TYPE-CERTIFICATE DATA SHEET

No. EASA.A.155

for
Dassault Falcon 7X

Type Certificate Holder:

DASSAULT AVIATION
9 Rond Point Marcel Dassault
75008 PARIS
France

Airworthiness Category: Large Aeroplanes

For Model: Falcon 7X

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CONTENTS

I. General

1. Type:	Falcon 7X
1.1 Model:	Falcon 7X
2. Performance Class:	A
3. Certifying Authority:	European Aviation Safety Agency Post office box 10 12 53 D-50452 Cologne Germany
4. Manufacturer:	Dassault Aviation 9 Rond Point Marcel Dassault 75008 PARIS France
5. EASA Certification Application Date:	26 May 2002
6. EASA Type Certification Date:	27 April 2007

II. Certification Basis

1. Reference Date for determining the applicable airworthiness requirements	Same as EASA certification application date
2. Reference Date for determining the applicable operational suitability requirements	17 February 2015

3. EASA Airworthiness Requirements

3.A Airworthiness requirements for S/N 001 to S/N 400 (modification M1000 not included)

JAR 1 at change 5 plus orange papers 1/97/1 and 1/99/1

JAR 25 at change 15, effective 01 August 2000 with the following additions:

a) JAR 25 paragraphs at amendment 16

JAR 25.331(c)(2)	Symmetric manoeuvering conditions
JAR 25.335(b)(2)	Design airspeeds
JAR 25.337(d)	Limit manoeuvering load factors
JAR 25.391	Control surface loads: general
JAR 25.395(b)	Control system
JAR 25.415	Ground gust conditions
JAR 25.491	Taxi, takeoff and landing roll
JAR 25.493(c)	Braked roll conditions
JAR 25.605(a)	Fabrication methods
JAR 25.731(d)(e)	Wheels
JAR 25.735	Brakes
JAR 25.904	Automatic takeoff thrust control system (ATTCS)
JAR 25.933	Reversing systems
JAR 25.939(d)	Turbine engine operating characteristics
JAR 25.951(d)	Fuel system - General
JAR 25.952	Fuel system analysis and test
JAR 25.954	Fuel system lightning protection
JAR 25.961(a)	Fuel system hot weather operation
JAR 25.967	Fuel tank installations
JAR 25.975(a)(5)	Fuel tank vents

JAR 25.981	Fuel tank temperature
JAR 25.993 (c)	Fuel system lines and fittings
JAR 25.994	Fuel system components
JAR 25.997	Fuel strainer or filter
JAR 25.1013	Oil tanks
JAR 25.1015	Oil tank tests
JAR 25.1019	Oil strainer or filter
JAR 25.1145(c)	Ignition switches
JAR 25.1301(d)	Function and installation
JAR 25.1305(a)(3),(a)(9),(c)(5),(c)(6),(c)(7),(c)(8),(d)(2)	Powerplant instruments
JAR 25.1309	Equipment, systems and installations
JAR 25.1310	Power source capacity and distribution
JAR 25.1323	Airspeed indicating system
JAR 25.1351 (b)(6)	Electrical systems and equipment - General
JAR 25.1435	Hydraulic systems
Appendix H §H25.3	Instruction for Continued Airworthiness

b) CS 25 paragraphs at amendment 12 for aircraft fitted with emergency exit pictograms (modification M-OPT0760)

CS 25.811(g)	Emergency Exit Marking
CS 25.812(b)(1) and related AMC	Emergency Lighting

c) CS 25 paragraph at amendment 24 for aircraft fitted with EASy IV 1st cert. (M2059)

CS 25.705

JAR AWO at change 2, effective 01 August 1996,

3.B Airworthiness requirements for S/N 401 and ongoing (modification M1000 included) [NOTE 3]

Certification Specification 25, Amendment 11, dated 04 July 2011, except the following paragraphs for which an earlier amendment is accepted:

