

# Eurofighter Typhoon

## Structure and general

- 1 Radome – glass reinforced plastic(GRFP)
- 2 Forward bulkhead providing mounting for radar unit
- 3 Forward electrical-equipment bay
- 4 Forward pressure bulkhead with foreplane spigot
- 5 Cockpit floor
- 6 Access panel – radar equipment – carbonfibre composite(CFC)
- 7 Seat frame(CFC)
- 8 windscreen frame – aluminium alloy
- 9 One-piece laminated windscreen
- 10 Upward opening canopy – aluminium frame(hydraulic actuation)
- 11 Rear view mirrors
- 12 Spray bars – canopy demist
- 13 Side panels
- 14 Pilot's retractable footstep
- 15 Avionics bay – left and right
- 16 Access door with aerodynamic strake(CFC)
- 17 Boundary layer splitter plate
- 18 Air intake
- 19 Intake ramp bleed-air spill duct
- 20 Centre shock-body
- 21 Intake – moveable vari-cowl(FCS controlled)
- 22 Vari-cowl actuator – Dowty
- 23 Environmental control system(ECS) bay(Normalair-Garrett)
- 24 Sloping bulkhead – front fuselage-to-centre fuselage joint
- 25 Shear web
- 26 One-piece wrap-around centre skin with integral stiffeners(CFC).  
All skinning of similar configuration
- 27 Intermediate frame(CFC)
- 28 Shear webs
- 29 Machined frames with wing forward and centre attachment points – aluminim-lithium(Al-lith)
- 30 Dorsal spine(CFC)
- 31 Machined frame with wing rear attachment fitting(Al-lith)
- 32 Forward shear fitting – wing
- 33 Aft shear fitting – wing
- 34 Longeron
- 35 Keelplate/firewall in engine forward bay – titanium – super plastic formed, diffusion bonded(SPFDB)
- 36 Outer firewall – titanium(SPFDB)
- 37 Skin(CFC)
- 38 Forward attachment – fin
- 39 Aft attachment – fin
- 40 Fin with CFC skin over Al-lith stiffeners
- 41 Fin leading edge(Al-lith)
- 42 Fin tip(GRFP)
- 43 Fitting – engine thrust-spigot
- 44 Fitting – engine forward mounting
- 45 Aft pick-up – engine
- 46 Heat exchanger exhaust shield
- 47 Heat exchanger
- 48 Rear fuselage-engine sealing-plates(titanium)
- 49 Door – brake parachute
- 50 Multi spar wing
- 51 Front spar(CFC)
- 52 Intermediate spars(CFC)
- 53 Rear spar(CFC)
- 54 Auxiliary rib with fitting for inboard weapons pylon – aluminium
- 55 Bottom skin – resin bonded to spars and ribs(CFC)
- 56 Top skin – bolted to spars and ribs(CFC)

- 57 Wing forward shear fitting
- 58 Wing attachments – titanium
- 59 Auxiliary rib – aluminium
- 60 Wing aft shear fitting
- 61 Undercarriage beams – titanium
- 62 Multi segment rib – aluminium
- 63 Rib with fitting for 'wet pylon' – aluminium
- 64 Rib with fitting for weapons pylon – aluminium
- 65 Rib with fitting for outer weapons pylon – aluminium
- 66 Leading edge slat-brackets
- 67 Flaperon hinges
- 68 Engine bay access doors
- 69 Martin-Baker Mk16A zero-zero lightweight ejection seat
- 70 Initiator – canopy emergency release
- 71 Rocket motor – canopy emergency release
- 72 Emergency unlock cylinder
- 73 Access panel – engine nozzle actuators(titanium)
- 74 Finger seal(titanium)

## Controls

- C1 Pilot's control column – Bodenseewerk Geratechnik (for full authority, quadruplex digital fly-by-wire system)
- C2 All moving foreplane – titanium(SPFDB), Doubles as ground airbrake
- C3 Actuator – foreplane(Liebherr Aero-Technik)
- C4 Rudder pedal
- C5 Dorsal airbrake(CFC)
- C6 Actuator – airbrake
- C7 Inboard/outboard moveable leading edge(titanium)
- C8 Screw jacks – slats
- C9 Inboard flaperon – CFC skin on honeycomb core
- C10 Outboard flaperon – titanium
- C11 Actuators – flaperons – Leibherr Aero-Technik
- C12 Rudder – CFC skin on honeycomb core
- C13 Actuator – rudder(Leibherr Aero-Technik)
- C14 Hinge – rudder
- C15 Brake parachute

