



H175

Technical Data
2016

3 Baseline Aircraft Definition

GENERAL

- 5-module crashworthy airframe comprising:
 - Front fuselage (cockpit and nose avionics bay)
 - Central fuselage (cabin)
 - Intermediate fuselage including:
 - ◆ Luggage hold with large flat floor
 - ◆ 2 lockable doors (LH and RH side)
 - ◆ 8 rings (4 on floor, 4 on ceiling)
 - Rear fuselage: tail boom with pylon and horizontal stabilizer
 - Cowlings and fairings
- Retractable tricycle landing gear with axially lockable castoring nose wheel unit, parking brake and assisted brakes on pilot and copilot station
- Handles for upper cowlings locking / unlocking
- Maritime anti-corrosion protection
- Structural reinforcements for cargo-sling
- Structural reinforcements for external hoist
- Jacking, hoisting, mooring points
- External paint (aircraft painted in up to 3 colors, according to standard paint scheme complexity)

COCKPIT / CABIN

- 2 removable pilot and copilot crashworthy high back-rest black covered seats, adjustable in height, forward & aft each fitted with a 5 points harness
- 1 glass windshield
- 2 tinted upper cockpit windows
- 2 adjustable sun-visors
- 2 lower cockpit windows
- 2 lockable hinged pilot and copilot doors providing each:
 - 1 acrylic sliding bad weather / emergency egress window
 - 1 rear acrylic window
 - 1 lower acrylic window
- 2 external cockpit footsteps
- Dual flight controls
- 2 windshield wipers
- 2 lighted chart holders
- 2 headset hooks on overhead panel
- 2 handles in cockpit (one on each side on upper frame of the canopy) and 1 handle on each cockpit seat (external side)
- Stowage casing in the cockpit doors
- Up to 3 stowage boxes aft of central console
- 1 flight manual
- 1 multipurpose cabin with flat floor
- 2 tinted jettisonable acrylic windows located between cockpit and cabin doors, one on each side of the fuselage
- 2 lockable passenger sliding doors with 2 tinted jettisonable acrylic windows in each door
- 2 tinted jettisonable acrylic windows located aft of the sliding doors, one on each side of the fuselage
- 2 external cabin footsteps
- 1 portable fire-extinguisher in cockpit (accessible from cabin)
- 1 portable fire-extinguisher in cabin
- 4 handles in cabin (two on each side of each cabin door)

INSTRUMENTS & CONTROLS

INSTRUMENT PANEL

- 4 reconfigurable smart 6 x 8 inch displays providing the following functions:
 - Flight Navigation Display (FND) page, including:
 - ◆ Primary Flight Display (PFD)
 - ◆ Navigation Display (ND)
 - ◆ Parameter tuning
 - ◆ Automatic Flight Control System (AFCS)
 - ◆ Fuel data
 - ◆ First Limit Indicator (FLI)
 - ◆ Digital Moving Map (DMAP)
 - ◆ Synthetic Vision System (SVS)
 - ◆ Electronic Flight Bag (EFB)
 - ◆ Rotor speed and free turbine rotation speed
 - ◆ Crew selectable area (clock, etc...)
 - ◆ Alarms and advisories
 - Vehicle Monitoring Display (VMD) pages, including:
 - ◆ Main page: engine and vehicle status
 - ◆ Fuel page
 - ◆ Electrical system page
 - ◆ Hydraulic / landing gear page
 - ◆ Transmission page
 - ◆ Enhanced usage monitoring page
 - External video sources (when optional equipment is fitted)
- Stand-by instruments
 - IESI
 - Stand-by compass
- 1 Central Warning Panel (CWP) – red alarms
- 1 common control panel:
 - Landing gear maneuver and position indicators
 - Auxiliary hydraulic pump control
 - Pre-flight test and lamp test control
 - Capabilities for optional controls

INTERSEAT CONSOLE

- 1 Data Transfer Device (DTD)
- 1 Attitude and Heading Reference System (AHRS) control panel
- 1 electrical function and emergency cut-off control panel
- 1 Automatic Pilot Control Panel (APCP)
- 1 landing gear control panel
- 1 parking brake and nose wheel lock control panel
- 1 fuel circuit control panel
- 1 fire detection / extinguishing control panel with 2 dual fire extinguishing controls for engine bays
- 1 engine control panel
- 1 engine auxiliary control panel (with training, chip burning)
- 1 Environment Control System (ECS): separate cockpit / cabin ventilation & heating, cockpit demisting
- 1 lighting control panel
- 1 windshield wiper control panel
- Hydraulics bypass control panel

OVERHEAD PANEL

- Rotor brake control grip

MISC.

