

1 Baseline Aircraft Definition

GENERAL

- Energy absorbing fuselage
- Tail boom with fixed horizontal stabilizer and two endplates
- Vertical fin with faired-in Fenestron®
- Upper deck with fittings for main gearbox, engines, hydraulic and cooling system
- Cowlings for main transmission and engine
- Skid-type landing gear with skid protectors, capable of taking ground-handling wheels
- Long boarding steps, LH and RH
- Maintenance built-in steps and grips
- Exterior painting (single color)

COCKPIT, CABIN AND CARGO COMPARTMENT

- One-level cabin and cargo compartment floor with integrated rails
- Glazed canopy
- Two hinged cockpit doors with sliding window
- Map case in pilot's door
- Two wide passenger sliding doors
- Two rear hinged clam-shell doors
- Longitudinally adjustable energy absorbing pilot and copilot seats with head rest and 4-point safety belts with automatic locking system
- Cabin boarding grips LH and RH
- Interior paneling with integrated basic sound insulation
- Flight controls (pilot side)
- Engine controls with manual engine back-up system at pilot's collective pitch lever
- Instrument panel with extension on pilot's side and glare shield
- Ram-air and electrical ventilating system for cockpit and cabin
- Headset holder in the cockpit
- Headset holder in the cabin
- Portable fire extinguisher
- Stowage net for first aid kit at the LH rear clam-shell door
- Flash light (torch)
- 4 Mobile tie-down rings

BASIC INSTRUMENTATION

- Central Panel Display System (CPDS), consisting of:
 - Caution Advisory Display (CAD) with indication of:
 - Caution and advisory information
 - Fuel quantity indication
 - Vehicle and Engine Multifunction Display (VEMD) with indication of:
 - Torque
 - Engine parameters N1-RPM (for P&WC) or Δ N-1RP (for TM), oil pressure, oil temperature, Turbine Outlet Temperature (TOT), engine / FADEC rep EEC failure and parameter code messages, self diagnoses
 - First Limit Indicator (FLI) for TQ, TOT, N1 (for P&WC) or Δ N1 (for TM) as analogue display
 - Main transmission parameters (oil pressure, oil temperature)
 - Dual ammeter (generator)
 - Ammeter (battery)
 - Dual voltmeter
 - Outside Air Temperature (OAT)
 - Automatic in flight power check
 - Parameters of optional equipment (e.g. internal long range fuel tank)
 - Clock (2")
 - Magnetic compass
 - Engine cycle counter (on flight report page)
 - Triple (rotor and engines) RPM-indicator (2")
 - Standard instruments: (single pilot)^a
 - Airspeed indicator (3")
 - Encoding altimeter (3")
 - Vertical speed indicator (3")
 - Warning unit:
 - Engine fire warning with fuel emergency shut-off
 - Warning lights
 - Aural warning
 - Main switch panel:
 - DC power control
 - Full Authority Digital Engine Control (FADEC)
 - Pitot static system with electrical heated pitot tube, pilot side
 - Static pressure crossover system
 - Air Data Computer (ADC)
- a. If glass cockpit instrumentation is chosen as optional equipment, these standard instruments are deleted (function included in MEGHAS) and an altimeter (2") and an airspeed indicator (2") as back-up instruments are added.

POWER PLANT

- Two Pratt & Whitney PW206B2 turbine engines or Two Turbomeca ARRIUS 2B2 turbine engines
 These two engines are equipped with:
 - Fire detectors
 - Full Authority Digital Engine Control (FADEC)
 - Chip detectors with quick-disconnect plugs
 - Overspeed protection system
- Twin-engine OEI-training mode
- Oil cooling and lubricating system with thermostatic valve
- Crash resistant fuel system with a flexible bladder-type fuel main tank and supply tank (split into two sections)
- Automatically controlled variable rotor speed system
- Fuel tank filler flap, lockable

TRANSMISSION SYSTEM

- Flat-shaped main gearbox with two stages
- Chip detector system with quick-disconnect plug (main gearbox)
- Redundant oil cooling and lubrication system
- Main gearbox attachment with Anti-Resonance Isolation System (ARIS)
- Free wheel assemblies in the engine input drives
- Tail rotor drive shaft
- Tail rotor gearbox with splash lubrication and oil level sight gauge
- Chip detector system with quick-disconnect plug (tail rotor gearbox)

ROTOR AND FLIGHT CONTROLS

- Bearingless Main Rotor system (BMR), consisting of:
 - Rotor head / mast in one piece
 - Four fiber-reinforced composite main rotor blades with anti-erosion strips, control cuff, elastomeric lead-lag dampers and special blade tip painting
- Main rotor control system with dual hydraulic boost system
- Electrical trim system (cyclic)
- Basic provisions for an easy integration of a track and balance system
- Fenestron[®]-type tail rotor with ten metal blades (asymmetric blade spacing) and stator
- Tail rotor gearbox cover
- Tail rotor control system with flexball cable and single hydraulic booster
- Yaw-SAS (Stability Augmentation System)
- Mast moment system

ELECTRICAL INSTALLATION

- Two starter / generators (2x160 A, 28 VDC)
- Nickel-Cadmium battery, (24 V, 17 Ah)
- External power connector (STANAG 3302)
- Power distribution system:
 - Two primary busbars
 - Two shedding busbars
 - Two essential busbars
 - Two high load busbars (80 A) - for optional equipment only
 - Two high power busbars (200 A)
- Battery bus
- One utility receptacle in LH side of cargo compartment (28 VDC, 10 A)
- Lighting:
 - Anti-collision warning light (red flashing)
 - Fixed, nose-mounted landing light (250 W)
 - Three position lights (red, green, white)
 - Adjustable instrument lighting
 - One utility light in the cockpit
 - 5 spot-lights in the cabin
 - One light in cargo compartment RH side

GROUND HANDLING KIT^a

- Two ground-handling wheels
- Basic aircraft covers (short time)
- Main rotor blade tie-down lash bags
- Oil drain hoses
- Fuel tank drain device
- Keys for cockpit doors, cabin doors, baggage compartment doors and tank flap (one-key system)
- Battery key
- Lifting points

a. Weight not included in the standard helicopter empty weight

DOCUMENTATION (in English)

- One Flight Manual on paper^a (CD-ROM on request)
- One Pilots-Checklist on paper^{bc}
- One set of Logbooks on paper (CD-ROM on request)
- One Historical Record on paper^b (CD-ROM on request)
- One AMM^d, SDS^d, WDM^d, MSM, IPC, CECG, SRM on INDOC CD-ROM^a
- SB & IN Catalogue available in internet via T.I.P.I.
- One MMEL on paper^{ab} (also available in internet via T.I.P.I.)
- One LOAP on paper^{ab} (also available in internet via T.I.P.I.)
- One Avionics Manual on paper^{bd} if avionics equipment is installed by EUROCOPTER[®]
- One CMM on CD-ROM^a (ECMM)
- One Engine Documentation on paper^{be} or CD-ROM, furnished by supplier, including:
 - EMM
 - IPC
 - SB

- a. Revision service included as long as the aircraft is operational.
- b. Weight not included in the helicopter empty weight (Baseline Aircraft Definition).
- c. Revision service for 3 years.
- d. Customized documentation.
- e. Revision service for 5 years (Turbomeca) and for 2 years (Pratt & Whitney).