

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

A16WE
Revision 56
BOEING
737-100 Series
737-200 Series
737-200C Series
737-300 Series
737-400 Series
737-500 Series
737-700 Series
737-800 Series
737-600 Series
737-700C Series
737-900 Series
737-900ER Series
Date June 3, 2016

TYPE CERTIFICATE DATA SHEET A16WE

This data sheet, which is part of Type Certificate No. A16WE, 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
 1901 Oakesdale Ave SW
 Renton, WA 98057-2623

I - Model 737-100 (Approved December 15, 1967) Transport Aircraft

Engines: 2 Pratt and Whitney Turbofan Engines JT8D-7, JT8D-7A, JT8D-7B, JT8D-9, JT8D-9A, and JT8D-15; refer to the FAA Approved Airplane Flight Manual for aircraft engine and engine intermix eligibility.

Fuel: See NOTE 4 for authorized types of fuel.

Engine Ratings:	Takeoff static thrust standard day, sea level <u>conditions (5 min.) lb.</u>	Maximum continuous static thrust, standard day, <u>sea level conditions lb.</u>
JT8D-7, -7A, -7B	14,000	12,600
JT8D-9, -9A	14,500	12,600
JT8D-15	15,500	13,700

Engine and Weight Limits

For engine operating limits see engine TC Data Sheet No. E2EA or the FAA Approved Airplane Flight Manual.

Thrust Setting: The appropriate EPR thrust setting curve (EPR or PT 7), in the FAA Approved Airplane Flight Manual of AFM Appendices must be used for control of engine thrust.

Airspeed Limits: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Maximum Weights: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Eligible Serial Numbers:

<u>Model:</u>	
737-112	19768-19772
737-130	19013-19017, 19018 -19033, 19794, 19437
737-159	19679, 19680

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I - Model 737-100 (Cont'd)**NOTES FOR SECTION I (737-100):**

- 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. For each Model the Weight and Balance Control and Loading Manual (Boeing Document D6-15066-1) consists of the Basic Manual and a Supplement Aircraft Report. This is in accordance with 14 CFR 25.29 and 25.1519 which establishes operating limitations determined under 25.23 through 25.27.
- NOTE 2. Airplane operation must be in accordance with the FAA Approved AFM, Boeing Document No. D6-8737. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane.
- NOTE 3. The FAA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness are referenced in Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), Document D6-38278-CMR. The Airworthiness Limitations section is FAA-approved and specifies maintenance required under 14 CFR 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved. Boeing 737-100/200/200C/300/400/500 Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D6-38278-CMR, is the FAA approved requirement to comply with 14 CFR 25.1529, 43.16 and 91.403. Each operator must incorporate into their airline's FAA-Approved maintenance program the applicable requirements of this document.
- NOTE 4. (a) JP-1, JP-4 and JP-5 fuels conforming to P & WA specification No. 522 and later revisions may be used separately or mixed in any proportions without adversely affecting the engine operation or power output. No fuel control adjustment is required when switching fuel types. See AFM specified in Note 2 for limitations on fuel use.
- (b) Anti-icing fuel additive PFA-55MB may be used if concentration delivered to airplane does not exceed 0.15% by volume. No fuel system anti-icing credit is allowed. See AFM specified in Note 2 for limitations on fuel additive use.
- NOTE 5. Model designation of the airplanes are identified by the "Dash No." suffix to "737". Consider, for example, the designation "737-105". The "1" represents the "-100 Series," and the "05" represents the customer's configuration for which initial approval was obtained.
- NOTE 6. Not used.
- NOTE 7. The Boeing Supplemental Structural Inspection Document (SSID), D6-37089 and D6-37089-1, are applicable to the 737-100, 737-200 and 737-200C (Sec ADs 98-11-04, Amendment 39-10531, 98-11-04 R1, Amendment 39-10984, and 2008-11-03, Amendment 39-15525).
- NOTE 8. Except for trunnion pins described below, the life limit for 737-100 main and nose landing gear is 81,000 flight cycles when operated within the ranges of 95 – 111.2 KIPS for taxi weight and 89.7 – 103 KIPS for landing weight. The trunnion pins 65-46113-3 and -5 are to be replaced at 76,000 flight cycles. For detail components lives, see Boeing Service Letter 737-SL-32-21.
- NOTE 9. Not used.
- NOTE 10. Individual airplanes may be limited to weights different than those specified herein. Refer to the FAA Approved Airplane Flight Manual or the FAA Approved Weight and Balance Manual to determine maximum permissible operating weights and balance limitations.
- NOTE 11. JT8D-15 engines equipped with MOD 10 exhaust mixer (Pratt & Whitney Aircraft Part No. 5004027) have same engine limits as JT8D-15 engines with splitter type exhaust system.
- NOTE 12. Not used.
- NOTE 13. There are service bulletins which call for modifications which do not comply with the Type Certification Basis. These service bulletins are listed in Boeing Document D6-19567 titled "Service Bulletin 737". The records of airplanes imported into the USA should be reviewed to be sure that further modifications are accomplished to ensure compliance, if the non FAA-approved service bulletins modifications have been installed.
- NOTE 14. Not used.
- NOTE 15. Not used.
- NOTE 16. The FAA has determined that the occurrence of any uncontrollable high thrust failure condition "may endanger the safe operation of an airplane" and hence is reportable under §121.703, 125.409, and 135.415.
- NOTE 17. 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 document, Boeing 737-100/200/200C/300/400/500 Airworthiness Limitations and Certification Maintenance Requirements, Document D6-38278-CMR, Revision May 2006 or later FAA-approved revision (see AD 2008-10-09R1, Amendment 39-16148).

II - Model 737-200 (Approved December 21, 1967) Transport Aircraft

Engines: 2 Pratt and Whitney Turbofan Engines JT8D-7, JT8D-7A, JT8D-7B, JT8D-9, JT8D-9A, JT8D-15, JT8D-15A, JT8D-17, and JT8D-17A; Refer to the FAA Approved Airplane Flight Manual for aircraft engine and engine intermix eligibility.

Fuel: See NOTE 4 for authorized types of fuel.

Engine Ratings:	Takeoff static thrust, standard day, sea level <u>conditions (5 min) lb.</u>	Maximum continuous static thrust, standard day, <u>sea level conditions lbs.</u>
JT8D-7, -7A, -7B	14,000	12,600
JT8D-9, -9A	14,500	12,600
JT8D-15, -15A	15,500	13,750
JT8D-17, -17A	16,000	15,200

Engine and Weight Limits

Thrust Settings: The appropriate thrust setting curve (EPR or Pt7), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

Airspeed Limits: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

Maximum Weights: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

Eligible Serial Numbers:Model:

737-201	19418-19423, 20211-20216, 21665-21667, 21815-21818, 22018, 22273-22275, 22352-22355, 22443-22445, 22751-22758, 22795-22799, 22806, 22866-22869, 22961, 22962
737-204	19707-19712, 20236, 20417, 20632, 20633, 20806-20808, 21335, 21336, 21693, 21694, 22057-22059, 22364, 22365, 22638-22640, 22966, 22967
737-205	19408, 19409, 20412, 20711, 21184, 21219, 21445, 21729, 21765, 22022, 23464-23469
737-209	23795, 23796, 23913, 24197
737-210	21820
737-212	20492, 20521
737-214	19681, 19682, 19920, 19921, 20155-20160, 20368
737-217	19884-19888, 20196, 20197, 21716-21718, 22255-22260, 22341, 22342, 22658, 22659, 22728, 22729, 22864, 22865
737-219	19929-19931, 20344, 21130, 21131, 21645, 22088, 22657, 23470-23475
737-222	19039-19078, 19547-19556, 19758, 19932-19956
737-228	23000-23011, 23349, 23503, 23504, 23792, 23793
737-229	20907-20912, 21135-21137, 21176, 21177, 21596, 21839, 21840
737-230	22113-22143, 22402, 22634-22637, 23153-23158
737-232	23073-23105
737-236	21790-21808, 22026-22034, 23159-23172, 23225, 23226
737-241	21000-21009
737-242	21186, 22074, 22075
737-244	19707, 19708, 20229, 20329-20331, 22580-22591, 22828
737-247	19598-19617, 20125-20134, 23184-23189, 23516-23521, 23602-23609
737-248	19424, 19425, 20221-20223, 21714, 21715
737-258	22856, 22857
737-260	23914, 23915
737-266	21191-21196, 21227
737-268	20576-20578, 20882, 20883, 21275-21277, 21280-21283, 21360-21362, 21653, 21654, 22050
737-269	21206
737-275	19742, 20142, 20588, 20670, 20785, 20922, 20958, 20959, 21115, 21639, 21712, 21713, 21819, 22086, 22087, 22159, 22264-22266, 22807, 22873, 22874, 23283-23285
737-277	22645-22656
737-281	20226, 20227, 20276, 20277, 20413, 20414, 20449-20452, 20506-20508, 20561-20563, 21766-21771
737-282	23041-23046
737-284	21224, 21225, 21301, 21302, 21500, 21501, 22300, 22301, 22338, 22339, 22343, 22400, 22401
737-286	20498, 20499, 21317
737-287	20403-20406, 20523, 20537, 20768, 20964-20966
737-291	20361-20365, 21069, 21508, 21509, 21544-21546, 21640-21642, 21747-21751, 21980, 21981, 22089, 22383, 22384, 22399, 22456, 22457, 22741-22744, 23023, 23024

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737-293 19306-19309, 19713, 19714, 20334, 20335,
 737-296 22276, 22277, 22516, 22398
 737-297 20209, 20210, 20242, 21739, 21740, 22051, 22426, 22629-22631
 737-25A 23789-23791
 737-25C 24236
 737-27A 23794
 737-2A1 20092-20096, 20589, 20777-20779, 20967-20971, 21094, 21095, 21597-21599, 22602
 737-2A3 20299, 20300, 22737-22739
 737-2A6 20194, 20195, 20412
 737-2A8 20480-20486, 20960-20963, 21163, 21164, 21496-21498, 22280-22286, 22860-22863, 23036, 23037
 737-2A9 20956
 737-2B1 20280, 20281, 20786
 737-2B2 20231, 20680
 737-2B6 21214-21216, 22767
 737-2B7 22878-22892, 23114-23116, 23131-23135
 737-2C0 20070-20074
 737-2C3 21012-21017
 737-2C9 21443, 21444
 737-2D6 20544, 20759, 20884, 21063-21065, 21211, 21212, 21285, 21286, 22766
 737-2E1 20396, 20397, 20681, 20776, 20976, 21112
 737-2E3 22703, 22792
 737-2E7 22875, 22876
 737-2F9 20671, 20672, 22771-22774, 22985, 22986
 737-2H3 21973, 22624, 22625
 737-2H4 20336, 20345, 20369, 20925, 21117, 21262, 21337-21340, 21447, 21448, 21533-21535, 21593, 21721,
 21722, 21811, 21812, 21970, 22060-22062, 22356-22358, 22673-22675, 22730-22732, 22826, 22827,
 22903-22905, 22963-22965, 23053-23055, 23108-23110, 23249
 737-2H5 20453, 20454
 737-2H6 20582-20584, 20586, 20587, 20631, 20926, 21732, 22620, 23320, 23849
 737-2J8 22859
 737-2K2 21397, 22025, 22296, 22906
 737-2K3 23912, 24139
 737-2K5 22596-22601
 737-2K6 20957, 22340
 737-2K9 22415, 22416, 22504, 22505, 23386, 23404, 23405
 737-2L7 21616
 737-2L9 21278, 21279, 21528, 21685, 21686, 22070-22072, 22406-22408, 22733-22735
 737-2M2 21172, 21723, 22626, 22775, 22776, 23220, 23351
 737-2M6 20913, 21138
 737-2M8 21231, 21736, 21955, 22090
 737-2M9 21236
 737-2N1 21167
 737-2N3 21165, 21166
 737-2N7 21226
 737-2N8 21296
 737-2N0 23677-23679
 737-2P5 21440, 21810, 22267, 22667, 23113
 737-2P6 21355-21359, 21612, 21613, 21677, 21733, 21734
 737-2Q3 21476-21478, 22367, 22736, 23117, 23481, 24103
 737-2Q8 21518, 21687, 21735, 21960, 22453, 22760, 23148
 737-2Q9 21719, 21720, 21975, 21976
 737-2S3 21774-21776, 22278, 22279, 22633, 22660
 737-2S9 21957
 737-2T2 22793
 737-2T4 22054, 22055, 22368-22371, 22529, 22697-22701, 22800-22804, 23272-23274, 23443-23447
 737-2T5 22023, 22024, 22395-22397, 22632, 22979
 737-2T7 22761, 22762
 737-2U4 22161, 22576
 737-2U9 22575
 737-2V2 22607
 737-2V5 22531
 737-2V6 22431
 737-2W8 22628
 737-2X2 22679
 737-2X9 22777-22779
 737-2Y5 23038-23040, 23847, 23848, 24031
 737-2Z6 23059
 737-T43A 20685-20703

II - 737-200 (Cont'd)**NOTES FOR SECTION II (737-200):**

- 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. For each Model the Weight and Balance Control and Loading Manual (Boeing Document D6-15066-2) consists of the Basic Manual and a Supplement Aircraft Report. This is in accordance with 14 CFR 25.29 and 25.1519 which establishes operating limitations determined under 25.23 through 25.27.
- NOTE 2. Airplane operation must be in accordance with the FAA Approved AFM, Boeing Document No. D6-8737. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane.
- NOTE 3. The FAA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness are referenced in Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), Document D6-38278-CMR. The Airworthiness Limitations section is FAA-approved and specifies maintenance required under 14 CFR 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved. Boeing 737-100/200/200C/300/400/500 Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D6-38278-CMR, is the FAA approved requirement to comply with 14 CFR 25.1529, 43.16 and 91.403. Each operator must incorporate into their airline's FAA-Approved maintenance program the applicable requirements of this document.
- NOTE 4. (a) JP-1, JP-4 and JP-5 fuels conforming to P & WA specification No. 522 and later revisions may be used separately or mixed in any proportions without adversely affecting the engine operation or power output. No fuel control adjustment is required when switching fuel types. See AFM specified in Note 2 for limitations on fuel use.
- (b) Anti-icing fuel additive PFA-55MB may be used if concentration delivered to airplane does not exceed 0.15% by volume. No fuel system anti-icing credit is allowed. See AFM specified in Note 2 for limitations on fuel additive use.
- NOTE 5. Model designation of the airplanes are identified by the "Dash No." suffix to "737". Consider, for example, the designation "737-105". The "1" represents the "-100 Series," and the "05" represents the customer's configuration for which initial approval was obtained.
- NOTE 6. Not used.
- NOTE 7. The Boeing Supplemental Structural Inspection Document (SSID), D6-37089 and D6-37089-1, are applicable to the 737-100, 737-200 and 737-200C (Sec ADs 98-11-04, Amendment 39-10531, 98-11-04 R1, Amendment 39-10984, and 2008-11-03, Amendment 39-15525).
- NOTE 8. All Model 737-200 series airplanes having serial numbers 20492 and on, are of the -200 advanced series airplane. All earlier airplanes can be kit modified to the advanced configuration.
- NOTE 9. The "Advanced" configuration (for aircraft with serial numbers before 20492) consists of the following performance modification kits to be operator installed in the following order, if desired:
- (a) A stopping package, MC 3452, (S.B. 32-1051) plus a high lift package (MC-3400).
- (b) The above (a) plus JT8D-15 engine (MC-3510).
- NOTE 10. Individual airplanes may be limited to weights different than those specified herein. Refer to the FAA Approved Airplane Flight Manual or the FAA Approved Weight and Balance Manual to determine maximum permissible operating weights and balance limitations.
- NOTE 11. JT8D-15 engines equipped with MOD 10 exhaust mixer (Pratt & Whitney Aircraft Part No. 5004027) have same engine limits as JT8D-15 engines with splitter type exhaust system.
- NOTE 12. Reference Boeing Document D6-37349 for approved autoland equipment limitations for Model 737-200 series airplanes.
- NOTE 13. There are service bulletins which call for modifications which do not comply with the Type Certification Basis. These service bulletins are listed in Boeing Document D6-19567 titled "Service Bulletin 737". The records of airplanes imported into the USA should be reviewed to be sure that further modifications are accomplished to ensure compliance, if the non FAA-approved service bulletins modifications have been installed.
- NOTE 14. Airplanes line numbers 1591, 1593, 1595, and on, were manufactured on or after August 20, 1988, and airplane line numbers 1718, 1903, 1907, and on, were manufactured on or after August 20, 1990. Reference §121.312(a)(1) and (2) Amendment 121-198. Airplanes 1718, 1907 through 1927 are exempt (Exemption No. 5176A). See Service Bulletin Index Part 3 for cross reference of line number to airplane serial number.

II - 737-200 (Cont'd)

- NOTE 15. The type design reliability and performance of the Model 737-200, -300, -400, and -500 airplanes have been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D6-38091 "CONFIGURATION, MAINTENANCE, AND PROCEDURES FOR EXTENDED RANGE (ER) OPERATION" for the Model 737-200, and Boeing Document D6-38123 for the Models 737-300, -400, and -500.
- NOTE 16. The FAA has determined that the occurrence of any uncontrollable high thrust failure condition "may endanger the safe operation of an airplane" and hence is reportable under §121.703, 125.409, and 135.415.
- NOTE 17. Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with 14 CFR 25.981 and Special Conditions 25-308-SC are listed in the FAA-approved Airworthiness Limitations document, Boeing 737-100/200/200C/300/400/500 Airworthiness Limitations and Certification Maintenance Requirements, Document D6-38278-CMR, Revision May 2006 or later FAA-approved revision (see AD 2008-10-09R1, Amendment 39-16148).
- NOTE 18. (a) For 737-200 airplanes operated within the ranges of 95 – 111.2 KIPS for taxi weight and 89.7 – 103 KIPS for landing weight: The life limit for main and nose landing gear is 81,000 flight cycles.
 (b) For 737-200 High Gross Weight (HGW) airplanes, operated within 114 – 128.6 KIPS taxi weight and 103 – 107 KIPS landing weight: The life limit for main and nose gear is 100,000 and 90,000 flight cycles respectively
 (c) Trunnion pins 65-46113-3 and -5 are to be replaced at 76,000 flight cycles and
 (d) Forward trunnion fuse bolts 65-42196-4, -5 and 69-58854-2 are to be replaced at 83,000 flight cycles.
 (e) For detail components lives, see Boeing Service Letter 737-SL-32-21.

III - Model 737-200C (Approved October 29, 1968) Transport Aircraft

Engines: 2 Pratt and Whitney Turbofan Engines JT8D-7, JT8D-7A, JT8D-7B, JT8D-9, JT8D-9A, JT8D-15, JT8D-15A, JT8D-17, and JT8D-17A; Refer to the FAA Approved Airplane Flight Manual for aircraft engine and engine intermix eligibility.

Fuel: See NOTE 4 for authorized types of fuel.

Engine Ratings:	Takeoff static thrust, standard day, sea level <u>conditions (5 min) lb.</u>	Maximum continuous static thrust, standard <u>day, sea level conditions lb.</u>
JT8D-7, -7A, -7B	14,000	12,600
JT8D9D-9, -9A	14,500	12,600
JT8D-15, -15A	15,500	13,750
JT8D-17, -17A	16,000	15,200

Engine and Weight Limits

For engine operating limits see engine TC Data Sheet No. E2EA or the FAA Approved Airplane Flight Manual.

Thrust Settings: The appropriate thrust setting curve (EPR or Pt7), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.

Airspeed Limits: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Maximum Weights: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Eligible Serial Numbers:Model:

737-202C	19426
737-204C	20282, 20389

III - 737-200C (cont'd)

737-205C	20458
737-210C	19594, 20138, 20440, 20917, 21066, 21067, 21821, 21822
737-219C	22994
737-229C	20914-20916, 21139, 21738
737-230C	20253-20258
737-242C	19847, 19848, 20455, 20496, 21728, 22877
737-248C	20218-20220, 21011
737-268C	20574, 20575
737-270C	20892, 20893, 21183
737-275C	19743, 21116, 21294, 22160, 22618
737-282C	23051
737-286C	20500, 20740737-287C 20407, 20408
737-290C	22577, 22578, 23136
737-298C	20793-20795
737-2A1C	21187, 21188
737-2A8C	22473
737-2A9C	20205, 20206
737-2B1C	20536
737-2B6C	23049, 23050
737-2D6C	20650, 20758, 21287
737-2H3C	21974
737-2H4C	20346
737-2H6C	21109
737-2H7C	20590, 20591, 23386
737-2J8C	21169, 21170
737-2K2C	20836, 20943, 20944
737-2L7C	21073
737-2M2C	21173
737-2M6C	21809
737-2N9C	21499
737-2Q2C	21467
737-2Q5C	21538
737-2Q8C	21959
737-2R4C	21763, 23129, 23130
737-2R6C	22627
737-2R8C	21710, 21711
737-2S2C	21926-21929
737-2S5C	22148
737-2T2C	22056
737-2T4C	23065, 23066
737-2X6C	23121-23124, 23292

NOTES FOR SECTION III (737-200C):

- 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. For each Model the Weight and Balance Control and Loading Manual (Boeing Document D6-15066-3) consists of the Basic Manual and a Supplement Aircraft Report. This is in accordance with 14 CFR 25.29 and 25.1519 which establishes operating limitations determined under 25.23 through 25.27.
- NOTE 2. Airplane operation must be in accordance with the FAA Approved AFM, Boeing Document No. D6-8737. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane.
- NOTE 3. The FAA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness are referenced in Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), Document D6-38278-CMR. The Airworthiness Limitations section is FAA-approved and specifies maintenance required under 14 CFR 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved. Boeing 737-100/200/200C/300/400/500 Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D6-38278-CMR, is the FAA approved requirement to comply with 14 CFR 25.1529, 43.16 and 91.403. Each operator must incorporate into their airline's FAA-Approved maintenance program the applicable requirements of this document.

