

BASELINE AIRCRAFT DEFINITION

GENERAL

- Fuselage comprising cabin and baggage hold
- Baggage hold with floor tie-down net (LH and RH side)
- Tail boom with stabilizer fitted with 2 lateral fins and a shrouded tail rotor built into the vertical fin
- Retractable tricycle landing gear with axially lockable castering nose wheel unit, assisted differential brakes on pilot's and copilot's stations and parking brake
- 3 heated pitot heads
- 6 built-in foot-steps (3 on each side) for access to transmission deck
- Anti-corrosion protection
- Structural reinforcements for 1,600 kg (3,527 lb) cargo-sling
- Structural reinforcements for external hoist
- Jacking, hoisting, mooring and gripping points
- Interior colour: light grey
- Exterior colour:
 - the fuselage is painted following per standard colour chart (scheme and colours, gloss or matt polyurethane finish, white + 2 colours), unless modified by option
 - the landing gears are light blue
 - the transmission deck (MGB & tail rotor drive shaft) are white
 - the main rotor and tail rotor cover are grey
 - the main rotor blades are kaki and the tail rotor blades are black

COCKPIT / CABIN

- 1 multipurpose cabin
- 2 removable pilot and copilot energy attenuating high back-rest seats, adjustable in reach and height, each fitted with a 5 points harness
- 1 glass windshield
- 2 hinged pilot and copilot doors, jettisonable with tinted windows, allowing access to cockpit and front passenger row, each fitted with a sliding window
- 2 jettisonable tinted windows located between cockpit and cabin doors
- 2 passenger sliding doors with jettisonable tinted windows
- 2 externally mounted cockpit and cabin footsteps on each side
- 2 tinted upper panes
- Cabin upholstery
- Dual flight controls
- Fuel shut-off controls
- 1 rotor brake control
- 1 heating / demisting / ventilation system
- 2 windshield wipers
- 1 portable fire-extinguisher in cockpit
- 2 illuminated chart holders
- 2 headset hooks
- Stowage place in the doors for flight documents
- 1 flight manual

INSTRUMENTS

- 2 Primary Flight Displays (PFD) providing the following information:
 - Attitude
 - Indicated airspeed with flight envelope data
 - Vertical speed
 - Barometric altitude
 - ILS (with heading scale) (*)
 - Auto Pilot mode annunciator
 - DH alarm
- 2 Navigation Displays (ND) providing the following information:
 - Heading
 - Radio navigation sources (*)
 - Automatic bearings (*)
 - Radar altitude scale with DH select
 - ILS (*)
 - DME (*)
 - 2 D navigation leg displays (*)
 - External video sources (*)
- 1 dual screen Vehicle and Engine Management Display (VEMD[®]) providing the following information:
 - First Limitation Indicator (FLI): limitation related to the first power limitation: NG, T4, TRQ
 - Engine oil temperature/pressure indicator
 - Hydraulic pressure
 - Ammeter and voltmeter
 - OAT
 - Enhanced usage monitoring functions
 - ◆ Engine cycle counting
 - ◆ Automatic engine check
- 1 Caution Advisory Display (CAD) providing the following information:
 - Caution advisory display (amber, green and blue messages)
 - Fuel quantity
 - Fuel pressure
 - ΔNG (back-up mode)
- 2 Instrument Control Panels (ICP)
 - 1 stand-by gyro-horizon
 - 1 stand-by anemometer
 - 1 stand-by altimeter
 - 1 stand-by magnetic compass
 - 1 landing gear position selector and indicator
 - 2 stop watches
 - 1 triple tachometer for rotor and engine 1 and 2 free turbine r.p.m.
 - 1 tachometer for rotor on copilot's side
 - 1 warning panel (red alarms)
 - 2 master alarm lights
 - 2 manoeuvre limit lights
 - 2 "L/G not extended" warning lights
 - 1 Automatic Pilot Mode Selector (APMS)
 - 1 Reconfiguration Control Unit (RCU)
 - 1 fuel circuit control and inspection panel
 - 1 AHRS control box
 - 1 overhead panel including :
 - 1 engine control panel
 - 2 dual fire extinguishing controls for engine bays
 - 1 dual fire extinguishing control for baggage hold
 - 1 electrical control panel
 - 1 brake hydraulic circuit pressure gauge on pilot side floor
 - 2 Attitude and Horizontal Reference Systems (AHRS)
 - 2 Air Data Computers (ADC)
 - 1 radar altimeter (radar altitude displayed on NDs)
 - 1 nose mounted rack with the following avionics modules:
 - 2 Flight Data Computer Modules (FDCM)
 - 1 Automatic Pilot Module (APM)
 - Spare for 1 Miscellaneous Flight Data Acquisition Unit (MFDAU) (*)

