

AIRFRAME & POWERPLANT TECHNICIAN (600 hours)

Course No.: 79-70-50

COMPETENCY CHECKLIST

Student Name _____

Teacher Name _____ School Site _____

Start Date _____ Completion Date _____ Certificate Date _____

Teacher Signature _____ Student Signature _____

(Signatures verify completion of course competencies)

A. INTRODUCTION AND SAFETY (5 hrs.)

- _____ 1. Scope and purpose of course.
- _____ 2. Classroom policies & techniques.
- _____ 3. Occupations available for aircraft mechanics in industry.
- _____ 4. Opportunities for women in field of aircraft mechanics.
- _____ 5. FAA and its regulations governing aircraft repair.
- _____ 6. Impact of Federal legislation on industry sector.
- _____ 7. Proper removal of hazardous materials.
- _____ 8. MSDS as it applies to the aircraft industry.
- _____ 9. Class/workplace emergency procedures.
- _____ 10. Responsibilities to insure a safe workplace.
- _____ 11. Pass the safety test with 100% accuracy.

B. BASIC ELECTRICITY (108 hrs.)

- _____ 1. Calculate and measure capacitance and inductance.
- _____ 2. Calculate and measure electrical power.
- _____ 3. Measure voltage, current, resistance, and continuity.
- _____ 4. Determine the relationship of voltage, current, and resistance in electrical circuits.
- _____ 5. Read and interpret aircraft electrical circuit diagrams, including solid state devices and logic functions.
- _____ 6. Inspect and service batteries.

C. AIRCRAFT DRAWINGS (42 hrs.)

- _____ 1. Use aircraft drawings, symbols, and system schematics.
- _____ 2. Draw sketches of repairs and alterations
- _____ 3. Use blueprint information.
- _____ 4. Use graphs and charts.

D. WEIGHT AND BALANCE (56 hrs.)

- _____ 1. Weigh aircraft.
- _____ 2. Perform complete weight-and-balance check and record data.

E. FLUID LINES AND FITTINGS (28 hrs.)

- _____ 1. Fabricate and install rigid and flexible fluid lines and fittings.

F. MATERIALS AND PROCESSES (126 hrs.)

- _____ 1. Identify and select appropriate nondestructive testing methods.
- _____ 2. Perform dye penetrant, eddy current, ultrasonic, and magnetic particle inspections.
- _____ 3. Perform basic heat-treating processes.
- _____ 4. Identify and select aircraft hardware and materials.
- _____ 5. Inspect and check welds.
- _____ 6. Perform precision measurements.

G. GROUND OPERATION AND SERVICING (40 hrs.)

- _____ 1. Start, ground operate, move, service, and secure aircraft and identify typical ground operation hazards.
- _____ 2. Identify and select fuels.

H. CLEANING AND CORROSION CONTROL (53 hrs.)

- _____ 1. Identify and select cleaning materials.
- _____ 2. Inspect, identify, remove, and treat aircraft corrosion and perform aircraft cleaning.

I. MATHEMATICS (35 hrs.)

- _____ 1. Extract roots and raise numbers to a given power.
- _____ 2. Determine areas and volumes of various geometrical shapes.
- _____ 3. Solve ratio, proportion, and percentage problems.
- _____ 4. Perform algebraic operations involving addition, subtraction, multiplication, and division of positive and negative numbers.

J. MAINTENANCE FORMS, RECORDS AND PUBLICATIONS (37 hrs.)

- _____ 1. Write descriptions of work performed including aircraft discrepancies and corrective actions using typical aircraft maintenance records.
- _____ 2. Complete required maintenance forms, records, and inspection reports.
- _____ 3. Demonstrate ability to read, comprehend, and apply information contained in FAA and manufacturers' aircraft maintenance specifications, data sheets, manuals, publications, and related Federal Aviation Regulations, Airworthiness Directives, and Advisory material.
- _____ 4. Read technical data.

K. BASIC PHYSICS (30 hrs.)

- _____ 1. Use and understand the principles of simple machines; sound, fluid, and heat dynamics; basic aerodynamics; aircraft structures; and theory of flight.

M. MECHANIC PRIVILEGES AND LIMITATIONS (35 hrs.)

- _____ 1. Exercise mechanic privileges within the limitations prescribed by FAR part 65.

N. EMPLOYABILITY SKILLS (5 hrs.)

- _____ 1. Employer requirements in an employee.
- _____ 2. Identify potential employers in job search.
- _____ 3. Electronic networking in job search.
- _____ 4. Sample resume.
- _____ 5. Accurate, complete, legible job application.
- _____ 6. Sample job applications.
- _____ 7. Portfolio of field observations.
- _____ 8. Enthusiasm for job.
- _____ 9. Appropriate appearance on job.
- _____ 10. Upgrading of job skills.
- _____ 11. Customer service to build relationships.
- _____ 12. Appropriate Interviewing techniques.
- _____ 13. Resources for successful interviews.
- _____ 14. Interview follow-up procedure.