III - 737-200C (cont'd)

- NOTE 4. (a) JP-1, JP-4 and JP-5 fuels conforming to P & WA specification No. 522 and later revisions may be used separately or mixed in any proportions without adversely affecting the engine operation or power output. No fuel control adjustment is required when switching fuel types. See AFM specified in Note 2 for limitations on fuel use.
- (b) Anti-icing fuel additive PFA-55MB may be used if concentration delivered to airplane does not exceed 0.15% by volume. No fuel system anti-icing credit is allowed. See AFM specified in Note 2 for limitations on fuel additive use.
- NOTE 5. Model designation of the airplanes are identified by the "Dash No." suffix to the "737". Consider, for example, the model designation "737-105". The "1" represents the "-100 Series," and the "05" represents the customer's configuration for which initial approval was obtained.
- NOTE 6. Not used.
- NOTE 7. The Boeing Supplemental Structural Inspection Document (SSID), D6-37089 and D6-37089-1, are applicable to the 737-100, 737-200 and 737-200C (Sec ADs 98-11-04, Amendment 39-10531, 98-11-04 R1, Amendment 39-10984, 2008-08-23, Amendment 39-15477 and 2008-11-03, Amendment 39-15525).
- NOTE 8. All Model 737-200 series airplanes having serial numbers 20492 and on, are of the -200 advanced series airplane. All earlier airplanes can be kit modified to the advanced configuration.
- NOTE 9. The "Advanced" configuration (for aircraft with serial numbers before 20492) consists of the following performance modification kits to be operator installed in the following order, if desired:
- (a) A stopping package, MC 3452, (S.B. 32-1051) plus a high lift package (MC-3400).
- (b) The above (a) plus JT8D-15 engine (MC-3510).
- NOTE 10. Individual airplanes may be limited to weights different than those specified herein. Refer to the FAA Approved Airplane Flight Manual or the FAA Approved Weight and Balance Manual to determine maximum permissible operating weights and balance limitations.
- NOTE 11. JT8D-15 engines equipped with MOD 10 exhaust mixer (Pratt & Whitney Aircraft Part No. 5004027) have same engine limits as JT8D-15 engines with splitter type exhaust system.
- NOTE 12. Reference Boeing Document D6-37349 for approved autoland equipment limitations.
- NOTE 13. There are service bulletins which call for modifications which do not comply with the Type Certification Basis. These service bulletins are listed in Boeing Document D6-19567 titled "Service Bulletin 737". The records of airplanes imported into the USA should be reviewed to be sure that further modifications are accomplished to ensure compliance, if the non FAA-approved service bulletins modifications have been installed.
- NOTE 14. Airplanes line numbers 1591, 1593, 1595, and on, were manufactured on or after August 20, 1988, and airplane line numbers 1718, 1903, 1907, and on, were manufactured on or after August 20, 1990. Reference §121.312(a)(1) and (2) Amendment 121-198. Airplanes 1718, 1907 through 1927 are exempt (Exemption No. 5176A). See Service Bulletin Index Part 3 for cross reference of line number to airplane serial number.
- NOTE 15. The type design reliability and performance of the Model 737-200, -300, -400, and -500 airplanes have been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D6-38091 "CONFIGURATION, MAINTENANCE, AND PROCEDURES FOR EXTENDED RANGE (ER) OPERATION" for the Model 737-200, and Boeing Document D6-38123 for the Models 737-300, -400, and -500.
- NOTE 16. The FAA has determined that the occurrence of any uncontrollable high thrust failure condition "may endanger the safe operation of an airplane" and hence is reportable under §121.703, 125.409, and 135.415.
- NOTE 17. Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with 14 CFR 25.981 and Special Condition 25-308-SC are listed in the FAA-approved Airworthiness Limitations document, Boeing 737-100/200/200C/300/400/500 Airworthiness Limitations and Certification Maintenance Requirements, Document D6-38278-CMR, Revision May 2006 or later FAA-approved revision (see AD's 2008-10-09R1, Amendment 39-16148).
- NOTE 18. (a) For 737-200 airplanes operated within the ranges of 95 – 111.2 KIPS for taxi weight and 89.7 – 103 KIPS for landing weight: The life limit for main and nose landing gear is 81,000 flight cycles.
- (b) For 737-200 High Gross Weight (HGW) airplanes, operated within 114 – 128.6 KIPS taxi weight and 103 – 107 KIPS landing weight: The life limit for main and nose gear is 100,000 and 90,000 flight cycles respectively
- (c) Trunnion pins 65-46113-3 and -5 are to be replaced at 76,000 flight cycles and
- (d) Forward trunnion fuse bolts 65-42196-4, -5 and 69-58854-2 are to be replaced at 83,000 flight cycles.
- (e) For detail components lives, see Boeing Service Letter 737-SL-32-21.

IV - Model 737-300 (Approved November 14, 1984) Transport Aircraft

Engines: 2 CFM-56-3-B1, CFM-56-3B-2 or CFM-56-3C-1 Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations.

Fuel: Fuel conforming to commercial jet fuel Specification ASTM-D-1655 or G.E. Specification D50TF2 Jet A, Jet A1, and Jet B are authorized for unlimited use. Fuels conforming to MIL-T-5624 grades JP-4, P-5, and JP-8 are acceptable alternatives. The use of either JP-4 or Jet B is limited to non-revenue flights. Consult flight manual for additional fuel usage limitations and additive use.

Engine Ratings:	Takeoff static thrust, standard day, sea level <u>conditions (5 min) lb.</u>	Maximum continuous static thrust, standard day, <u>sea level conditions lb.</u>
CFM 56-3C-1	22,100	20,500
CFM 56-3-B1	20,100	18,900
CFM 56-3B-2	22,100	20,500

*CFM 56-3C-1 Throttle limiter to limit full throttle thrust equivalent to 22,100

Engine and Weight Limits

For engine operating limits see engine TC Data Sheet No. E2GL or E21EU or the FAA Approved Airplane Flight Manual.

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

Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)
For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Maximum Weights: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Eligible Serial Numbers:Model:

737-301 23228-23237, 23257-23261, 23510-23515, 23550-23560, 23739-23743, 23930-23937

737-306 23537-23546, 24261, 24262, 24404, 27420, 27421, 28719, 28720

737-317 23173-23177

737-319 25606-25609

737-322 23642-23644, 23665-23675, 23947-23957, 24147-24149, 24191-24193, 24228-24230, 24240-24253, 24301, 24319-24321, 24360-24362, 24378, 24379, 24452-24455, 24532-24540, 24637-24642, 24653-24674, 24717-24718

737-329 23771-23775, 24355, 24356

737-330 23522-23531, 23833-23837, 23871-23875, 24280-24284, 24561-24565, 25148, 25149, 25215-25217, 25242, 25359, 25414-25416, 26428-26432, 27903-27905

737-332 25994, 25995, 25996, 25997, 25998

737-340 23294-23299

737-341 24275-24279, 24935, 24936, 25048-25051, 26852-26857

737-347 23181-23183, 23345-23347, 23440-23442, 23596-23599

737-348 23809, 23810

737-375 23707, 23708, 23808

737-376 23477-23479, 23483-23491, 24295-24298

737-377 23653-23664, 24302-24305

737-382 24364-24366, 24449, 24450, 25161, 25162

737-31B 25895, 25897, 27151, 27272, 27275, 27287-27290, 27343, 27344, 27519, 27520

737-31L 27273, 27276, 27345, 27346

737-31S 29055-29060, 29099, 29100, 29116, 29264-29267

737-32Q 29130

737-33A 23625-23636, 23827-23832, 24025-24030, 24092-24098, 24460, 24461, 24789-24791, 25010, 25011, 25032, 25033, 25056, 25057, 25118, 25119, 25138, 25401, 25402, 25426, 25502-25508, 25511, 25603, 25743, 25744, 27267, 27284, 27285, 27452-27460, 27462, 27463, 27469, 27907, 27910

737-33R 28868-28871, 28873

737-33S 29072

IV- Model 737-300 (cont'd)

737-33V	29331-29342
737-34N	28081, 28082
737-34S	29108, 29109
737-35B	23970-23972, 24237, 24238, 24269, 25069
737-35N	28156-28158, 29315, 29316
737-36E	25159, 25256, 25263, 25264, 26315, 26317, 26322, 27626
737-36M	28332, 28333
737-36N	28554-28564, 28566-28573, 28586, 28590, 28594, 28596, 28599, 28602, 28606, 28668-28673, 28872
737-36Q	28657-28660, 28662, 28664, 28760, 28761, 29140, 29141, 29189, 29326, 29327, 29405, 30333-30335
737-36R	29087, 30102
737-37K	27283, 27335, 27375, 29407, 29408
737-37Q	28537, 28548
737-38B	25124
737-38J	27179-27183, 27395
737-39A	23800
737-39K	27274, 27362
737-39M	28898
737-39P	29410, 29411, 20412
737-3A1	28389
737-3A4	23251-23253, 23288-23291, 23505, 23752
737-3B3	24387, 24388, 26850, 26851
737-3B7	22950-22959, 23310-23319, 23376-23385, 23594, 23595, 23699-23706, 23856-23862, 24410-24412, 24478, 24479, 24515, 24516
737-3G7	23218, 23219, 23776-23785, 24008-24012, 24633, 24634, 24710-24712, 25400
737-3H4	22940-22949, 23333-23344, 23414, 23689-23697, 23938-23940, 23959, 23960, 24153, 24408, 24572, 24888, 24889, 25219, 25250, 25251, 26571-26602, 27378-27380, 27689-27722, 27926-27937, 27953-27956, 28033-28037, 28329-28331, 28398-28401
737-3H6	27125, 27347
737-3H9	23329, 23330, 23415, 23416, 23714-23716, 24140, 24141
737-3J6	23302, 23303, 25078-25081, 25891, 25892, 25893, 27045, 27128, 27361, 27372, 27518, 27523
737-3K2	23411, 23412, 23738, 23786, 24326-24329, 26318, 27635, 28085
737-3K9	23797, 23798, 24211-24214, 24864, 24869, 25210, 25239, 25787, 25788
737-3L9	23331, 23332, 23717, 23718, 24219-24221, 24569-24571, 25125, 25150, 25360, 25440-26442, 27061, 27336, 27337, 27833, 27834, 27924, 27925
737-3M8	24020-24024, 24376, 24377, 24413, 24414, 25015-25017, 25039-25041, 25070, 25071
737-3Q4	24208-24210
737-3Q8	23254-23256, 23387, 23388, 23401, 23402, 23406, 23506, 23507, 23535, 23766, 24068, 24131, 24132, 24299, 24300, 24403, 24470, 24492, 24698-24702, 24961-24963, 24986-24988, 25373, 26282-26286, 26288, 26292-26296, 26301, 26303, 26305, 26307, 26309-26314, 26321, 26325, 26333, 27271, 27286, 27633, 28054, 28200
737-3S1	24834, 24856
737-3S3	23712, 23713, 23733, 23734, 23787, 23788, 23811, 24059, 24060, 29244, 29245
737-3T0	23352-23375, 23455-23460, 23569-23593, 23838-23841, 23941-23943
737-3T5	23060-23064
737-3U3	28731, 28732, 28733, 28734, 28735, 28736, 28737, 28738, 28739, 28740, 28741, 28742
737-3U8	28746, 28747, 29088, 29705
737-3W0	23396, 23397, 25090, 27127, 27139, 27522, 28972, 28973, 29068, 29069
737-3Y0	23495-23500, 23684, 23685, 23747-23750, 23812, 23826, 23921-23927, 24255, 24256, 24462-24465, 24546, 24547, 24676-24681, 24770, 24902, 24905, 24907-24910, 24913, 24914, 24916, 24918, 25172-25174, 25179, 25187, 26068, 26070, 26072, 26082-26084
737-3Y5	25613-25615
737-3Y9	25604
737-3Z0	23448-23451, 25089, 25896, 27046, 27047, 27126, 27138, 27176, 27373, 27374, 27521
737-3Z6	24480
737-3Z8	23152
737-3Z9	23601, 24081

NOTES FOR SECTION IV (737-300):

- 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. For each Model the Weight and Balance Control and Loading Manual (Boeing Document D043A530) consists of the Basic Manual and a Supplement Aircraft Report. This is in accordance with 14 CFR 25.29 and 25.1519 which establishes operating limitations determined under 25.23 through 25.27.
- NOTE 2. Airplane operation must be in accordance with the FAA Approved AFM, Boeing Document No. D6-8730. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane.

IV- Model 737-300 (cont'd)

- NOTE 3. The FAA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness are referenced in Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), Document D6-38278-CMR. The Airworthiness Limitations section is FAA-approved and specifies maintenance required under 14 CFR 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved. Boeing 737-100/200/200C/300/400/500 Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D6-38278-CMR, is the FAA approved requirement to comply with 14 CFR 25.1529, 43.16 and 91.403. Each operator must incorporate into their airline's FAA-Approved maintenance program the applicable requirements of this document.
- NOTE 4. (a) JP-1, JP-4 and JP-5 fuels conforming to P & WA specification No. 522 and later revisions may be used separately or mixed in any proportions without adversely affecting the engine operation or power output. No fuel control adjustment is required when switching fuel types. See AFM specified in Note 2 for limitations on fuel use.
- (b) Anti-icing fuel additive PFA-55MB may be used if concentration delivered to airplane does not exceed 0.15% by volume. No fuel system anti-icing credit is allowed. See AFM specified in Note 2 for limitations on fuel additive use.
- NOTE 5. Models designation of the 737-100, 737-200, 737-200C, 737-300, 737-400, and 737-500 Series airplanes are shown by the "Dash No." of the prefix "737," i.e. 737-105; the "1" represents the "-100 Series," and the "05" represents the customer's configuration for which initial approval was obtained.
- NOTE 6. Not Used.
- NOTE 7. The Boeing 737 Supplemental Structural Inspection Document (SSID), D6-82669 is applicable to the 737-300, 737-400 and 737-500 (See AD 2008-09-13, Amendment 39-15494).
- NOTE 8. (a) For 737-300 airplanes operated within the ranges of 136.5 – 119 KIPS for taxi weight and 114 KIPS for landing weight: The life limit for main and nose landing gear is 75,000 flight cycles.
- (b) For detail components lives, see Boeing Service Letter 737-SL-32-21.
- NOTE 9. Not used.
- NOTE 10. Individual airplanes may be limited to weights different than those specified herein. Refer to the FAA Approved Airplane Flight Manual or the FAA Approved Weight and Balance Manual to determine maximum permissible operating weights and balance limitations.
- NOTE 11. Not used.
- NOTE 12. Not used.
- NOTE 13. There are service bulletins which call for modifications which do not comply with the Type Certification Basis. These service bulletins are listed in Boeing Document D6-19567 titled "Service Bulletin 737". The records of airplanes imported into the USA should be reviewed to be sure that further modifications are accomplished to ensure compliance, if the non FAA-approved service bulletins modifications have been installed.
- NOTE 14. Airplanes line numbers 1591, 1593, 1595, and on, were manufactured on or after August 20, 1988, and airplane line numbers 1718, 1903, 1907, and on, were manufactured on or after August 20, 1990. Reference §121.312(a)(1) and (2) Amendment 121-198. Airplanes 1718, 1907 through 1927 are exempt (Exemption No. 5176A). See Service Bulletin Index Part 3 for cross reference of line number to airplane serial number.
- NOTE 15. The type design reliability and performance of the Model 737-200, -300, -400, and -500 airplanes have been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D6-38091 "CONFIGURATION, MAINTENANCE, AND PROCEDURES FOR EXTENDED RANGE (ER) OPERATION" for the Model 737-200, and Boeing Document D6-38123 for the Models 737-300, -400, and -500.
- NOTE 16. The FAA has determined that the occurrence of any uncontrollable high thrust failure condition "may endanger the safe operation of an airplane" and hence is reportable under §121.703, 125.409, and 135.415.
- NOTE 17. Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with 14 CFR 25.981 and Special Condition 25-308-SC are listed in the FAA-approved Airworthiness Limitations document, Boeing 737-100/200/200C/300/400/500 Airworthiness Limitations and Certification Maintenance Requirements, Document D6-38278-CMR, Revision May 2006 or later FAA-approved revision (see AD's 2008-10-09R1, Amendment 39-16148).

V - Model 737-400 (Approved September 2, 1988) Transport Category.

Engines: 2 CFM-56-3C-1 or CFM-56-3B-2 Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations.

Fuel: Fuel conforming to commercial jet fuel Specification ASTM-D-1655 or G.E. Specification D50PF2 Jet A, Jet A1, and Jet B are authorized for unlimited use. Fuels conforming to MIL-T-5624 grades JP-4, JP-5, and JP-8 are acceptable alternatives. Consult flight manual for fuel usage limitations and additive use.

Engine Ratings:	Takeoff static thrust standard day, sea level <u>conditions (5 min) lb.</u>	Maximum continuous static thrust, standard day, <u>sea level conditions lbs.</u>
CFM-56-3C-1	23,500	21,860
CFM-56-3B-2	22,100	20,500

For engine operating limits see engine TC Data Sheet No. E2GL or E21EU or the FAA Approved Airplane Flight Manual.

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

Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)
For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Maximum Weights: See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Eligible Serial Numbers:Model

737-401	23876-23886, 23984-23992
737-405	24270, 24271, 24643, 24644, 25303, 25348, 25795
737-406	24514, 24529, 24530, 24857, 24858, 24959, 25355, 25412, 25423, 25424, 27232, 27233
737-408	24352, 24353, 24804, 25063
737-429	25226, 25247, 25248, 25729
737-430	27000-27005, 27007
737-436	24052, 24053, 25267, 25304, 25305, 25349, 25350 25407, 25408, 25428, 25839-25844, 25848-25860
737-446	27916, 27917, 28087, 28097, 28831, 28832, 28994, 29864
737-448	24474, 24521, 24773, 24866, 25052, 25736
737-476	24430-24446, 28150-28152
737-484	25313, 25314, 25361, 25362, 25417, 25430, 27149
737-490	27081, 27082, 28885-28896, 29270, 29318, 29858, 30161
737-497	25663, 25664
737-42C	24231, 24232, 24813, 24814
737-42J	27143
737-42R	29107
737-43Q	28489-28494
737-44P	29914, 29915
737-45D	27131, 27156, 27157, 27256, 27914, 28752, 28753
737-45R	29032-29035
737-45S	28473, 28474, 28476-28478
737-46B	24123, 24124, 24573, 25262
737-46J	27171, 27213, 27826, 28038, 28271, 28334, 28867
737-46M	28549, 28550
737-46N	28723
737-46Q	28661, 28663, 28758, 28759, 29000, 29001
737-48E	25764-25766, 25771-25776, 26334, 27630, 27632, 28053, 28198
737-49R	28881, 28882
737-4B3	24750, 24751
737-4B6	24807, 24808, 26526, 26529-26531, 27678
737-4B7	24548-24560, 24781, 24811, 24812, 24841, 24842, 24862, 24863, 24873, 24874, 24892, 24893, 24933, 24934, 24979, 24980, 24996, 24997, 25020-25024
737-4C9	25429, 26437
737-4D7	24830, 24831, 25321, 26611-26614, 28701-28704

V - Model 737-400 (cont'd)

737-4H6	26443, 26444, 26447, 26449, 26451-26453, 26455, 26457-26468, 27083-27087, 27096, 27097, 27166-27170, 27190, 27191, 27306, 27352, 27353, 27383, 27384, 27673, 27674
737-4K5	24125-24130, 24769, 24901, 26316, 27074, 27102, 27830, 27831
737-4L7	26960, 26961
737-4M0	29201-29210
737-4Q3	26603-26606, 27660, 29485-29487
737-4Q8	24069, 24070, 24234, 24332, 24703-24709, 25095-25114, 25163, 25164, 25168, 25169, 25371-25378, 25740, 26279-26281, 26285, 26289-26291, 26298-26300, 26302, 26306, 26308, 26320, 26334, 26335, 26337, 27628, 28199, 28202
737-4S3	24163-24167, 24795, 24796, 25116, 25134, 25594-25596
737-4U3	25713-25719
737-4Y0	23865-23870, 23976-23981, 24314, 24344, 24345, 24467-24469, 24493, 24494, 24511-24513, 24519, 24520, 24545, 24682-24693, 24903, 24904, 24906, 24911, 24912, 24915, 24917, 25177, 25178, 25180, 25181, 25184, 25190, 25261, 26065, 26066, 26069, 26071, 26073, 26074, 26077, 26078, 26081, 26085, 26086, 26088
737-4Z6	27906
737-4Z9	25147, 27094

NOTES FOR SECTION V (737-400):

- 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. For each Model the Weight and Balance Control and Loading Manual (Boeing Document D043A540) consists of the Basic Manual and a Supplement Aircraft Report. This is in accordance with 14 CFR 25.29 and 25.1519 which establishes operating limitations determined under 25.23 through 25.27.
- NOTE 2. Airplane operation must be in accordance with the FAA Approved AFM, Boeing Document No. D6-8730. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane.
- NOTE 3. The FAA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness are referenced in Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), Document D6-38278-CMR. The Airworthiness Limitations section is FAA-approved and specifies maintenance required under 14 CFR 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved. Boeing 737-100/200/200C/300/400/500 Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D6-38278-CMR, is the FAA approved requirement to comply with 14 CFR 25.1529, 43.16 and 91.403. Each operator must incorporate into their airline's FAA-Approved maintenance program the applicable requirements of this document.
- NOTE 4. (a) JP-1, JP-4 and JP-5 fuels conforming to P & WA specification No. 522 and later revisions may be used separately or mixed in any proportions without adversely affecting the engine operation or power output. No fuel control adjustment is required when switching fuel types. See AFM specified in Note 2 for limitations on fuel use.
(b) Anti-icing fuel additive PFA-55MB may be used if concentration delivered to airplane does not exceed 0.15% by volume. No fuel system anti-icing credit is allowed. See AFM specified in Note 2 for limitations on fuel additive use.
- NOTE 5. Model designation of the airplanes are identified by the "Dash No." suffix of the "737. Consider, for example "737-105". The "1" represents the "-100 Series," and the "05" represents the customer's configuration for which initial approval was obtained.
- NOTE 6. Not Used.
- NOTE 7. The Boeing 737 Supplemental Structural Inspection Document (SSID), D6-82669 is applicable to the 737-300, 737-400 and 737-500 (See AD 2008-09-13, Amendment 39-15494).
- NOTE 8. (a) For 737-300 airplanes operated within the ranges of 136.5 – 119 KIPS for taxi weight and 114 KIPS for landing weight: The life limit for main and nose landing gear is 75,000 flight cycles.
(b) For detail components lives, see Boeing Service Letter 737-SL-32-21.
- NOTE 9. Not used.
- NOTE 10. Individual airplanes may be limited to weights different than those specified herein. Refer to the FAA Approved Airplane Flight Manual or the FAA Approved Weight and Balance Manual to determine maximum permissible operating weights and balance limitations.
- NOTE 11. Not used.
- NOTE 12. Not Used.

