



Technician Training

H135 Helionix[®] (EC135 P3H, EC135 T3H) Field Maintenance Training Course

20 Days / 4 Weeks

Classroom 96 Hours

Practical 24 Hours

Approved By: Ross McMichael _____ Date: 01/06/2020

Instructor _____ Date ___/___/___

Rev. 2.2

AIRBUS



This course is comprised of a theoretical presentation and practical exercises necessary to adequately review the basic aircraft systems and perform certain maintenance tasks described in Airbus maintenance documentation. Following the successful completion of this course, the technician should be able to perform Organizational and Intermediate level maintenance tasks and procedures necessary to maintain the helicopter. This course does not include Depot level maintenance tasks and procedures as described below.

ORGANIZATIONAL LEVEL:

Complete maintenance checks and servicing, inspection for condition, and exchange of line replaceable units according to applicable documentation.

INTERMEDIATE LEVEL:

Repair on or off of the helicopter and extended periodical inspections according to applicable maintenance documentation. A maintenance facility, qualified personnel, test equipment, and special tools are required to perform these tasks.

DEPOT LEVEL:

Major repair or overhaul at the manufacturer or at an authorized service station according to special documentation. Tools / test equipment and specialized personnel trained in Depot level maintenance tasks.

PREREQUISITES:

- Currently Certified as an Airframe Maintenance Technician
- Two Years Minimum Experience as an Active Helicopter Maintenance Technician
- In special cases these prerequisites can be waived by the Training Manager

NOTICES:

Airbus Helicopters, Inc. reserves the right to notify customer of the occurrence of any force majeure condition that, in its sole discretion, is the cause of excusable delay. In the event of a force majeure condition, the services and/or classes will be extended or, if required, rescheduled for the first available opening. Airbus Helicopters, Inc. will not be liable for any costs, claims, or damages to customer or its employees arising from delays or interruptions caused by any force majeure condition.



The following items shall serve as the training points for a typical H135 Helionix® maintenance training course focusing on field maintenance tasks as defined above. The course content shall be revised as necessary to reflect basic production helicopter configuration revision as subsequent aircraft are manufactured.

Introduction

Classroom 1.0 hours

SCOPE: Block of instruction shall include student orientation to the training facility, training materials, safety, policies, procedures, and any additional information relevant for the course.

First Contact With The Helicopter

Classroom 4.0 hours

SCOPE: Block of instruction shall include the general description and development of the EC135T3H / EC135P3H, maintenance concept, documentation layout, Illustrated Parts Manual, Time Change item (TCI) Time Between Overhaul (TBO), Types of Inspections, descriptions of Inspections, Checks, Description of Scheduled Measures, and Abbreviations.

Integrated Modular Avionics (IMA, HELONIX)

Classroom 12.0 hours, Practical 4.0 hours

SCOPE: Block of instruction shall include the general description of the HELONIX system architecture, Alerting System, IMA Tests, First Limit Indicator, UMS / VMS Textual Pages, Clock / Chronometer, FDCR, Usage Monitoring System, and Maintenance Software.

Practical instruction shall include the use of the HELONIX Aircrew Training System (HATS) systems. Instruction will be given in the display switching functions, and configuration and maintenance modes.

Handling Of The Helicopter

Classroom 1.0 hours

SCOPE: Block of instruction shall include the lifting, jacking & shoring, weighing, towing & pushing, and parking & mooring of the helicopter.



Lifting System

Classroom 8.0 hours, Practical 12.0 hours

SCOPE: Block of instruction shall include the description, operation, maintenance, and inspection of the main gearbox, rotor brake, freewheel clutches, attachment of the main transmission to the airframe, main rotor system, main rotor blades, and track & balance of the main rotor system.

Practical instruction shall include the removal & installation procedures of the main rotor mast & spacer tube, free-wheel clutches & the associated input & output drive seals, accessory drive unit, oil coolers & oil cooler blower assemblies, main rotor blade, lead-lag dampers, and bearing support using special tools and procedures according to the AMM.

Fuselage

Classroom 4.0 hours

SCOPE: Block of instruction shall include the general description of the Fuselage, Reference Planes, Structure Definition, Airframe Structure, Cabin Structure, Drain System, Windshields, Windows, Doors, Access Panels, Interior Fairings, Cowlings, and Handling.

