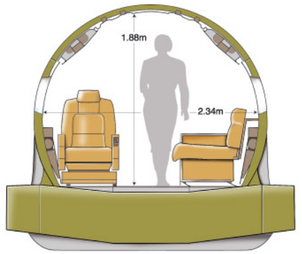
Falcon 7X

Cockpit layout

A Standby instruments
B EASy flight deck – Honeywell
C Warning panel
D Navigation controllers
E Communications controls
F Autopilot
G Ailerons and airbrakes
H Throttles
I Flight-management system
J Head-up guidance system
K Cursor control device and tracker for EASy flightdeck control screens
L Pilot's fold down shelf
M Overhead electrical panel
N Centre console
O Side consoles

Side stick controller



Cabin cross-section

Pratt & Whitney Canada
A United Technologies Company

Tim Hall AMRAeS
St Cloud, Paris 2005

DASSAULT FALCON

Structure and general
1 Forward-moving, upward-hingeing di-electric radome with integral lightning-arrestor strips – Kevlar
2 Radar-mounting bulkhead
3 Nose cone deflector
4 Radome mounting rack
5 Machined front pressure bulkhead – aluminium alloy
6 Windshield – four sections
7 Instrument-panel glareshield
8 Nosewheel bay structure
9 Windshield retainer
10 Fuselage section interface and doubler
11 Cabin management system
12 Crew lavatory
13 Electrically actuated main door incorporating pneumatic dampers, fully folding airstair and handrail – 0.80 x 1.72m
14 Main-door interior operating lever
15 Crew closet
16 Entry accoustical curtain
17 Galley/bar cabinet
18 Semi-monocoque fuselage construction, incorporating chem-milled aluminium-alloy skin over aluminium-alloy frames and stringers
19 Coat closet/entertainment system
20 Solid cabin divider
21 Typical fuselage frame – aluminium alloy
22 Single seat
23 Folding stowable console table
24 Fold-away dining table (electrically actuated)
25 Mid-cabin life raft storage cabinets
26 Cabin side panels
27 Dual seats
28 Armrest storage cabinet
29 Three-place divan with berthing extension
30 Lavatory and coat closet
31 Body fairing – composite
32 Machined wing-skin panels
33 Typical inboard wing rib – machined aluminium alloy
34 Wing front spar, two-piece machined – aluminium alloy
35 Slat-track cans (eight), allow track intrusion through spar into the wing fuel cell
36 Typical outboard wing rib – machined aluminium alloy
37 Detachable wingtets – composite
38 Wing rear spar, two-piece machined – aluminium alloy
39 Spoiler-actuator can – three off
40 Flap-actuator can – three off
41 Machined auxiliary spar and integral main landing gear support
42 Machined piano type multi-bolt wing attachment to centre-wingbox structure
43 Body fairing support
44 Machined and forged fuselage to centre-wingbox mainframe forward fitting
45 Centre wingbox/fuselage with integral fuel cell
46 Cabin-floor panels
47 Emergency exit – 0.53 x 0.91mm starboard side only
48 Cabin windows
49 Machined and forged fuselage to centre-wingbox mainframe rear fitting and skin-joint doubler
50 Main landing gear well
51 Body fairing and integral fuel cell
52 Nacelle air-inlet
53 Four-section centre engine S-duct air intake – metallic and composite
54 S-duct aerodynamic fairing – Kevlar honeycomb
55 Nacelle upper and lower fan cowl doors – composite
56 Mandolin S-duct support structure – metallic
57 Aluminium alloy window frames
58 Machined pressure bulkhead and secondary-structure – door allows inflight access to the baggage compartment
59 Baggage-compartment door
60 Baggage-compartment aft-pressure bulkhead – machined aluminium alloy
61 Baggage compartment – 4m³
62 Lower stub-fin sloping frames providing upper-fin mounting points
63 Fin leading-edge structure – mixed construction
64 Detachable fintip fairing – composite
65 Single-piece swept-back variable-incidence tailplane – composite construction
66 Tailplane aft aerodynamic fairing – composite
67 Two-spar fully cantilevered fin-composite
68 Forged and machined fin to stub-fin forward attachment point
69 Deflector
70 Pylon trailing edge – metallic
71 Stub-fin structure
72 Engine-bay hinged two-piece access doors – composite
73 Flap-track aerodynamic fairing
74 Pilot's and co-pilot's fully adjustable seats and harness

Air conditioning and anti-icing
A1 Windscreen-demist vent
A2 Cockpit air system
A3 Cabin air system
A4 Wing anti-ice system
A5 Aircraft bleed air system
A6 S-duct de-icing pipe
A7 Centre engine inlet anti-ice pipe
A8 HP/LP bleed engine ports

Avionics and electrical
E1 Honeywell Primus colour weather radar
E2 Forward avionics bay
E3 Air temperature sensor
E4 Smart probes
E5 Anti-ice detector
E6 Monitoring unit
E7 Guidance system
E8 Avionics rack, left and right
E9 GPS 1 antenna
E10 GPS 2 antenna
E11 TCAS antenna
E12 Glideslope antenna
E13 Landing light
E14 Navigation light
E15 Anti-collision strobe light
E16 Static-discharge wicks
E17 HF antenna-coupler amplifier
E18 Amplifier
E19 Amplifier
E20 HF 1 and 2 antenna
E21 Anti-collision strobe light
E22 VOR antenna

Flying Controls
C1 Adjustable rudder pedals
C2 Sidestick controller
C3 Single-piece inboard leading-edge slat – aluminium alloy
C4 Median slat – aluminium alloy
C5 Outboard slats – aluminium alloy
C6 Aileron dual servo actuator – fly-by-wire
C7 Hinge-mounted aileron
C8 Outboard double-slotted fixed vane Fowler flap
C9 Outboard airbrake
C10 Spoiler
C11 Inboard airbrake
C12 Inboard single-piece double-slotted fixed vane Fowler flap with two actuators – aluminium alloy
C13 Tailplane incidence linear actuator
C14 Tailplane-actuator support
C15 Elevator dual-servo actuator – fly-by-wire
C16 Tailplane fairing
C17 Rudder dual-servo actuator – fly-by-wire
C18 Hinge mounted rudder
C19 Hinge-mounted elevator – aluminium-alloy construction

Fuel system
Total capacity – (13,109kg)
F1 Wing fuel cell
F2 Wing Fuel-cell end ribs
F3 Fuel-probe capacitance type
F4 Gravity-refuelling point

Powerplant
P1 Pratt & Whitney Canada PWC 307A turbofan engines – rated at 6,100lb thrust at sea level
P2 Electronic engine control (EEC)
P3 Igniter box
P4 Fire extinguisher bottle
P5 Thrust reverser – "clamshell" type

Undercarriage and hydraulics
U1 Nose landing gear doors – composite
U2 Forward-retracting, hydraulically actuated, cantilever oleo pneumatic shock-absorber nose landing-gear with electrically controlled steering – Messier-Dowty
U3 Undercarriage-retraction actuator
U4 Undercarriage uplock
U5 Twin-wheel undercarriage maingear with free-fall capability – Messier-Dowty

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