inflight Thrust Reverser Deployment Demonstration.  
FARs 25.1182(a) and 25.1183(a) - for Fire Resistant Requirement for Hydraulic Components Located in the Strut Aft Fairing.  
FAR 25.1303(c)(1) - Overspeed Aural Warning.  
FAR 25.1305 and 25.1501(b) - APU Instrumentation and Monitoring Requirements.  
FAR 25.1305(c) (7) - Warning Means for Engine Oil Filter Indication Contamination.  
FAR 25.1351(b)(5) - for Flight Controls DC Power.  
FAR 25.1387(b) & (c) - for Forward Position Lights.  
FAR 25.1389(b)(3) - for Red and Green Position Lights, Aft Lamps Only.  
FAR 25.1459(a)(2) - for Flight Data Recorder Accelerometers.  
FAR 25. (several sections) Use of 1g Speed Instead of Minimum Speed in the Stall as a Basis for Compliance. (All FAR 25 Sections, except structural, dealing with stall speeds/related factors for turbojet airplanes).

Special Conditions with respect to the following subjects apply to the Model 777-300:  
Special Conditions No. 25-ANM-78, published in the Federal Register November 10, 1993, addressed the following issues:  
1. Operation without Normal Electrical Power  
2. Integrated Command Signal Integrity  
3. Protection from Lightning and High-Intensity Radiated Fields Protection  
4. Effect of Flight Control Systems on Structure  
5. Design Maneuver Requirements  
6. Limit Engine Torque Loads for Sudden Engine Stoppage  
7. Flight Characteristics Compliance via Handling Qualities Rating Method  
8. Electronic Flight Control System - Control Surface Awareness

Note: (Special Conditions on lightning are no longer part of the Type Certificate as a result of Boeing’s voluntary compliance with FAR Amendment 25-80 which resulted in issuance of 25.1316, “System Lightning Protection”).

Special Conditions No. 25-ANM-84, published in the Federal Register on June 1, 1994, Addressed airplane type design approval for Extended Range Operation With Two-Engine Airplanes (ETOPS).

B. Joint Aviation Authorities (JAA) Certification Basis:  
JAR 25 Change 14, AWO Change 2, and Applicable NPAs, Special Conditions, Equivalent Safety Findings and Exemptions. For details refer to JAA Data Sheet JAA/25/95, Issue 14 and later issues  

III - **Model 777-300ER Series (Approved March 16, 2004)**

**Engines:**  
2 General Electric Turbofan Model: GE90-115B  
(Engine Type Certificate No. E00049EN)

**Fuel:**  
General Electric Engines:  
Fuels conforming to:  
ASTM D-1655 grades Jet-A and Jet A-1,  
MIL-T-5624 grade JP-5, and  
MIL-T-83133 grade JP-8, and  
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 latest approved version of GE Aviation Turbine Fuels Specification D50TF2.
III. 777-300ER (cont’d):

Engine Ratings & Operating Limits:

General Electric Engines:
See the FAA approved Airplane Flight Manual for engine ratings. See the FAA approved Airplane Flight Manual and Note 6 for engine 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 FAA approved Airplane Flight Manual.

Airspeed Limits: VMO/MMO = 330KEAS/.89M.
For other airspeed limits, see the appropriate FAA approved Airplane Flight Manual.

CG Range: See the appropriate FAA approved Airplane Flight Manual.

Maximum Weights: See the appropriate FAA approved Airplane Flight Manual.

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PERTINENT DATA

Minimum Crew: Two (2): pilot and copilot. One flight attendant is required at each door no. 3 overwing exit.

Maximum Passengers: 550. For passenger capacity above 500, an 11th flight attendant is required at door 3 exit.

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

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


Maximum Operating Altitude: 43,100 feet

Leveling Means: A plumb bob attachment and leveling provision scale are provided in the right hand body wheel well.

Datum: Sta 0.0, located 92.5 in forward of airplane nose (B.S. 92.5).