a) JAR 25 paragraphs at change 15

25.21(b) (as amended by SC B-01), 25.33, 25.103 (as amended by SC B-01, B-08), 25.171 (as amended by B-03), 25.173 (as amended by B-03), 25.175 (as amended by B-03), 25.177 (as amended by B-03), 25.201 (as amended by SC B-01, B-08), 25.203 (as amended by SC B-01, B-08), 25.207(c)(d)(e) (as amended by SC B-01), 25.251(a)(b) (as amended by ESF C-09), 25.305(e)(f) (as amended by ESF C-09), 25.335(b)(1) (as amended by SC C-03), 25.349(a) (as amended by SC C-01), 25.351(a)(1) (as amended by SC C-01), 25.397(c) (as amended by SC C-02), 25.399, 25.405, 25.427(d) via SC C-09, 25.497, 25.562 (as amended by SC D-26 for seats with inflatable restraints), 25.629(a)(b)(1)(2)(c)(d)(e) (as amended by SC C-09), 25.671 (as amended by SC D-05, D-02), 25.679, 25.681, 25.685, 25.689, 25.693, 25.699 (as amended by ESF D-19), 25X745 (as amended by SC D-07), 25.771, 25.772, 25.773, 25.777 (as amended by SC B-02), 25.779, 25.781, 25.783 (as amended by SC D-22), 25.785 (as amended by Dev. D-18), 25.787, 25.789, 25.791, 25.793, 25.807 (as amended by SC D-22), 25.809 (as amended by SC D-22), 25.810 (as amended by SC D-22), 25.811 (as amended by ESF D-12, D-13), 25.813 (as amended by Dev. D-14), 25.815, 25.817, 25.819, 25.820 (as amended by SC D-22), 25.831(a) (as amended by SC D-09 and ESF D-15), 25.833, 25.851, 25.853 (as amended by SC D-11), 25.854, 25.855 (as amended by SC D-11), 25.857, 25.858, 25.859, 25.865, 25.867, 25.869, 25.871, 25.875, 25X899, 25.901, 25.905, 25.925, 25.929, 25.933(a) (as amended by SC E-04), 25.934, 25.937, 25.941, 25.943, 25.945, 25.953, 25.977, 25.979, 25.991, 25.1017, 25.1021, 25.1023, 25.1025, 25.1027, 25.1043, 25.1045, 25.1093 (as amended by ESF E-08), 25.1103, 25.1121, 25.1123, 25.1141, 25.1149, 25.1153, 25.1155, 25.1161, 25.1163, 25.1165, 25.1167, 25.1181, 25.1182, 25.1183, 25.1185, 25.1187, 25.1189, 25.1191, 25.1195 (as amended by ESF E-02), 25.1197, 25.1199, 25.1201, 25.1203, 25.1303, 25.1307, 25.1321, 25.1322 (as amended by ESF F-41), 25.1325, 25.1326, 25.1327, 25X1328, 25.1329 (as amended by ESF F-37), 25.1331, 25.1333, 25.1335 (as amended by ESF F-37), 25.1355, 25.1357 (as amended by ESF F-22), 25X1360, 25X1362, 25.1363, 25.1381, 25.1383, 25.1411, 25.1415, 25.1421, 25.1423, 25.1433, 25.1439, 25.1443, 25.1447, 25.1449, 25.1450, 25.1453, 25.1455, 25.1457, 25.1459 (as amended by ESF F-35), 25.1461, 25X1499, 25X1516, 25.1522, 25.1523, 25.1531, 25.1545, 25.1547, 25.1549 (as amended by ESF E-10), 15.1551, 25.1553, 25.1557,

25.1561, 25.1563
Subpart J 25A901 to 25A1583, Appendix A, Appendix D, Appendix F, Appendix I, Appendix J

b) JAR 25 paragraphs at amendment 16

25.904, 25.907, 25.933(b), 25.981 (as amended by SC E-01), 25.1013, 25.1015, 25.1019, 25.1145, 25.1305, 25.1309, 25.1310, 25.1323 (as amended by SC B-01)

c) CS 25 paragraphs at amendment 2

25.105(a), 25.111(c), 25.121(b)(c)

d) CS 25 paragraphs at amendment 4

25.611, 25.1301, 25.1353, 25.1529, Appendix H

e) Amended CS 25 amendment 11 paragraphs

25.143 (supplemented by SC B-02, B-04, B-05), 25.145(a)(b) (as amended by SC B-01), 25.207 (as amended by SC B-08). 25.331 (as amended by SC C-01), 25.831 (as amended by SC D-09), 25.841 (as amended by SC D-09), 25.903(c) (as amended by SC E-05), 25.963 (as amended by SC C-06), 25.1431 (as amended by SC F-06)

f) CS 25 paragraphs that are not applicable

25.795, 25.1302, 25.1365, 25.1535, Subpart H 25.1701 to 25.1731, Appendix M, Appendix N

All Weather Operations: JAR AWO change 2 (as amended by ESF K-01, K-02)

3.1. Special Conditions

B-01 Stalling and scheduled operating speeds
B-02 Motion and effects of cockpit controls
B-03 Static directional, lateral and longitudinal stability and low energy awareness
B-04 Flight envelope protection
B-05 Normal load factor limiting system
C-01 Design maneuver requirements
C-02 Limit forces and torque
C-03 Design dive speed Vd
C-05 Interaction of systems and structure (superseded by CS 25 amdt 11 in case of modification M1000 installation)
C-06 Fuel tank crashworthiness
D-02 Electronic flight control unusual features
D-05 Flight controls - Harmonised 25.671
D-07 Nose wheel steering - Towbarless towing
D-09 Airworthiness standards for subsonic aeroplanes to be operated above 41 000 ft
D-11 Fire protection of thermal and acoustic insulation material
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E-01 Fuel tank safety
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F-06 Protection from effects from HIRF
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F-74 Non-Rechargeable Lithium Battery Installation
F-80 Runaway Overrun Awareness and Alerting (ROAAS)

