



**Technician Training**

# **BO-105 ALL MODELS**

## **Airframe Field Maintenance**

**10 Days**  
**Classroom 60 Hours**

Approved By: Ross McMichael \_\_\_\_\_ Date: \_03/11/2021

Instructor: \_\_\_\_\_ Date: \_\_ / \_\_ / \_\_

Version 1.0

**AIRBUS**

**SCOPE:**

The course will include instruction on the aircraft, its systems, components, inspections and troubleshooting. Classroom instruction and/or shop demonstrations will be accomplished on: Publications, Airframe, Main Rotor Drive System, Main Rotor System, Tail Rotor Drive System, Flight Controls, Hydraulic Systems, Landing Gear, Fuel System, Electrical Systems, Engine to Airframe Interface and Standard Equipment.

**OBJECTIVES:**

The student will demonstrate an understanding of the fundamental operations and skills necessary to maintain the aircraft in an airworthy condition. The student will be able to perform, in accordance with the appropriate publications, all field maintenance operations necessary to maintain the helicopter up to, but not including, major overhaul or major repair of the aircraft or its components.

**PREREQUISITES:**

Acceptance in the course is based on the requirement that the student possess the basic experience and skill levels of the following:

1. Certification as an airframe mechanic with one year practical experience as a rated aircraft mechanic.
2. Two years of experience as an active mechanic on helicopters.

**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.



## **105-01 INTRODUCTION**

HRS: 2.0 CL

SCOPE: This block of instruction will include student registration, orientation to the course and training center policies, history of American Eurocopter, course content and a general overview of the aircraft.

### **CHAPTER 0 GENERAL**

## **105-02 PUBLICATIONS**

HRS: 3.0 CL

SCOPE: This block of instruction will include construction, content, use, effectivity and revision procedures of publications for all models of helicopters utilizing the new manual format, to include Airbus Helicopters forms, helicopter records, and component logs.

## **105-03 CONTROL PANELS & INSTRUMENTS**

HRS: 2.0 CL

SCOPE: This block of instruction will include identification, location and general maintenance for the instrument panel, annunciator panel, D.C. power control panel, main switch panel, miscellaneous switch panel and overhead console. In addition, the flight instruments, engine and transmission monitoring instruments and miscellaneous systems monitoring instruments will be explained.

## **105-04 GENERAL MAINTENANCE INSTRUCTIONS**

HRS: 3.0 CL

SCOPE: This block of instruction will include a description of general maintenance practices for towing, moving, mooring, covering, hoisting and jacking. Leveling and dimension check, weight and balance, and location of required decals and signs.

### **CHAPTER 1 LIFTING SYSTEM**

## **105-05 MAIN ROTOR DRIVE**

HRS: 2.0 CL  
2.0 PE

SCOPE: This block of instruction will include description, operation, maintenance, inspection and troubleshooting of the main gearbox, rotor brake and attachment of the main gearbox to the aircraft.



## **105-06 MAIN ROTOR SYSTEM**

HRS: 1.5 CL  
1.5 PE

SCOPE: This block of instruction will include description, operation, maintenance, inspection and troubleshooting of the main rotor head and main rotor blades, track and balance, and auto-rotation RPM adjustment.

## **CHAPTER 2 FUSELAGE**

### **105-07 AIRFRAME**

HRS: 2.0 CL

SCOPE: This block of instruction will include the identification, description, and construction of the airframe structure and include cabin and baggage compartment dimensions. Locations of drain valves and holes.

## **CHAPTER 3 EMPENNAGE**

### **105-08 TAILBOOM**

HRS: 2.0 CL

SCOPE: This block of instruction will include the identification, description and construction of the tailboom, horizontal stabilizer and vertical stabilizers.

### **105-09 TAIL ROTOR DRIVE**

HRS: 2.5 CL

SCOPE: This block of instruction will include identification, description, and maintenance of the tail rotor drive shafts, hangar bearings, intermediate gearbox and tail rotor gearbox.

### **105-10 TAIL ROTOR**

HRS: 4.5 CL  
2.0 PE

SCOPE: This block of instruction will include identification, description, and maintenance for the tail rotor system.

## **CHAPTER 4 FLIGHT CONTROLS AND HYDRAULICS**

### **105-11 FLIGHT CONTROLS**

HRS: 6.0 CL

SCOPE: This block of instruction will include description, operation, maintenance, inspection and troubleshooting of the main and tail rotor flight control systems to include rigging procedures.





## **105-12      HYDRAULIC SYSTEMS**

HRS: 6.0 CL

SCOPE: This block of instruction will include description, operation, maintenance, inspection and troubleshooting of each of the aircraft hydraulic systems to include servo controls and monitoring of the systems.

### **CHAPTER 5 LANDING GEAR**

## **105-13      LANDING GEAR**

HRS: 1.0 CL

SCOPE: This block of instruction will include description, maintenance and inspection of the landing gear system.

### **CHAPTER 6 POWERPLANT**

## **105-14      TURBO-SHAFT ENGINE**

HRS: 5.0 CL

SCOPE: This block of instruction will include description, operation, maintenance, inspection and troubleshooting of the powerplant to include control rigging, systems monitoring, engine mounting, starting system and fire detection and extinguishing systems.

## **105-15      FUEL AND LUBRICATION SYSTEMS**

HRS: 2.0 CL

SCOPE: This block of instruction will include description, operation, maintenance, inspection and troubleshooting of the airframe fuel and lubrication systems.

### **CHAPTER 7 STANDARD EQUIPMENT**

## **105-16      STANDARD EQUIPMENT**

HRS: 2.0 CL

SCOPE: This block of instruction will include description, operation, maintenance and troubleshooting of the windshield wipers, lighting systems, cockpit controls, heating and ventilating systems.

### **CHAPTER 9 ELECTRICAL**

## **105-17      ELECTRICAL SYSTEM**

HRS: 5.0 CL

SCOPE: This block of instruction will include description, operation, maintenance, inspection and troubleshooting of the D.C. and A.C. electrical systems to include automatic system functions and voltage regulation adjustment.



## **CHAPTER 10 INSPECTION SCHEDULES**

### **105-18 MAINTENANCE AND INSPECTIONS**

HRS: 1.0 CL

SCOPE: This block of instruction will include a description of the required inspections, the need for inspections and types of inspections. Component TBO's and TCI's will also be discussed.

### **105-19 OPTIONAL EQUIPMENT**

HRS: 2.0 CL

SCOPE: This block of instruction will include description, maintenance, inspection and troubleshooting of Type Certificate and STC'ed optional equipment.

### **105-20 EXAM AND CRITIQUE**

SCOPE: This block of instruction will include administering the final airframe exam, critique of the exam and course critique. The exam will be a comprehensive closed book multiple choice type exam and include questions on information presented in each of the blocks of instruction presented during the second week of instruction. A critique will be conducted to discuss the exam and answer any student questions.