V - Model 737-400 (cont'd)

- NOTE 13. There are service bulletins which call for modifications which do not comply with the Type Certification Basis. These service bulletins are listed in Boeing Document D6-19567 titled "Service Bulletin 737". The records of airplanes imported into the USA should be reviewed to be sure that further modifications are accomplished to ensure compliance, if the non FAA-approved service bulletins modifications have been installed.
- NOTE 14. Airplanes line numbers 1591, 1593, 1595, and on, were manufactured on or after August 20, 1988, and airplane line numbers 1718, 1903, 1907, and on, were manufactured on or after August 20, 1990. Reference §121.312(a)(1) and (2) Amendment 121-198. Airplanes 1718, 1907 through 1927 are exempt (Exemption No. 5176A). See Service Bulletin Index Part 3 for cross reference of line number to airplane serial number.
- NOTE 15. The type design reliability and performance of the Model 737-200, -300, -400, and -500 airplanes have been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D6-38091 "CONFIGURATION, MAINTENANCE, AND PROCEDURES FOR EXTENDED RANGE (ER) OPERATION" for the Model 737-200, and Boeing Document D6-38123 for the Models 737-300, -400, and -500.
- NOTE 16. The FAA has determined that the occurrence of any uncontrollable high thrust failure condition "may endanger the safe operation of an airplane" and hence is reportable under §121.703, 125.409, and 135.415.
- NOTE 17. Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with 14 CFR 25.981 and Special Condition 25-308-SC are listed in the FAA-approved Airworthiness Limitations document, Boeing 737-100/200/200C/300/400/500 Airworthiness Limitations and Certification Maintenance Requirements, Document D6-38278-CMR, Revision May 2006 or later FAA-approved revision (see AD's 2008-10-09R1, Amendment 39-16148)

VI - Model 737-500 (Approved February 12, 1990) Transport Aircraft

- Engines:** 2 CFM-56-3C-1 or CFM-56-3-B1 Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations.
- Fuel:** Fuel conforming to commercial jet fuel Specification ASTM-D-1655 or G.E. Specification D50PF2 Jet A, Jet A1, and Jet B are authorized for unlimited use. Fuels conforming to MIL-T-5624 grades JP-4, JP-5, and JP-8 are acceptable alternatives. Consult flight manual for limitations on fuel usage and additive use.
- Engine Ratings:**
- | | Takeoff static thrust
standard day, sea level
<u>conditions (5 min) lb.</u> | Maximum continuous static
thrust, standard day,
<u>sea level conditions lb.</u> |
|-------------|---|---|
| CFM-56-3C-1 | 20,100 | 18,900* |
| CFM-56-3-B1 | 20,100 | 18,900 |
- *CFM 56-3C-1 throttle limiter to limit full throttle thrust equivalent to 20,100.

Engine and Weight Limits

- For engine operating limits see engine TC Data Sheet No. E2GL or E21EU or the FAA Approved Airplane Flight Manual.
- Thrust Settings:** The appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.
- Airspeed Limits:** VMO/MMO - 340/0.82 (KCAS)
For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.
- C.G. Range:** See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.
- Maximum Weights:** See the appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Eligible Serial Numbers:Model

- 737-505 24272-24274, 24645-24652, 24828, 25789-25792, 25797, 26297, 27153, 27155, 26304, 25794, 26336, 26338, 27627, 27631
- 737-522 25001-25009, 25254, 25255, 25290, 25291, 25381-25388, 26642, 26643, 26645, 26646, 26648, 26649, 26651-26653, 26655-26659, 26662, 26663, 26667, 26668, 26671, 26672, 26675, 26676, 26679, 26680, 26683, 26684, 26687, 26688, 26690-26692, 26695, 26696, 26700, 26703, 26704, 26707, 26739, 26699
- 737-524 27314-27334, 27526-27535, 27540, 27900, 27901, 26319, 26339, 26340, 28899-28928

VI - Model 737-500 (cont'd)

737-528	25206, 25227-25237, 27304, 27305, 27424-27426
737-529	25218, 25249, 25418, 25419, 26537, 26538
737-530	24815-24824, 24937-24946, 25243, 25244, 25270-25272, 25309-25311, 25357, 25358
737-548	24878, 24919, 24968, 24989, 25115, 25165, 25737-25739, 26287
737-566	25051, 25084, 25307, 25352, 26051, 26052
737-5B6	26527, 25317, 25364, 26525, 27679, 27680
737-5C9	26438, 26439
737-5H3	26639, 26640, 27257, 27912
737-5H4	24178-24190, 25153, 25154, 25318-25320, 26564-26570
737-5H6	26445, 26446, 26448, 26450, 26454, 26456, 27354-27356
737-5K5	24776, 24926, 24927, 25037, 25062
737-5L9	24778, 24805, 24859, 24928, 25066, 28083, 28084, 28128-28131, 28721, 28722, 28995-28997, 29234, 29235
737-5Q8	25160, 25166, 25167, 26323, 26324, 27629, 27634, 28052, 28055, 28201
737-5U3	28726, 28727, 28728, 28729, 28730
737-5Y0	24696, 24897-24900, 25175, 25176, 25182, 25183, 25185, 25186, 25188, 25189, 25191, 25192, 25288, 25289, 26067, 26075, 26097, 26100, 26101, 26104, 26105
737-53A	24754, 24785-24788, 24877, 24878, 24881, 24921, 24922, 24970, 25425
737-53C	24825-24827
737-53S	29073-29075
737-54K	27381, 27430-27435, 27966, 28461, 28462, 28990-28993, 29794, 29795
737-55D	27130, 27368, 27416-27419
737-55S	26539-26543, 28469-28472, 28475
737-56N	28565
737-58E	25767-25769, 29122
737-58N	28866
737-59D	24694, 24695, 25038, 25065, 26419, 26421, 26422, 27268

NOTES FOR SECTION VI (737-500):

- 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. For each Model the Weight and Balance Control and Loading Manual (Boeing Document D043A550) consists of the Basic Manual and a Supplement Aircraft Report. This is in accordance with 14 CFR 25.29 and 25.1519 which establishes operating limitations determined under 25.23 through 25.27.
- NOTE 2. Airplane operation must be in accordance with the FAA Approved AFM, Boeing Document No. D6-8735. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane.
- NOTE 3. The FAA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness are referenced in Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), Document D6-38278-CMR. The Airworthiness Limitations section is FAA-approved and specifies maintenance required under 14 CFR 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved. Boeing 737-100/200/200C/300/400/500 Airworthiness Limitations (AWLs) and Certification Maintenance Requirements (CMRs), D6-38278-CMR, is the FAA approved requirement to comply with 14 CFR 25.1529, 43.16 and 91.403. Each operator must incorporate into their airline's FAA-Approved maintenance program the applicable requirements of this document.
- NOTE 4. (a) JP-1, JP-4 and JP-5 fuels conforming to P & WA specification No. 522 and later revisions may be used separately or mixed in any proportions without adversely affecting the engine operation or power output. No fuel control adjustment is required when switching fuel types. See AFM specified in Note 2 for limitations on fuel use.
 (b) Anti-icing fuel additive PFA-55MB may be used if concentration delivered to airplane does not exceed 0.15% by volume. No fuel system anti-icing credit is allowed. See AFM specified in Note 2 for limitations on fuel additive use.
- NOTE 5. Models designation of the airplanes are shown by the "Dash No." suffix of "737". Consider, for example, the designator "737-105". The "1" represents the "-100 Series," and the "05" represents the customer's configuration for which initial approval was obtained.
- NOTE 6. Not used.
- NOTE 7. The Boeing 737 Supplemental Structural Inspection Document (SSID) D6-82669 is applicable to the 737-300, 737-400 and 737-500 (See AD 2008-09-13, Amendment 39-15494).
- NOTE 8. (a) For 737-500 airplanes operated within the ranges of 134-139 KIPS for taxi weight and 110 KIPS for landing weight: The life limit for main and nose landing gear is 75,000 flight cycles.
 (b) For detail components lives, see Boeing Service Letter 737-SL-32-21.
- NOTE 9. Not Used.

VI - Model 737-500 (cont'd)

- NOTE 10. Individual airplanes may be limited to weights different than those specified herein. Refer to the FAA Approved Airplane Flight Manual or the FAA Approved Weight and Balance Manual to determine maximum permissible operating weights and balance limitations.
- NOTE 11. Not used.
- NOTE 12. Not Used
- NOTE 13. There are service bulletins which call for modifications which do not comply with the Type Certification Basis. These service bulletins are listed in Boeing Document D6-19567 titled "Service Bulletin 737". The records of airplanes imported into the USA should be reviewed to be sure that further modifications are accomplished to ensure compliance, if the non FAA-approved service bulletins modifications have been installed.
- NOTE 14. Airplanes line numbers 1591, 1593, 1595, and on, were manufactured on or after August 20, 1988, and airplane line numbers 1718, 1903, 1907, and on, were manufactured on or after August 20, 1990. Reference §121.312(a)(1) and (2) Amendment 121-198. Airplanes 1718, 1907 through 1927 are exempt (Exemption No. 5176A). See Service Bulletin Index Part 3 for cross reference of line number to airplane serial number.
- NOTE 15. The type design reliability and performance of the Model 737-200, -300, -400, and -500 airplanes have been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D6-38091 "CONFIGURATION, MAINTENANCE, AND PROCEDURES FOR EXTENDED RANGE (ER) OPERATION" for the Model 737-200, and Boeing Document D6-38123 for the Models 737-300, -400, and -500.
- NOTE 16. The FAA has determined that the occurrence of any uncontrollable high thrust failure condition "may endanger the safe operation of an airplane" and hence is reportable under §121.703, 125.409, and 135.415.
- NOTE 17. Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with 14 CFR 25.981 and Special Condition 25-308-SC are listed in the FAA-approved Airworthiness Limitations document, Boeing 737-100/200/200C/300/400/500 Airworthiness Limitations and Certification Maintenance Requirements, Document D6-38278-CMR, Revision May 2006 or later FAA-approved revision (see AD's 2008-10-09R1, Amendment 39-16148).

DATA PERTINENT TO MODELS 737 Original Series -100, -200, -200C and 737 Classic Series -300, -400, -500:**Airframe Limits Capacities & Rigging**

Minimum Crew for All Flights: 2 (Pilot and Copilot)

Maximum Passengers: 113 (737-100 Series Airplanes), 124 if compliance with FAR 25.2(b), (c), & (d) at Amendment 25.20 is shown.
 119 (737-200/200C Series Airplanes), 136 if compliance with FAR 25.2(b), (c), & (d) is shown.
 149 (737-300 Series Airplanes)
 188 (737-400 Series Airplanes), limited by FAR 25.803(c)
 140 (737-500 Series Airplanes), limited by FAR 25.807(d)

Maximum Baggage Cargo: See appropriate Weight and Balance Manual, listed in Note 1.

Fuel & Oil Capacities: See appropriate Weight and Balance Manual, listed in Note 1.

Minimum Required Fuel: See appropriate FAA Approved Airplane Flight Manual listed in NOTE 2.

Maximum Operating Altitude: 35,000 ft. 37,000 ft. if authorized by Flight Manual. (737-100 and 737-200 Series Airplanes).
 37,000 ft. (737-300, 737-400, and 737-500 Series Airplanes)

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

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

Other Operating Limitations: See FAA Approved Airplane Flight Manual Appendices listed In NOTE 2. See NOTE 12 of Section II for 737-200 and Section III for 737-200C for autoland limitations.

DATA PERTINENT TO MODELS 737 Original Series -100, -200, -200C and 737 Classic Series -300, -400, -500 (Cont'd):

Control Surface Movements: To ensure proper operation of the airplane, the movements of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplanes must, therefore, be rigged according to the following FAA Approved data: Boeing Drawings No.

65-45101	Control Installation, Aileron Spoiler
65-45102	Control Installation, Elevator
65-45103	Control Installation, Rudder
65-45104	Control Installation, Stabilizer Trim
65-45105	Control Installation, Aileron Trim
65-45106	Control Installation, Rudder Trim
65-45116	Control Installation, Speed Brake

Certification Basis: Type Certification Basis, (737-100 & 737-200 Series Airplanes).

14 CFR Part 25, Amendments 25-1 through 25-3, 25-7, 25-8, 25-15, 14 CFR §21, 14 CFR Part 1: and special conditions attached to FAA letter to Boeing dated October 15, 1965, and modified in letters dated December 23, 1966 and February 14, 1967,

Special Conditions:

25-89-NW-5, Special Conditions for the Boeing Models 737-200 Series Airplanes Automatic Takeoff Thrust Control System, published in the Federal Register on March 16, 1979

25-308-SC, Boeing Model 737-200/200C/300/400/500/600/700/700C/800/900 Series Airplanes; Flammability Reduction Means (Fuel Tank Inerting) published in the Federal Register on December 5, 2005 (not applicable to 737-100)

Equivalency safety findings exist with respect to the following regulations for Boeing 737-100 and 200 airplanes:

§25.811(f)	Exterior Exit Marking
§25.853(a)	Compartment Interiors (documented in TAD ELOS memo PS-08-0670-C-1)
§25.1415(d)	Emergency Locator Transmitter
§25.1441(c)	Crew Determination of the Quantity of Oxygen Available in the Lavatory Passenger Service Units Bottles (ES-1) (not applicable to 737-100)
§25.1443(c)	Determination of Minimum Oxygen Flow for the Lavatory Oxygen System (S-1) (not applicable to 737-100)

Exemptions from 14 CFR Part 25:

- §25.1001 - allow takeoff weight 115% of maximum landing weight (Exemption No. 575), (non-advanced airplanes only. See Note 8 of Section II provides information about advanced airplanes.)
- §25.1203(a) allows deletion of fire detector system in the extended nacelle tailpipe section of the engines (Exemption No. 2072).
- §25.901(c) Partial Exemption – No single powerplant or auxiliary power unit failure will jeopardize the safe operation of the airplane. (Exemption No. 7968, February 4, 2003) See NOTE 16 of sections I thru VI for information about high thrust failure.
- §25.853(a), appendix F, paragraph (a)(1)(i) – Partial Time-Limited Exemption from, Testing on Large Interior Panels, granted through November 28, 2011. (Exemption No. 9791, November 28, 2008, Exemption No. 9791B, March 1, 2010, Exemption No. 9791C, February 4, 2011)

14 CFR Part 26

Based on 14 CFR §21.101(g) for changes made to TCs applicable provisions of 14 CFR Part 26 subpart B and subpart E are included in the certification basis. For any future 14 CFR Part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections

Compliance has been found for the following regulations at Amendment 26-0: §26.11
Compliance has been found for the following regulations at Amendment 26-1: §26.43, 26.45, 26.47, and 26.49

14 CFR Part 36 of the Federal Aviation Regulations.

Special Federal Aviation Regulation 27-5.

DATA PERTINENT TO MODELS 737 Original Series -100, -200, -200C and 737 Classic Series -300, -400, -500 (Cont'd):**Certification Basis(Cont'd): Type Certification Basis, (737-300 Series Airplanes)**

14 CFR Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-3, 25-7, 25-8, and 25-15, except where superseded by the following sections of 14 CFR Part 25 as amended by Amendments 25-1 through:

25-11 (§ 25.939, 25.977, 25.1141);

25-16 (§ 25.1457);

25-17 (§ 25.813);

25-20 (§ 25.785);

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

25-31 (§ 25.1459);

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

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

25-40 (§ 25.1585);

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

14 CFR Part 26:

Based on 14 CFR §21.101(g) for changes made to TCs applicable provisions of 14 CFR Part 26 are included in the certification basis. For any future 14 CFR Part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections

Compliance has been found for the following regulations at Amendment 26-0: §26.11

Compliance has been found for the following regulations at Amendment 26-1: §26.43, 26.45, 26.47, and 26.49

Compliance has been found for the following regulations at Amendment 26-3: §26.33

14 CFR Part 36 of the Federal Aviation Regulations with Amendments 36-1 through 36-12, effective August 1, 1981. See the appropriate FAA Approved Airplane Flight Manual listed in Note (2) for applicability of Stage 4 Noise Recertification through Amendment 36-28.

Special Federal Aviation Regulation 27-5.

Special Condition 25-308-SC, Boeing Model 737-200/200C/300/400/500/600/700/700C/800/900 Series Airplanes; Flammability Reduction Means (Fuel Tank Inerting)

Exemptions from 14 CFR Part 25:

§25.901(c) Partial Exemption – No single powerplant or auxiliary power unit failure will jeopardize the safe operation of the airplane. (Exemption No. 7968, February 4, 2003) See NOTE 16 of sections I thru VI for information about high thrust failure.

§25.853(a), appendix F, paragraph (a)(1)(i) – Partial Time-Limited Exemption from, Testing on Large Interior Panels, granted through November 28, 2011. (Exemption No. 9791, November 28, 2008, Exemption No. 9791B, March 1, 2010, Exemption No. 9791C, February 4, 2011)

*Applicable only to new or major modified structure or to new systems and components unique to the 737-300 series airplane with respect to the existing Model 737-200 Series airplane. For unmodified areas of Power Operated Control Systems, the original amendment level of 14 CFR §25.695 remains in effect.

**Compliance with §25.1305(d)(3) has been mandated by the FAA in accordance with the provisions of 14 CFR § 21.101(b).

Equivalency safety findings exist with respect to the following regulations: For 737-300 only:

§25.723(a) Shock Absorption Tests

§25.791 Passenger Information Signs and Placards

§25.803(c)(8) Emergency Evacuation

§25.809(f)(1)(ii) Escape Slides

§ 25.853(a) Compartment Interiors (documented in TAD ELOS memo PS-08-0670-C-1)

§25.853(c) Compartment Interiors

§25.811(e)(3) Emergency Handle Illumination

DATA PERTINENT TO MODELS 737 Original Series -100, -200, -200C and 737 Classic Series -300, -400, -500 (Cont'd):

§25.812(b)(1)(i) Emergency Exit Signs
 §25.1093(b)(1) Induction System Deicing and Anti-Icing provisions.
 §25.811(f) Exterior Exit Markings
 §25.1415(d) Emergency Locator Transmitter (ELT)
 §25.1441(c) Crew Determination of the Quantity of Oxygen Available in the Lavatory Passenger Service Units Bottles (ES-1)
 §25.1443(c) Determination of Minimum Oxygen Flow for the Lavatory Oxygen System (S-1)

Type Certification Basis, (737-400 and 737-500 Series Airplanes)

14 CFR Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-3, 25-7, 25-8, and 25-15, except where superseded by the following sections of 14 CFR Part 25 as amended by Amendments 25-1 through:

25-11 (§ 25.939, 25.977, 25.1141);
 25-16 (§ 25.1457);
 25-17 (§ 25.813);
 25-20 (§ 25.785);
 25-23 (§ 25.701, 25.723, 25.729, 25.863, 25.1103, 25.1143, 25.1331, 25.1333, 25.1435);
 25-31 (§ 25.1459);
 25-32 (§ 25.787, 25.809, 25.811, 25.853, 25.1557);
 25-33 (§ 25.772);
 25-36 (§ 25.1305(a), (c), (d)(1), and (d)(2));
 25-40 (§ 25.1585);
 25-51 (§ 25.2, 25.101, 25.107, 25.111, 25.113, 25.143, 25.145, 25.147, 25.149, 25.177, 25.181, 25.201, 25.207, 25.233, 25.237, 25.253, 25.255, *25.305, 25.343, *25.571(a) and (b), 25.571(d), 25.581, 25.629, *25.671, *25.672, 25.677, 25.683, *25.699, 25.703, 25.735, 25.771, 25.773, 25.789, 25.791, 25.803, 25.812, 25.855, 25.865, 25.903, 25.933, 25.934, 25.979, 25.993, 25.994, 25.1001, 25.1019, 25.1041, 25.1093, 25.1183, 25.1203, 25.1303, *25.1305(d)(3), 25.1307, *25.1309, 25.1325(a) through (f), 25.1326, 25.1351(d), 25.1359, 25.1387, 25.1413, 25.1415, 25.1419, 25.1447, 25.1450, 25.1561, 25.1581, 25.1583, 25.1587);
 25-53 (§25.1411).

14 CFR Part 26: Based on 14 CFR §21.101(g) for changes made to TCs applicable provisions of 14 CFR Part 26 are included in the certification basis. For any future 14 CFR Part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections

Compliance has been found for the following regulations at Amendment 26-0: §26.11

Compliance has been found for the following regulations at Amendment 26-1: §26.43, 26.45, 26.47, and 26.49

Compliance has been found for the following regulations at Amendment 26-3: §26.33

14 CFR Part 36 of the Federal Aviation Regulations Amendments 36-1 through 36-15, effective May 6, 1988. See the appropriate FAA Approved Airplane Flight Manual listed in Note (2) for applicability of Stage 4 Noise Recertification through Amendment 36-28.

Special Federal Aviation Regulation 27-5.

Special Condition 25-308-SC, Boeing Model 737-200/200C/300/400/500/600/700/700C/800/900 Series Airplanes; Flammability Reduction Means (Fuel Tank Inerting) published in the Federal Register on December 5, 2005

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

For unmodified areas of Power Operated Control Systems, the original amendment level of 14 CFR §25.695 remains in effect.

**Compliance with §25.1305(d)(3) has been mandated by the FAA in accordance with the provisions of 14 CFR §21.101(b).

DATA PERTINENT TO MODELS 737 Original Series -100, -200, -200C and 737 Classic Series -300, -400, -500 (Cont'd):

Exemptions from 14 CFR Part 25:

§25.901(c) Partial Exemption – No single powerplant or auxiliary power unit failure will jeopardize the safe operation of the airplane. (Exemption No. 7968, February 4, 2003) See NOTE 16 of sections I thru VI for information about high thrust failure events.

§25.853(a), appendix F, paragraph (a)(1)(i) – Partial Time-Limited Exemption , Testing on Large Interior Panels, granted through November 28, 2011. (Exemption No. 9791, November 28, 2008, Exemption No. 9791B, March 1, 2010 , Exemption No. 9791C, February 4, 2011)

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

14 CFR §25.1415(d) Emergency Locator Transmitter

An equivalent safety finding exists, with respect to incorporation of Boeing Service Bulletin 737-28A1141, for the following regulation: For 737-200/-200C/-300/-400/-500:

14 CFR §25.901(c) Single Failures

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

14 CFR §1.2 Abbreviations and symbols

14 CFR §25.21 Proof of compliance

14 CFR §25.103 Stalling Speed

14 CFR §25.107 Takeoff Speeds

14 CFR §25.119 Landing Climb: All-engine- operating

14 CFR §25.121 Climb - One engine-operative

14 CFR §25.125 Landing

14 CFR §25.145 Longitudinal Control

14 CFR §25.147 Directional and lateral control

14 CFR §25.149 Minimum Control Speed

14 CFR §25.161 Trim

14 CFR §25.175 Demonstration of static longitudinal stability

14 CFR §25.177 Static directional and lateral stability

14 CFR §25.201 Stall demonstration

14 CFR §25.207 Stall Warning

14 CFR §25.723(a) Shock Absorption Tests

14 CFR §25.735 Brakes

14 CFR §25.773 Pilot compartment view

14 CFR §25.803(c)(8) Emergency evacuation

14 CFR §25.809(f)(1)(ii) Escape slides

14 CFR §25.811(e)(3) Emergency handle illumination

14 CFR §25.811(f) Exterior Exit Markings

14 CFR §25.812(b)(1)(i) Emergency exit signs

14 CFR §25.853(a) Compartment Interiors (documented in TAD ELOS memo PS-08-0670-C-1)

14 CFR §25.1323 Airspeed indicating system

14 CFR §25.1325 Static pressure systems

14 CFR §25.1415(d) Emergency Locator Transmitter (ELT)

14 CFR §25.1441(c) Crew Determination of the Quantity of Oxygen Available in the Lavatory Passenger Service Units Bottles (ES-1)

14 CFR §25.1443(c) Determination of Minimum Oxygen Flow for the Lavatory Oxygen System (S-1)

14 CFR §36 Appendix C Use of the 1g Stall Speed instead of minimum speed in the stall as a basis for determining compliance.