MAC: 278.51 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:
III. 777-300ER (cont’d):

Boeing Drawing Numbers:
251W1001 Rigging Instructions Lateral Control
251W2001 Rigging Instructions Elevator Control
251W3001 Rigging Instructions Rudder Control
251W4001 Rigging Instructions Stabilizer Trim Control System
256W2001 Systems Rigging Leading Edge Slat
256W3001 Rigging Instructions Drive System Flap Actuation

Certification Basis:
A. Part 25 of the Federal Aviation Regulations:
Amendment 25-1 through 25-98, except for FAR 25.831(a) and (g) which remains at Amendment 25-86 level, FAR 25.841(a), which remains at Amendment 25-86 level, and FAR 25.853(d)(3), which remains at Amendment 25-82 level. FAR 25.1517 is not part of the TC.

Part 34 of the Federal Aviation Regulations:
Amendment 34-1 through 34-3.
Part 36 of the Federal Aviation Regulations:
Amendment 36-1 through 36-24.

Optional Design Regulations:
Ditching: FAR 25.801, 25.1411(d), (e), (f), (g) and 25.1415
Ice Protection: FAR 25.1419

Exemptions from FAR 25:
1. Floor Warpage for Flight Deck Seats Exemption from FAR 25.562(b)(2).
   (Exemption No. 5436, April 1, 1992 and No. 5436A, January 3, 1997).
2. Partial Exemption from FAR 25.1435(b)(1), Hydraulic Pressure Test.
   (Exemption No. 7478, March 28, 2001).
3. Partial Exemption from FAR 25.901(c), Thrust Control Malfunction Accomodation and Single Failures of Thrust Levers (Exemption No. 7955, January 17, 2003).

Equivalent Safety Findings exist with respect to the following regulations:
FAR 25.201(d) – Stall Demonstration
FAR 25.203(d) – Stall Characteristics
FAR 25.335(b) – Dive Speed Definition with Dive Speed Protection
FAR 25.571(b) – Freedom from Wide Spread Structural Fatigue Damage
FAR 25.613 – Material Design Review
FAR 25.723(a) – Shock Absorption
FAR 25.791(a) and FAR 25.853(d) – “No Smoking” Limitation in the passenger Compartment
FAR 25.809(b)(2) and 25.810(a)(1) – Escape Slide Inflation Times
FAR 25.810 - Off-wing Escape System/Bottle Loss During Landing Gear Collapse
FAR 25.811 - Exterior Exit Marking
FAR 25.811(f) - Door Sill Reflectance
FAR 25.813(c) – Doors between passenger compartments
FAR 25.831(a) – Airplane Operation with Air Conditioning Packs Off During Takeoff
FAR 25.869(a)(4) - for Fiber Optic Cables used in the Model 777.
FAR 25.933(a)(1)(ii) - Inflight Thrust Reverser Deployment Demonstration.
FAR 25.934 – Thrust Reverser Installation for Engine Endurance Testing
FARs 25.1182(a) and 25.1183(a) - for Fire Resistant Requirement for Hydraulic Components Located in the Strut Aft Fairing.
FAR 25.1183(a) - Fire Resistance of Power Door Opening system on Engine Compartments (GE Engines)
FAR 25.1303(c)(1) - Overspeed Aural Warning.
FAR 25.1305 and 25.1501(b) - APU Instrumentation and Monitoring Requirements.
FAR 25.1351(b)(5) - for Flight Controls DC Power.
FAR 25.1389(b)(3) – Red & Green Position Lights
FAR 25.1459(a)(2) - for Flight Data Recorder Accelerometers.
FAR 25. (several sections) Use of 1g Speed Instead of Minimum Speed in the Stall as a Basis for Compliance.