NOTE: the requirements in SC F-80 are covered by CS-25.705 at amdt 25

G-02 Landing Distance at Time of Arrival (CS 25.1592 in NPA 2016-11)

Special Conditions related to certain installed modifications

Steep approach capability modicication M0194

B(SAL)-06 Steep Approach and Landing

Shower installation modification M-OPT0459

D-25 Shower/bathroom Installation

Inflatable Restraint modification M-OPT0686

D-26 Seats with Inflatable Restraints

Head-up Guidance System modification M-OPT0002

F-36 Head-up Guidance System

Crew Rest Area modification M-OPT0359

F-44 Installation of Crew rest area

EFVS System modification M-OPT0017

F-47 Enhanced Flight Vision System (EFVS) with Ops credit

Avionics EASy II modification M1122

F-51 Data Link Services for the Single European Sky

F-52 Flight Recorders including Data Link Recording

Avionics EASy III modification M1254

F-65 Data Link Services

Fuselage stretch modification M1000 (for S/N 401 and ongoing) [NOTE 3]

B-08 Stalling and scheduled operating speeds in Icing Conditions and Flight in Icing Conditions during Take-off

C-06 Fuel tank crashworthiness (updated with new issue)

Inconsistencies clarification for the modification M1000 certification basis

Subpart B certification basis induces the following inconsistencies:

- CRI B-01 refers to paragraph 25.143(g) and 25.207(f) which respectively become 25.143(h) and 25.207(g) at applicable amendment 11
- CRI B-02 refers to paragraph 25.143(c) which becomes 25.143(d) at applicable amendment 11.
- CRI B-02 introduced new paragraph 25.143(j) titled “Pilot Strength” while 25.143(j) has been introduced in CS 25 Amdt 3 with a different purpose dealing with “Flight in icing conditions before activation of the ice protection system”
- CRI B-03 refers to paragraph 25.143(g) which becomes 25.143(h) at applicable amendment 11
- CRI B-04 introduced new paragraph 25.143(h) titled “Flight envelope protection” while 25.143(h) has been introduced in CS 25 Amdt 3 with a different purpose dealing with “Manoeuvring capabilities”,
- CRI B-05 introduced new paragraph 25.143(i) titled “Normal load factor limiting system” while 25.143(i) has been introduced in CS 25 Amdt 3 with a different purpose dealing with “Compliance in icing conditions”.
- At Amdt 3, § 25.21(g)(1) requires that all Subpart B paragraphs be demonstrated in icing condition with ice accretion using Appendix C. There is no reversion for 25.21(g)(1), but a for §25.105(a), 25.111(c), 25.121(b)(c) for which CRI B-08 criteria are used for ice accretion.

HUD/ EFVS Mark1.0 modification M-OPT0730/0731

F-66 HUD installation

F-67 EFVS

F-68 SVS/CVS in HUD

HUD/ EFVS Mark1 (OPS credits 100ft) modification M-OPT0734/0735

F-72 Enhanced Flight Vision System Approaches with combined Vision System on Head up display

3.2. Deviations

D-14 Door between passenger compartments

D-18 Personal injury criteria of dynamic testing of side facing sofa

Deviations related to certain installed modifications

Fuselage stretch modification M1000

D-31 Width of Aisle

3.3. Equivalent Safety Findings

C-09 JAR 25.251, 25.305 and 25.629 - Vibration, buffet and aeroelastic stability requirements

C-12 JAR 25.361 - Engine failure loads (superseded by CS 25 amdt 11 in case of modification M1000 installation)

C-15 JAR 25.341, 25.343(b), 25.345(c), 25.371, 25.373(a), 25.391, 25.1517 - Gust and continuous turbulence (superseded by CS 25 amdt 11 in case of modification M1000 installation)

C-16 JAR 25.963(g) - Fuel tank access cover (superseded by CS 25 amdt 11 in case of modification M1000 installation)

D-12 JAR 25.811(d)(1) and (d)(2) - Emergency exit locator sign used also as marking sign – cabin without divider

D-13 JAR 25.811(d)(1) and (d)(3) - Emergency exit locator sign used also as marking sign – cabin with divider

D-15 JAR 25.831(a) - Packs-off take off

D-19 JAR 25.699(b) - Lift and drag device indicator

E-02 JAR 25.865, 25.1181, 25.1195, 25.1203 - Engine fire protection in designated fire zones

E-08 JAR 25.1093(b) - Falling and blowing snow

E-10 JAR 25.1549 - Powerplant instruments – colour markings

E-12 JAR 25.971 - Fuel tank sump (superseded by design change in case of modification M1000 installation)

F-22 JAR 25.1357(e), 25.1309 - Honeywell PRIMUS EPIC Integrated Modular Avionics system (compliance with requirements for individual circuit protection)