DATA PERTINENT TO MODELS 737 Original Series -100, -200, -200C and 737 Classic Series -300, -400, -500 (cont'd):

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

Ditching Provisions	§25.801	(Overwater operation can be approved when the aircraft has been equipped and has been approved according to FAR 25.801. The 56-person life raft is not approved for use on 737-100/200/300/400 airplanes due to ditching evacuation capability).
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Ice Protection Provisions	§25.1419
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Production Basis: Production Certificate No. 700

Required Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. The required equipment is noted in the Type Design Data.

Service Information: Boeing Document D6-15565 (For 737-100/200), D6-37635 (For 737-300), D6-38246 (For 737-400), D6-38441 (For 737-500), "Structural Repair Manual" is FAA-approved. Service Bulletins and other service information, when FAA-approved, will carry a statement to that effect.

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

VII - Model 737-600 (Approved August 12, 1998), 737-700 (Approved November 7, 1997), 737-800 (Approved March 13, 1998), Transport Aircraft.

Engines: Two CFM56-7B, -7B/2, -7B/3, or -7BE Series Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations. The CFM56-7B/2 series have double annular combustors and provide the same thrust as the CFM56-7B series engines at the respective engine ratings and are approved for all models. The CFM56-7B/3 series have single annular combustors and provide the same thrust as the CFM56-7B series engines at the respective engine ratings. The CFM56-7BE series have single annular combustors and provide the same thrust as the CFM56-7B series engines at the respective engine ratings.

Fuel: Fuels meeting the following specifications and mixtures thereof are approved for use:

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

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

Engine Ratings:	Model 737-600	Takeoff static thrust standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lb
	CFM56-7B20	20,600	19,400
	CFM56-7B20/2*	20,600	19,400
	CFM56-7B20/3	20,600	19,400
	CFM56-7B20E	20,600	19,400
	CFM56-7B22	22,700	22,300
	CFM56-7B22/2*	22,700	22,300
	CFM56-7B22/3	22,700	22,300
	CFM56-7B22E	22,700	22,300

VII - 737-600, 700, -800 (Cont'd.)

Engine Ratings:	Model 737-700	Takeoff static thrust standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lb
	CFM56-7B24	24,200	22,800
	CFM56-7B24/2*	24,200	22,800
	CFM56-7B24/3	24,200	22,800
	CFM56-7B24E	24,200	22,800
	CFM56-7B24/B1**	24,200	22,800
	CFM56-7B24/3B1**	24,200	22,800
	CFM56-7B24E/B1**	24,200	22,800
	CFM56-7B22	22,700	22,300
	CFM56-7B22/2*	22,700	22,300
	CFM56-7B22/3	22,700	22,300
	CFM56-7B22E	22,700	22,300
	CFM56-7B20	20,600	19,400
	CFM56-7B20/2*	20,600	19,400
	CFM56-7B20/3	20,600	19,400
	CFM56-7B20E	20,600	19,400
	CFM56-7B26	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/3	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26E	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/3B2	26,300	22,800
	CFM56-7B26E/B2	26,300	22,800
	CFM56-7B26/3B2F	26,300	22,800
	CFM56-7B26E/B2F	26,300	22,800
	CFM56-7B26/3F	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26E/F	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/2*	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/B2	26,300	22,800

Engine Ratings: Model 737-700 Increased Gross Weight (IGW)

	CFM56-7B24	24,200	22,800
	CFM56-7B24/2*	24,200	22,800
	CFM56-7B24/3	24,200	22,800
	CFM56-7B24E	24,200	22,800
	CFM56-7B24/3B1**	24,200	22,800
	CFM56-7B24E/B1**	24,200	22,800
	CFM56-7B22	22,700	22,300
	CFM56-7B22/2*	22,700	22,300
	CFM56-7B22/3	22,700	22,300
	CFM56-7B22E	22,700	22,300
	CFM56-7B20	20,600	19,400
	CFM56-7B20/2*	20,600	19,400
	CFM56-7B20/3	20,600	19,400
	CFM56-7B20E	20,600	19,400
	CFM56-7B26	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/2*	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/3	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26E	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/3F	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26E/F	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/B1#	26,300	25,900
	CFM56-7B26E/B1#	26,300	25,900
	CFM56-7B27A	27,300	25,900
	CFM56-7B27/B3#	27,300	25,900
	CFM56-7B27/3B3#	27,300	25,900
	CFM56-7B27E/B3#	27,300	25,900
	CFM56-7B27E	27,300	25,900
	CFM56-7B27E/F	27,300	25,900

Please see Note 4 for limitations which may be applicable to the 737-700 IGW airplanes.

VII 737-600, 700, -800 (Cont'd.)

Engine Ratings:	Model 737-800	Takeoff static thrust standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lb
	CFM56-7B24	24,200	22,800
	CFM56-7B24/2*	24,200	22,800
	CFM56-7B24/3	24,200	22,800
	CFM56-7B24E	24,200	22,800
	CFM56-7B24/B1**	24,200	22,800
	CFM56-7B24/3B1**	24,200	22,800
	CFM56-7B24E/B1**	24,200	22,800
	CFM56-7B26	26,300	25,900
	CFM56-7B26/2*	26,300	25,900
	CFM56-7B26/3	26,300	25,900
	CFM56-7B26E	26,300	25,900
	CFM56-7B26/3F*	26,300	25,900
	CFM56-7B26E/F*	26,300	25,900
	CFM56-7B27	27,300	25,900
	CFM56-7B27/2*	27,300	25,900
	CFM56-7B27/3	27,300	25,900
	CFM56-7B27E	27,300	25,900
	CFM56-7B27/3F	27,300	25,900
	CFM56-7B27E/F	27,300	25,900
	CFM56-7B27/B1**	27,300	25,900
	CFM56-7B27/3B1**	27,300	25,900
	CFM56-7B27E/B1**	27,300	25,900
	CFM56-7B27/3B1F**	27,300	25,900
	CFM56-7B27E/B1F**	27,300	25,900
	CFM56-7B27/B3**#	27,300	25,900
	CFM56-7B27/3B3**#	27,300	25,900
	CFM56-7B27E/B3**#	27,300	25,900

** Special Rating

Special Maintenance Provisions (BBJ applications only).

Engine and Weight Limits

For engine operating limits see Engine Type Certificate Data Sheet No. E00055EN or E00056EN or the FAA Approved Airplane Flight Manual.

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

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

For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in Note 2

C. G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2

Maximum Weights:	737-600	
	Maximum Taxi Weight (MTW)	146,000 lbs.
	Maximum Takeoff Weight (MTOW)	145,500 lbs.
	Maximum Landing Weight (MLW)	120,500 lbs.
	Maximum Zero Fuel Weight (MZFW)	114,000 lbs.

Maximum Weights:	737-700	
	Maximum Taxi Weight (MTW)	155,000 lbs.
	Maximum Takeoff Weight (MTOW)	154,500 lbs.
	Maximum Landing Weight (MLW)	129,200 lbs.
	Maximum Zero Fuel Weight (MZFW)	121,700 lbs.

VII - 737-600, 700, -800 (Cont'd.)

Maximum Weights:	737-700 Increased Gross Weight (IGW)	
	Please see Note 4 at the end of Section for limitations which may be applicable to the 737-700 IGW airplanes	
	Maximum Taxi Weight (MTW)	171,500 lbs.
	Maximum Takeoff Weight (MTOW)	171,000 lbs.
	Maximum Landing Weight (MLW)	134,000 lbs.
	Maximum Zero Fuel Weight (MZFW)	126,000 lbs.
Maximum Weights:	737-700 Lower Cabin Altitude (LCA)\Increased Gross Weight (IGW)	
	Please see Note 8 and Note 4 at the end of Section for limitations which may be applicable to the 737-700 LCA\IGW airplanes	
	Maximum Taxi Weight (MTW)	171,500 lbs.
	Maximum Takeoff Weight (MTOW)	171,000 lbs.
	Maximum Landing Weight (MLW)	134,000 lbs.
	Maximum Zero Fuel Weight (MZFW)	126,000 lbs.
Maximum Weights:	737-800	
	Maximum Taxi Weight (MTW)	174,900 lbs.
	Maximum Takeoff Weight (MTOW)	174,200 lbs.
	Maximum Landing Weight (MLW)	146,300 lbs.
	Maximum Zero Fuel Weight (MZFW)	138,300 lbs.
Maximum Weights:	737-800 Lower Cabin Altitude (LCA)	
	Please see Note 8 at the end Section 7 for additional information that is applicable to the LCA airplanes	
	Maximum Taxi Weight (MTW)	174,900 lbs.
	Maximum Takeoff Weight (MTOW)	174,200 lbs.
	Maximum Landing Weight (MLW)	146,300 lbs.
	Maximum Zero Fuel Weight (MZFW)	138,300 lbs.

Eligible Serial Numbers

Eligible Serial Numbers: 737-600:

Model	
737-683	28288-28313, 28322, 28605, 30189, 30190
737-6CT	34284-34289, 34621, 34633, 35111-35113, 35570, 35571
737-6D6	30209-30211, 30545, 30546
737-6H3	29496-29502
737-6Q8	28259-28261, 29348, 29349, 29353
737-6Z9	30137, 30138
737-66N	28649, 28650, 28652, 29890-29892

Eligible Serial Numbers: 737-700:

Model	
737-705	28211, 28217, 28222, 29089-29098
737-724	28762-28769, 28779, 28780, 28782-28787, 28789-28791, 28796-28800, 28803, 28936-28941, 28944, 28945, 28948-28950
737-732	29633, 29634, 29645, 29648, 29656, 29665, 29679, 29683, 29687, 29688
737-752	28262, 29356, 29363, 30038, 32842, 33783-33793, 34293-34300, 35117, 35118, 35122-35124, 35785-35787
737-758	29960, 29961
737-760	33764-33766
737-781	33872-33878, 33881-33885, 33888-33900, 33916
737-783	28314-28317, 30191, 30192, 30471, 32276, 34548, 34549
737-790	29751-29753, 30162-30166, 30343, 30344, 30542, 30543, 30626, 30662, 30663, 30778, 30792-30795, 33011, 33012
737-7B6	28982, 28984-28986, 28988, 33062
737-7C9	33802, 33803, 33956

VII - 737-600, 700, -800 (Cont'd.)

737-7H4	27835-27897, 29275-29279, 29490, 29491, 29798-29856, 30544, 30587-30592, 30601-30606, 30677, 32452-32459, 32460-32545, 33658, 33659, 33715, 33716, 33720, 33721, 33829-33832, 33841, 33852-33861, 33866-33869, 33988-33990, 33998, 33999, 34010-34012, 34162, 34163, 34217, 34232, 34259, 34290, 34333, 34450, 34592, 34630-34632, 34713, 34714, 34863, 34864, 34951, 34972, 34973, 35554, 36153, 36640-36442, 36528, 36610-36633, 36636, 36637, 36639, 36641, 36643-36648, 36659, 36660, 36662-36665, 36667-36669, 36671-36677, 36679, 36887-36890, 39843, 36900, 36913, 36918, 36924, 36962, 36963, 36965-36967, 41528, 41777
737-7K2	28256, 29347, 30659, 30364-30367, 30369, 30371, 30668, 30784, 33462-33465, 34170, 38053, 38054, 38125-38128, 38634, 38635, 39255, 39256, 39257, 39446
737-7K5	30714, 30717, 30726, 34693, 35135, 35136, 35140, 35141, 35144, 35150, 35277, 35282
737-7K9	28088-28091, 30041, 30042, 34320, 34321, 34401, 34402
737-7L9	28004-28015
737-7M2	34559-34562
737-7Q8	28209, 28210, 28212, 28216, 28219, 28223, 28224, 28238, 28240, 28250, 28254, 29346, 29350, 29352, 29354, 29355, 29359, 30037, 30629, 30630, 30633, 30635, 30638, 30641, 30642, 30644, 30647-30649, 30674, 30687, 30707, 30710, 30727
737-7U8	32371, 32372
737-7V3	28607, 29360, 30049, 30458-30464, 30497, 30676, 33705-33708, 34535, 34536
737-7W0	29912, 29913, 30074, 30075
737-7X2	28878
737-7Z9	30418, 30419
737-71B	29366, 29367, 29370-29372, 32933-32940, 35337, 35360-35364, 35368, 35372, 35378, 35382-35384, 38912, 38914, 38917-38920, 38925, 38962
737-71M	33103
737-71Q	29043-29048
737-72K	37235, 37237
737-73A	28497-28500
737-73S	29076-29083
737-73V	30235-30249, 32412-32428
737-74P	39198, 39210-39212
737-75B	28099-28110
737-75C	28258, 29042, 29084-29086, 30034, 30512, 30513, 30634, 30656, 34024-34028, 38381, 38383-38385
737-75N	33654, 33663, 33666
737-75R	30404-30406, 30411, 34805, 34806
737-76D	30167, 30168, 33470, 33472, 35778, 35779, 39303, 39305, 39313, 39315
737-76J	36114-36118, 36873, 36874
737-76N	28577, 28580, 28582-28585, 28609, 28613, 28630, 28635, 28640, 28641, 28651, 28654, 29885, 29886, 29893, 29904, 29905, 30050, 30051, 30133-30136, 30830, 32244, 32404, 32440, 32574, 32581-32583, 32596, 32652-32654, 32656, 32657, 32660-32662, 32664-32668, 32670, 32671, 32673-32681, 32684, 32695, 32696, 32731, 32734, 32737, 32738, 32741, 32743, 32744, 32881, 32883, 33005, 33378-33380, 33417, 33418, 33420, 34753-34758, 35218
737-76Q	30271, 30273, 30275, 30277, 30279, 30280, 30282, 30283, 30288, 30293
737-77L	32722
737-77Z	62699
737-78J	28438-28440, 28442
737-78S	30169-30171
737-79K	29190, 29191
737-79L	33408-33413, 34019-34023, 34537-34543, 41091-41093
737-79P	28253, 28255, 29357, 29358, 29361, 29362, 29364, 29365, 30035, 30036, 30651, 30657, 33008, 33009, 33037-33046, 36269-36271, 36757-36760, 36762, 36764, 36766-36768, 36770, 36772, 37423, 39308, 39310, 39719-39721, 39723, 39725, 39729, 39731, 39733, 39735, 39737, 39739, 39741, 39743, 39745, 39747
737-7AD	28436, 28437
737-7AX	30181, 30182, 30183
737-7BD	33917-33936, 33938, 33943, 33944, 34479, 34480, 34861, 34862, 35109, 35110, 35788, 35789, 35962, 36073, 36091, 36399, 36716-36721, 36724-36726
737-7BK	30617, 33015, 33025, 33026
737-7BX	30736-30746
737-7CT	30712, 30713, 32747-32769, 32771, 32772, 33656, 33657, 33697, 33698, 33969, 33970, 34155-34157, 35078, 35084, 35086, 35503-35505, 35985, 36420-36422, 36442, 36689, 36691, 36693, 37088-37091, 37421, 37423, 37955, 37956, 38096, 40338
737-7EA	32406, 32407
737-7EE	34263
737-7EH	37595, 37608, 37609
737-7ES	35327, 35328737-7FE 34322, 34323
737-7GL	34759-34762, 37233, 37234, 37236
737-7HB	35954, 35956
737-700	<i>Reserved for new serial numbers after Line Number 6000</i>

VII - 737-600, 700, -800 (Cont'd.)

Eligible Serial Numbers: 737-700 Increased Gross Weight (IGW):

737-7ME	60460, 60461
737-781	33879, 33880
737-72T	29024
737-72U	29273
737-73Q	29102, 30789
737-73U	29200
737-74P	39199-39201, 39212
737-74Q	29135, 29136
737-74U	29233
737-74V	29272
737-75T	29142
737-75U	28976
737-75V	28579, 28581
737-76N	38028
737-77W	62467, 62468
737-79P	39727, 39310
737-79T	29317
737-7AJ	33499
737-7AK	29865, 29866, 30752, 34303
737-7AN	29972
737-7AV	30070
737-7AW	30031
737-7BC	30327, 30329, 30330, 30572, 30756, 30791, 30884, 32575, 32628, 32970, 33036, 33102, 33434
737-7BF	30496
737-7BH	29791
737-7BJ	30076
737-7BQ	30547
737-7CG	30751
737-7CJ	30754
737-7CP	30753, 30755
737-7CU	30772
737-7DF	30790
737-7DM	29971, 32916, 33080, 34807, 34808, 34809, 407066
737-7DP	32805
737-7DT	30829
737-7ED	32627
737-7EG	32807
737-7EJ	32774
737-7EM	34865
737-7EO	29251
737-7ES	33542, 33962-33965, 33474, 33476, 33477, 33986, 33987, 34700, 35329
737-7ET	33010
737-7FB	33367
737-7FD	33500
737-7FG	33405
737-7HD	35959
737-7HF	35977
737-7JF	37592
737-7H3	29149
737-7H6	29274
737-7N6	34260
737-7P3	29188
737-7Z5	29268, 29269, 29857, 29858
737-7ZF	60406
737-700 (IGW)	<i>Reserved for new serial numbers after Line Number 6000</i>

VII - 737-600, 700, -800 (Cont'd.)

Eligible Serial Numbers: 737-700 IGW with LCA Installation:

Model

737-73Q	30789
737-73T	29054
737-73W	38633, 40116, 40117
737-74T	29139
737-75G	36852
737-79L	41090
737-79U	29441
737-79V	61040
737-7AH	29749
737-7AU	34477
737-7B5	37660
737-7BC	30328, 30782
737-7EG	35990, 40586
737-7EI	34683
737-7EL	32775
737-7FY	36493
737-7GC	34622
737-7GE	41375
737-7GJ	41658
737-7GV	36090
737-7HD	35959
737-7HE	36027
737-7HI	36106, 36107, 36108
737-7HZ	37583, 40761
737-7JB	36714
737-7JF	37592
737-7JR	37111
737-7JU	38855
737-7JV	38854
737-7JW	38408
737-7JY	39109
737-7JZ	37700
737-7KK	38608
737-7ZF	60406
737-7LT	39095
737-7ZH	38751
737-7ZW	43826
737-7ZX	40119

737-700 (IGW, LCA) *Reserved for new serial numbers after Line Number 6000*

Eligible Serial Numbers: 737-800:

Model

737-804	28227, 28229, 28231, 30465, 30466, 32903, 32904
737-808	34967, 34701-34710, 34968-34971
737-809	28236, 28402-28407, 29103-29106, 30173-30175, 30636, 30664
737-823	29503-29550, 29554-29573, 29574-29577, 30077-30100, 30598-30600, 30828, 30858, 30903-30908, 30910, 30912, 30914, 30916, 30918, 30920, 31067, 31069, 31071, 31073, 31075, 31077, 31079, 31081, 31083, 31085, 31087, 31089, 31091, 31093, 31095, 31097, 31099, 31101, 31103, 31105, 31107, 31109, 31111, 31127, 31129, 31131, 31133, 31135, 31137, 31139, 31141, 31143, 31145, 31147, 31149, 31151, 31153-31161, 31163, 31165, 31167, 31169, 31171-31173, 31176-31178, 31185, 31189, 31190, 31192, 31194, 31196, 31197, 31199, 31200, 31202, 31203, 31205, 31208, 31210, 31214, 31215, 31217, 31218, 31219, 31225, 31226, 31228, 31229, 31230, 31231, , 31233, 31234, 31236, 31237, 31241, 31242, 33203, 33205-33214, 33219-33234, 33239, 33240, 33241, 33243,33247,33314-33319, 33321-33323, 33327-33331, 33334, 33337, 33338,33416, 33487-33492, 33518-33521, 40579, 40580-40584, 40762-40769
737-824	28770-28778, 28781, 28788, 28792-28795, 28801, 28802, 28804-28809, 28929-28935, 28942, 28943, 28946, 28947, 28951-28958, 30132, 30429, 30576-30584, 30610-30613, 30779, 30802, 30803, 30855, 31582, 31604-31607, 31621, 31623, 31626, 31628, 31632, 31634-31639, 31642, 31652, 31658-31660, 31662, 31663, 32402, 32403, 32828, 32832, 32834, 33451-33455, 33458, 33459, 33461, 34000-34005, 37096, 37101, 38700, 38701, 39998, 39999
737-832	29619-29632, 30265, 30266, 30345-30350, 30373-30382, 30487-30493, 30536-30541, 30560-30562, 30773-30776, 30799, 30800, 30813-30823, 30825, 30835-30837, 32373-32375, 32626
737-838	29551-29553, 30101, 30734, 30897, 30899, 30901, 33478-33485, 33722-33725, 33760-33763, 33991-33995, 34180-34187, 34188--34204, 39357-39359, 39360-39372, 39445, 44573-44577
737-844	32631-32635
737-846	35330-35359, 39190-39194, 40346-40356, 40947, 40948, 40950, 40954

VII - 737-600, 700, -800 (Cont'd.)