Special Conditions with respect to the following subjects apply to the Model 777-300ER:
Special Conditions No. 25-ANM-78, published in the Federal Register November 10, 1993, addressed the following issues:
1. Operation without Normal Electrical Power
2. Integrated Command Signal Integrity
III. 777-300ER (cont’d):

3. Protection from Lightning and High-Intensity Radiated Fields Protection
4. Effect of Flight Control Systems on Structure
5. Design Maneuver Requirements
6. Limit Engine Torque Loads for Sudden Engine Stoppage
7. Flight Characteristics Compliance via Handling Qualities Rating Method
8. Electronic Flight Control System - Control Surface Awareness

Note: Special Conditions on lightning are no longer part of the Type Certificate as a result of Boeing’s voluntary compliance with FAR Amendment 25-80 which resulted in issuance of 25.1316, “System Lightning Protection”.

Special Conditions No. 25-ANM-84, published in the Federal Register on June 1, 1994, Addressed airplane type design approval for Extended Range Operation With Two-Engine Airplanes (ETOPS).


Special Condition No. 25-230-SC, published in the Federal Register on April 9, 2003, addressed Overhead Crew Rest Compartments


B. European Aviation Safety Agency (EASA) Certification Basis:
JAR 25 Change 14 plus Orange Paper 96/1, JAR AWO Change 2, and Applicable NPAs, Special Conditions, Equivalent Safety Findings and Exemptions. For details refer to EASA Data Sheet IM.A.003 Issue 1 and later issues.


IV - Model 777-200LR Series (Approved February 2, 2006)

Engines: 2 General Electric Turbofan Model: GE90-110B1 (Engine Type Certificate No. E00049EN)

Fuel: General Electric Engines:
Fuels conforming to:
ASTM D-1655 grades Jet-A and Jet A-1,
MIL-T-5624 grade JP-5, and
MIL-T-83133 grade JP-8, and
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 latest approved version of GE Aviation Turbine Fuels Specification D50TF2.

Engine Ratings & Operating Limits:

General Electric Engines:
See the FAA approved Airplane Flight Manual for engine ratings. See the FAA approved Airplane Flight Manual and Note 6 for engine 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 FAA approved Airplane Flight Manual.

Airspeed Limits: VMO/MMO = 330KEAS/.89M.
For other airspeed limits, see the appropriate FAA approved Airplane Flight Manual.

CG Range: See the appropriate FAA approved Airplane Flight Manual.

Maximum Weights: See the appropriate FAA approved Airplane Flight Manual.
**Model 777-200LR (cont’d)**

<table>
<thead>
<tr>
<th>Model</th>
<th>Eligible Serial Numbers</th>
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<tbody>
<tr>
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<td>35572, 35573, 35576, 35577</td>
</tr>
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<td>777-237LR</td>
<td>36300-36304</td>
</tr>
<tr>
<td>777-240LR</td>
<td>33781, 33782</td>
</tr>
</tbody>
</table>

**PERTINENT DATA**

- **Minimum Crew:** Two (2): pilot and copilot.
- **Maximum Passengers:** 440
- **Maximum Baggage/Cargo:** See appropriate Weight and Balance Manual.
- **Fuel and Oil Capacities:** See appropriate Weight and Balance Manual.
- **Minimum Required Fuel:** See appropriate FAA approved Airplane Flight Manual.
- **Maximum Operating Altitude:** 43,100 feet
- **Leveling Means:** A plumb bob attachment and leveling provision scale are provided in the right hand body wheel well.
- **Datum:** Sta 0.0, located 92.5 in. forward of airplane nose (B.S. 92.5).
- **MAC:** 278.51 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:

  Boeing Drawing Numbers:
  - 251W1001 Rigging Instructions Lateral Control
  - 251W2001 Rigging Instructions Elevator Control
  - 251W3001 Rigging Instructions Rudder Control
  - 251W4001 Rigging Instructions Stabilizer Trim Control System
  - 256W2001 Systems Rigging Leading Edge Slat
  - 256W3001 Rigging Instructions Drive System Flap Actuation

