

3 Baseline Aircraft Definition

GENERAL

- Energy absorbing fuselage
- Tail boom with fixed horizontal stabilizer
- 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-1RPM (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 in)
- Magnetic compass
- Engine cycle counter (on flight report page)
- Triple (rotor and engines) RPM-indicator (2 in)
- Standard instruments: (single pilot)^a
 - Airspeed indicator (3 in)
 - Encoding altimeter (3 in)
 - Vertical speed indicator (3 in)
- 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 in) and an airspeed indicator (2 in) as back-up instruments are added.

POWER PLANT

- Two Pratt & Whitney PW206B3 turbine engines or Two Turbomeca ARRIUS 2B2^{PLUS} 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) with improved dynamic characteristics, 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, LN9064, SAE AS 25018, SAE AS 35061)
- 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), LED
 - Fixed, nose-mounted landing light (250 W)
 - Three position lights (red, green, white), LED
 - 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 term)
- 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^{ab} (on paper)
- One Pilots Checklist^c (on paper)
- One Master Minimum Equipment List (MMEL)^a (on paper)
- One Logbook (on paper, CD-ROM on demand)
- One Historical Record (on paper, CD-ROM on demand)
- Technical Documentation^{ad} incl. AMM, SDS, WDM, IPC, MSM, CECG, SRM online via KEYCOPTER® portal
- Service Bulletin Catalogue (SB) online via T.I.P.I
- List of Applicable Publications (LOAP)^a online via KEYCOPTER® portal
- One Avionics Manual^e (for avionics installed by Airbus Helicopters) (on CD-ROM)
- One CD-ROM ECMM^c (Electronic Component Maintenance Manuals) for vendor manuals
- One Engine Documentation^f (format depends on engine manufacturer), furnished by supplier, including:
 - Maintenance Manual
 - Illustrated Parts Catalogue

- a. Revision service included as long as the aircraft is operational
- b. One Flight Manual included in the standard helicopter empty weight
- c. Revision service for 3 years
- d. Customized AMM, SDS, WDM and IPC versions available on request
- e. Customized documentation
- f. Revision service for 5 years for TM, 2 years for PWC