737-852	35114-35116, 35119-35121, 36699-36708, 39944, 39945, 39957, 39958, 43657, 43659, 43661, 43665
737-858	29957-29959
737-860	39442, 40961-40967, 40968, 40969, 40970
737-866	35558-35569, 40757-40760, 40800-40803
737-881	33886, 33887, 33890-33899, 33901-33909, 33910-33915, 35279, 44556-44558, 44559, 62637, 62638, 62639, 62640, 62641
737-883	28318-28321, 28323-28328, 28390, 30193-30197, 30467-30470, 32277, 32278, 34546, 34547
737-890	30020, 30022, 34593-34595, 35091, 35103, 35107, 35175-35203, 35204, 35681, 35682, 35684-35695, 36346, 36481, 36482, 36578, 39043, 39044, 41188
737-81B	30697, 30699, 30708, 30709, 32921-32932, 33006, 34248, 34250, 34252, 35365-35367, 35369-35371, 35373-35376, 35379, 35380, 35381, 35385-35389, 35683, 38913, 38915, 38916, 38918, 38920, 38921-38924, 38926-38961, 38963-38966, 41302, 41303, 41315-41317, 41319, 41320, 41326, 41327, 41328, 41333, 41334, 41606, 41609, 41610, 41611, 41612, 41613, 41614
737-81D	39412-39418, 39421, 39422, 39425, 39426, 39429, 39431-39433, 39436-39441
737-81M	30721, 33104, 34242, 35108, 35272, 35284, 35287, 37161, 40066, 40067, 40068, 44421, 44422, 44423
737-81Q	29049-29052, 30618, 30619, 30785-30787
737-81Z	40076-40078, 40079, 40080, 40081, 40082, 40087, 40089, 40090, 40104, 40105,
737-82K	35699, 36088, 36089, 39774, 39775, 43863
737-82R	29329, 29344, 30658, 30666, 35699, 35700-35702, 35983, 35984, 38173-38178, 40009-40012,, 40013, 40014, 40696, 40697, 40720, 40721, 40722-40724, 40725-40728, 40871-40881
737-82Y	40712, 40713
737-82Z	60686
737-83N	28239, 28243-28247, 28249, 28648, 28653, 30023, 30033, 30640, 30643, 30660, 30673, 30675, 30679, 30706, 31189, 32348, 32576-32580, 32609-32616, 32663, 32882, 32884
737-83Z	61268, 61269, 61270, 61271, 61272
737-84P	29947, 30474, 30475, 32599-32608, 34029-34034, 35072, 35074, 35076, 35077, 35274, 35276, 35285, 35747-35749, 35750-35755, 35756, 35760-35766, 36779-36783, 36697, 37422, 37425, 37953, 38143-38157, 39195-39197, 39202-39209, 39213-39218, 39219, 39220, 39223, 39224, 39961, 39962, 39963, 41376, 41377, 41378, 41379, 41381, 41382, 41383, 41384, 41385, 41387, 41389, 41568, 41569, 41570, 41591, 41809, 41811, 43658, 43660, 43663, 61321, 61322, 61323, 61324
737-84R	38119, 38120
737-84Y	40892, 40893
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737-8DP 32451

737-8DR 32777

737-8DV 32915

737-8EC 32450

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737-8EH 34267-34281, 34474, 34475, 34653-34656, 34962-34966, 35063-35066, 35824-35832, 35835-35838, 35842-35846, 35850-35852, 36146-36150, 36566, 36596, 37596-37601, 37610, 39604, 39608, 39609, 39611-39624, 39625, 39629, 39631-39634, 39636, 39637, 39639, 39640, 40738, 40739, 40741, 40742, 41163, 41166, 41179, 41467

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737-8Z0	30071, 30072, 30073
737-8Z6	35478, 62445
737-8Z9	28177, 28178, 30420, 30421, 33833, 33834, 34262
737-800	<i>Reserved for new serial numbers after Line Number 6000</i>

Eligible Serial Numbers: 737-800 with LCA Installation

Model

737-8GQ	35792
737-8JM	37633
737-8KB	37545
737-8KT	40118
737-8LX	39899
737-8LZ	42510
737-8U3	41706
737-8ZE	42215
737-800 with LCA	<i>Reserved for new serial numbers after Line Number 6000</i>

Airframe Limits and Capacities**Minimum Crew**

For All Flights: 2 (Pilot and Copilot)

Maximum

Passengers:	737-700	737-800	737-600
	149	189	149

Maximum Baggage

Cargo: See appropriate Weight and Balance Manual listed in Note 1.

Fuel & Oil

Capacities: See appropriate Weight and Balance Manual listed in Note 1.

Minimum Required

Fuel: See appropriate FAA Approved Airplane Flight Manual listed in Note 2

Maximum Operating

Altitude: 41,000 ft.

Datum: See appropriate Weight and Balance Manual listed in Note 1.

MAC: 155.81 in

Other Operating

Limitations: See FAA Approved Airplane Flight Manual Appendices

Control Surface

Movements: To ensure proper operation of the airplane, the movements of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplanes, must, therefore, be rigged according to the following FAA Approved data:

Boeing Drawing Numbers:

114A1001, Krueger Flap Instl - Inbd Wing L.E.
 251A1001, Rigging Instructions, Lateral & Speedbrake Control
 251A2001, Rigging Instructions, Elevator Control System
 251A3001, Rigging Instructions, Rudder Control System
 251A4001, Rigging Instructions, Stabilizer Trim Control
 256A3001, Rigging Instructions - Flap Actuation
 256A2284, Flap.Slat Sensor Instl - Leading Edge, Wing

VII - 737-600, 700, -800 (Cont'd.)**Certification Basis:**

A. 14 CFR Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-77 with the exceptions listed below:

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

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

- Head Injury Criteria data collected and reported by TSO applicant is less than 1000, and
- Femur Injury Criteria data collected and reported by TSO applicant is less than 2250 pounds, and
- Permanent deformation data collected and reported by TSO applicant are in compliance with the requirements of FAA Advisory Circular (AC) 25.562-1A.

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

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

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

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

***** For 737-800 airplanes configured with a flat aft pressure bulkhead, the airplane is also designed to withstand the effects of a sudden release of pressure venting aft through any 820 square inch opening in that bulkhead at any operating altitude.

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

The certification basis for the following regulations at amendment levels later than 25-77.

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 25.-</u>
25.143(c),(d),(e),(f)	General, Controllability & Maneuverability	84
25.145(b),(c)(1)	Longitudinal Control	84
25.149(f),(h)	Minimum Control Speed	84
25.203(c)	Stall Characteristics	84
25.253(b)	High-Speed Characteristics	84
25.305(d)	Strength and Deformation	86
25.321(c),(d)	Flight Loads - General	86
25.331(a),(d)	Flight Maneuver and Gust Conditions - General	86
25.333(a),(c)	Flight Envelope	86
25.341	Gust Loads	86
25.343(b)	Design Fuel and Oil Loads	86
25.345(a),(c)	High lift Devices	86
25.349	Rolling Conditions	86
25.351	Yawing Conditions	86

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25.371	Gyroscopic Loads	86
25.373(a)	Speed Control Devices	86
25.391	Control Surface Loads:general	86
25.427	Unsymmetrical Loads	86
25.519	Jacking and Tie-down Provisions	81
25.571(b)	Damage Tolerance and Fatigue Evaluation of Structure (Loads)	86
25.733	Use of Inert Gas for Tire Inflation	78
25.811(e)	Emergency Handle Illumination	79
25.981(b)(d)	Fuel Tank Ignition Prevention (for Flammability Reduction System)	125
25.1316	Lightning Protection Requirements	80
25.1415(d)	Ditching Equipment (ELT)	82
25.1517	Rough Air Speed V _{RA}	86

14 CFR Part 26:

Based on 14 CFR §21.101(g) for changes made to TCs applicable provisions of 14 CFR Part 26 are included in the certification basis. For any future 14 CFR Part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections. Compliance has been found for the following regulations:

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 26-</u>
26.11	Electrical wiring interconnection systems (EWIS) maintenance program.	0
26.21	Limit of Validity	5
26.33	Holder of type certificates: Fuel tank flammability.	3
26.39	Newly produced airplanes: Fuel tank flammability	3
26.43	Holder of and applicants for type certificates – Repairs	1
26.45	Holder of type certificates - Alterations and repairs to alterations	1
26.47	Holder of and applicants for a supplemental type certificate – Alterations And repairs to alterations	1
26.49	Compliance plan	1

In addition to the airworthiness standards, the type-certification basis for these derivative airplanes includes compliance with the emissions standards of Part 34 as amended by any amendments effective at the time of certification

14 CFR Part 36 as amended by amendment 36-20 or any subsequent amendment effective at the time of certification. See the appropriate FAA Approved Airplane Flight Manual listed in Note (2) for applicability of Stage 4 Noise Recertification through Amendment 36-28.

Special Conditions:

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

25-ANM-132, published in the Federal Register on September 17, 1997 for 737-600/-700/-800 airplanes and applicable to later amendments of the 737 model that incorporate the same novel or unusual design feature:

1. High Intensity Radiated Fields
2. Limit Engine Torque Loads for Sudden Engine Stoppage

25-308-SC, Boeing Model 737-200/200C/300/400/500/600/700/700C/800/900 Series Airplanes; Flammability Reduction Means (Fuel Tank Inerting) published in the Federal Register on December 5, 2005

25-358-SC, published in the Federal Register on June 29, 2007 addressed 737-600/-700/-700C/-800/-900 and -900ER series airplanes regarding seats with non-traditional, large, non-metallic panels

25-386-SC, published in the Federal Register on August 7, 2009, addressed 737-600/-700/-700C/-800/ and 900ER series airplanes with inflatable lapbelts installed

25-404-SC, published in the Federal Register on April 12, 2010, Modification to Boeing Model 737-600/-700/-700C/-800/-900 and -900ER Series Airplanes: Rechargeable Lithium Batteries and Rechargeable Lithium-Battery Systems

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

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

VII. 737-600, 700, -800 (Cont'd.)

Equivalent Safety Findings:

The Equivalent Safety Findings were proposed in accordance with § 21.21. The following have been identified as equivalent safety findings (specifications and restrictions of its content, such as production winglet installation, must be met before an issue paper is considered to apply to any specific configuration of a model series):

SECTION NO.	TITLE
§ 25.101(i)	Rejected Takeoff Performance (F-4)
§ 25.103	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.105(c)(1)	Rejected Takeoff Performance (F-4)
§ 25.107	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.109	Rejected Takeoff Performance (F-4)
§ 25.111(a)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.113	Rejected Takeoff Performance (F-4)
§ 25.115(a)	Rejected Takeoff Performance (F-4)
§ 25.119(b)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.121(c)(d)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.125(a)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.143(g)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.145(a)(b)(c)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.147(a)(c)(d)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.149(c)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.161(b)(c)(d)(e)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.175(a)(b)(c)(d)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.177(c)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.181(a)(b)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.201(a)(b)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.207(b)(c)(d)(e)(f)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.231(a)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.233(a)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.237(a)(b)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§25.251	Vibration/Buffering Compliance Criteria, Ku-Band External Antenna Installation (F-1, PS14-0725) (not applicable to 737-600 or 737-700)
§ 25.395(a)	Lateral Control System Load Factors (A-5)
§ 25.613	Material Design Values (A-9)
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§ 25.735	Return Landing Capability (F-3, AT0328SE-T)
§ 25.735(f)(g)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.773(b)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.791	“No Smoking” limitation in the Passenger Compartment (C-5)
§ 25.810 (a)(1)(ii)	Escape Slides (C-4)
§ 25.811(f)	Exterior Exit Markings (C-1)
§ 25.812(b)(1)(i)	Emergency Exit Locator and Marking Signs (C-3)
§ 25.813(c)(1)(i)	Emergency Exit Access (C-1)
§ 25.813(c)	Seat Obstruction of the Provided Exit Opening at Overwing Exit Door and Reduced Passageway to the Overwing Exits (for Type III Automatic Overwing Exit) (C-1)
§ 25.841(b)(6)	Cabin Altitude Warning System with Dual Limits for Operations into High Altitude Airports (TD9770SE-T-S-1)
§ 25.853(a)	Adhesives Used in Interior Panel Bent Joint Potting Applications (C-1)
§ 25.853	“No Smoking” limitation in the Passenger Compartment (C-5)
§ 25.933(a)	Flight Critical Thrust Reversers (P-2)
§ 25.979(b)(1)	Pressure Fueling System – Automatic Refueling Shutoff System Check Function (P-5)
§ 25.981(b)(d)	Fuel Tank Flammability Reduction Rule (P-2)
§ 25.1001(c)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.1001	Return Landing Capability (F-3, AT0328SE)
§ 25.1301	Return Landing Capability (F-3, AT0328SE)
§ 25.1309(a)	Return Landing Capability (F-3, AT0328SE)
§ 25.1309(c)	Cabin Altitude Warning System with Dual Limits for Operations into High Altitude Airports (S-1)
§ 25.1323(c)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.1325(e)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.1389(b)	Equivalent Safety Finding (ESF) for Forward Position Light System Minimum Intensity (SE-1)
§ 25.1389	Equivalent Safety Finding (ESF) for Position Light Overlapping Intensities (SE-2)
§ 25.1391	Equivalent Safety Finding (ESF) for Forward Position Light System Minimum Intensity (SE-1)
§ 25.1393	Equivalent Safety Finding (ESF) for Forward Position Light System Minimum Intensity (SE-1)
§ 25.1395	Equivalent Safety Finding (ESF) for Position Light Overlapping Intensities (SE-2)
§ 25.1411(b)(1)	General – Overhead Life Vest Location (C-1)
§ 25.1415(d)	Emergency Locator Transmitter (ELT) (C-1)
§ 25.1419	Use of Analysis to Demonstrate Safe Flight in Icing Conditions (TD5046SE, S-1 737-800 Only)
§ 25.1441(c)	Crew Determination of the Quantity of Oxygen Available in the Lavatory Passenger Service Units Bottles (ES-1)

VII - 737-600, 700, -800 (Cont'd.)

§ 25.1443(c)	Determination of Minimum Oxygen Flow for the Lavatory Oxygen System (S-1)
§ 25.1517	Rough Air Speed, VRA (LB08-0012-G-8 Collector, PS05-0002-F-1, 737-700IGW Only)
§ 25.1529	Inclusion of Airworthiness Limitations within the Boeing ICA Manuals (G-8)
§ 25.1587(b)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.1587(b)	Rejected Takeoff Performance (F-4)

The following Exemptions are applicable:

- §25.305, 25.307(a), 25.601, 25.603(c), 25.613(a) and (b), 25.901(c), and 25.1103(d) Partial Exemption – Localized areas of temperature – related damage. (Exemption No. 9571, December 11, 2007)
 - §25.853(a), appendix F, paragraph (a)(1)(i) - Partial Time-Limited Exemption, Testing on Large Interior Panels, granted through November 28, 2011. (Exemption No. 9791, November 28, 2008, Exemption No. 9791B, March 1, 2010, Exemption No. 9791C, February 4, 2011)
 - §25.562(b)(2) Emergency Landing Dynamic Conditions - related to Flight Deck Testing (Exemption No. 6425, April 12, 1996)
 - §25.571(e)(1) Damage-Tolerance and Fatigue Evaluation of Structure - related to Bird Strike Velocity. (Exemption No. 6601, April 8, 1997)
 - §25.901(c) Partial Exemption – No single powerplant or auxiliary power unit failure will jeopardize the safe operation of the airplane. (Exemption No. 7968, February 4, 2003) See NOTE 6 for information about high thrust failure.
 - §25.901(c) - Time-limited exemption for up to 48 months after the effective date of this exemption from 14 CFR 25.901(c), Amendment 25-126, and 25.981(a)(3), Amendment 25-102 or later, as they pertain to fuel tank ignition prevention associated with the following FQIS changes on in-service and newly-produced 737-600/-700/-700C/-800/-900/-900ER airplanes:
 - Replacement of the SCCC and the ARINC display card within the FQPU; and
 - Changed areas for the re-routing and separation of FQIS wires where the changed areas of the FQIS wire routing meet the installation requirements for separation and fault tolerance required to comply with § 25.981(a)(3) as associated with the semi-monolithic side-of-body change, and forward bulkhead relocation.
 (Exemption No. 10905, December 18, 2013 Expires December 18, 2017)
 - §25.1435(b)(1) Hydraulic Systems (Exemption 6086, May 17, 1995, Exemption No. 6086A, January 29, 2009).
 - §25.1447(c)(1) Automatic Presentation of Oxygen Masks to Allow Operation at High Altitude Airports (Exemption No. 8668A, December 30, 2013).
- B. Certification basis for §25.981(b) and §25.981(d) at amendment 25-125, and Equivalent Safety Finding P-2, dated May 25, 2010, for the flammability reduction system (FRS), is applied if fuel tank inerting is installed in new airplane production (line #'s 2517, 2620 and on) or as a modification per Service Bulletins 737-47-1002 and 737-47-1003. Airworthiness limitations for the FRS are contained in Section 9 of the applicable Maintenance Planning Document.
- C. Additional certification basis items for model 737-700 increased gross weight (IGW) aircraft with in-production installation of Winglets:
- For 737-700 (IGW) aircraft that have incorporated production installed winglets (BDCO Project LB08-0012), the following equivalent level of safety findings apply :
- § 25.1419 (documented in TAD ELOS Memo LB08-0012-T-S-2)
 - §§ 25.1389(b)(1), 25.1389(b)(2), 25.1391, and 25.1393 (documented in TAD ELOS Memo LB08-0012-T-SE-1)
 - §§ 25.1389(b)(3) and 25.1395 (documented in TAD ELOS Memo LB08-0012-T-SE-2)
 - § 25.1517 (documented in TAD ELOS Memo PS05-0002-F-1 via LB08-0012-G-8 Collector)

Compliance has been found to 14 CFR Part 25 of the Federal Aviation Regulations above amendment 25-77 specific to the in-production installation of Winglets and is listed below:

<u>Section No.</u>	<u>Title</u>	<u>At Amdt. 25.</u>
25.101(i)	General-Performance	92
25.103(a),(b),(c)	Stall Speed	108
25.105(c)	Takeoff	92
25.107(a)	Takeoff speeds	94
25.107(b),(c)	Takeoff speeds	108
25.109(a),(b), (d) thru (g), (i)	Accelerate-stop distance	92
25.111(a)	Takeoff path	108
25.111(c)	Takeoff path	115
25.113(a),(b),(c)	Takeoff distance and takeoff run	92
25.115(a)	Takeoff flight path	92
25.119(b)	Landing climb: All engines operating	108
25.121(c),(d)	Climb: One engine inoperative	108
25.125(a)	Landing	108
25.143	General – Controllability and Maneuverability	108
25.145	Longitudinal control	108
25.147	Directional and lateral control	115
25.149	Minimum control speed	108
25.161	Trim	115

VII - 737-600, 700, -800 (Cont'd.)

25.175	Demonstration of static longitudinal stability	115
25.177	Static lateral-directional stability	108
25.181	Dynamic stability	108
25.201	Stall demonstration	108
25.207	Stall warning	108
25.231	Longitudinal stability and control	108
25.233	Directional stability and control	108
25.331	Symmetric maneuvering conditions	91
25.345(d)	High lift devices	91
25.349(a),(b)	Rolling conditions	94
25.351	Yaw Maneuver Conditions	91
25.363	Side load on engine and auxiliary power unit mounts	91
25.371	Gyroscopic loads	91
25.445(a)	Auxiliary aerodynamic surfaces	86
25.571(a),(c),(e)	Damage Tolerance and Fatigue Evaluation of Structure	86*
25.571(b),(e)	Damage Tolerance and Fatigue Evaluation of Structure	96**
25.869(a)(4)	Fire protection: systems	113
25.903(c)	Engines	94
25.1323(c)	Airspeed indication system	109
25.1325(e)	Static pressure system	108
25.1329(g)	Automatic pilot system	119
25.1587(b)	Performance information	108

* For Wing box, Wing leading edge and Winglet structure

** For Wing box, Wing leading edge, and Winglet structure – Loads

D. Additional cert basis items for model 737-800 aircraft with in-production installation of Winglets:

The following equivalent level of safety findings apply for the 737-800 aircraft that have incorporated production installed winglets (FAA Project No. TD5046SE-T):

§ 25.1389(b) Equivalent Safety Finding (ESF) for Forward Position Light System Minimum Intensity (SE-1)

§ 25.1389 Equivalent Safety Finding (ESF) for Position Light Overlapping Intensities (SE-2)

§ 25.1391 Equivalent Safety Finding (ESF) for Forward Position Light System Minimum Intensity (SE-1)

§ 25.1393 Equivalent Safety Finding (ESF) for Forward Position Light System Minimum Intensity (SE-1)

§ 25.1395 Equivalent Safety Finding (ESF) for Position Light Overlapping Intensities (SE-2)

Compliance has been found to 14 CFR 25.1309 at Amendment 41 for Digital Flight Control and Autothrottle Systems.

Compliance has been found to 14 CFR Part 25 of the Federal Aviation Regulations above the existing certification basis specific to the in-production installation of Winglets and listed below:

<u>Section No.</u>	<u>Title</u>	<u>At Amdt. 25.</u>
25.101(a),(d),(e),(f),(h),(i)	General.	92
25.105(a),(b),(c),(d)	Takeoff.	92
25.107(a),(b),(c),(d),(e),(f)	Takeoff speeds.	94
25.109(a),(b),(c),(d),(e),(f),(g),(i)	Accelerate-stop distance.	92
25.111(a),(b),(c),(d)	Takeoff path.	94
25.113(a),(b),(c)	Takeoff distance and takeoff run.	92
25.115(a),(b),(c)	Takeoff flight path.	92
25.119(a),(b)	Landing climb: All-[engines]-operating.	94
25.121(a),(b),(c),(d)	Climb: One-engine-inoperative	84
25.125(a),(b),(e),(f)	Landing.	84
25.143(a)(b)	Controllability and Maneuverability (General)	84
25.145	Longitudinal control	98
25.149(a)(b)(c)(d)(e)	Minimum control speed	84
25.201	Stall demonstration.	84
25.203	Stall characteristics	84
25.233	Directional stability and control.	94
25.253	High-speed characteristics	84
25.305(a)(b)(c)(e)(f)	Strength and deformation	86
25.321(a)(b)	Flight Loads, General	86
25.331(a)(b)(c)	Symmetric maneuvering conditions	91
25.333(b)	Flight maneuvering envelope	86
25.335(a)(b)(c)(d)(e)(f)	Design airspeeds.	91
25.343(a)	Design fuel and oil loads	86
25.345(a)(b)(d)	High lift devices.	91
25.349(a)(b)	Rolling conditions.	94
25.351	[Yaw maneuver] conditions.	91
25.363(a)(b)	[Side load on engine and auxiliary power unit mounts.]	91
25.371	Gyroscopic loads.	91
25.373(b)	Speed control devices	86

VII. 737-600, -700, -800 (Cont'd.)

25.415(a)(b)	Ground gust conditions	91
25.445(a)	[Auxiliary aerodynamic surfaces.]	86
25.473(a)(b)(c)(d)(e)	[Landing load conditions and assumptions.]	91
25.479(a)(c)(d)	Special devices.	91
25.481(a)(c)	Tail down landing conditions.	94
25.483(a)(b)	[One-gear landing conditions.]	91
25.485(a)(b)	Side load conditions.	91
25.491	[Taxi, takeoff and landing roll.]	91
25.493(b)(c)(d)	Braked roll conditions.	97
25.499	[Nose-wheel yaw and steering.]	91
25.561(a)(b)(c)(d)	Emergency Landing Conditions, General	91
25.571(a)(b)	Damage-tolerance and fatigue evaluation of structure.	86***
25.783(c)	Fuselage doors	88
25.785(f)	Seats, berths, safety belts, and harnesses	88

*** For Wing and Winglet

Certification Maintenance

Requirements (CMR's) The CMR's are listed in either the FAA approved Section 9 of Boeing Maintenance Planning Data Document D626A001-CMR or the applicable engine Type Certification Data Sheet. The more restrictive requirement from these two documents shall be in force. All 737-600/700/700IGW/800 airplanes with line numbers 715 and on must comply with the damage tolerance structural inspections contained in revision June 2000 or later FAA-approved revision.