**Certification Basis:**

- A. Part 25 of the Federal Aviation Regulations:
  Amendment 25-1 through 25-100, except for FAR 25.831(a) and (g) which remains at Amendment 25-86 level, FAR 25.841(a), which remains at Amendment 25-86 level, and FAR 25.853(d)(3), which remains at Amendment 25-82 level. FAR 25.1517 is not part of the TC.
- Part 34 of the Federal Aviation Regulations:
  Amendment 34-1 through 34-3.
- Part 36 of the Federal Aviation Regulations:
  Amendment 36-1 through 36-24.
- **Optional Design Regulations:**
  - Ditching: FAR 25.801, 25.1411(d), (e), (f), (g) and 25.1415
  - Ice Protection: FAR 25.1419

**Exemptions from FAR Part 25:**

1. Floor Warpage for Flight Deck Seats Exemption from FAR 25.562(b)(2).
   (Exemption No. 5436, April 1, 1992 and No. 5436A, January 3, 1997 and No. 5436B, November 15, 2000).
2. Partial Exemption from FAR 25.1435(b)(1), Hydraulic Proof Pressure Test.
IV. 777-200LR (cont’d):

3. Partial Exemption from FAR 25.901(c), Thrust Control Malfunction Accommodation and Single Failures of Thrust Levers (Exemption No. 7955, January 17, 2003). Equivalent Safety Findings exist with respect to the following regulations:

FAR 25.201(d) – Stall Demonstration
FAR 25.203(d) – Stall Characteristics
FAR 25.335(b) – Dive Speed Definition with Dive Speed Protection
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FAR 25.1351(b)(5) - for Flight Controls DC Power.
FAR 25.1459(a)(2) - for Flight Data Recorder Accelerometers.
FAR 25. (several sections) Use of 1g Speed Instead of Minimum Speed in the Stall as a Basis for Compliance.

Special Conditions with respect to the following subjects apply to the Model 777-200LR:

Special Conditions No. 25-ANM-78, published in the Federal Register November 10, 1993, addressed the following subjects:

1. Operation without Normal Electrical Power
2. Integrated Command Signal Integrity
3. Protection from Lightning and High-Intensity Radiated Fields Protection
4. Effect of Flight Control Systems on Structure
5. Design Maneuver Requirements
6. Limit Engine Torque Loads for Sudden Engine Stoppage
7. Flight Characteristics Compliance via Handling Qualities Rating Method
8. Electronic Flight Control System - Control Surface Awareness

Note: (Special Conditions on lightning are no longer part of the Type Certificate as a result of Boeing’s voluntary compliance with FAR Amendment 25-80 which resulted in issuance of 25.1316, “System Lightning Protection”).

Special Conditions No. 25-ANM-84, published in the Federal Register on June 1, 1994, Addressed airplane type design approval for Extended Range Operation With Two-Engine Airplanes (ETOPS).

B. European Aviation Safety Agency (EASA) Certification Basis:

JAR 25 Change 15, JAR AWO Change 2.

Special Conditions, Equivalent Safety Findings and Exemptions. For details refer to EASA Data Sheet IM.A.003, Issue 5, and later issues.


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

Certification Maintenance Requirements (CMRs):
The CMRs are listed in either the FAA approved Section 9 of Boeing Maintenance Planning Data Document D622W001-9 or the applicable engine Type Certificate Data Sheet. The more restrictive requirement from these two documents shall be in force.

Production Basis: Production Certificate 700. See Note 4.

Required Equipment: The basic required equipment as prescribed in the applicable Federal Aviation Regulations must be installed in the aircraft.

Service Information: Boeing Document D634W201 "Structural Repair Manual" is FAA-approved. Service Bulletins and other service information when FAA-approved will carry a statement to that effect.

Note 1. A current Weight & Balance Report must be in each aircraft at the time of original airworthiness certification and at all times thereafter except in the case of an operator having an FAA approved loading system for weight and balance control.

