AS332 C1e

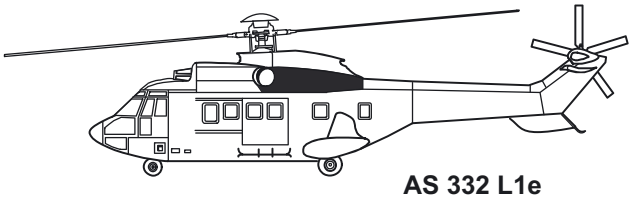
Technical Data

2015

AIRBUS HELICOPTERS

SUPER PUMA
(Civil Version)

AS 332 C1e



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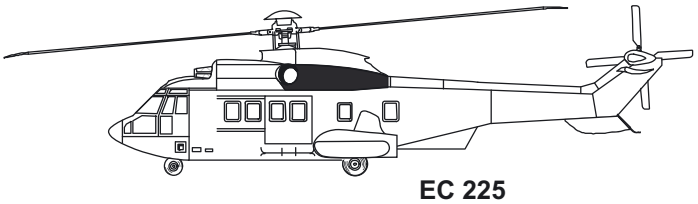
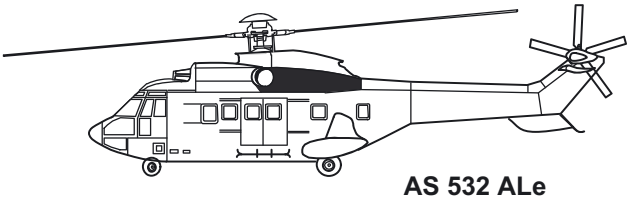
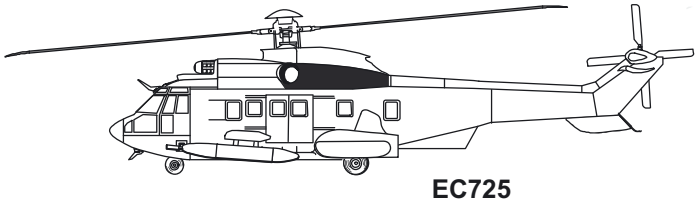


EC 225

COUGAR
(Military Version)



AS 532 ALe



EC725

3 Baseline Aircraft Definition

GENERAL

- Crashworthy design fuselage including cockpit and cabin
- Monocoque tail boom with tail rotor protection and stabilizer
- Polyurethane white paint and Dinol AV30 re-inforced anti-corrosive treatment
- Front part of the tail boom arranged as a luggage compartment
- Fuselage upper part used as transmission deck
- Fuselage lower part fittable with the floatation gear and the crashworthy installation (tanks)
- Engine cowlings serving as a work platform when in the open position
- High energy absorption, retractable, tricycle landing gear with trailing-arm main landing gear and castering nose wheel unit
- Footsteps for climbing to the transmission deck, the cockpit and the cabin
- Built-in jacking and towing points
- Provisions for attaching gripping points
- Interior paint : light beige
- Exterior paint: the fuselage is painted following customer paint scheme (gloss or dull polyurethane finish); the landing gears are grey and unless otherwise specified, the optional equipments keep their original colors

COCKPIT

- 2 pilot and copilot seats adjustable in height and fore-and-aft, complete with safety belts and extensible shoulder harnesses
- 1 third crew man jump-seat with extensible safety belt.
- Dual flight control
- Steadying rods at pilot station
- Engine controls
- Master cut-off switches
- Rotor brake control
- Landing gear control
- Differential wheel brakes at pilot and copilot stations
- 2 map cases on pilot and copilot doors
- 1 Flight Manual
- 1 hand fire extinguisher
- De-iced pilot and copilot windshield panes with wiper
- 1 front actuator
- 2 windshield panel demisting diffusers
- 2 adjustable heating and ventilation outlets on the ceiling
- 2 diffusers at floor level
- Manual cock for selective pane demisting
- 2 jettisonable doors with door-stops
- Access to cabin with partitioning curtain

INSTRUMENTS

- 4 multifunction 6" x 8" landscape LCD displays
- 2 display and autopilot control panels
- 1 Integrated Standby Instrument System (ISIS) for airspeed, altimeter and gyro-horizon back-up display
- 1 redundant Vehicle Monitoring System (VMS) with one redundant Aircraft Management Computer (AMC) and two 4" x 5" LCD displays
- 2 stop watches
- 2 triple tachometers
- 1 stand-by magnetic compass
- 1 warning panel
- 1 fuel circuit control and monitoring panel
- 1 AC/DC control box
- 1 engine starting panel
- 1 landing gear position control and monitoring panel
- 3 heated pitot and 3 static lanes
- 1 ventilation/heating system control panel
- Instruments units available in English units (Altimeter in feet and Airspeed indicator in kts
- 1 digital intercommunication system – 3 control panels
- 1 VOR/ILS/ADF/MKR receiver
- 1 VOR/ILS/MKR receiver
- 1 DME receiver (twin channel)
- 1 transponder (with S mode)
- 1 Emergency Locator Transmitter
- 1 radio altimeter

