

HELICOPTERS

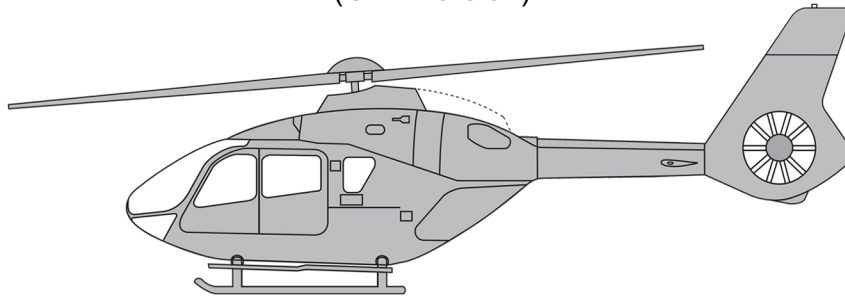
H135

Technical Description
2020

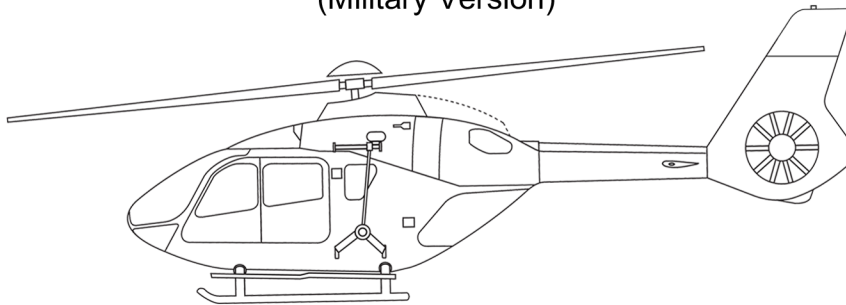


AIRBUS

H135
(Civil Version)



H135M
(Military Version)



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 for pilot side; fixed provisions of flight controls for copilot side
- Covers for copilot collective lever, cyclic stick and pedals
- Engine controls with manual engine back-up system at pilot's collective pitch lever
- Single pilot instrument panel with glare shield and slant console
- Ram-air and electrical ventilating system for cockpit and cabin
- Helmet 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) for pilot side

INSTRUMENTS

- Flight Display Subsystem (FDS) composed of 2 smart multifunction displays (6 x 8 inch) providing the following functions:
 - Flight and Navigation Display (FND) format (incl. PFD, FLI, Master List, NAV, RPM, mast moment & fuel indication)
 - Vehicle Management System (VMS) format (incl. engine, gearbox, fuel, electrical system, RPM & clock indication)
- Vehicle Management System (VMS) including:
 - 2 duplex Aircraft Management Computer (AMC)
- Reference sensors:
 - 1 Attitude and Heading Reference System
 - Air Data sensor pilot side (electrically heated pitot tube and static port)
 - 1 Magnetometer
- Standby instruments:
 - Integrated Electronic Standby Instrument (IESI)
 - Standby compass
- Usage Monitoring System (UMS)
- Flight Data Continuous Recorder (FDCR)
- "One hundred feet" alert
- Directional Gyro Free Steering Mode
- Warning unit:
 - Engine fire warning with fuel emergency shut-off
 - Warning lights
 - Fire extinguishing system warning
- Cockpit Control Panel (CCP) for FDS
- Data Transfer Device (DTD)
- Engine switch panel

POWER PLANT

- Two Pratt & Whitney Canada PW206B3 turbine engines or two Safran Helicopter Engines ARRIUS 2B2^{plus} turbine engines
 - Two-engine OEI-training mode
 - Oil cooling and lubricating system with thermostatic valve
 - Crash resistant fuel system with a flexible bladder-type main tank and supply tank (split into two sections)
 - Automatically controlled variable rotor speed system
 - Fuel tank filler flap, lockable
 - Drain system
 - Fire walls
- These two engines are equipped with:
- Fire detectors
 - Full Authority Digital Engine Control (FADEC)
 - Chip detectors with quick-disconnect plugs
 - Overspeed protection system
 - Cycle indication on FDS

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
- 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
- Digital 3-axis SAS (Stability Augmentation System)
- Mast moment system

ELECTRICAL INSTALLATION

- Two starter / generators (2x200 A, 28 VDC)
- Nickel-Cadmium battery, (24 VDC, 27 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, LED
 - 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
- Radio:
 - Two radio master switches

GROUND HANDLING KIT^a

- Basic aircraft covers (short term)
- Oil drain kit
- Fuel tank drain device
- Keys for cockpit doors, cabin doors, baggage compartment doors and tank flap (one-key system)
- Battery key
- Lifting points
- Maintenance Ground Station (MGS) software
- Airbus Helicopters Helicopters Data Loader (AHDL)
- Flight Data Continuous Recorder (FDCR) converter
- Fleet Keeper application^b
- Flight Planner application^c
- Operational software for AMC and MFD
- Primary Configuration File (PCF)
- One DBox

- a. Weight not included in the standard helicopter empty weight.
 b. Licences for one year and one helicopter included.
 c. Two licenses for one year and one helicopter included. Availability date to be confirmed.

DOCUMENTATION (in English)

- One Flight Manual^{ab} (on paper)
- One Pilots Checklist^c (on paper)
- Master Minimum Equipment List (MMEL)^a online via Keycopter[®] portal
- One Logbook (on paper, CD-ROM on demand)
- One Historical Record (on paper, CD-ROM on demand)
- Technical Documentation^a 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^d (for avionics installed by Airbus Helicopters) (on CD-ROM and online via Keycopter)
- Online Component Maintenance Manual (OCMM)^c for vendor manuals online via Keycopter portal
- One Engine Documentation^e (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 documentation
 e. Revision service for 3 years for Safran HE, 2 years for PWC

AIRBUS

© AIRBUS HELICOPTERS, Aéroport International
Marseille Provence - 13725 Marignane Cedex -
France - 2018 - All rights reserved

Airbus Helicopters' logo and the names of its
products and services are registered trademarks.

Airbus Helicopters reserves the right
to make configuration and data changes
at any time without notice. The facts and
figures contained in this document and
expressed in good faith do not constitute any
offer or contract with Airbus Helicopters.

Designed by AIRBUS HELICOPTERS

Photos: AIRBUS HELICOPTERS

Cover photo: © Airbus Helicopters, Jonny Carroll, 2018
Printed by SPI (France)

135 T3H/P3H 20.101.01 E