F-35 JAR 1459 (a)(2) - Use of IRS for DFDR vertical acceleration

F-37 JAR 25.1329, JAR 25.1335 - Revisions to JAR 25.1329 and 25.1335 resulting from Flight Guidance Systems Harmonisation

F-41 JAR 25.1322 - CAS window red message line space

G-01 JAR 25X1591 - Operation on contaminated runways (superseded by CS 25 amdt 11 in case of modification M1000 installation)

K-01 Revisions to JAR AWO resulting from JAR/FAR 25.1329 Harmonisation

K-02 Revisions to JAR AWO paragraphs resulting from JAA/FAA Harmonisation

Equivalent Safety Finding for aircraft equipped with modification M-OPT0649

D-27 Table Obstruction to Type III Emergency Exits

Equivalent Safety Finding for aircraft equipped with modification M-OPT0730/0731

F-71 HUD symbology

Equivalent Safety Finding for aircraft equipped with modification M-OPT0876

D-33 Seats Obstruction to Type III Emergency Exits

Equivalent Safety Finding for aircraft equipped with modification M-OPT1048

D-41 JAR 25.815 - Aisle width reduction

Equivalent Safety Finding for aircraft equipped with modification M-2055

F-82 Indication removal from Primary Flight Displays during ground phases

3.4. Environmental Protection Requirements

Noise level:

- See TCDSN no. EASA.A.155

Fuel Venting:

- CS-34 amendment 4, ICAO Annex 16, Volume II, amendment 10, Part II, Chapter II

Engine Emissions:

- see engine TCDS No. EASA.IM.E.035

4. Operational Suitability Requirements

4.1 Master Minimum Equipment List (MMEL)

JAR-MMEL/MEL Subpart A (General) and Subpart B (MMEL) at Amdt 1

4.2 Flight Crew Data (FCD)

CS-FCD, Initial Issue dated 31 January 2014

4.3 Cabin Crew Data (CCD)

This OSD is not applicable since the maximum passenger configuration is below 20.

4.4 Simulator Data (SIMD)

CS-SIMD, Initial Issue dated 2 December 2014 (applicable to S/N 401 and ongoing / modification M1000 included only) [NOTE 3]

4.5 Maintenance Certifying Staff Data (MCSD)

Special Condition A-MCSD-01 "Certification Requirements for the OSD element Maintenance Certifying Staff (MCS) of the aircraft model Dassault Falcon 7X fitted with M1000 design change".

III. Technical Characteristics and Operational Limitations

1. Type Design Definition:	The Type Design aircraft configuration is the F7TC version stored in an electronic format under the virtual product management tool ENOVIA/VPM©. The repository of the ENOVIA/VPM© database is located in Dassault Aviation facilities.
2. Description:	The Falcon 7X is a maximum 22 occupants including a minimum crew of two, tri-jet, long range, large aeroplane category. It has a low positioned, high swept wing, mid-height horizontal stabilizer and tricycle landing gear. Flight controls are fly-by-wire. Three Pratt & Whitney Canada PW307A (PW307D in case of modification M1000 installed) engines are rear mounted, two on side of fuselage and one in center position.
3. Equipment:	The F7TC version referenced under III.1. contains also the type design list of equipment.

4. Dimensions

	Without modification M1000 included (S/N 001 to 400)	With modification M1000 included (S/N 401 and ongoing) NOTE 3
Length	23.38 m	24,46 m
Span	26.21 m	26,28 m
Height	7.93 m	7.93 m
Gross wing area	70.7 m²	70.7 m²

5. Engines

		Three Pratt & Whiney Canada Corp. Turbofan Engines refer to EASA Data Sheet IM.E.035	
		Model PW307A	Model PW307D NOTE 3 (with modification M1000 installed)
Engine Limits Static thrust, standard day, sea level	Takeoff (5 min., Normal All Engines Operating)	28.49 kN (6405 lbs)	29,91 kN (6725 lbs)
	Maximum continuous	28.49 kN (6405 lbs)	29,91 kN (6725 lbs)
Engine Limits Maximum permissible engine rotor operating speeds	N1 (Fan) steady state Take-off / Maximum continuous	101% r.p.m. (100% = 11000 r.p.m)	101% r.p.m. (100% = 11000 r.p.m)
	N2 (Gas Gen.) steady state Take-off / Maximum continuous	100% r.p.m. (100% = 28500 r.p.m)	100% r.p.m. (100% = 28500 r.p.m)
Engine Limits Maximum permissible interturbine gas temperatures	Takeoff (5 minutes max)	920°C (1688°F)	920°C (1688°F)
	Max. continuous	920°C (1688°F)	920°C (1688°F)
	Starting	950°C (1742°F)	950°C (1742°F)
	Transient (20 sec.) and starting	930°C (1706°F)	945°C (1733°F)

Note : Engine is approved for operation with thrust reverser p/n F7XC782140020

6. Auxiliary Power Unit (APU):	APU model 36-150 [FN], from Honeywell (Allied Signal), APU is non essential. APU limitations: according to applicable EASA approved Aircraft Flight Manuals (AFM); AFMs are referenced in Chapter IV.1.
Maximum operating altitude	usable for ground operation only
Maximum Starting Altitude	usable for ground operation only

7. Reserved

8. Fluids (Fuel, Oil, Additives, Hydraulics):	The fluids are defined in the applicable EASA approved Aircraft Flight Manuals (AFM); AFMs are referenced in Chapter IV.1.