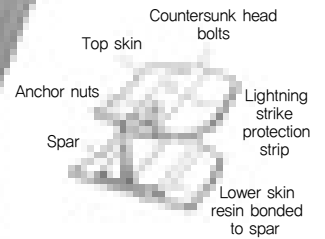
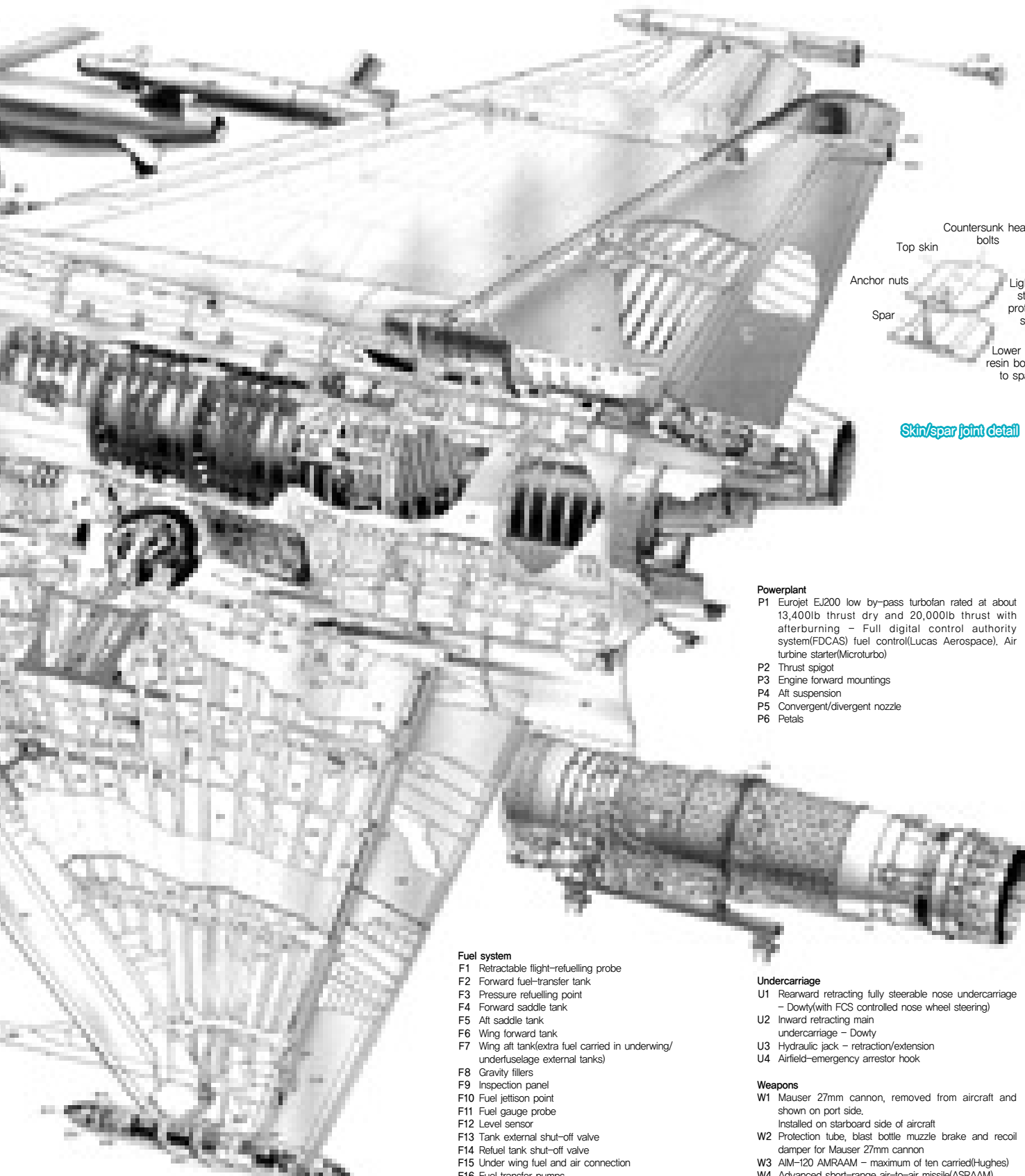
## Electrics and electronics