- 3 Aircraft Piloting Inertial Reference System (APIRS)
- 2 Three Axis Magnetometers (MAS) connected to APIRS
- 3 heated pitot heads and 3 static ports
- 2 Air Data Units (ADU)

Flight and Navigation Data displayed in imperial units

POWER PLANT

- 2 Pratt & Whitney PT6C-67E turboshaft engines with Full Authority Digital Engine Control (FADEC) system which requires no mechanical backup and provides the following main functions:
 - Automatic starting sequence
 - Automatic relight sequence
 - Automatic variable torque stops
 - Automatic OEI detection
 - OEI training mode
 - Engine automatic limitations (temperature, torque, etc...)
- 1 integrated lubrication system per engine, each fitted with 1 chip detector / fuzzi burner and 1 oil level sight
- 1 fire detection system per engine, including:
 - 1 pneumatic detector around the combustion chamber
 - 2 punctual detectors in the Accessory Box area
- 1 engine fire extinguishing system (2 bottles connected to both engine compartment)
- 1 crashworthy fuel system including:
 - 5 tanks with a total usable capacity of 2,533 litres (669 US gal)
 - 4 canister immersed brushless booster pumps (2 in each feeder tank)
 - 4 transfer jet pumps (2 in each transverse tank)
 - 5 fuel probes (one in each tank)
 - 2 fuel low level sensors (one in each feeder tank)
 - 2 temperature sensors (one in each feeder tank)
 - 2 electrical shut-off valves
 - 2 pressure transmitter sensors
 - single port gravity fuel filler
- 2 air-intake grids on cowlings with by-pass
- 2 engine air-intake grids
- Single side engine flushing ports (without cowlings removal)
- 1 Data Collector Unit per engine, (stores engine data in case of defect)
- Each engine is equipped with an anti-icing fuel system

TRANSMISSION SYSTEM

- 1 main gearbox with oil level sight, oil pressure and temperature sensors, access ports for endoscope and oil sampling, and 6 chip detectors
- 2 accessory gearboxes with chip detector
- 2 free wheels integrated to the main gearbox
- 1 lubrication system with 1 main pump and 1 emergency pump
- 1 main gearbox oil cooling system
- 2 engine / main gearbox coupling devices (shaft and torque tube)
- 1 rotor brake system
- 1 drive shaft assembly with grease lubricated bearings between MGB and IGB
- 1 splash lubricated intermediate gearbox with 1 oil level sight, 1 temperature sensor and 1 chip detector
- 1 drive shaft between IGB and TGB
- 1 splash lubricated tail gearbox with 1 oil level sight, 1 temperature sensor and 1 chip detector

ROTORS AND FLIGHT CONTROLS

- 1 main rotor with:
 - 5 glass / carbon-fibre blades
 - 1 SPHERIFLEX® rotor head fitted with lower and upper gust and droop stops
 - 1 rotor mast fitted with rotor r.p.m. phonic-wheel
 - 5 interblade visco-elastic dampers
 - 1 mechanical / hydraulic flight control system, fitted with 3 fixed dual body servo-units (on cyclic and collective pitch channels)
- 1 tail rotor with:
 - 3 glass / carbon-fibre blades
 - 1 SPHERIFLEX rotor head fitted with flapping stops
 - 1 tail rotor mast-hub
 - 3 visco-elastic dampers
 - 1 fixed dual body servo-unit (on tail rotor pitch control channel)
- 1 "fail passive" Dual Duplex Digital Automatic Flight Control System (4-axis type) including upper modes

ELECTRICAL INSTALLATION

- 1 DC power generation system:
 - 2 starters / generators (300 A, 28 V DC)
 - 2 electrical master boxes
 - 2 nickel-cadmium batteries 27Ah with temperature sensor, in lockable compartments
 - 1 external receptacle with 28 V DC power connector and 1 maintenance external ICS jack
 - 2 breaker panels (intermediate fuselage)
 - 2 breaker panels in cockpit
 - 1 emergency breaker panel in cockpit
 - 1 x 28 V DC power outlet in cockpit
- Power distribution system:
 - 2 primary bus bars
 - 2 essential bus bars
- 4 high load contactors (150 A)
- Lighting:
 - 1 red/white tail fin anti-collision light
 - 1 RH side retractable swivelling HID front landing light
 - 3 position lights (red, green, white)
 - 2 exterior emergency lights
 - Adjustable instrument panel and interseat console lightings
 - 2 flashlights
 - 2 dual beam dome/utility lights in the cockpit
 - 1 instrument light for flight in stormy conditions
 - Cabin lights (including emergency lighting)
 - 1 luggage compartment light

HYDRAULIC GENERATION

- 2 independent hydraulic systems feeding the servo-units, landing gear actuation system and assisted wheel brakes
- 2 self-sealing hydraulic ground couplings
- 1 LH hydraulic fluid level sight
- 2 RH hydraulic fluid level sights
- 1 stand-by auxiliary hydraulic system with electro-pump for landing gear normal activation and for hydraulic assistance in flight or on ground (engines not running)
- 1 stand-by sub-system integrated in main right hydraulic system for landing gear emergency extension

AIRBORNE KIT ¹

- 3 pitot ports blanks
- static vent plugs (2 set of 3 plugs)
- engine air-intake cover kit (2 covers and 4 plugs)
- 2 engine exhaust covers
- 1 ECS cooling inlet cover, 1 generator ventilation inlet cover
- 4 jacking pads
- 1 main rotor blades tie-down kit
- 1 tail rotor blades flapping stop shim kit
- 1 TGB cover
- 1 IGB cover
- 1 fuel pipe bleeding
- 1 on-board stowing bag
- 1 maintenance ladder

¹ Weight not included in standard aircraft empty weight



© AIRBUS HELICOPTERS, Aeroport International
Marseille Provence - 13725 Marignane Cedex -
France

2016 - 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: © Marcio JUMPEI NAKATSUI - 2015
Printed by SPI (France)

175 B 16.100.01 E