Note 2. Airplane operation must be in accordance with the FAA Approved Airplane Flight Manual. All placards required by either FAA Approved Airplane Flight Manual, the applicable operating rules, or the Certification Basis must be installed in the airplane.

Note 3. Required structural inspections and the retirement times for safe-life parts are listed in the FAA Approved Airworthiness Limitations Section (Section 9) of Boeing Document D622W001-9. The inspection intervals for those inspections are based upon the curves contained in Boeing Document D101W801-36.

Note 4. The following Serial Numbers were produced under Type Certificate only:
777-200: 26916-26919, 26921, 26925, 26929, 26930, 26932, 26936, 27105, 27106, 27116, 27265
777-300: 27507, 27506, 28275, 27505, 27950, 28273, 27504, 28272

Note 5. The Models 777-200 and 777-300 have been evaluated in accordance with FAA Special Conditions Number 25-ANM-84, and found suitable for 180-minute Extended Range Operations with Two-Engine Airplanes (ETOPS) operations when operated and maintained in accordance with Boeing Document D044W054 “Model 777 ETOPS Configuration, Maintenance, and Procedures.” This finding does not constitute approval to conduct ETOPS operations.

The Models 777-200LR and 777-300ER have been evaluated in accordance with FAA Special Conditions Number 25-ANM-84A, and found suitable for 180-minute Extended Range Operations with Two-Engine Airplanes (ETOPS) operations when operated and maintained in accordance with Boeing Document D044W054 “Model 777 ETOPS Configuration, Maintenance, and Procedures.” This finding does not constitute approval to conduct ETOPS operations.

The Models 777-200, 777-200LR and 777-300ER have been evaluated in accordance with the type design requirements contained in FAA ETOPS Policy Letter EPL 20-1, dated March 21, 2000, and approved for 207-minute ETOPS when configured in accordance with Boeing Document D044W054. The use of 207-minute maximum diversion time is limited to a flight-by-flight exception basis from normal 180-minute ETOPS operations, as authorized in the FAA policy letter. This finding does not constitute approval to conduct 207-minute ETOPS operations.

Note 6. For General Electric and Rolls-Royce engines only: The engines must be operated at idle for at least 10 minutes prior to shutdown after static operation at N1 settings greater than 70%. This limitation applies to static operation only; under normal operation conditions, the idle cooling instructions contained in the engine manufacturers operating instructions are acceptable.

Note 7. The Model 777 has been approved to operate in “Reduced Vertical Separation Minimum” (RVSM) airspace. Continued airworthiness and operational approval aspects of RVSM must be constructed according to Advisory Circular (AC) 91-RVSM, titled “Approval of Aircraft and Operators for Flight in Airspace Above Flight Level (FL) 290 Where a 1,000 Foot Vertical Separation Minimum is Applied.”
Note 8. The FAA has determined that the occurrence of any uncontrollable high thrust failure condition, or any of the associated causal failures listed within the Boeing 777 Maintenance Planning Document, “may endanger the safe operation of an airplane” and hence are reportable under FAR 121.703, 125.409, and 135.415.

Note 9: Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with 14 CFR 25.981 are listed in the FAA-approved Airworthiness Limitations and Certification Maintenance Requirement, Section 9, of Boeing 777 Maintenance Planning Data Document D622W001-9, Revision February 2006 or later FAA-approved revision. All Model 777-200, -300, -300ER, and -200LR series airplanes, production line number 569 and on, must comply with Revision March 2006, or a later FAA-approved revision. The FAA is planning to issue an airworthiness directive mandating compliance with Revision March 2006, or a later FAA-approved revision, applicable to all Model 777-200, -300, -300ER, and -200LR series airplanes with production numbers lower than 569.

Note 10. For Model 777-200LR, optional auxiliary body fuel tank cells could be installed for use with this airplane. Up to three tanks could be installed and each auxiliary tank adds another 1,875 USG of airplane fuel capacity. The certification basis for auxiliary body fuel tanks includes 14 CFR Section 25.981 Amendment 25-102.

.....END.....