



Technician Training

H145 Helionix® / BK117 D2 Field Maintenance Training Course

20 Days / 4 Weeks

Classroom 68 Hours

Practical 52 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 H145 / BK 117D2 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.

General information

Classroom 6.0 hours

SCOPE: Block of instruction shall include the general description and development of the BK117D2, 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.

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.

Landing Gear

Classroom 2.0 hours

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

Integrated Modular Avionics (IMA, HELONIX)

Classroom 8.0 hours Practical 3.0 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.



Flight Control System

Classroom 10.0 hours Practical 16.0 hours

SCOPE: Block of instruction shall include the general descriptions of the Main and Tail Rotor Systems, Main Rotor Controls, Non-Boosted main Rotor Control Section, Parallel Actuators - Cyclic Controls, Hydraulic System, Hydraulic Monitoring and Testing System, Boosted Main Rotor Control Section, Rigging of the Main Rotor Controls, Tail Rotor Control, Tail Rotor Actuator, Rotating Section of Tail Rotor Control, and Rigging of the Tail Rotor Control.

Practical Exercises will include rigging of the boosted and non-boosted flight controls (main and tail Rotor), hydraulic fluid replenishment, bleeding and fluid change, and hydraulic system pressure relief valve checks using special tools and procedures in the AMM.

Lifting System

Classroom 7.0 hours Practical 23.0 hours

SCOPE: Block of instruction shall include the general description, Main Transmission Mounts, Main Transmission Monitoring and Indication, Main Rotor System, Track and Dynamical Balancing of Main Rotor System, and Rotor Brake System.

Practical instruction shall include the removal and installation procedures for the main rotor shaft, free-wheel clutches, and the associated input and output drive seals, disassembly/assembly of the main rotor head, removal/installation of the main rotor blade using special tools and procedures according to the AMM.

Exam Number 1

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. 70% or better is required to pass the test.

Tail Unit

Classroom 4.0 hours Practical 8.0 hours

SCOPE: Block of instruction shall include the general description, Tail Structure, Tail Rotor Drive, Tail Rotor Monitoring and Indication, Transmission Fairing, Tail Rotor Assembly, and Balancing of the Tail Rotor System.

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



Power Plant

Classroom 9.0 hours Practical 2.0 hours

SCOPE: Block of instruction shall include the general description, Engine Description, Engine Integration, Fire Warning and Extinguishing System, Inlet Barrier Filter (Optional Equipment), Airframe Fuel System, Airframe Oil System, Oil System Monitoring and Indication, Engine Control System (FADEC), Engine Monitoring and Indication System, and Ignition System.

Practical Exercises will include removal/installation of the fuel pump cartridge and testing of the fire extinguishing system using special tools and procedures in the AMM.

Standard Equipment

Classroom 2.0 hours

SCOPE: Block of instruction shall include the description and operation of the Crew Seats, Passenger Seats, Windshield Wiper, Heating and Ventilation system, Instrument Cooling System, First Aid Kit, Fire Extinguisher, Flashlight, Lighting Systems and the LAVCS Vibration Control System.

Avionics for Mechanic

Classroom 3.0 hours

SCOPE: Block of instruction shall include the Overview of Avionics Systems, Avionics Power Supply, Avionics Deck Cooling, 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), CVDFR System and the Vision 1000 Cockpit Camera.

Electrical System

Classroom 6.0 hours

SCOPE: Block of instruction shall include the general description, Symbols and Codes of the electrical system, Locations of Main Components, Electrical Supply, Starter/Generator Control and Monitoring, Battery System, Emergency Power Supply System, Battery System, Emergency Power Supply System, External Power Supply System, AC Power System (Optional), Electrical Power Distribution System, Bus Tie Control System, Consumer Bus Bars, Operation Modes of the DC Power System, Start and Ignition System and Lighting System.

Auto Pilot System (AFCS)

Classroom 2.0 hours

SCOPE: Block of instruction shall include the general description, Electrical Power Supply Distribution, AFCS Overview, Crew Controls, Actuators, VMD SYST Page and Maintainability / Testability.



Exam Number 2

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.