Production

Basis: Production Certificate No. 700

Required

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. The required equipment is noted in the Type Design Data.

Service

Information: The following Boeing "Structural Repair Manual" Documents are FAA-approved. Service Bulletins and other service information, when FAA-approved, will carry a statement to that effect.
D634A201 for the 737-700
D634A210 for the 737-800
D634A220 for the 737-600
D634A330 for the 737-700 IGW

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

NOTES FOR SECTION VII (737-600, -700, -800):

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. For each Model the Weight and Balance Control and Loading Manual consists of the Basic Manual and a Supplement Aircraft Report contained in the following Boeing documents:

D043A560 for the 737-600

D043A570 for the 737-700

D043A580 for the 737-800

This is in accordance with 14 CFR 25.29 and 25.1519 which establishes operating limitations determined under 25.23 through 25.27.

NOTE 2. Airplane operation must be in accordance with the FAA Approved AFM. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane. Boeing Document No. D631A001 is the basic FAA Approved Airplane Flight Manual for Model 737-600/-700/-800 airplanes.

NOTE 3. The FAA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness are referenced in Maintenance Planning Data Document (MPD) Section 9 Airworthiness Limitations and Certification Maintenance Requirements; Boeing Document D626A001-CMR. The Airworthiness Limitations section is FAA-approved and specifies maintenance required under 14 CFR 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved. Boeing 737-600/700/700C/800/900/900ER Maintenance Planning Data (MPD) Document, D626A001-CMR, is the FAA approved requirement to comply with 14 CFR 25.1529, 43.16 and 91.403. Required structural inspections for compliance with 14 CFR §25.571 and the retirement times for safe-life parts are listed in the FAA Approved Airworthiness Limitations and Certification Maintenance Requirements Section 9 of Boeing 737-600/700/800 Maintenance Planning Document D626A001-CMR. All 737-600/700/700C/800/900/900ER airplanes with line numbers 715 and on must comply with the Damage Tolerance Structural Inspections contained in revision June 2000 or later FAA-approved revision. Each operator must incorporate into their airline's FAA-approved maintenance program, the applicable requirements of this document.

VII. 737-600, -700, -800 (Cont'd.)

- NOTE 4. Model 737-700 Increased Gross Weight (IGW):
The following exemptions have been granted when the airplane is not operated for hire, or for common carriage (Granted October 5, 1998, Exemption No. 6820):
- §25.785(h)(2) Flight Attendant Seat Locations which do not Provide for Direct View of the Cabin,
 - §25.813(e) Installation of Interior Doors in between passenger compartments,
 - §25.853(d) Interior materials that do not comply with Heat Release and Smoke Emissions Requirements.
- (Granted February 17, 1999, Exemption No. 6820A); -
- §25.807(d)(7) Distance Between Exits.
 - §25.813(e) Installation of Interior Doors in between passenger compartments
 - §25.853(d) Interior materials that do not comply with Heat Release and Smoke Emissions Requirements.
- Acceptable engine models installed on a 737-700 IGW are dependent on type of intended in-service use. See the individual Airplane Flight Manual for approved installation of either the CFM56-7B26 or CFM56-7B26/B1 or CFM56-7B27/B3 or CFM56-7B27E/B3.
- NOTE 5. The type design reliability and performance of the Model 737-600, -700, and -800 airplanes have been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D044A007, "737-600/-700/-700C/-800/-900/-900ER ETOPS CONFIGURATION, MAINTENANCE, AND PROCEDURES". Additionally, type design changes incorporated after February 15, 2007 that require ETOPS approval have been evaluated in accordance with 14 CFR 25.1535 and found suitable for Extended Operations (ETOPS) when operated and maintained in accordance with Boeing Document D044A007. This finding does not constitute approval to conduct ETOPS operations.
- NOTE 6. The FAA has determined that the occurrence of any uncontrollable high thrust failure condition "may endanger the safe operation of an airplane" and hence is reportable under 14 CFR §121.703, 125.409, and 135.415.
- NOTE 7: Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with 14 CFR §25.981 and Special Condition 25-308-SC are listed in the FAA-approved Airworthiness Limitations and Certification Maintenance Requirement, Section 9, of Boeing 737-600/700/700C/800/900/900ER Maintenance Planning Data Document D626A001-CMR, Revision December 2005 or later FAA-approved revision. All Model 737-600, -700, and -800 series airplanes, production line number 1679 and on, must comply with Revision March 2006, or a later FAA-approved revision. The FAA is planning to issue an airworthiness directive mandating compliance with Revision March 2006, or a later FAA-approved revision, applicable to all Model 737-600, -700, -700C, -800, and -900 series airplanes with production numbers lower than 1679.
- NOTE 8: 737-700 and 737-800 airplanes modified by Boeing STC ST01697SE (Lower Cabin Altitude modification) are capable of maintaining a cabin altitude of 6500 feet in lieu of the standard 8000 feet when operating at a cruising altitude of 41,000 feet. This STC modification has been approved for airplanes listed in Figure 1 of Boeing Report D926A200, Revision N, dated May 23, 2009, or later FAA approved revision.
- NOTE 9: The Model 737-600/-700/-800 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 10: Model 737-800:
The following exemptions have been granted when the airplane is not operated for hire, or for common carriage (Granted August 17, 2001, Exemption No. 7609):
- §25.785(h)(2) Flight Attendant Seat Locations which do not Provide for Direct View of the Cabin,
 - §25.807(d)(7) Distance Between Exits.
 - §25.813(e) Installation of Interior Doors in between passenger compartments
 - §25.853(d) Interior materials that do not comply with Heat Release and Smoke Emissions Requirements.
- Acceptable engine models installed on a 737-800 is dependent on type of intended in-service use. See the individual Airplane Flight Manual for approved installation of either the CFM56-7B26 or CFM56-7B26/B1 or CFM56-7B27/B3 or CFM56-7B27E/B3
- NOTE 11. The following Serial Numbers were produced under Type Certificate prior to incorporating these model series into the production certificate:
- Model 737-600:** 28288 thru 28293, 28296, 28297
 - Model 737-700:** 27841, 27842, 27843, 27835, 28100, 27836, 28004, 28005, 27837, 28209, 27838, 28100, 28101, 28102, 28088, 27839, 28210, 28103, 28840, 28089, 28006, 28107, 28108, 28099.
 - Model 737-800:** 27977, 27978, 27979, 27980, 27981, 27982, 28068, 28069, 28213, 28373.

VIII Model 737-700C (Approved August 31, 2000) Transport Aircraft.

Engines: Two CFM56-7B, 7B/3, or 7BE Series Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations.

Fuel: Fuels meeting the following specifications and mixtures thereof are approved for use:

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

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

Engine Ratings:	Model 737-700C	Takeoff static thrust standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lb
	CFM56-7B24	24,200	22,800
	CFM56-7B24/3	24,200	22,800
	CFM56-7B24E	24,200	22,800
	CFM56-7B24/B1**	24,200	22,800
	CFM56-7B24/3B1**	24,200	22,800
	CFM56-7B24E/B1**	24,200	22,800
	CFM56-7B22/3	22,700	22,300
	CFM56-7B22E	22,700	22,300
	CFM56-7B20/3	20,600	19,400
	CFM56-7B20E	20,600	19,400
	CFM56-7B26/3	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26E	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/3B2	26,300	22,800
	CFM56-7B26E/B2	26,300	22,800
	CFM56-7B26/3B2F	26,300	22,800
	CFM56-7B26E/B2F	26,300	22,800
	CFM56-7B26/3F	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26E/F	26,300	25,900, Limited to 22,800 by FMC
	CFM56-7B26/B2	26,300	22,800

** Special Rating

Engine and Weight Limits

For engine operating limits see Engine Type Certificate Data Sheet No. E00055EN or E00056EN or the FAA Approved Airplane Flight Manual.

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

Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)
For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in Note 2

C. G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2

Maximum Weights: 737-700C
Please see Note 4 at the end of Section for limitations which may be applicable to the 737-700 IGW airplanes

Maximum Taxi Weight (MTW)	171,500 lbs.
Maximum Takeoff Weight (MTOW)	171,000 lbs.
Maximum Landing Weight (MLW)	134,000 lbs.
Maximum Zero Fuel Weight (MZFW)	126,000 lbs.

Eligible Serial Numbers:

<u>Model</u>	
737-7AF	29979, 29980, 30200, 30781, 32597, 32598, 33826, 33836, 34304, 40573, 40574, 40577, 43827, 43828
737-7AX	30184, 30185
737-7HBC	35955
737-7HJ	36756
737-7D6C	61340
737-700C	<i>Reserved for new serial numbers after Line Number 6000</i>

VIII - Model 737-700C (Cont'd)**Airframe Limits Capacities & Rigging**

Minimum Crew for All Flights:	2 (Pilot and Copilot)	
Maximum Passengers:	<u>Passenger only mode</u> 149	<u>Cargo only mode</u> 0
Maximum Baggage Cargo:	See appropriate Weight and Balance Manual listed in Note 1.	
Fuel & Oil Capacities:	See appropriate Weight and Balance Manual listed in Note 1.	
Minimum Required Fuel:	See appropriate FAA Approved Airplane Flight Manual listed in Note 1	
Maximum Operating Altitude:	41,000 ft.	
Datum:	See appropriate Weight and Balance Manual listed in Note 1.	
MAC:	155.81 in	
Other Operating Limitations:	See FAA Approved Airplane Flight Manual Appendices	
Control Surface Movements:	To ensure proper operation of the airplane, the movements of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplanes, must, therefore, be rigged according to the following FAA Approved data: Boeing Drawing Numbers: 114A1001, Krueger Flap Instl - Inbd Wing L.E. 251A1001, Rigging Instructions, Lateral & Speedbrake Control 251A2001, Rigging Instructions, Elevator Control System 251A3001, Rigging Instructions, Rudder Control System 251A4001, Rigging Instructions, Stabilizer Trim Control 256A3001, Rigging Instructions - Flap Actuation 256A2284, Flap.Slat Sensor Instl - Leading Edge, Wing	

Certification Basis:

A. 14 CFR Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-91 with the exceptions listed below:

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 25-</u>
25.445	[Auxiliary Aerodynamic Surfaces]	0*****
25.562	Emergency Landing Dynamic Conditions	64*
25.607	Fasteners	0,91**
25.631	Bird Strike Damage	0,91**
25.699	Lift and Drag Device Indicator	0,91**
25.783(f)	Doors	15,91**
25.807(c)(3)	Emergency Exits	15
25.807(d)(1)	Emergency Exits	77
25.831(a) & (g)	Ventilation	41
25.832	Cabin Ozone Concentration	0***
25.841(a)	Pressurized Cabins	38
25.853(d)(3)	Compartment Interiors	72
25.904	Automatic Takeoff Thrust Control System (Not complied with –new at 25-62)	
25.1141	Power Plant Controls: General	11****
25.1309	Equipment, Systems and Installations	0,91**
25.1419(c)	Ice Protection	23,91**
25.1447(c)(3)(ii)	Equipment Standards for Oxygen Dispensing Units	41

* Flight attendant seats are qualified to Technical Standard Order C127. Passenger and crew seats in the flight deck comply with § 25.562(a),(b),(c)(1),(2),(3),(4),(7), and (8)). In addition flight deck observer seats comply with § 25.562(c)(5)).

VIII Model 737-700C (Cont'd)

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

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

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

***** Exception to Amendment 0 applies only to aircraft without winglets. For aircraft with winglets, see Section C.

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

The certification basis for the following regulations at amendment levels later than 25-91.

<u>SECTION NO.</u>	<u>AT AMDT. 25.-</u>	<u>TITLE</u>
25.101	92	Performance; General
25.105	82	Takeoff
25.107	94	Takeoff Speeds
25.109	92	Accelerate Stop Distance
25.111	94	Take Off Path
25.113	92	Takeoff Distance and Takeoff Run
25.115	92	Takeoff Flight Path
25.119	94	Landing Climb: All Engines Operating
25.233	94	Ground Directional Stability and Control
25.349	94	Rolling Conditions
25.481	94	Tail-Down Landing Conditions
25.571(e)(1)	96	Damage-Tolerance & Fatigue Evaluation of Structure
25.735	92	Brakes
25.807 (except (g))	94	Emergency Exits
25.855	93	Cargo or Baggage Compartments
25.857	93	Cargo Compartment Classification
25.858	93	Cargo or Baggage Compartment Smoke or Fire Detection
25.981(b)(d)	125	Fuel Tank Ignition Prevention (for Flammability Reduction System)
25.1533	92	Additional Operating Limitations

Special Conditions:

25-ANM-132, published in the Federal Register on September 17, 1997 for 737-600/-700/-800 airplanes and applicable to later amendments of the 737 model that incorporate the same novel or unusual design feature:

1. High Intensity Radiated Fields (HIRF) Protection.
2. Limit Engine Torque Loads for Sudden Engine Stoppage.

Special Conditions No. 25-358-SC, published in the Federal Register on June 29, 2007 addressed 737-600/-700/-700C/-800/-900 and 900ER series airplanes regarding seats with non-traditional, large, non-metallic panels

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

25-308-SC, Boeing Model 737-200/200C/300/400/500/600/700/700C/800/900 Series Airplanes; Flammability Reduction Means (Fuel Tank Inerting) published in the Federal Register on December 5, 2005

25-404-SC, published in the Federal Register on April 12, 2010, Modification to Boeing Model 737-600/-700/-700C/-800/-900 and -900ER Series Airplanes: Rechargeable Lithium Batteries and Rechargeable Lithium-Battery Systems

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

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

Equivalent Safety Findings (specifications and restrictions of its content, such as production winglet installation, must be met before an issue paper is considered to apply to any specific configuration of a model series):

<u>SECTION NO.</u>	<u>TITLE</u>
§ 25.103	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.107	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.111(a)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.119(b)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.121	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.125(a)(2)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.143(g)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)

VIII - Model 737-700C (cont'd):

§ 25.145	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.147	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.149	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.161	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.175	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.177	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.181	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.201	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.207	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.231	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.233	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.237	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.395(a)	Lateral Control System Load Factors (A-5)
§ 25.613	Material Design Values (A-9)
§ 25.733	Return Landing Capability (F-3, AT0328SE-T via AT2421SE-T G-1)
§ 25.735	Rejected Takeoff Performance (F-4)
§ 25.735	Return Landing Capability (F-3, AT0328SE-T via AT2421SE-T G-1)
§ 25.735(f)(g)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.773	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.810(a)	Escape Slides (C-4)
§ 25.813(c)	Seat Obstruction of the Provided Exit Opening at Overwing Exit Door and Reduced Passageway to the Overwing Exits (for Type III Automatic Overwing Exit) (C-1)
§ 25.831(a)	Airplane Operation with Air Conditioning Packs Off During Takeoff (S-20)
§ 25.841(a)(b)	Cabin Altitude Warning System with Dual Limits for Operations into High Altitude Airports (S-1)
§ 25.841(b)(2)	Cabin Altitude Warning System with Dual Limits for Operations into High Altitude Airports (TD9770SE-T-S-1)
§ 25.853(a)	“No Smoking” limitation in the Passenger Compartment (C-5)
§ 25.855	Accessible Class E Cargo Compartment (C-6)
§ 25.933(a)	Flight Critical Thrust Reversers (P-2)
§ 25.979(b)	Pressure Fueling System – Automatic Refueling Shutoff System Check Function (P-5)
§ 25.981(b)(2)	Fuel Tank Flammability Reduction Rule (P-2)
§ 25.1001	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.1001	Return Landing Capability (F-3, AT0328SE-T via AT2421SE-T G-1)
§ 25.1301	Return Landing Capability (F-3, AT0328SE-T via AT2421SE-T G-1)
§ 25.1309(a)	Return Landing Capability (F-3, AT0328SE-T via AT2421SE-T G-1)
§ 25.1323	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.1325	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.1389(b)	ESF for Forward and Aft Position Light System (S-1)
§ 25.1389(b)	Equivalent Safety Finding (ESF) for Forward Position Light System Minimum Intensity (SE-1)
§ 25.1389	Equivalent Safety Finding (ESF) for Position Light Overlapping Intensities (SE-2)
§ 25.1391	Equivalent Safety Finding (ESF) for Forward Position Light System Minimum Intensity (SE-1)
§ 25.1393	Equivalent Safety Finding (ESF) for Forward Position Light System Minimum Intensity (SE-1)
§ 25.1395	Equivalent Safety Finding (ESF) for Position Light Overlapping Intensities (SE-2)
§ 25.1419	Use of Analysis to Demonstrate Safe Flight in Icing Conditions (S-2)
§ 25.1441(c)	Crew Determination of the Quantity of Oxygen Available in the Lavatory Passenger Service Units Bottles (ES-1)
§ 25.1443(c)	Determination of Minimum Oxygen Flow for the Lavatory Oxygen System (S-1)
§ 25.1517	Rough Air Speed VRA (F-1)
§ 25.1529	Inclusion of Airworthiness Limitations within the Boeing ICA Manuals (G-8)
§ 25.1587	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.1587(b)	Rejected Takeoff Performance (F-4 via AT2421SE-T G-1)

Exemptions:

- § 25.305, 25.307(a), 25.601, 25.603(c), 25.613(a) and (b), 25.901(c), and 25.1103(d) Partial Exemption – Localized areas of temperature – related damage. (Exemption No. 9571, December 11, 2007).
- § 25.562(b)(2) Emergency Landing Dynamic Conditions - related to Flight Deck Testing (Originally granted August 20, 1999, Exemption No. 6425A).
- §25.853(a), appendix F, paragraph (a)(1)(i) - Partial Time-Limited Exemption, Testing on Large Interior Panels, granted through November 28, 2011. (Exemption No. 9791, November 28, 2008, Exemption No. 9791B, March 1, 2010 , Exemption No. 9791C, February 4, 2011)
- § 25.901(c) Partial Exemption – No single powerplant or auxiliary power unit failure will jeopardize the safe operation of the airplane (Originally granted February 4, 2003, Exemption No. 7968). See NOTE 4 for information about high thrust failure.

VIII - Model 737-700C (cont'd):

- § 25.901(c) - Time-limited exemption for up to 48 months after the effective date of this exemption from 14 CFR 25.901(c), Amendment 25-126, and 25.981(a)(3), Amendment 25-102 or later, as they pertain to fuel tank ignition prevention associated with the following FQIS changes on in-service and newly-produced 737-600/-700/-700C/-800/-900/-900ER airplanes:
 - Replacement of the SCCC and the ARINC display card within the FQPU; and
 - Changed areas for the re-routing and separation of FQIS wires where the changed areas of the FQIS wire routing meet the installation requirements for separation and fault tolerance required to comply with § 25.981(a)(3) as associated with the semi-monolithic side-of-body change, and forward bulkhead relocation.
 (Exemption No. 10905, December 18, 2013, Expires December 18, 2017)
- § 25.1435(b)(1) Hydraulic Systems (Originally granted May 17, 1995, Exemption No. 6086, applicable to 737-700, revised to add the 737-600 and 737-800 in Exemption No 6086A on January 29, 2009), extended to include the main deck cargo door hydraulic system. (Exemption 6889, granted April 15, 1999)

14 CFR Part 26:

Based on 14 CFR §21.101(g) for changes made to TCs applicable provisions of 14 CFR Part 26 are included in the certification basis. For any future 14 CFR Part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections. Compliance has been found for the following regulations:

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 26-</u>
26.11	Electrical wiring interconnection systems (EWIS) maintenance program.	0
26.21	Limit of Validity	5
26.33	Holders of type certificates: Fuel tank flammability.	3
26.39	Newly produced airplanes: Fuel tank flammability	3
26.43	Holders of and applicants for type certificates – Repairs	1
26.45	Holders of type certificates - Alterations and repairs to alterations	1
26.47	Holders of and applicants for a supplemental type certificate – Alterations And repairs to alterations	1
26.49	Compliance plan	1

In addition to the airworthiness standards, the type-certification basis for these derivative airplanes includes compliance with the emissions standards of Part 34 as amended by any amendments effective at the time of certification

14 CFR Part 36 as amended by Amendment 36-20 or any subsequent amendment effective at the time of certification. See the appropriate FAA Approved Airplane Flight Manual listed in Note (1) for applicability of Stage 4 Noise Recertification through Amendment 36-28.

B. Certification basis for §25.981(b) and §25.981(d) at amendment 25-125, and Equivalent Safety Finding P-2, dated May 25, 2010, for the flammability reduction system (FRS), is applied if fuel tank inerting is installed in new airplane production (line #'s 2517, 2620 and on) or as a modification per Service Bulletins 737-47-1002 and 737-47-1003. Airworthiness limitations for the FRS are contained in Section 9 of the applicable Maintenance Planning Document.

C. Additional certification basis items for model 737-700C aircraft with in-production installation of Winglets:

For model 737-700C aircraft that have incorporated production installed winglets (BDCO Project LB08-0012), the following equivalent level of safety findings apply:

- § 25.1419 (documented in TAD ELOS Memo LB08-0012-T-S-2)
- § 25.1389(b)(1), 25.1389(b)(2), 25.1391, and 25.1393 (documented in TAD ELOS Memo LB08-0012-T-SE-1)
- § 25.1389(b)(3) and 25.1395 (documented in TAD ELOS Memo LB08-0012-T-SE-2)
- § 25.1517, “Rough Air Speed, V_{RA}” (documented in TAD ELOS Memo PS05-0002-F-1 via LB08-0012-G-8 Collector)

Compliance has been found to 14 CFR Part 25 of the Federal Aviation Regulations above amendment 25-91 specific to the in-production installation of Winglets and is listed below:

<u>Section No.</u>	<u>Title</u>	<u>At Amdt. 25.</u>
25.103(a),(b),(c)	Stall Speed	108
25.107(b),(c), (g)	Takeoff speeds	108
25.111(a)	Takeoff path	108
25.111(c)	Takeoff path	115
25.113(a),(b),(c)	Takeoff distance and takeoff run	92
25.115(a)	Takeoff flight path	92
25.119(b)	Landing climb: All engines operating	108
25.121(c),(d)	Climb: One engine inoperative	108
25.125(a)	Landing	108
25.143	General – Controllability and Maneuverability	108
25.145	Longitudinal control	108
25.147	Directional and lateral control	115
25.149	Minimum control speed	108
25.161	Trim	115

VIII - Model 737-700C (cont'd):

25.175	Demonstration of static longitudinal stability	115
25.177	Static lateral-directional stability	108
25.181	Dynamic stability	108
25.201	Stall demonstration	108
25.207	Stall warning	108
25.231	Longitudinal stability and control	108
25.233	Directional stability and control	108
25.571(b),(e)	Damage Tolerance and Fatigue Evaluation of Structure	96*
25.869(a)(4)	Fire protection: systems	113
25.903(c)	Engines	94
25.1323(c)	Airspeed indication system	109
25.1325(e)	Static pressure system	108
25.1329(g)	Automatic pilot system	119
25.1587(b)	Performance information	108

* For Wing box, Wing leading edge, and Winglet structure – Loads

Certification Maintenance

Requirements (CMR's) The CMR's are listed in either the FAA approved Section 9 of Boeing Maintenance Planning Data Document D626A001-CMR, revision June 2000 or later FAA approved revision, or the applicable engine Type Certification Data Sheet. The more restrictive requirement from these two documents shall be in force.

