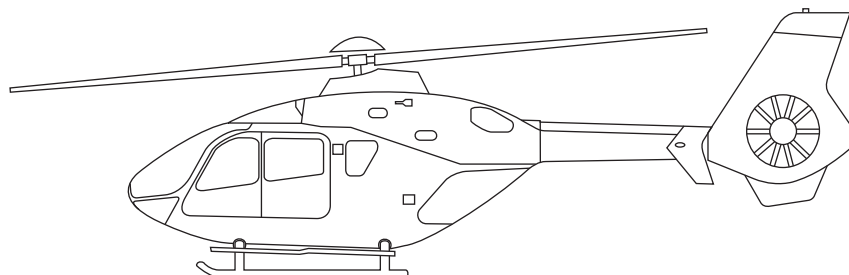




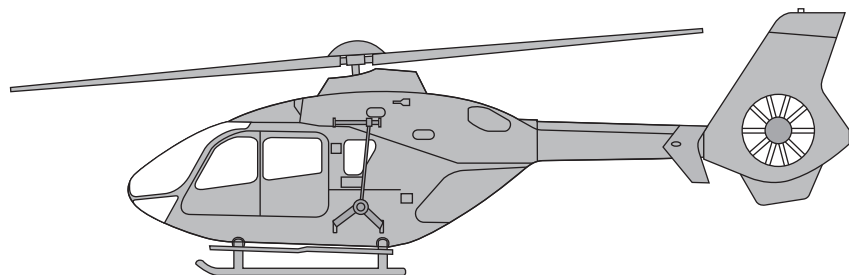
# **AH135M**

Technical Data  
2016

**H135**  
(Civil Version)



**H135M**  
(Military Version)



### 3 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)
- Reinforcement of the LH and RH fuselage side structure with fixed provisions for multipurpose pylon LH and RH

#### 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
- NVG friendly cockpit, cabin and cargo compartment layout

#### 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  $\Delta$ N1-RPM (for TM), oil pressure, oil temperature, Turbine Outlet Temperature (TOT), engine / FADEC repective EEC failure and parameter code messages, self diagnoses
  - First Limit Indicator (FLI) for TQ, TOT, N1 (for P&WC) or  $\Delta$ 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)<sup>a</sup>
  - 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) 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<sup>®</sup>-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 NVG friendly
  - Fixed, nose-mounted landing light (250 W)
  - Three position lights (red, green, white), LED NVG friendly
  - Adjustable instrument lighting, NVG friendly
  - One utility light in the cockpit, NVG friendly
  - 5 spot-lights in the cabin, NVG friendly
  - One light in cargo compartment RH side

## GROUND HANDLING KIT<sup>a</sup>

- 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)<sup>a</sup>

- One Flight Manual<sup>ab</sup> (on paper)
- One Pilots Checklist<sup>c</sup> (on paper)
- One Master Minimum Equipment List (MMEL)<sup>a</sup> (online via T.I.P.I)
- One Logbook (on paper, CD-ROM on demand)
- One Historical Record (on paper, CD-ROM on demand)
- Technical Documentation<sup>a</sup> incl. AMM, SDS, WDM, IPC, MSM, CECG, SRM<sup>d</sup> online via KEYCOPTER<sup>®</sup> portal
- Service Bulletin Catalogue (SB) online via T.I.P.I
- List of Applicable Publications (LOAP)<sup>a</sup> online via KEYCOPTER<sup>®</sup> portal
- One Avionics Manual<sup>e</sup> (for avionics installed by Airbus Helicopters) (on CD-ROM)
- One ECMM<sup>c</sup> (Electronic Component Maintenance Manuals) for vendor manuals
- One Engine Documentation<sup>f</sup> (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



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