9. Fluid capacities

9.1 Fuel Capacity (Density: 0.803 kg/dm³ (6.7 lbs/US gallon))

	Without modification M1000 included (S/N 001 to 400)		With modification M1000 included (S/N 401 and ongoing) NOTE 3	
Usable Fuel	Volume [dm³ (gals (US)]	Mass [kg (lbs)]	Volume [dm³ (gals (US)]	Mass [kg (lbs)]
LH circuit	5944 (1570)	4773 (10522)	6359 (1680)	5106 (11257)
RH circuit	5944 (1570)	4773 (10522)	6383 (1686)	5126 (11301)
Center circuit	6154 (1626)	4942 (10896)	7108 (1878)	5708 (12583)
Total (all tanks)	**18042 (4766)**	**14488 (31940)**	**19850 (5244)**	**15940 (35141)**
Unusable Fuel				
Drainable	65 (17)	52 (115)	68 (18)	54 (120)
Undrainable	41 (11)	33 (72)	48 (13)	39 (85)
Total unusable (all tanks)	**106 (28)**	**85 (187)**	**116 (31)**	**93 (205)**

See NOTE 1

9.2 Oil (Density: 0.95 kg/dm³ (7.94 lbs/gal) or (1.99 lbs/qt))

	Volume per engine [dm³ (gals (US)]	Mass [kg (lbs)]
Max Oil Level (Total)	23.61 (6.24)	23.01 (50.7)
Min Oil Level (Total)	18.69 (4.92)	18.21 (40.14)

See NOTE 1

9.3 Hydraulics (Density: 0.84 kg/dm³ (7.0 lbs/US gallon))

	Volume [dm³ (gals (US))	Mass [kg (lbs)]
Hydraulic Fluid - System (Total)	65,19 (17,22)	54,95 (121,15)

See NOTE 1

10. Airspeed Limits: The airspeed limits are defined in the applicable EASA approved Aircraft Flight Manuals (AFM); the AFMs are referenced in Chapter IV.1.

11. Flight Envelope: The flight envelope is defined in the applicable EASA approved Aircraft Flight Manuals (AFM); the AFMs are referenced in Chapter IV.1.

Maximum Operating Altitude 15544 m (51000 ft)

12. Operating Limitations

12.1 Approved Operations

The Falcon 7X is eligible for the following kinds of operation when the appropriate equipment and instruments required by the operating requirements are installed (since TC or through dedicated M, M-Opt or SB), approved, and operating as defined by the applicable AFM:

- Day and night VFR
- IFR (Instrument)
- Icing
- Manual or Automatic Category I approaches and non precision approaches
- Manual or Automatic Category I approaches and non precision approaches with EVS operational credit down to 100 feet
- Automatic Cat. II approaches with or without HUD monitoring / EVS
  Category II requirements provided the airplane is operated in accordance with Airplane Flight Manual Annex 1 and with Supplement 1 revision 1 (or later approved revision) when monitored with with Rockwell –Collins HGS 5860 (for S/N 001 to 400 only)
- Automatic Cat. II approaches with or without Falcon Eye HUD monitoring / EVS, Category II requirements provided the airplane is operated in accordance with Airplane Flight Manual Annex 1 (or later approved revision) when monitored with Falcon Eye HUD (for S/N 401 and ongoing)
- LPV approaches (a/c installed with EASY II M1122 or subsequent EASy versions)
- LPV approaches with EVS Operational Credit (for S/N 001 to 400 only) (a/c installed with EASY II M1122 or subsequent EASy versions)
- Enhanced Surveillance
- RVSM
- RNP RNAV operations, down to RNP 0.3 RNAV (RTCA/DO-236B and DO-283)
- Extended flight over water and uninhabited terrain
- Polar operations (limited 85° North / 85° South)
- Contaminated runways operation
- Steep approach landing from 4.5 to 6.0 degrees
- Landing and take off between 8000 ft and 15000 ft (F7X a/c with M1315 or M1000)
- Operations with landing gear down (for S/N 001 to 400 only)
- ADS-B Out function certified in the frame of EASY II M1122 and subsequent EASy versions compliant with EU 1028-2014 and CS-ACNS
- Specific close-in Noise Abatement Departure Procedure (NADP), with thrust reduction at a minimum of 400 feet AGL
- IFR OCEANIC / RNP 10 / NAT-MNPS
- B-RNAV / RNP 5
- RNP 4 OCEANIC AND REMOTE AIRSPACES (a/c installed with EASY II M1122 or subsequent EASy versions)
- RNP 2 OCEANIC AND REMOTE AIRSPACES (a/c installed with EASY II M1122 or subsequent EASy versions)
- RNP 1 / RNP 2 TERMINAL AND EN ROUTE (a/c installed with EASY II M1122 or subsequent EASy versions)
- P-RNAV (JAA TGL-10)
- AC 90-100A US TERMINAL AND EN ROUTE AREA NAVIGATION (RNAV) OPERATIONS