Production

Basis: Production Certificate No. 700

Required

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. The required equipment is noted in the Type Design Data.

Service

Information: The following Boeing "Structural Repair Manual" Documents are FAA-approved. Service Bulletins and other service information, when FAA-approved, will carry a statement to that effect. D634A201 for the 737-700C

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

NOTES FOR SECTION VIII (737-700C):

- 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. For each Model the Weight and Balance Control and Loading Manual (Boeing Document D043A573) consists of the Basic Manual and a Supplement Aircraft Report. This is in accordance with 14 CFR 25.29 and 25.1519 which establishes operating limitations determined under 25.23 through 25.27. .
- NOTE 2.** Airplane operation must be in accordance with the FAA Approved AFM. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane. Boeing Document No. D631A001 is the basic FAA Approved Airplane Flight Manual for Model 737-600/-700/-800 airplanes
- NOTE 3.** The FAA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness are referenced in Maintenance Planning Data Document (MPD) Section 9 Airworthiness Limitations and Certification Maintenance Requirements; Boeing Document D626A001-CMR. The Airworthiness Limitations section is FAA-approved and specifies maintenance required under 14 CFR 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved. Boeing 737-600/700/700C/800/900/900ER Maintenance Planning Data (MPD) Document, D626A001-CMR, is the FAA approved requirement to comply with 14 CFR 25.1529, 43.16 and 91.403. Each operator must incorporate into their airline's FAA-approved maintenance program, the applicable requirements of this document.
- NOTE 4.** The FAA has determined that the occurrence of any uncontrollable high thrust failure condition "may endanger the safe operation of an airplane" and hence is reportable under 14 CFR §121.703, 125.409, and 135.415.
- NOTE 5:** The type design reliability and performance of the Model 737-700C, airplane has been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D044A007, "737-600/-700/-700C/-800/-900/-900ER ETOPS CONFIGURATION, MAINTENANCE, AND PROCEDURES". Additionally, type design changes incorporated after February 15, 2007 that require ETOPS approval have been evaluated in accordance with 14 CFR 25.1535 and found suitable for Extended Operations (ETOPS) when operated and maintained in accordance with Boeing Document D044A007. This finding does not constitute approval to conduct ETOPS operations.

VIII - Model 737-700C (cont'd):

- NOTE 6: The Model 737-700C 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 7: Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with § 25.981 are listed in the FAA-approved Airworthiness Limitations and Certification Maintenance Requirement, Section 9, of Boeing 737-600/ 700/ 700C/ 800/ 900/ 900ER Maintenance Planning Data Document D626A001-CMR, Revision December 2005 or later FAA-approved revision. All Model 737-700C series airplanes, production line number 1679 and on, must comply with Revision March 2006, or a later FAA-approved revision. The FAA is planning to issue an airworthiness directive mandating compliance with Revision March 2006, or a later FAA-approved revision, applicable to all Model 737-600, -700, -700C, -800, and -900 series airplanes with production numbers lower than 1679.

IX Model 737-900 (Approved April 17, 2001) Transport Aircraft.

Engines: Two CFM 56-7B, -7B/3 or -7BE Series Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual for engine limitations.

Fuel: Fuels meeting the following specifications and mixtures thereof are approved for use:
 * Jet A, Jet A-1 as specified in ASTM-D1655
 * JP-5 as specified in MIL-T-5624
 * JP-8 as specified in MIL-T-83133
 Fuels conforming to G.E. Specification D50TF2 (Class A, C, D and E) or fuels produced or certified to other specifications and having properties meeting the requirements of the above specifications are acceptable for use. Consult Flight Manual for additive use.

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

Engine Ratings:	Model 737-900	Takeoff static thrust standard day, sea level conditions (5 min) lb.	Maximum continuous static thrust, standard day, sea level conditions lb.
	CFM56-7B24	24,200	22,800
	CFM56-7B24/3	24,200	22,800
	CFM56-7B24E	24,200	22,800
	CFM56-7B24/3B1**	24,200	22,800
	CFM56-7B24E/B1**	24,200	22,800
	CFM56-7B26	26,300	25,900
	CFM56-7B26/3	26,300	25,900
	CFM56-7B26E	26,300	25,900
	CFM56-7B26/3F	26,300	25,900
	CFM56-7B26E/F	26,300	25,900
	CFM56-7B26/B1	26,300	25,900
	CFM56-7B27	27,300	25,900
	CFM56-7B27/3	27,300	25,900
	CFM56-7B27E	27,300	25,900
	CFM56-7B27/3F	27,300	25,900
	CFM56-7B27E/F	27,300	25,900
	CFM56-7B27/B1	27,300	25,900
	CFM56-7B27/3B1	27,300	25,900
	CFM56-7B27E/B1	27,300	25,900
	CFM56-7B27/3B1F	27,300	25,900
	CFM56-7B27E/B1F	27,300	25,900
	CFM56-7B27/B3	27,300	25,900
	CFM56-7B27/3B3	27,300	25,900
	CFM56-7B27E/B3	27,300	25,900
	** Special Rating		

IX - Model 737-900 (cont'd)**Engine and Weight Limits**

For engine operating limits see Engine Type Certificate Data Sheet No. E00055EN or E00056EN or the FAA Approved Airplane Flight Manual.

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

Airspeed Limits: VMO/MMO - 340/0.82 (KCAS)
For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

C. G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

Maximum Weights: 737-900
Please see Note 4 at the end of Section VII for limitations which may be applicable to the 737-900 airplanes

Maximum Taxi Weight (MTW)	174,700 lbs.
Maximum Takeoff Weight (MTOW)	174,200 lbs.
Maximum Landing Weight (MLW)	147,300 lbs.
Maximum Zero Fuel Weight (MZFW)	140,300 lbs.

Eligible Serial Numbers:

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

Airframe Limits Capacities & Rigging

Minimum Crew
for All Flights: 2 (Pilot and Copilot)

Maximum
Passengers: Passenger only mode 189

Maximum Baggage
Cargo: See appropriate Weight and Balance Manual listed in Note 1.

Fuel & Oil
Capacities: See appropriate Weight and Balance Manual listed in Note 1.

Minimum Required
Fuel: See appropriate FAA Approved Airplane Flight Manual listed in Note 2.

Maximum Operating
Altitude: 41,000 ft.

Datum: See appropriate Weight and Balance Manual listed in Note 1.

MAC: 155.81 in

Other Operating
Limitations: See FAA Approved Airplane Flight Manual Appendices (Note 2).

Control Surface
Movements: To ensure proper operation of the airplane, the movements of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplanes, must, therefore, be rigged according to the following FAA Approved data:

Boeing Drawing Numbers:
114A1001, Krueger Flap Instl - Inbd Wing L.E.
251A1001, Rigging Instructions, Lateral & Speedbrake Control
251A2001, Rigging Instructions, Elevator Control System
251A3001, Rigging Instructions, Rudder Control System
251A4001, Rigging Instructions, Stabilizer Trim Control
256A3001, Rigging Instructions - Flap Actuation
256A2284, Flap Slat Sensor Instl - Leading Edge, Wing

IX - Model 737-900 (cont'd)**Certification Basis:**

A. 14 CFR Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-91 with the exceptions listed below:

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 25.-</u>
25.365	Pressurized Compartment Loads	0
25.562	Emergency Landing Dynamic Conditions	64*
25.607	Fasteners	0,91**
25.631	Bird Strike Damage	0,91**
25.699	Lift and Drag Device Indicator	0,91**
25.783(f)	Doors	15,91**
25.807(c)(3)	Emergency Exits	15
25.813	Emergency Exit Access	45,91**
25.831(a) & (g)	Ventilation	41
25.832	Cabin Ozone Concentration	0***
25.841(a)	Pressurized Cabins	38
25.853(d)(3)	Compartment Interiors	72
25.904	[Automatic Takeoff Thrust Control System]	Not complied with (New at 25-62)
25.1141	Power Plant Controls: General	11****
25.1309	Equipment, Systems and Installations	0,91**
25.1419(c)	Ice Protection	23,91**
25.1447(c)(3)(ii)	Equipment Standards for Oxygen Dispensing Units	41

* Flight attendant seats are qualified to:

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

Head Injury Criteria data collected and reported by the TSO applicant is less than 1000 and, Femur Injury Criteria data collected and reported by the TSO applicant is less than 2250 pounds, and, Permanent deformation data collected and reported by the TSO applicant are in compliance with the requirements of FAA Advisory Circular (AC) 25.562-1A.
Passenger and crew seats in the flight deck comply with § 25.562(a),(b), ((c)(1),(2),(3),(4),(7), and (8)). In addition flight deck observer seats will comply with § 25.562(c)(5)).

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

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

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

Amendment level "0" is the original published version of 14 CFR Part 25 (February 1, 1965). The certification basis for the following regulations at amendment levels later than amendment 25-91.

<u>SECTION NO.</u>	<u>AT AMDT. 25.</u>	<u>TITLE</u>
25.101	92	Performance; General
25.105	92	Takeoff
25.107	94	Takeoff Speeds
25.109	92	Accelerate Stop Distance
25.113	92	Takeoff Distance and Takeoff Run
25.115	92	Takeoff Flight Path
25.571(e)(1)	96	Damage Tolerance and Fatigue Evaluation of Structure
25.735	92	Brakes
25.855	93	Cargo or Baggage Compartments
25.857	93	Cargo Compartment Classification
25.858	93	Cargo or Baggage Compartment Smoke or Fire Detection System
25.981(b)(d)	125	Fuel Tank Ignition Prevention (for Flammability Reduction System)
25.1533	92	Additional Operating Limitations

IX - Model 737-900 (cont'd)**Special Conditions:**

25-ANM-132, published in the Federal Register on September 17, 1997 for 737-600/-700/-800 airplanes and applicable to later amendments of the 737 model that incorporate the same novel or unusual design feature:

1. High Intensity Radiated Fields (HIRF) Protection.
2. Limit Engine Torque Loads for Sudden Engine Stoppage.

25-308-SC, Boeing Model 737-200/200C/300/400/500/600/700/700C/800/900 Series Airplanes; Flammability Reduction Means (Fuel Tank Inerting) published in the Federal Register on December 5, 2005

25-358-SC, published in the Federal Register on June 29, 2007 addressed 737-600/-700/-700C/-800/-900 and 900ER series airplanes regarding seats with non-traditional, large, non-metallic panels

25-386-SC, published in the Federal Register on August 7, 2009, addressed 737-600/-700/-700C/-800/ and 900ER series airplanes with inflatable lapbelts installed

25-404-SC, published in the Federal Register on April 12, 2010, Modification to Boeing Model 737-600/-700/-700C/-800/-900 and -900ER Series Airplanes: Rechargeable Lithium Batteries and Rechargeable Lithium-Battery Systems

Equivalent Safety Findings (specifications and restrictions of its content, such as production winglet installation, must be met before an issue paper is considered to apply to any specific configuration of a model series):

<u>SECTION NO.</u>	<u>TITLE</u>
§ 25.103	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.107	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.111(a)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.119(b)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.121(c)(d)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.125(a)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.143(g)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.145(a)(b)(c)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.147(a)(b)(c)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.149(c)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.161(b)(c)(d)(e)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.175(a)(b)(c)(d)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.177(c)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.181(a)(b)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.201(a)(b)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.207(b)(c)(d)(e)(f)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.231(a)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.233(a)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.237(a)(b)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.395(a)	Lateral Control System Load Factors (A-5)
§ 25.613	Material Design Values (A-9)
§ 25.733	Return Landing Capability (F-3 AT0328SE-T via AT2720SE-T G-1)
§ 25.735	Return Landing Capability (F-3 AT0328SE-T via AT2720SE-T G-1)
§ 25.773(b)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.791	“No Smoking” limitation in the Passenger Compartment (C-5)
§ 25.810 (a)	Escape Slides (C-4)
§ 25.811(f)	Exterior Exit Markings (C-1)
§ 25.813(c)	Seat Obstruction of the Provided Exit Opening at Overwing Exit Door and Reduced Passageway to the Overwing Exits (for Type III Automatic Overwing Exit) (C-1)
§ 25.831(a)	Airplane Operation with Air Conditioning Packs Off During Takeoff (S-20)
§ 25.841(a)(b)	Cabin Altitude Warning System with Dual Limits for Operations into High Altitude Airports (S-1)
§ 25.841(b)(6)	Cabin Altitude Warning System with Dual Limits for Operations into High Altitude Airports (TD9770SE-T-S-1)
§ 25.853(a)	Adhesives Used in Interior Panel Bent Joint Potting Applications (C-1)
§ 25.853	“No Smoking” limitation in the Passenger Compartment (C-5)
§ 25.933(a)	Flight Critical Thrust Reversers (P-2)
§ 25.979(b)(1)	Pressure Fueling System – Automatic Refueling Shutoff System Check Function (P-5)
§ 25.981(b)(d)	Fuel Tank Flammability Reduction Rule (P-2)
§ 25.1001(c)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.1001	Return Landing Capability (F-3 AT0328SE-T via AT2720SE-T G-1)
§ 25.1301	Return Landing Capability (F-3 AT0328SE-T via AT2720SE-T G-1)
§ 25.1309(a)	Return Landing Capability (F-3 AT0328SE-T via AT2720SE-T G-1)
§ 25.1309(c)	Cabin Altitude Warning System with Dual Limits for Operations into High Altitude Airports (S-1)
§ 25.1323(c)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.1325(e)	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)
§ 25.1389(b)	Equivalent Safety Finding for Forward Position Lights (S-17)
§ 25.1441(c)	Crew Determination of the Quantity of Oxygen Available in the Lavatory Passenger Service Units Bottles (ES-1)
§ 25.1443(c)	Determination of Minimum Oxygen Flow for the Lavatory Oxygen System (S-1)
§ 25.1529	Inclusion of Airworthiness Limitations within the Boeing ICA Manuals (G-8)
§ 25.1587	Use of 1-g Stall Speed Instead of Minimum Speed (F-1)

IX - Model 737-900 (cont'd)

Exemptions:

- §25.305, 25.307(a), 25.601, 25.603(c), 25.613(a) and (b), 25.901(c), and 25.1103(d) Partial Exemption – Localized areas of temperature – related damage (Exemption No. 9571, December 11, 2007).
- §25.853(a), appendix F, paragraph (a)(1)(i) - Partial Time-Limited Exemption, Testing on Large Interior Panels, granted through November 28, 2011. (Exemption No. 9791, November 28, 2008, Exemption No. 9791B, March 1, 2010 , Exemption No. 9791C, February 4, 2011)
- § 25.562(b)(2) Emergency Landing Dynamic Conditions - related to Flight Deck Testing (Originally granted August 20,1999, Exemption No. 6425A). §25.901(c) Partial Exemption – No single powerplant or auxiliary power unit failure will jeopardize the safe operation of the airplane. (Originally granted February 4, 2003, Exemption No. 7968) See NOTE 5 for information about high thrust failure.
- §25.901(c) - Time-limited exemption for up to 48 months after the effective date of this exemption from 14 CFR 25.901(c), Amendment 25-126, and 25.981(a)(3), Amendment 25-102 or later, as they pertain to fuel tank ignition prevention associated with the following FQIS changes on in-service and newly-produced 737-600/-700/-700C/-800/-900/-900ER airplanes:
 - Replacement of the SCCC and the ARINC display card within the FQPU; and
 - Changed areas for the re-routing and separation of FQIS wires where the changed areas of the FQIS wire routing meet the installation requirements for separation and fault tolerance required to comply with § 25.981(a)(3) as associated with the semi-monolithic side-of-body change, and forward bulkhead relocation.
 (Exemption No. 10905, December 18, 2013, Expires December 18, 2017)
- §25.1435(b)(1) Hydraulic Pressure Test (Originally granted August 20, 1999, Exemption No. 6953).
- §25.1447(c)(1) Automatic Presentation of Oxygen Masks to Allow Operation at High Altitude Airports (Exemption No. 8668A, December 30, 2013).

14 CFR Part 26:

Based on 14 CFR §21.101(g) for changes made to TCs applicable provisions of 14 CFR Part 26 are included in the certification basis. For any future 14 CFR Part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections. Compliance has been found for the following regulations:

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 26-</u>
26.11	Electrical wiring interconnection systems (EWIS) maintenance program.	0
26.21	Limit of Validity	5
26.33	Holders of type certificates: Fuel tank flammability.	3
26.39	Newly produced airplanes: Fuel tank flammability	3
26.43	Holders of and applicants for type certificates – Repairs	1
26.45	Holders of type certificates - Alterations and repairs to alterations	1
26.47	Holders of and applicants for a supplemental type certificate – Alterations And repairs to alterations	1
26.49	Compliance plan	1

14 CFR Part 34:

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

14 CFR Part 36:

§36 of the FAR as amended at the time of certification. See the appropriate FAA Approved Airplane Flight Manual listed in Note (2) for applicability of Stage 4 Noise Recertification through Amendment 36-28.

B. Certification basis for §25.981(b) and §25.981(d) at amendment 25-125, and Equivalent Safety Finding P-2, dated May 25, 2010, for the flammability reduction system (FRS), is applied if fuel tank inerting is installed in new airplane production (line #'s 2517, 2620 and on) or as a modification per Service Bulletins 737-47-1002 and 737-47-1003. Airworthiness limitations for the FRS are contained in Section 9 of the applicable Maintenance Planning Document.

Certification Maintenance

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

Production

Basis: Production Certificate No. 700

Required

Equipment: The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. The required equipment is noted in the Type Design data.

IX - Model 737-900 (cont'd)

Service

Information: The following Boeing "Structural Repair Manual" Documents are FAA-approved. Service Bulletins and other service information, when FAA-approved, will carry a statement to that effect. D634A211 for the 737 900.

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

NOTES FOR SECTION IX (737-900):

- NOTE 1. A current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary must be provided for each aircraft at the time of original certification. For each Model the Weight and Balance Control and Loading Manual (Boeing Document D043A590) consists of the Basic Manual and a Supplement Aircraft Report. This is in accordance with 14 CFR 25.29 and 25.1519 which establishes operating limitations determined under 25.23 through 25.27.
- NOTE 2. Airplane operation must be in accordance with the FAA Approved AFM. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane. Boeing Document No. D631A001 is the basic FAA Approved Airplane Flight Manual for Model 737-900 airplane.
- NOTE 3. The FAA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness are referenced in Maintenance Planning Data Document (MPD) Section 9 Airworthiness Limitations and Certification Maintenance Requirements; Boeing Document D626A001-CMR. The Airworthiness Limitations section is FAA-approved and specifies maintenance required under 14 CFR 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved. Boeing 737-600/700/700C/800/900/900ER Maintenance Planning Data (MPD) Document, D626A001-CMR, is the FAA approved requirement to comply with 14 CFR 25.1529, 43.16 and 91.403. Each operator must incorporate into their airline's FAA-approved maintenance program, the applicable requirements of this document.
- NOTE 4. The type design reliability and performance of the Model 737-900, airplane has been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D044A007, "737-600/-700/-700C/-800/-900/-900ER ETOPS CONFIGURATION, MAINTENANCE, AND PROCEDURES". Additionally, type design changes incorporated after February 15, 2007 that require ETOPS approval have been evaluated in accordance with 14 CFR 25.1535 and found suitable for Extended Operations (ETOPS) when operated and maintained in accordance with Boeing Document D044A007. This finding does not constitute approval to conduct ETOPS operations.
- NOTE 5. The FAA has determined that the occurrence of any uncontrollable high thrust failure condition "may endanger the safe operation of an airplane" and hence is reportable under §121.703, 125.409, and 135.415.
- NOTE 6: Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with 14 CFR §25.981 and Special Conditions 25-308-SC are listed in the FAA-approved Airworthiness Limitations and Certification Maintenance Requirement, Section 9, of Boeing 737-600/700/700C/800/900/900ER Maintenance Planning Data Document D626A001-CMR, Revision November 2005 or later FAA-approved revision. All Model 737-900 series airplanes, production line number 1679 and on, must comply with Revision March 2006, or a later FAA-approved revision. The FAA is planning to issue an airworthiness directive mandating compliance with Revision March 2006, or a later FAA-approved revision, applicable to all Model 737-600, -700, -700C, -800, and -900 series airplanes with production numbers lower than 1679.
- NOTE 7: The Model 737-900 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."

X. Model 737-900ER (Approved April 20, 2007) Transport Aircraft.

Engines:	Two CFM 56-7B, -7B/3 or -7BE Series Turbofan Engines. Refer to the FAA Approved Airplane Flight Manual identified in Note 2 for engine limitations.	
Fuel:	Fuels meeting the following specifications and mixtures thereof are approved for use: * Jet A, Jet A-1 as specified in ASTM-D1655 * JP-5 as specified in MIL-T-5624 * JP-8 as specified in MIL-T-83133 Fuels conforming to G.E. Specification D50TF2 (Class A, C, D and E) or fuels produced or certified to other specifications <u>and having properties meeting the requirements of the above specifications</u> are acceptable for use. Consult Flight Manual for additive use.	
Oil Consumption:	For compliance with §25.1011(b), the approved maximum oil consumption rate for the CFM56-7B engines installed on this model airplane has been established as 0.340 gallons per hour. Operation of the Model 737-900ER airplane with engine oil consumption rates higher than this limit is not permitted.	
Engine Ratings:	Model 737-900ER	Maximum continuous static thrust, standard day, sea level conditions (5 min) lb.
	CFM56-7B24	22,800
	CFM56-7B24/3	22,800
	CFM56-7B24E	22,800
	CFM56-7B24/3B1**	22,800
	CFM56-7B24E/B1**	22,800
	CFM56-7B26	25,900
	CFM56-7B26/B1	25,900
	CFM56-7B26/3	25,900
	CFM56-7B26E	25,900
	CFM56-7B26/3F	25,900
	CFM56-7B26E/F	25,900
	CFM56-7B27	25,900
	CFM56-7B27/3	25,900
	CFM56-7B27E	25,900
	CFM56-7B27/3F	25,900
	CFM56-7B27E/F	25,900
	CFM56-7B27/B1	25,900
	CFM56-7B27/3B1	25,900
	CFM56-7B27E/B1	25,900
	CFM56-7B27/3B1F	25,900
	CFM56-7B27E/B1F	25,900
	CFM56-7B27/B3	25,900
	CFM56-7B27/3B3	25,900
	CFM56-7B27E/B3	25,900
	** Special Rating	
Engine and Weight Limits:	For engine operating limits see Engine Type Certificate Data Sheet No. E00055EN or E00056EN or the FAA Approved Airplane Flight Manual identified in Note 2. Additional limitations may apply to 737-900ER model airplanes (see Note 8)	
Thrust Settings:	The appropriate engine power setting curve (%N1), in the FAA Approved Airplane Flight Manual or AFM Appendices must be used for control of engine thrust.	
Airspeed Limits:	VMO/MMO - 340/0.82 (KCAS) For other airspeed limits see the appropriate FAA Approved Airplane Flight Manual listed in Note 2.	
C. G. Range:	See the appropriate FAA Approved Airplane Flight Manual (See Note 2)	
Maximum Weights:	737-900ER	
	Maximum Taxi Weight (MTW)	188,200 lbs.
	Maximum Takeoff Weight (MTOW)	187,700 lbs.
	Maximum Landing Weight (MLW)	157,300 lbs.
	Maximum Zero Fuel Weight (MZFW)	149,300 lbs.