CABIN

- Floor fitted with 13 cargo tie-down rings, capable of accommodating various types of seat
- 2 jettisonable sliding plug doors
- 10 jettisonable windows (including 4 in the sliding doors) for emergency exit
- 1 removable rear panel with jettisonable window
- 1 hand fire extinguisher, 1 axe and anti-smoke equipment
- Soundproofing upholstery (dark padded cloth)
- Heating and ventilation (10 upper outlets adjustable for direction and flow, plus 4 lower bottoms adjustable for flow) with evacuation of stale air (2 outlets)
- Fittings for ambulance equipment, fixed parts 6 stretchers
- Floor hatch for cargo sling pole
- Stowage space for airborne kit

POWER PLANT

- 2 Turbomeca MAKILA 1A1 1,400 kW (1,877 shp) turbine engines in two separate groups with own starting, feeding, lubricating, cooling and governing systems
- 1 fuel system of 1,556 litres' (411 US gal.) usable capacity comprising 5 tanks, arranged in 2 groups, 4 booster pumps, 1 transfer pump and a low/high fuel level warning system. The pipes are of the crashworthy type
- Provisions for ferrying, central auxiliary and external tanks
- 2 engine bay fire-detection systems
- 1 two-cylinder selective fire-extinguishing system
- 2 engine chip detectors
- Engine air intakes protected against icing by grids and heating mats on the air intake stub frames
- 1 engine flushing device without removal of cowlings
- N.G. limiter for training

TRANSMISSION SYSTEM

- 1 main gearbox (MGB) on flexible mountings with chip detector with fuzz burner, oil sight gauge, oil temperature and pressure sensors and torquemeter pick-ups 2 lubrication pumps and independent circuits
- 1 intermediate gearbox with magnetic plug, oil sight gauge and temperature sensor
- 1 tail gearbox (TGB) with magnetic plug, oil sight gauge and temperature sensor
- 1 MGB oil cooling system
- 1 rotor brake
- 2 MGB bay fire detection circuits

ROTORS AND FLIGHT CONTROLS

- 1 main rotor with 4 composite-material blades equipped with gust and droop stops
- 1 anti-torque rotor with 5 composite-material blades
- 1 flying control system, fitted with 4 dual-body servo-units (3 on the cyclic and collective pitch channels and 1 on the anti-torque rotor pitch control channel) with 2 chambers per body
- 1 dual/ duplex digital autopilot associated with 2 flight data computers and back-up capabilities

ELECTRICAL INSTALLATION

- 2 alternators (20/30 kVA, 115/200 V, 400 Hz)
- 1 cadmium-nickel battery (43 amp.-hr)
- 2 transformer-rectifiers (150 amp.)
- 1 stand-by battery
- 1 cockpit lighting system including :
  - green pedestal and overhead panel lighting
  - integrated instrument panel lighting
  - white general lighting
  - 1 white extension light
  - 2 white map lights
- 1 cabin lighting system made up of two-lighting strips, plus signs : "Emergency Exit", "No Smoking" and "Fasten seat Belts"
- 6 receptacles for ancillaries (28 V, 15 amp.)
- 1 receptacle for ancillaries (28 V, 25 amp.)
- 2 external power receptacles (AC and DC)
- 1 landing light (600 W)
- 3 position lights
- 1 anti-collision light

HYDRAULIC GENERATION

- 2 independent hydraulic systems :
  - the LH system feeds one of the servo-unit bodies, the autopilot, the landing gear control, the rotor brake and wheel brakes
  - the RH system feeds the other body of the servo-units
- Hydraulic ground couplings
- 1 DC auxiliary electropump on stand-by for the LH system and for supplying sufficient hydraulic pressure for movement of the controls on the ground before starting in high winds
- 1 stand-by electropump for complete lowering of the landing gear

AIRBORNE KIT [1]

- 6 static vent blanks
- 2 pitot head covers
- 1 engine air-intake grid protection cover
- 2 engine tail-pipe blanks
- 4 mooring rings
- 2 rough-weather mooring fittings (included on the aircraft)
- 1 access ladder
- 1 data case
- 3 jacking ball-joints
- Main blade tie-down
- Tail rotor blade lock
- Fuel bleed line
- 1 stowing bag for the airborne kit

(1) Weight not included in standard aircraft empty weight

Designed by AIRBUS HELICOPTERS
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