

Chapter 1: Introduction to Aircraft Maintenance

Aircraft maintenance is critical to aviation safety, performance, and reliability. As a new technician, understanding the fundamentals ensures effective and efficient upkeep of aircraft. Maintenance responsibilities typically include regular inspections, troubleshooting technical issues, replacing faulty components, and ensuring compliance with regulatory standards such as FAA and EASA.

Key Responsibilities:

- Conduct scheduled inspections according to manufacturer specifications.
- Identify and resolve mechanical, hydraulic, electrical, and avionics issues.
- Document and report all maintenance activities clearly and accurately.
- Adhere strictly to safety guidelines and regulations.

Types of Maintenance:

1. Preventive Maintenance: Routine checks and servicing.
2. Corrective Maintenance: Repair or replacement after malfunction.
3. Predictive Maintenance: Diagnostic checks to predict and prevent failures.

Visual Maintenance Task

Figure 2.1: Aircraft Landing Gear Inspection

- Check struts for hydraulic leaks
- Inspect tire condition and pressure
- Verify brake assemblies for abnormal wear