Tail Unit

Classroom 8.0 hours, Practical 6.0 hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the tail boom & fenestron assembly, horizontal & vertical stabilizers, tail rotor drive shaft, hangar bearings, tail rotor gearbox, and the tail rotor fenestron assembly.

Practical instruction shall include the removal, disassembly, assembly, and installation of the tail rotor assembly, removal and installation of the aft drive shaft, tail rotor transmission input and output seals using special tools and procedures in the AMM.

Flight Control System

Classroom 4.0 hours, Practical 2.0 hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the main system, cyclic and collective controls, mixing lever assembly, swashplate, tail rotor systems, and flight control trim system.

Practical Exercises will include removal and installation of the boosted main rotor flight controls and rigging of the boosted main rotor controls using special tools and procedures in the AMM.

Practical exercises will include draining and service of the hydraulic system, and function check of the low and high pressure regulating valves using special tools and procedures in the AMM.



Hydraulic System

Classroom 4.0 hours, Practical 2.0 hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the main and tail rotor hydraulic system, indicating and testing system, pressure supply system, and hydraulic actuators.

Landing Gear

Classroom 1.0 hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the Main Landing Gear Assembly.

Exam

Classroom 2.0 hours

SCOPE: Students will be given a 50 question multiple choice closed book exam. The exam will question the students on information covered in the subjects preceding this exam. 75% or better is required to pass the test.

Fuel System

Classroom 4.0 hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the fuel storage system, fuel distribution system, equipment plates & sensors, fuel pump supply and monitoring system, fuel supply and feed lines, and emergency fuel shut-off valves.

Power Plant

Classroom 8.0 hours

SCOPE: Block of instruction shall include the identification, description, and maintenance, P&W206B3 (overview, fuel sub-system, and monitoring systems), Turbomeca Arrius2B2+ (overview, fuel sub-systems, and monitoring systems), engine control systems, ignition system, engine operations overview, oil cooling system, engine mounts, firewalls, drain lines, and inlet barrier system.

Fire Protection System

Classroom 1.0 hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the fire warning system, fire extinguishing system, and the fire monitoring & testing system.

Ice and Rain Protection

Classroom 1.0 hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the windshield wiper system and the pitot-static heating system.



Equipment and Furnishings

Classroom 1.0 hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the emergency equipment, interior paneling, and crew & passenger seats.

Heating and Ventilation System

Classroom 1.0 hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the cockpit and cabin heating and ventilation system.

Lights

Classroom 1.0 hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the position lights, anti-collision light, landing light, instrument lighting, passenger & cargo compartment lighting, and emergency exit lighting system.

Avionics Generalities

Classroom 6.0 hours

SCOPE: Block of instruction shall include the identification and description of the overview of avionics systems, avionics power supply, intercom system (DVCS 6100), VHF AM Communication, ELT, ADF, VHF NAV system (VOR), ILS, marker beacon, DME, transponder, GPS, radar altimeter system, Integrated Electronic Standby Instrument (IESI).

Indicating and Recording Systems

Classroom 6.0 hours

SCOPE: Block of instruction shall include the identification and description of the CVFDR system, Vision 1000 cockpit camera, maintenance software, and maintenance ground station.

Auto Pilot System (AFCS)

Classroom 6.0 hours

SCOPE: Block of instruction shall include the identification and description of the AFCS overview, AFCS component layout, AFCS sensors, cockpit crew interface, actuators, display systems, AFCS monitoring, AFCS modes & functions, GPS-based modes, and AFCS system status page.



Electrical System

Classroom 6.0 hours

SCOPE: Block of instruction shall include the identification, description, and maintenance of the electrical system, DC power system, battery system, emergency power supply system, bonding system, external power supply system, AC power system, electrical power distribution system, and operation modes of the DC power system.

Inspections

Classroom 2.0 hours

SCOPE: Block of instruction shall include the identification and description of the scheduled checks and inspections listed in the MSM.

Exam

Classroom 2.0 hours

SCOPE: Students will be given a 50 question multiple choice closed book exam. The exam will question the students on information covered in the remaining subjects covered since the previous exam. 75% or better is required to pass the test.