12.2 Other Limitations

Other limitations as defined in the applicable EASA approved Aircraft Flight Manuals (AFM); the AFMs are referenced in Chapter IV.1.

13. Maximum Certified Masses

	Without modification M1000 included (S/N 001 to 400)			With modification M1000 included (S/N 401 and ongoing) NOTE 3		
	Mass	Fwd limit % MAC	Aft limit % MAC	Mass	Fwd limit % MAC	Aft limit % MAC
Ramp	31842 kg (70200 lbs)	19.5	31.5	33203 kg (73200 lbs)	19.62	27.00
Takeoff	31751 kg (70000 lbs)	19.05	33.65	33112 kg (73000 lbs)	19.54	27.73
Aft CG at 38.5%	25890 kg (57076 lbs)	19.5	38.5	25890 kg (57076 lbs)	19.5	38.5
Landing	28304 kg (62400 lbs)	19.5	37.35	28304 kg (62400 lbs)	19.5	37.35
Zero fuel	18597 kg (41000 lbs)	19.5	38.5	18597 kg (41000 lbs)	19.5	38.5
Minimum flight - FWD	15694 kg (34600 lbs)	26.0	N/A	15694 kg (34600 lbs)	26.6	N/A
Minimum flight - AFT	14696 kg (32400 lbs)	N/A	38.5	14696 kg (32400 lbs)	N/A	38.5

See Note 1 for weight and balance calculation, refer to the Loading Manual in Chapter IV.3.

14. Centre of Gravity Range: The Centre of Gravity Ranges are defined in the applicable EASA approved Aircraft Flight Manuals (AFM); the AFMs are referenced in Chapter IV.1.

15. Datum: 25 % of mean aerodynamic chord (MAC): 12.183 m (479.65 in) from the forward end of the aircraft nose cone (12.7418 m (501.646 in) in case of modification M1000 installed)

16. Mean Aerodynamic Chord (MAC):

3.34754 m (131.79 in.)

Without modification M1000 included (S/N 001 to 400)	With modification M1000 included (S/N 401 and ongoing) NOTE 3
0 % MAC is at 11.3461m (446.7 in.) from the forward end of the aircraft nose cone. 25 % MAC is at 12.183m (479.65in) from the forward end of the aircraft nose cone.	0 % MAC is at 11.9049m (468.69 in.) from the forward end of the aircraft nose cone. 25 % MAC is at 12.7418m (501.646in) from the forward end of the aircraft nose cone.

17. Levelling Means: Aircraft is evelled in the longitudinal and lateral axis by means of a plumb bob and target in the left main landing gear bay

18. Minimum Flight Crew: For all flights: 2 (pilot and co-pilot)

19. Minimum Cabin Crew: None

20 Maximum Seating Capacity: Up to 22: 2 pilots +1 crew (third crew member seat authorized for take-off and landing in the cockpit or crew rest area) + up to 19 passenger seats
see Note 2

21. Baggage / Cargo Compartment: Maximum allowable loads Baggage compartment: not to exceed 300 kg per square meter.
See note 1.

22. Wheels and Tyres: This aircraft is equipped with wheels, brakes, nose wheel single chine radial tubeless tires and main wheels H type radial tubeless tires.
Main wheel tyres are H32×10.5R16.5
Nose wheel tyres are 16×6.0R6
Mixability is not approved.

23. Reserved

IV Operating and Service Instructions

1. Airplane Flight Manual (AFM) [NOTE 4]

   DGT105608, Airplane Flight Manual (AFM) Model Falcon 7X
   applicable to S/N 001 to S/N 400 (modification M1000 not included)

   DGT147681, Airplane Flight Manual (AFM) Model Falcon 7X
   applicable to S/N 401 and ongoing (modification M1000 included) [NOTE 3]

2. Instructions for Continued Airworthiness and Airworthiness Limitations, included in FIELD publication, that consist of:

