



EC145

Technical Data
2014

3 Baseline Aircraft Definition

GENERAL

- Energy absorbing fuselage
- Tail boom with fixed horizontal stabilizer and two endplates
- Upper deck with fittings for main gearbox, engines, hydraulic and cooling system
- Cowlings for main transmission and engines
- 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
- Glazed canopy
- 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; seat color grey or blue
- Cabin boarding grips (LH and RH)
- Interior paneling with integrated basic sound insulation
- Flight controls (pilot side)
- Engine twist grip controls at pilot's collective pitch lever
- Instrument panel with extension on pilot's side and glare shield
- Ram-air for cockpit
- Electrical ventilating system for cockpit
- Headset holder in the cockpit, rotatable
- Portable fire extinguisher
- Stowage net for first aid kit at the LH rear clam-shell door
- First aid kit^a
- 2 flashlights (torches)
- Slant panel
- Center console
- Windscreen wiper for pilot and copilot
- Door open warning

- a. First aid kit complies with German regulation rules 1. DV LuftBO paragraph 5(2). Type of operation, procedures or regulations may require a different/specific first aid kit.

BASIC INSTRUMENTATION

CENTRAL PANEL

- Central Panel Display System (CPDS) consisting of two LCD displays
 - Cautions and Advisories Display (CAD) with digital indication of:
 - Caution and advisory information
 - Fuel quantity indication
 - Vehicle and Engine Multifunction Display (VEMD) with digital indication of:
 - Engine parameters (engine oil pressure, engine oil temperature)
 - FLI (First Limit Indicator) for TQ, TOT, $\Delta N1$ as analogue display
 - Main gear box parameters (oil pressure, oil temperature)
 - Dual amperemeter for generator; ampere meter for battery
 - Dual voltmeter
 - Outside Air Temperature (OAT)
 - Mast moment indication
- Back-up conventional instruments (2")
 - Clock
 - Stand-by-horizon
 - Triple (rotor and engines) RPM-indicator

- Warning unit
 - Engine fire warning with fuel emergency shut-off
 - Warning lights
 - Aural warning (for each warning, rotor RPM, fire warning)
 - Fire extinguishing system warning
 - Master caution light
- Main switch panel
 - DC power control
 - VARTOMS control
 - Start switches
- Magnetic compass

AIR DATA

- Dual pitot static system (electrically heated pitot tube and static port)
- 2 ADC MEGHAS sensors

STANDARD INSTRUMENTS (SINGLE PILOT)^a

- Air speed indicator (3")
- Vertical speed indicator (3")
- Encoding altimeter (3")
- Artificial horizon (4")
- Gyro magnetic heading with horizontal situation ind. (3")

- 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 TURBOMECA ARRIEL 1E2 turbine engines, complete with starting, fuel supply and control systems
- Crash resistant fuel system
- Two independent oil cooling and lubrication systems of the engines
- Fire detection and extinguishing system
- VARTOMS (Variable Rotor speed and Torque Matching System)
- Overspeed control
- Cycle counter

TRANSMISSION SYSTEM

- Main transmission including an independent redundant lubrication system and monitoring sensors
- Rotor brake system
- Tail rotor transmission and intermediate transmission with splash lubrication, magnetic plug and oil level sight gauge

ROTOR AND FLIGHT CONTROLS

- Hingeless main rotor (System Bölkow) with 4 glass and carbon fiber reinforced blades with erosion protection strip
- Semi-rigid tail rotor with 2 twisted glass fiber reinforced blades of new technology with erosion protection strip
- Basic provisions for an easy integration of a balancing system
- Dual hydraulic boost system for cyclic and collective blade control of the main rotor
- Single hydraulic boost system for yaw control
- Stability Augmentation System (SAS) for tail rotor
- Main and tail rotor blade tip painting (yellow)

ELECTRICAL INSTALLATION

- Power generation system:
 - Two starter/generators (2 x 200 A, 28 VDC)
 - Nickel-Cadmium battery, (24 V, 27 Ah), rear installation
 - External power connector (STANAG 3302)
- Power distribution system:
 - Two primary busbars
 - Two essential busbars
 - Two shedding busbars
 - Two non-essential busbars (50 A) - for optional equipment only
 - Battery bus
 - One utility receptacle in cargo comp. (28 VDC, 20A)
- Lighting:
 - Anti-collision warning light (red flashing)
 - Fixed landing light (250 W)
 - Three position lights (red, green, white)
 - Adjustable instrument lighting
 - One utility light in the cockpit
 - Lights in the cabin and cargo compartment
 - Boarding illumination
 - Emergency lights
- Radio:
 - Two radio master switches

GROUND HANDLING KIT^a

- Two ground-handling wheels
- Basic aircraft covers (short time)
- Oil drain hoses
- Keys for cockpit doors, cabin doors, baggage compartment doors and tank flap (one-key system)
- Battery key
- Lifting points
- Compass compensation key
- Fuel drain device

a. Weight not included in the standard helicopter empty weight

DOCUMENTATION (in English)

- One Flight Manual^{a b} (on paper)
- One Pilots Checklist^c (on paper)
- Master Minimum Equipment List (MMEL)^a
- One Logbook (on paper, CD-ROM on demand)
- One Historical Record (on paper, CD-ROM on demand)
- One CD-ROM^a incl. AMM, SDS, WDM, IPC, MSM, CECG, SRM^d
- Service Bulletin Catalogue (SB) online via T.I.P.I.
- One List of Applicable Publications (LOAP)^a online via T.I.P.I.
- One Avionics Manual^e (for avionics installed by Airbus Helicopters) (on paper and CD-ROM)
- One CD-ROM ECMM^c (Electronic Component Maintenance Manuals) for vendor manuals
- Engine Documentation^f (on paper or CD-ROM), 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
- f. Revision service for 5 years



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Printed by I & D (France)