X - Model 737-900ER (cont'd)**Eligible Serial Numbers:**Model

737-924ER	30130, 30131, 31620, 31622, 31633, 31640, 31643, 31644, 31646-31651, 31653 31655, 31661, 31664-31666, 32826, 32827, 32829, 32833, 32835, 32836, 33456, 33457, 33460, 33527-33529, 33531-33537, 35719, 35727, 36599, 36600, 37093-37095, 37097-37100, 37102, 37199-37201, 37205-37208, 38702, 38703 40000, 40003-40005, 41742-41745, 42175-42180, 42181, 42182, 42183, 42184, 42185, 42186, 42187, 42188, 42189, 42190, 42191, 42192, 42193, 42194, 42195, 42196, 42197, 42198, 42199, 42200, 42201, 42202, 42203, 42204, 42739, 42740, 42742, 42744, 42745-42748, 42816-42821, 43530-43535, 44560, 44561, 44562-44565, 44580, 44581, 60087, 60088, 60121, 60122, 60316, 60317
737-932ER	31912-31942, 31943, 31944, 31945, 31946, 31947, 31948, 31949, 31950, 31951, 31952, 31953, 31954, 31955, 31956, 31957, 31958, 31959, 31960, 31961, 31962, 31963, 31964, 31965, 31966, 31967, 31968, 31969, 31970
737-958ER	41552-41554, 41555, 41556, 41557, 41558, 41559
737-990ER	35205, 35206, 36350, 36351, 36352, 36353, 36354, 36355, 36356, 36361-36363, 40714, 40715, 40716, 41189, 41702-41704, 41705, 41727, 41728, 41729, 41730-41735, 43255, 43292, 43293, 44105, 44106, 44107, 44108, 44109, 44110, 60576, 60580, 61620, 62680
737-91MER	40069, 40070, 40071, 44424, 44425
737-93YER	40888, 40889
737-94XER	36086, 36087
737-96NER	35223, 35225, 35227, 36539
737-97YER	62515
737-9B5ER	37633-37636, 42173, 42174
737-9BQER	37632 (See NOTE 9 for information about Lower Cabin Altitude)
737-9F2ER	40973, 40974, 40977-40979, 40982, 40983, 40985, 40986, 42010, 42011, 42012, 42013, 42014
737-9FGER	39317, 39318 (See NOTE 9 for information about Lower Cabin Altitude)
737-9GJER	34952, 34953, 34956, 34957, 34961, 37363
737-9GPER	35679, 35680, 35710-35723, 35724-35737, 37268-37288-37290, 37291, 37296, 38299-38302, 38304, 38305, 38310, 38311, 38313, 38315, 38683, 38684, 38687-38690, 38720, 38723, 38726, 38729-38732, 38736-38739, 38741, 38742, 38743, 38748, 38749, 39823, 39824, 39832, 39837, 39839, 39841, 39860, 39878, 39880
737-9HWER	37546 (See NOTE 9 for information about Lower Cabin Altitude)
737-9JAER	37560 (See NOTE 9 for information about Lower Cabin Altitude)
737-9KFER	41114, 41118, 41119
737-9KVER	41534, 41535
737-9LBER	38890 (See NOTE 9 for information about Lower Cabin Altitude)
737-9LPER	41712, 41843
737-900ER	<i>Reserved for new serial numbers after Line Number 6000</i>

Airframe Limits Capacities & Rigging

Minimum Crew
for All Flights:

2 (Pilot and Copilot)

Maximum
Passengers:

Three exit configurations based on the activation and classification of the Mid-Cabin Emergency Door (MED)
Two door arrangement with MED de-activated has 189 maximum passenger capacity
Three door arrangement with MED activated and rated as a Type II exit – 215 maximum passenger capacity
Three door arrangement with MED activated and rated as a Type I exit – 220 maximum passenger capacity

Maximum Baggage
Cargo:

See Note 1 and appropriate Weight and Balance Manual listed in Note 1.

Fuel & Oil
Capacities:

See Note 1 and appropriate Weight and Balance Manual listed in Note 1.

Minimum Required
Fuel:

See appropriate FAA Approved Airplane Flight Manual listed in Note 2.

Maximum Operating
Altitude:

41,000 ft.

Datum:

See appropriate Weight and Balance Manual listed in Note 1.

MAC:

155.81 in

X - Model 737-900ER (cont'd)

Other Operating Limitations: See Note 4 - Extended Range Two-Engine Operations (ETOPS)

Control Surface Movements: To ensure proper operation of the airplane, the movements of the various control surfaces must be carefully controlled by proper rigging of the flight control systems. The airplanes, must, therefore, be rigged according to the following FAA Approved data:
Boeing Drawing Numbers:
114A1001, Krueger Flap Instl - Inbd Wing L.E.
251A1001, Rigging Instructions, Lateral & Speedbrake Control
251A2001, Rigging Instructions, Elevator Control System
251A3001, Rigging Instructions, Rudder Control System
251A4001, Rigging Instructions, Stabilizer Trim Control
256A3001, Rigging Instructions - Flap Actuation
256A2284, Flap Slat Sensor Instl - Leading Edge, Wing

Certification Basis:

A. 14 CFR Part 25 of the Federal Aviation Regulations as amended by Amendments 25-1 through 25-108 with the exceptions listed below:

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 25-</u>
25.365	Pressurized Compartment Loads	0*****
25.562	Emergency Landing Dynamic Conditions	64*
25.571 except (e)	Damage Tolerance	86 (See Note 3)
25.607	Fasteners	0**
25.631	Bird Strike Damage	0**
25.699	Lift and Drag Device Indicator	0**
25.783(f)	Doors-Exception applies to all except Forward Access & Airstair, EE Access, automatic overwing exit (AOE) and MED	15**
25.807 except (c)(3)	Emergency Exits (with MED de-activated)	72*****
25.807(c)(3)	Emergency Exits (with MED de-activated)	15*****
25.831(a)(g)	Ventilation	41
25.832	Cabin Ozone Concentration	0***
25.841(a)	Pressurized Cabins	38
25.903	Engines	94
25.981	Fuel Tank Ignition Prevention	11
25.1091	Air Induction	57
25.1141	Power Plant Controls: General, Exception applies to APU spar mounted fuel shut off valve only	11****
25.1183	Flammable Fluid-Carrying Components	57
25.1185	Flammable Fluids	19
25.1309	Equipment, Systems and Installations	0**
25.1419(c)	Ice Protection	23
25.1419 except (c)	Ice Protection	72
25.1435	Hydraulic Systems	72
25.1447(c)(3)(ii)	Equipment Standards for Oxygen	41
	Dispensing Units	

* Flight attendant seats are qualified to:

1. Technical Standard Order (TSO) C127, dated March 30, 1992, or
2. TSO C127a, and
 - a) Head Injury Criteria data collected and reported by the TSO applicant is less than 1000 and,
 - b) Femur Injury Criteria data collected and reported by the TSO applicant is less than 2250 pounds, and,
 - c) Permanent deformation data collected and reported by the TSO applicant are in compliance with the requirements of FAA Advisory Circular (AC) 25.562-1A.
3. As an alternative, flight attendant partitions may be qualified to §25.562(a), (b),(c). Passenger and crew seats in the flight deck comply with § 25.562(a),(b), ((c)(1),(2),(3),(4),(7), and (8)). In addition flight deck observer seats will comply with § 25.562(c)(5)).

** Exception applies only to structures, systems and portions of the airplane which are not new or significantly modified. The structure, systems, and components which comply with amendment 25-108 are identified in Boeing document D010A001 "New and Significantly Modified Systems, Equipment, and Structures on the Next Generation 737 Airplane Family."

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

**** Exception applies to Auxiliary Power Unit spar mounted fuel shut off valve only.

X - Model 737-900ER (cont'd)

**** Exception applies to Auxiliary Power Unit spar mounted fuel shut off valve only. All other power plant controls were shown to comply with § 25.1141 at Amendment 25-108.

***** Note deleted

***** Exceptions to §25.807(c)(3) at Amendment 25-15 and §25.807 at amendment 25-72 apply to the exit configuration with a de-activated Mid Cabin Emergency Exit Door only. The exit configurations with the activated Mid Cabin Emergency Door (Type I or Type II) comply with §25.807 at Amendment 25-108.

***** The airplane is designed to withstand the effects of a sudden release of pressure venting aft through an 820 square inch opening in that bulkhead above the main deck floor and the total available bulkhead area below the main deck floor at any operating altitude.

The certification basis for the following regulations at amendment levels later than 25-108.

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 25-</u>
25.869(a)(4)	Fire Protection Systems	113
25.981(b)(d)	Fuel Tank Ignition Prevention (for Flammability Reduction System)	125
25.1353(d)	Electrical Equipment and Installations	113

Special Conditions:

25-ANM-132, published in the Federal Register on September 17, 1997 for 737-600/-700/-800 airplanes and applicable to later amendments of the 737 model that incorporate the same novel or unusual design feature:

1. High Intensity Radiated Fields (HIRF) Protection.
2. Limit Engine Torque Loads for Sudden Engine Stoppage.

25-347-SC, published in the Federal Register on March 26, 2007 addressed 737-900ER series airplanes regarding the Interaction of Systems and Structures

25-358-SC, published in the Federal Register on June 29, 2007 addressed 737-600/-700/-700C/-800/-900 and 900ER series airplanes regarding seats with non-traditional, large, non-metallic panels

25-386-SC, published in the Federal Register on August 7, 2009, addressed 737-600/-700/-700C/-800/ and 900ER series airplanes with inflatable lapbelts installed

25-404-SC, published in the Federal Register on April 12, 2010, Modification to Boeing Model 737-600/-700/-700C/-800/-900 and -900ER Series Airplanes: Rechargeable Lithium Batteries and Rechargeable Lithium-Battery Systems

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

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

Equivalent Level of Safety Findings (specifications and restrictions of its content, such as production winglet installation, must be met before an issue paper is considered to apply to any specific configuration of a model series):

<u>SECTION NO.</u>	<u>TITLE</u>
§25.251	Vibration/Buffering Compliance Criteria, Ku-Band External Antenna Installation (F-1, PS14-0725)
§ 25.395(a)	Lateral Control System Load Factors (A-5)
§ 25.613	Material Design Values (A-9)
§ 25.733	Return Landing Capability (F-3 AT0328SE-T via PS05-0002 G-8)
§ 25.735	Return Landing Capability (F-3 AT0328SE-T via PS05-0002 G-8)
§ 25.791	“No Smoking” Limitation in the Passenger Compartment (C-5)
§ 25.807(g)	Acceptable Passenger Capacity and Access to Mid Cabin Exits (C-1)
§ 25.810(a)	Escape Slides (C-4)
§ 25.811(f)	Door Sill Reflectance on B727, B737, B747, B757, B767, and B777 (C-14)
§ 25.811(f)	Exterior Exit Markings (C-1)
§ 25.812(b)	Emergency Exit Locator and Marking Signs (C-3)
§ 25.813(a)	Acceptable Passenger Capacity and Access to Mid Cabin Exits (C-1)
§ 25.813(c)	Seat Obstruction of the Provided Exit Opening at Overwing Exit Door and Reduced Passageway to the Overwing Exits (for Type III Automatic Overwing Exit) (C-1)
§ 25.831(a)	Airplane Operation with Air Conditioning Packs Off During Takeoff (S-20)
§ 25.841(b)(6)	Cabin Altitude Warning System with Dual Limits for Operations into High Altitude Airports (TD9770SE-T-S-1 via PS08-0120 G-6)
§ 25.853	“No Smoking” Limitation in the Passenger Compartment (C-5)
§ 25.853(a)	Adhesives Used in Interior Panel Bent Joint Potting Applications (C-1)
§ 25.933(a)	Flight Critical Thrust Reversers (P-2)
§ 25.981(b)(d)	Fuel Tank Flammability Reduction Rule (P-2)
§ 25.979(b)	Pressure Fueling System – Automatic Refueling Shutoff System Check Function (P-5)
§ 25.1001	Return Landing Capability (F-3 AT0328SE-T via PS05-0002 G-8)
§ 25.1301	Return Landing Capability (F-3 AT0328SE-T via PS05-0002 G-8)
§ 25.1309(a)	Return Landing Capability (F-3 AT0328SE-T via PS05-0002 G-8)
§ 25.1389(b)	Forward and Rear Position Lights (S-17)

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§ 25.1389(b)	Equivalent Safety Finding (ESF) for Position Light Overlapping Intensities (SE-2)
§ 25.1389(b)	Equivalent Safety Finding (ESF) for Forward Position Light System Minimum Intensity (SE-1)
§ 25.1391	Equivalent Safety Finding (ESF) for Forward Position Light System Minimum Intensity (SE-1)
§ 25.1393	Equivalent Safety Finding (ESF) for Forward Position Light System Minimum Intensities (SE-1)
§ 25.1395,	Equivalent Safety Finding (ESF) for Position Light Overlapping Intensities (SE-2)
§ 25.1411(b)	Equivalent Level of Safety and Means of Compliance for Life Vest Stowage in Overhead Passenger Service Units (PSU) (C-1)
§ 25.1419	Use of Analysis to Demonstrate Safe Flight in Icing Conditions (AT6325SE-T-S-2)
§ 25.1435(b)	Request for an Equivalent Level of Safety Finding for the Hydraulic System Pressure Test (S-1)
§ 25.1441(c)	Crew Determination of the Quantity of Oxygen Available in the Lavatory Passenger Service Units Bottles (ES-1)
§ 25.1443(c)	Determination of Minimum Oxygen Flow of the Lavatory Oxygen System (S-1)
§ 25.1517	Rough Air Speed VRA (F-1)
§ 25.1529	Inclusion of Airworthiness Limitations within the Boeing ICA Manuals (G-8)

Exemptions:

- §25.562(b)(2) Emergency Landing Dynamic Conditions - related to Flight Deck Testing (Originally granted August 20,1999, Exemption No. 6425A, March 10, 2009, Exemption No. 6425B).
- §25.853(a), appendix F, paragraph (a)(1)(i) - Partial Time-Limited Exemption, Testing on Large Interior Panels, granted through November 28, 2011. (Exemption No. 9791, November 28, 2008, Exemption No. 9791B, March 1, 2010 , Exemption No. 9791C, February 4, 2011).
- §25.901(c) Partial Exemption – No single powerplant or auxiliary power unit failure will jeopardize the safe operation of the airplane. (Originally granted February 4, 2003, Exemption No. 7968) (See Note 5)
- §25.901(c) - Time-limited exemption for up to 48 months after the effective date of this exemption from 14 CFR 25.901(c), Amendment 25-126, and 25.981(a)(3), Amendment 25-102 or later, as they pertain to fuel tank ignition prevention associated with the following FQIS changes on in-service and newly-produced 737-600/-700/-700C/-800/-900/-900ER airplanes:
 - Replacement of the SCCC and the ARINC display card within the FQPU; and
 - Changed areas for the re-routing and separation of FQIS wires where the changed areas of the FQIS wire routing meet the installation requirements for separation and fault tolerance required to comply with § 25.981(a)(3) as associated with the semi-monolithic side-of-body change, and forward bulkhead relocation.
 (Exemption No. 10905, December 18, 2013, Expires December 18, 2017)
- §25.1447(c)(1). Automatic Presentation of Oxygen Masks to Allow Operation at High Altitude Airports (Exemption No. 8668A, December 30, 2013).

14 CFR Part 26:

Based on 14 CFR §21.101(g) for changes made to TCs applicable provisions of 14 CFR Part 26 are included in the certification basis. For any future 14 CFR Part 26 amendments, the holder of this TC must demonstrate compliance with the applicable sections. Compliance has been found for the following regulations:

<u>SECTION NO.</u>	<u>TITLE</u>	<u>AT AMDT. 26-</u>
26.11	Electrical wiring interconnection systems (EWIS) maintenance program.	0
26.21	Limit of Validity	5
26.33	Holders of type certificates: Fuel tank flammability.	3
26.39	Newly produced airplanes: Fuel tank flammability	3
26.43	Holders of and applicants for type certificates – Repairs	1
26.45	Holders of type certificates - Alterations and repairs to alterations	1
26.47	Holders of and applicants for a supplemental type certificate – Alterations And repairs to alterations	1
26.49	Compliance plan	1

Certification basis for §25.981(b) and §25.981(d) at amendment 25-125, and Equivalent Safety Finding P-2, dated May 25, 2010, for the flammability reduction system (FRS), is applied if fuel tank inerting is installed in new airplane production (line #'s 2517, 2620 and on) or as a modification per Service Bulletins 737-47-1002 and 737-47-1003. Airworthiness limitations for the FRS are contained in Section 9 of the applicable Maintenance Planning Document.

14 CFR Part 34:

§34-3

14 CFR Part 36:

§36-28

X - Model 737-900ER (cont'd)**Certification Maintenance Requirements (CMR's)**

The CMR's are listed in either the FAA approved Section 9 of Boeing Maintenance Planning Data Document D626A001-CMR, revision R2 of March 2007 or later FAA approved revision, or the applicable engine Type Certification Data Sheet. The more restrictive requirement from these two documents shall be in force.

Production

Basis: Production Certificate No. 700

Required**Equipment:**

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

Service**Information:**

The following Boeing "Structural Repair Manual" Documents are FAA-approved. Service Bulletins and other service information, when FAA-approved, will carry a statement to that effect. D634A213 for the 737-900ER.

C.G. Range: See the appropriate FAA Approved Airplane Flight Manual listed in Note 2.

NOTES FOR SECTION X (737-900ER):

- NOTE 1. A current weight and balance report including list of equipment included in the certificated empty weight, and loading instructions when necessary must be provided for each aircraft at the time of original certification. For each Model the Weight and Balance Control and Loading Manual (Boeing Document D043A590) consists of the Basic Manual and a Supplement Aircraft Report. This is in accordance with 14 CFR 25.29 and 25.1519 which establishes operating limitations determined under 25.23 through 25.27.
- NOTE 2. Airplane operation must be in accordance with the FAA Approved AFM. All placards required in either the FAA Approved AFM, the applicable operating rules or the Certification Basis must be installed in the airplane. Boeing Document No. D631A001. is the basic FAA Approved Airplane Flight Manual for Model 737-900ER airplane.
- NOTE 3. The FAA approved Airworthiness Limitations Section of the Instructions for Continued Airworthiness are referenced in Maintenance Planning Data Document (MPD) Section 9 Airworthiness Limitations and Certification Maintenance Requirements; Boeing Document D626A001-CMR. The Airworthiness Limitations section is FAA-approved and specifies maintenance required under 14 CFR 43.16 and 91.403 of the Federal Aviation Regulations, unless an alternative program has been FAA approved. Boeing 737-600/700/700C/800/900/900ER Maintenance Planning Data (MPD) Document, D626A001-CMR, is the FAA approved requirement to comply with 14 CFR 25.1529, 43.16 and 91.403. Required structural inspections for compliance with §25.571 and the retirement times for Safe-life parts are listed in the FAA Approved Airworthiness Limitations and Certification Maintenance Requirements Section 9 of Boeing 737-600/700/700C/800/900/900ER Maintenance Planning Document D626A001-CMR, Revision R2, or later FAA-approved revision. Each operator must incorporate into their airline's FAA-approved maintenance program, the applicable requirements of this document.
- NOTE 4. The type design reliability and performance of the Model 737-900ER, airplane has been evaluated in accordance with FAA Advisory Circular 120-42A and found suitable for Extended Range Operations with Two-Engine Airplanes (ETOPS) when operated and maintained in accordance with Boeing Document D044A007, "737-600/-700/-700C/-800/-900/-900ER ETOPS CONFIGURATION, MAINTENANCE, AND PROCEDURES." Additionally, type design changes incorporated after February 15, 2007 that require ETOPS approval have been evaluated in accordance with 14 CFR 25.1535 and found suitable for Extended Operations (ETOPS) when operated and maintained in accordance with Boeing Document D044A007. This finding does not constitute approval to conduct ETOPS operations.
- NOTE 5. The FAA has determined that the occurrence of any uncontrollable high thrust failure condition "may endanger the safe operation of an airplane" and hence is reportable under §121.703, 125.409, and 135.415.
- NOTE 6: Mandatory replacement times, inspection intervals, related inspection procedures and all critical design configuration control limitation for the fuel tank system determined during the Special Federal Aviation Regulation No. 88 program and for compliance with §25.981 are listed in the FAA-approved Airworthiness Limitations and Certification Maintenance Requirement, Section 9, of Boeing 737-600/700/700C/800/900/900ER Maintenance Planning Data Document D626A001-CMR, Revision R2, dated March, 2007, or later FAA-approved revision.
- NOTE 7: The Model 737-900ER has been approved to operate in "Reduced Vertical Separation Minimum" (RVSM) airspace. Continued airworthiness and operational approval aspects of RVSM must be constructed according to Advisory Circular (AC) 91-RVSM, titled "Approval of Aircraft and Operators for Flight in Airspace Above Flight Level (FL) 290 Where a 1,000 Foot Vertical Separation Minimum is Applied."

X - Model 737-900ER (cont'd)

- NOTE 8: The acceptable engine models on 737-900ER model aircraft are dependent on the type of in-service use. See the Airplane Flight Manual for approved installation of the CFM56-7B26, CFM56-7B26/B1, or CFM56-7B27/B3 or CFM56-7B27E/B3. This applies only when the airplane is operating under the low cycles/hours maintenance program.
- NOTE 9: 737-900ER airplanes modified by Boeing STC ST01697SE (Lower Cabin Altitude modification) are capable of maintaining a cabin altitude of 6500 feet in lieu of the standard 8000 feet when operating at a cruising altitude of 41,000 feet. This STC modification has been approved for airplanes listed in Figure 1 of Boeing Report D926A200, Revision N, dated May 23, 2009, or later FAA approved revision.

-END-