   - Airworthiness Limitation Section (Chapter 5-40, reference: DGT 107838) [NOTE 4]
   - Maintenance Planning Document (Chapter 5):
     - Reference: DGT 125953 applicable to S/N 001 to S/N 400 (modification M1000 not included)
     - Reference: DGSM 151456 applicable to S/N 401 and ongoing (modification M1000 included)
   - Airplane Maintenance Manual
   - Fault Isolation Manual
   - Illustrated Parts Catalog (part list only)
   - Structural Repair Manual (Part 1)
   - Wiring Diagram Manual

3. Loading Manual (for Weight and Balance calculation)

   DGT108840, Loading Manual for Model Falcon 7X
   applicable to S/N 001 to S/N 400 (modification M1000 not included)

   DGT147688, Loading Manual for Model Falcon 7X
   applicable to S/N 401 and ongoing (modification M1000 included) [NOTE 3]

V Operational Suitability Data (OSD)

The Operational Suitability Data elements listed below are approved by the European Aviation Safety Agency under the EASA Type Certificate EASA.A.155 as per Commission Regulation (EU) 748/2012 as amended by Commission Regulation (EU) No 69/2014. [NOTE 4]

1. Master Minimum Equipment List (MMEL)

   The MMEL grandfathered as per the defined OSD certification basis in chapter II.4.1, is the Falcon 7X DGT106042 at revision 9 dated 8 October 2013 or later approved revisions.

2. Flight Crew Data

   The Flight Crew Data appoved as per the defined OSD certification basis in chapter II.4.2, is the Falcon 7X Operational Suitability Manual – Flight Crew (OSM-FC) DGT148654 dated 4 Sept. 2015 or later approved revisions.

   Pilot Type Rating: Falcon 7X (with and without M1000 modification included)[NOTE 3]

3. Cabin Crew Data

   Not applicable

4. Simulator Data

   The Simulator Data approved as per the defined OSD certification basis in chapter II.4.4, is the Operational Suitability Manual Simulator (OSM-SIM) Validation Road Map (VDR) DGT152476 original issue or later approved revisions (applicable only to S/N 401 and ongoing with modification M1000 and M1254 included). [NOTE 3]

5. Maintenance Certifying Staff Data

   The Maintenance Certifying Staff Data approved as per the defined OSD certification basis in chapter II.4.5, is

the Operational Suitability Manual Maintenance Certifying Staff (OSM-MCS) DGT153370 original issue or later approved revisions.

Part-66 Type Rating endorsement:
"Falcon 7X (PW307)" (with and without M1000 modification included) NOTE 3

The Type Rating endorsement "Falcon7X (PW307A)" remains valid for the F7X without M1000 modification, and becomes valid as well for the for F7X with M1000 if the license holder performs a difference training course for the M1000 modification NOTE 3

VI. Part-26 Compliance Information

Compliance with Part26.300(a) of Commission Implementing Regulation (EU) 2020/1159 dated 5 August 2020 (introducing aging aircraft) is demonstrated by complying with points 26.301, 26.304 and 26.306

VII. Notes

NOTE 1: a) The airplane must be loaded according to the appropriate approved Loading Manual (for Weight and Balance calculation). The list of equipment included in certificated empty mass must be provided for each airplane at the time of original certification. A current weight and balance report must be carried in the aircraft at all times from the moment the aircraft is originally certified.
The certified empty mass and corresponding center of gravity location must include the fluids of chapter III.9

b) Loading of the aircraft must be accomplished in a manner that always maintains the center of gravity within the specified limits considering crew and passenger movements as well as fuel consumption and transfer.

NOTE 2: Cabin interior and seating configuration must be approved.

NOTE 3: The introduction of the fuselage stretch modification M1000, for which the avionics EASyIII modification M1254 is a precondition, has the commercial designation "F8X". This modification is applicable for all F7X models from S/N 401 and ongoing.

NOTE 4: An EASA approved change to the AFM, ALS and OSD elements can be released either through a full revision of the manual or through a Change Project (CP) number bearing the same reference as the related manual.

VIII Abbreviations

APU:	Auxiliary Power Unit
AWO:	All Weather Operation
CCD:	Cabin Crew Data
CRI:	Certificaton Review Item
CS:	Certification Specification
EASA:	European Aviation Safety Agency
ESF:	Equivalent Safety Finding
FCD:	Flight Crew Data
ICAO:	International Civil Aviation Organization
INT/POL:	JAA Interim Policy
JAR:	Joint Aviation Requirement
MCSD:	Maintenance Certifying Staff Data

MMEL:	Master Minimum Equipment List
MEL:	Minimum Equipment List
NPA:	Notice of Proposed Amendment
OSD:	Operational Suitability Data
RVSM:	Reduced Vertical Separation Minima
SB:	Service Bulletin
SC:	Special Condition
SIMD:	Simulator Data
S/N:	Serial Number
TCDS:	Type Certificate Data Sheet

