HELICOPTERS

H145

Technical Data

2019

AIRBUS

3 Baseline Aircraft Definition

GENERAL

- Energy absorbing fuselage
- Tail boom with fixed horizontal stabilizer and vertical fin with faired-in Fenestron®
- Upper deck with fittings for main gearbox, engines, hydraulic and cooling system
- Cowlings for main transmission and engines
- Improved engine cowling heat protection
- Skid-type landing gear with skid protectors, capable of taking ground-handling wheels
- Long boarding steps, LH and RH
- Cold weather kit
- Built-in maintenance steps and grips
- Exterior painting (single color)

COCKPIT, CABIN AND CARGO COMPARTMENT

- One-level cabin and cargo compartment floor with integrated rails
- Two hinged cockpit doors with sliding window
- Map case in pilot´s door
- Two wide passenger sliding doors with window of push-out type
- 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 & cockpit boarding grips (LH and RH)
- Flight controls (pilot side)
- Single pilot instrument panel with glare shield
- Interior paneling
- Ram-air and electrical ventilating system for cockpit and cabin
- Bleed air heating system
- Ventilation for avionics deck[a]
- Helmet holder in the cockpit, rotatable
- Portable fire extinguisher
- Stowage net for first aid kit at the LH rear clam-shell door
- 2 flashlights (torches)
- Slant console
- Center console
- Windscreen wiper for pilot and copilot
- Door open warning

a. If required by final configuration.

INSTRUMENTS

- Flight Display Subsystem (FDS) composed of 2 smart multifunction displays (6 x 8 inch) providing the following functions:
  - Flight Navigation Display (FND) format (incl. PFD, FLI, Master list, NAV, RPM, mast moment & fuel indication)
  - Vehicle Monitoring System (VMS) format (incl. engine, gearbox, hydraulic, fuel, electrical system, RPM and clock indication)
- Vehicle Management System (VMS) including:
  - 2 duplex Aircraft Management Computer (AMC)
- Reference sensors:
  - 3 Attitude and Heading Reference Systems (AHRS)
  - 2 Air Data sensors (electrically heated pitot tube and static port)
  - 2 Three Axis Magnetometers (TAM)
- Stand-by instruments:
  - Integrated Electronic Standby Instrument (IESI)
  - Stand-by compass
- Usage Monitoring System (UMS)
- „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
- Wireless Airborne Communication Server (WACS)
- Engine switch panel:
  - Digital engine control (FADEC)
- Radar altimeter

POWER PLANT

- Two Safran Helicopter Engines ARRIEL 2E turbine engines with electronic engine control (double channel FADEC)
- Crash resistant fuel system with a flexible bladder-type fuel main tank and supply tank (split into two sections)
- Two independent oil cooling and lubrication systems of the engines
- Fire detection and extinguishing system
- Chip detectors with quick-disconnect plugs
- Twin-engine OEI-training mode
- Automatically controlled variable rotor speed system
- Cycle counter
- Drain system
- Fire walls

TRANSMISSION SYSTEM

- Main transmission including an independent redundant lubrication system and monitoring sensors
- Chip detector system with quick-disconnect plug (main transmission)
- Free wheel assemblies in the engine input drives
- Rotor brake system
- Tail rotor transmission system 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
  - Five glass and carbon fiber reinforced blades with erosion protection strip, control cuff, detachable outer blade, elastomeric lead-lag dampers
- Fenestron®-type tail rotor with ten composite blades (asymmetric blade spacing) and stator
- Tail rotor gearbox cover
- Basic provisions for an easy integration of a track and balance system
- Dual hydraulic boost system for cyclic and collective blade control of the main rotor
- Tail rotor control system with flexball cable and dual hydraulic booster
- Main rotor blade tip painting (yellow)
- Vector Mast Moment System (VMMS)
- Dual Duplex 4-axis Digital Automatic Flight Control System including upper modes

ELECTRICAL INSTALLATION

- Power generation system:
  - Two starter/generators (2 x 200 A, 28 VDC)
  - Nickel-Cadmium battery, (24 VDC, 40 Ah)
  - External power connector (STANAG 3302)
- Power distribution system:
  - Two main busbars
  - Two essential busbars
  - Two shedding busbars
  - Two non-essential busbars (80 A) for optional equipment only
  - Battery bus
  - One utility receptacle in cargo compartment (28 VDC, 20 A)
- DC power control
- Two avionic master switches
- Lighting:
  - Dual color anti-collision warning light (red flashing) with integrated white strobe light (400 Cd), LED
  - Fixed landing light, LED
  - Three position lights (red, green, white), LED
  - Adjustable instrument lighting
  - One utility light in the cockpit, LED
  - Lights in the cabin and cargo compartment
  - Boarding illumination
  - Emergency lights

GROUND HANDLING KIT[a]

- Two ground-handling wheels
- Basic aircraft covers (short term, incl. main rotor blade tie down)
- Oil drain hoses
- Keys for cockpit, cabin, clam-shell doors and tank flap (one-key system)
- Battery key
- Lifting points
- Compass compensation key
- Fuel drain device
- Maintenance Ground Station (MGS) software
- Airbus Helicopters Data Loader (AHDL)
- Flight Data Continuous Recorder (FDCR) converter
- Operational software for AMC and MFD
- Primary Configuration File (PCF)
- Fleet Keeper application[b]
- Flight Planner application[c]

a. Weight not included in the standard helicopter empty weight.
b. License for one year and one helicopter included.
c. Two licenses for one year and one helicopter included.

DOCUMENTATION (in English)

- One Flight Manual[a b] (on paper)
- One Pilots Checklist[c] (on paper)
- One 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[ad] incl. AMM, SDS, WDM, IPC, MSM, CECG, SRM online via Keycopter® portal
- Service Bulletin Catalogue (SB) online via T.I.P.I.
- One List of Applicable Publications (LOAP)[a] online via Keycopter portal
- One Avionics Manual[e] (for avionics installed by Airbus) (on CD-ROM)
- One ECMM[c] (Electronic Component Maintenance Manuals) for vendor manuals
- One Engine Documentation[c] (online via TOOLS portal), furnished by supplier, including:
  - Maintenance Manual
  - Illustrated Parts Catalogue (IPC)

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.

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