

Cape Cod Community College AMTS

Curriculum Subject Guide for AMT 253 Powerplant Curriculum, Subject Item 5-7

Part 147, Appendix D, Part I - Subject B –Turbine Engines

Subject: Turbine Engines

Item 5. Overhaul turbine engine. (Level 2)

*T – 19.0 Hrs / L – 18.0 Hrs*

Item 6. Inspect, check, service, and repair turbine engines and turbine engine installations.

(Level 3)

*T – 25.0 Hrs / L – 20.0 Hrs*

Item 7. Install, troubleshoot, and remove turbine engines. (Level 3) *T –*

*25.0 Hrs / L – 2.0 Hrs*

Classroom time: 69 hours

Lab or shop time: 46 hours

Test time: 1.0 hour

Total Time: 116 hours

Teaching Level 2, 3

**Project 1**

Item 5 – 0.5 Hrs

Item 6 – 0.5 Hrs

**Project 5**

Item 5 – 1.0 Hrs

Item 6 – 1.0 Hrs

**Project 9**

Item 5 – 1.5 Hrs

Item 6 – 1.5 Hrs

**Project 2**

Item 5 – 0.5 Hrs

Item 6 – 0.5 Hrs

**Project 6**

Item 5 – 0.5 Hrs

Item 6 – 0.5 Hrs

**Project 10**

Item 5 – 1.5 Hrs

Item 6 – 1.5 Hrs

**Project 3**

Item 5 – 0.5 Hrs

Item 6 – 0.5 Hrs

**Project 7**

Item 5 – 1.5 Hrs

Item 6 – 1.5 Hrs

**Project 11**

Item 5 – 1.0 Hrs

Item 6 – 1.0 Hrs

**Project 4**

Item 5 – 1.0 Hrs

Item 6 – 1.0 Hrs

**Project 8**

Item 5 – 1.5 Hrs

Item 6 – 1.5 Hrs

**Project 12**

Item 5 – 1.0 Hrs

Item 6 – 1.0 Hrs

**Project 13**  
Item 5 – 3.0 Hrs  
Item 6 – 3.0 Hrs

**Project 15**  
Item 6 – 2.0 Hrs  
Item 7 – 8.0 Hrs

**Theory Test 2**  
0.3 Hrs

**Project 14**  
Item 5 – 3.0 Hrs  
Item 6 – 3.0 Hrs

**Theory Test 1**  
0.3 Hrs

**Practical Test**  
0.4 Hrs

Prerequisite(s)

(1) All General curriculum subjects (Part 147 Appendix B)

Course Interruptions: All interruptions or changes in course sequence will be in accordance with the Order of Instruction policy, located in Cape Cod Community College's Operations Manual, page 51.

Item 5 & 6:

Student Performance Goal(s)

Given: Pratt & Whitney JT12- 8 (installed on Sabreliner 40), Pratt & Whitney Canada (PWC) PT6A-20 and -34 and International Aero Engines V-2500-A1 engines; Sabreliner Maintenance Manual NA-62-1224, Pratt & Whitney Canada Maintenance, Parts, and Overhaul Manuals and IAI Installation and Operations Manual; engine manufacturer special tools; borescope; internet access; 14 CFR, Federal Aviation Regulations for Aviation Maintenance Technicians (Current Edition); Aviation Maintenance Technician Handbook Powerplant, Volume 1 (FAA-H-8083-32) Chapter 1

Performance: The student will research Type Certificate Data Sheets to glean specific information about various turbine engines; will identify components & sections of the Pratt & Whitney, Pratt & Whitney Canada and IAI engines; will describe turbine engine sectional breakdown with emphasis on operational understanding of turbine engines; will answer questions and identify specific information about the Accessory, Compressor, Combustor, and Turbine sections of the P&W and IAI engines; and disassemble, inspect, repair, service, and reassemble a PWC PT6 engine.

Standard: All information requested will be presented as per the Type Certificate Data Sheets, class text books, or manufacturer's information and the student must pass the Theory and Practical Tests with at least a 70% grade.

Item 7:

Student Performance Goal(s)

Given: Sabreliner 40 with Pratt & Whitney JT12-8 engines (2) installed, Sabreliner Maintenance Manual NA-62-1224; engine hoist.

Performance: The student will remove, inspect, troubleshoot and reinstall a turbine engine from the Sabreliner 40 aircraft.

Standard: The removal, troubleshooting, and installation will be as per the manufacturer's information and the student must pass the Theory and Practical Tests with at least a 70% grade.

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