IX Change Record

Issue	Date	Changes
Issue 1 to 3		No tracking of detailed changes. Changes log implemented only at issue 4.0 according to new EASA procedure.
Issue 4	20 Jan. 2010	Page 5 Section 2.II.6 - Elect to comply, removal of JAR 25.907 amt16 propeller vibration as not applicable to the Falcon 7X Page 7 Section 2.III.4 and 3.III.5 - Addition of EASA approved AFM reference DGT 105608 Page 8 Section 2.III.10 - Maximum Weights – removal of weight table for A/C without M0478 and M0826 as all Falcon 7X fleet has been retrofitted with these modifications and new deliveries are automatically fitted with these modifications. Note that M0826 is only a justification of the maximum ramp and take off weights without design change, therefore M0826 applies to all F7X A/C even if not in the A/C initial RIC. This removal is to ease operator understanding of the F7X TCDS. Page 10 Section 2.IV - Correction of Chapter 5-40 reference and removal of operating and service instructions publication format.
Issue 5	15 April 2015	- Editorial revision to reflect latest EASA TCDS format - II.3 Addition of paragraphs for modification M-OPT0760 - II.3.1 Addition of SC for modifications M0194, M-OPT0459, M-OPT0686, M-OPT0002, M-OPT0359, M-opt0017 and M1122 - II.3.4 Addition of ESF for modifications M-OPT0649 - II.4 OSD MMEL requirement - III.12.1 Update of approved operations - IV.3 Addition of Loading Manual - V Addition of OSD chapter
Issue 6	15 Dec. 2015	- II.2 reference date for OSD added - II.4.3 to II.4.5 OSD added - III.15 Datum corrected - V.2 to V.5 added - VII abbreviations regarding OSD added
Issue 7	24 June 2016	- II.3, II.3.1, II.3.3, II.3.4, II.3.5, II.4, III.2, III.4, III.5, III.9.1, III.12, III.13, III.15, III.16, IV.1, IV.3, V, VI NOTE 3 updated to include data for the modification M1000 that is applicable to all F7X models from S/N 401 and ongoing
Issue 8	17 Nov. 2016	- Serial Number references are changed from 4 digits to 3 digits - III.12.1 CAT II approaches added for S/N 401 and ongoing - III.15 dimensions adapted, III.16 corrected
Issue 9	15 Dec. 2016	- V.5 Part 66 Type Rating added

Issue 10	24 January 2018	- II.3.1 Addition of SC for modifications M-0PT0730/0731
		- II.3.4 Addition of ESF for modifications M-0PT0730/0731 and M-OPT0876
		- III.12.1:
		  - LPV approaches – Addition of minimum EASy version prerequisite
		  - LPV approaches with EVS - Addition of minimum EASy version prerequisite
		  - Extended applicability added for S/N 401 and ongoing for contaminated runways operation after M1719 approval
		  - Identification of prerequisites allowing T/O and LD operations up to 15kt
		  - Contaminated Runway and steep approach landing operations extended to all S/N
		  - Extended applicability added for S/N 401 and ongoing for auto CAT II operation after Falcon Eye approval
		  - Addition of specific close-in NADP
		  - Addition of RNP operational capabilities

Issue	Date	Changes
Issue 11	04 April 2018	- II.3.1 Editorial Correction for HUD/ EFVS Mark1.0 - VIII Date of issue 10 corrected
Issue 12	16 July 2018	- IV.2 Update of the Instructions for Continued Airworthiness and Airworthiness Limitations: - Change of the reference manual providing the recommended Scheduled maintenance Requirements (removal of the Maintenance Review Board Report DGT 102566) - Addition of the Fault Isolation Manual, Illustrated Parts Catalog (part list only) and Wiring Diagram Manual - Correction of Structural Repair Manual reference (“Part 1” added) - Editorial Changes
Issue 13	12 December 2018	- II.3.1 Addition of SC for modifications M-OPT0734/0735 - III.12.1 Manual or Automatic Category I approaches and non precision approaches with EVS operational credit down to 100 feet added for S/N 401 and ongoing - IV.2 Addition of the Maintenance Planning Document (Chapter5) reference applicable to S/N 401 and ongoing (DGSM 151456) - IV.1, IV.2, V and VI Addition of NOTE 4 related to a change to AFM, ALS and OSD elements
Issue 14	6 October 2023	- II.3.1 Addition of SC F-74 and G-02, 3.A Addition of §25.705, 3.B Addition of SC F-80, 3.2 Additional Airworthiness Specification, 3.4 Addition of ESF F-82 - II.3.5 Noise level requirements, reference made to TCDSN no. EASA.A.155; Engine emissions, reference made to engine TCDS no. EASA.IM.E.035 - IV.2 Maintennance planning documents specified - Minor corrections
Issue 15	7 March 2025	- II.3.2 deleted (content moved in new section VI) - II.3.3, 3.4 renumbered - II.3.3 Addition of ESF D-41 - VI added (the content was moved from deleted section II.3.2) - VII, VIII, IX renumbered

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