- E1 ECR 90 multi mode, pulse-Doppler radar – GEC-Marconi, INSEL, FIAR and Telefunken System Technik
- E2 Forward looking infra red unit/intra red search and track
- E3 High density power supply

- E4 Scan converter, control processor, data and track processor and detection processor
- E5 Full-colour multi function head-down display units – smiths Industries – three off
- E6 Wide field of view holographic head up display GEC-Marconi
- E7 Navigation computer
- E8 V/UHF
- E9 Engine monitoring unit
- E10 Relay box(GPS located on right-hand side)
- E11 IFF interrogator
- E12 IFF transponder
- E13 UHF aerial
- E14 Electronic counter measures/ electronic surveillance measures pod
- E15 ECM antenna
- E16 ESM antenna
- E17 Radome
- E18 Preselector – ECM
- E19 Converter – ECM
- E20 Cooling unit
- E21 Monopulse unit
- E22 Cable conduits
- E23 Navigation light
- E24 Towed decoy – two off
- E25 Missile-launch warner
- E26 Missile-approach warner
- E27 Flare dispenser
- E28 Control unit
- E29 Anti-collision beacon
- E30 TACAN
- E31 HF aerial
- E32 UHF/IFF aerial
- E33 Aft navigation light
- E34 Formation lights
- E35 Landing/taxi lamp

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**Skin/spar joint detail**

**Powerplant**

- P1 Eurojet EJ200 low by-pass turbofan rated at about 13,400lb thrust dry and 20,000lb thrust with afterburning – Full digital control authority system(FDCAS) fuel control(Lucas Aerospace), Air turbine starter(Microturbo)
- P2 Thrust spigot
- P3 Engine forward mountings
- P4 Aft suspension
- P5 Convergent/divergent nozzle
- P6 Petals

**Fuel system**

- F1 Retractable flight-refuelling probe
- F2 Forward fuel-transfer tank
- F3 Pressure refuelling point
- F4 Forward saddle tank
- F5 Aft saddle tank
- F6 Wing forward tank
- F7 Wing aft tank(extra fuel carried in underwing/underfuselage external tanks)
- F8 Gravity fillers
- F9 Inspection panel
- F10 Fuel jettison point
- F11 Fuel gauge probe
- F12 Level sensor
- F13 Tank external shut-off valve
- F14 Refuel tank shut-off valve
- F15 Under wing fuel and air connection
- F16 Fuel transfer pumps
- F17 Tank pressure pipe
- F18 Tank refuel/defuel transfer
- F19 wing tank vent pipe
- F20 Fuel drain
- F21 Transfer pipe
- F22 Fire retardant foam

**Undercarriage**

- U1 Rearward retracting fully steerable nose undercarriage – Dowty(with FCS controlled nose wheel steering)
- U2 Inward retracting main undercarriage – Dowty
- U3 Hydraulic jack – retraction/extension
- U4 Airfield-emergency arrestor hook

**Weapons**

- W1 Mauser 27mm cannon, removed from aircraft and shown on port side, Installed on starboard side of aircraft
- W2 Protection tube, blast bottle muzzle brake and recoil damper for Mauser 27mm cannon
- W3 AIM-120 AMRAAM – maximum of ten carried(Hughes)
- W4 Advanced short-range air-to-air missile(ASRAAM)
- W5 AIM-9L Sidewinder
- W6 Beyond visual range air to air missile(BVRAAM)
- W7 Alarm anti-radar missile – Matra/BAe Dynamics
- W8 Storm Shadow stand-off missile – Matra/BAe Dynamics
- W9 Broach laser-guided bomb – 1000/540lb,(BAe/Royal Ordnance)