(*) when optional equipment is fitted

POWER PLANT

- 2 TURBOMECA ARRIEL 2C2 turbine engines with dual channel Full Authority Digital Engine Control (FADEC) system, and fitted with 4 chip detectors cabled with 1 warning light on warning panel

The Digital Engine Control Unit (FADEC) provides the following main functions:

- Variable rotor speed governing
- OEI training mode
- Automatic starting sequence

Each engine is equipped with an anti-icing fuel system (efficient down to O.A.T. = -20° C)

- Automatic (FADEC controlled) engine governing in back-up mode
- 1 fuel system including 6 tanks split into 2 groups, with a total usable capacity of 1,257 litres (332 US gal), 4 immersed canister booster pumps, 1 transfer pump and low level fuel indication
- 2 engine lubrication and oil cooling systems
- 1 fuzz burner system on engine lubrication system
- 2 engine fire detection and extinguishing systems
- 2 engine anti-icing air-intake grids
- 2 phase angle torquemeter sensors
- Single side engine flushing port (without cowlings removal)
- Single side fuel filler with door

TRANSMISSION SYSTEM

- 1 main gearbox with oil level sight, magnetic plug, oil pressure and temperature sensors, 1 dual-pump lubrication system, thermal-switch, 2 rotor tachometer sensors, access ports for endoscope and oil sampling, and 2 chip detectors wired to the Caution Advisory Display
- 2 free wheels integrated to the main gearbox

- 1 main gearbox oil cooling system
- 2 engine / main gearbox coupling shafts
- 1 tail rotor drive shaft
- 1 rotor brake
- 1 tail gearbox with oil level sight and 1 chip detector wired to the Caution Advisory Display

ROTORS AND FLIGHT CONTROLS

- 1 main rotor with:
 - 5 glass / carbon-fibre blades
 - 1 SPHERIFLEX® rotor head fitted with lower gust and droop stops
 - 1 rotor mast fitted with rotor r.p.m. phonic-wheel
- 1 FENESTRON® type tail rotor with 10 composite material blades built into the vertical fin.

- 1 flight control system, fitted with 3 dual-chamber / dual-body main servo-units (on cyclic and collective pitch channels) and 1 dual-chamber / dual-body rear servo-unit (on tail rotor pitch control channel)
- 1 Dual Digital Automatic Flight Control System (4-axis type) including upper modes

ELECTRICAL INSTALLATION

- Power generation system:
 - 2 starter / generators (160 Amp, 28 V DC)
 - 43 Amp / hr nickel-cadmium battery with temperature sensor and warning light
 - 1 external 28 V DC power connector
 - 1 additional maintenance ICS jack in the ground power receptacle compartment
- Power distribution system:
 - 2 primary bus bars
 - 2 essential bus bars
 - 2 high load bus bars (80 A) – for optional equipment only
 - 1 battery bus
 - 2 breaker panels in radome
 - 1 breaker panel in cockpit

- Lighting:
 - 1 anti-collision light
 - 1 LH side retractable landing light (450 W)
 - 1 RH side retractable swivel light (450 W)
 - 3 position lights (red, green, white)
 - adjustable instrument lighting
 - 2 utility lights in the cockpit
 - 1 instrument light for flight in stormy conditions
 - Overhead lights in cabin and cargo compartment
- 2 x 28 V DC power outlets in cabin
- 1 emergency battery for automatic lighting of the cabin central overhead lights and call signs

HYDRAULIC GENERATION

- 2 independent hydraulic systems feeding the servo-units, landing gear actuation system and assisted brakes
- 1 self-sealing hydraulic ground coupling

- 1 stand-by hydraulic system with electro-pump for emergency activation of the landing gear and for hydraulic assistance on ground (engines not running)

AIRBORNE KIT (*)

- 3 pitot head covers
- 2 static vent plugs
- 2 engine air-intake covers
- 2 engine exhaust pipe covers
- 7 mooring rings
- 2 rough weather tie-down rings

- 2 gripping rings
- 1 main blades tie-down kit
- 1 set of jacking pads
- 1 fuel tanks bleed tool
- 1 data case
- 1 airborne kit stowing bag

(*) weight not included in standard aircraft empty weight.