



Technician Training

EC145 / BK117 C2 Field Maintenance Training Course

15 Days / 3 Weeks

Classroom 58 Hours

Practical 32 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 EC145 / BK 117C2 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 2.0 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

Classroom 10.0 hours Practical 2.0hours

SCOPE: Block of instruction shall include the general description and development of the BK117C2, Maintenance Concept, Documentation of the BK117 C-2, Illustrated Parts Catalog, Cockpit Arrangement, Overhead Panel, Instrument Panel, Warning Unit, Analog Back Up Instruments, Central Panel Display System (CPDS), Main Switch Panel, Pitot--Static System Practical instruction shall include CPDS display manipulation, error code identification, and examples of the various maintenance page information.

Lifting System

Classroom 6.0 hours Practical 12.0 hours

SCOPE: Block of instruction shall include the general description, Main Rotor System, Main Rotor Head, Main Rotor Blades, Main Transmission, Main Transmission Monitoring and Indication, Transmission Mounts, Rotor Brake System, Drive Shaft. 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.

Fuselage

Classroom 2.0 hours

SCOPE: Block of instruction shall include the general description of the Fuselage, Reference Planes, Leveling and Dimensional Check, Cabin Structure, Main Airframe Structure, Windows, Doors, Access Panels and Covers, Cowlings, Drain Lines and Handling.



Tail Unit

Classroom 5.0 hours Practical 7.0 hours

SCOPE: Block of instruction shall include the general description, Tail Boom, Tail Rotor Drive, Intermediate Transmission, Tail Rotor Transmission, and Tail Rotor. Practical instruction shall include the removal, disassembly, assembly, and installation of the tail rotor assembly, removal and installation of the tail rotor transmission, tail rotor shaft, input and output seals using special tools and procedures in the AMM.

Exam 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. 75% or better is required to pass the test.

Flight Control System

Classroom 6.0 hours Practical 5.0 hours

SCOPE: Block of instruction shall include the general descriptions of the Main and Tail Rotor Systems, Collective Control, Cyclic Control, Trim System, Hydraulic System, Basic Circuit of the Hydraulic System, Module Frame, Reservoir / Valve Block, Hydraulic Pump, Hydraulic Actuators, Basic System Function, System Description Hydraulic Actuator, Mechanical Override, Hydraulic Monitoring and Testing System, Tail Rotor Control, Tail Rotor Actuator, Upper Tail Rotor Control, Yaw Stability Augmentation System. Practical Exercises will include disassembly/assembly of the upper main rotor controls, 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.

Landing Gear

Classroom 1.0 hours

SCOPE: Block of instruction shall include the general description and details regarding the crosstubes, skids, skid shoes, steps, design and ground clearance dimensions.



Power Plant

Classroom 10.0 hours Practical 3.0 hours

SCOPE: Block of instruction shall include the general description, Engine Components, Engine Fuel and Control System, Engine n1 Control, Engine n2 Control, VARTOMS Control, Engine Start, Airframe Fuel System, Lubrication System, Calibration of the Performance Characteristic of the Engine, Compressor Bleed Valve, Compressor Inlet / Exhaust and Engine Drainage, Engine Compartment Ventilation, Engine Electrical System, Fire Walls, Fire Warning System, Fire Extinguishing System, Inlet Barrier Filter, Engine Mounting. Practical Exercises will include removal/installation of the fuel pump cartridge and calibration of the torque 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, Pax Ventilation, Instrument Cooling System, First Aid Kit, Fire Extinguisher, Flashlight, Lighting Systems, Interior Fairings and the Vibration Absorber System.

Avionics

Classroom 3.0 hours

SCOPE: Block of instruction shall include the Overview of Avionics Systems, Avionics Power Supply, Slant/Center Console, Signal Definitions, Schematic Avionics, Intercom System (DVCS 6100), VHF AM Communication, ELT, ADF, VHF NAV System (VOR), ILS, Marker Beacon, DME, Transponder, GPS, Radar Altimeter System, Flight Control Display System (FCDS), Automatic Flight Control System (AFCS).

Electrical System

Classroom 5.0 hours

SCOPE: Block of instruction shall include the general description, Symbols and Codes of the electrical system, Electrical Equipment Identification Letters, Wire Identification Code, Wiring Diagram Code, American Wire Gauge AWG, Electrical Equipment Location Code, Precautions, Electrical System -- Main Components, Electrical Power Supply, Generator Monitoring Equipment, Battery System, External Power Supply System, Bus Tie Control System, Electrical Power Distribution, Operation Modes of the DC Power System, AC Power System, Start and Ignition System.



Inspections

Classroom 2.0 hours Practical 3.0 hours

SCOPE: Block of instruction shall include the general description, Engine Components, Engine Fuel and Control System, Engine n1 Control, Engine n2 Control, VARTOMS Control, Engine Start, Airframe Fuel System, Lubrication System, Calibration of the Performance Characteristic of the Engine, Compressor Bleed Valve, Compressor Inlet / Exhaust and Engine Drainage, Engine Compartment Ventilation, Engine Electrical System, Fire Walls, Fire Warning System, Fire Extinguishing System, Inlet Barrier Filter, Engine Mounting. Practical Exercises will include a daily preflight inspection.

Exam 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.