

Work Processes Schedule

AIRCRAFT MECHANIC, PLUMBING & HYDRAULICS

RAPIDS: 0866N

O*NET/SOC: 51-2011.00

REVISION DATE: 12/2014

Assembles, installs, and tests aircraft plumbing and hydraulic systems and components. Repairs control surface components, landing gears, and fuel, oil, oxygen, and water systems. Conducts pressure, leak, and functional tests of installed systems. Demonstrate knowledge and skills for qualifying as Journeyman. Applicable Job Qualification Requirements will be used as a guide in performing tasks and demonstrating knowledge in the following areas. Actual work time must be recorded in the Work Experience Log.

Applicable Ratings/MOS

USMC MOS 6062, 6072, 6154, 6156, 6243, 6246, 6252, 6253, 6256, 6257, 6258

USCG AMT

USN AM, AWF

Related Instruction

Any trade related schools/courses totaling 576 hours

Additional Requirement

None

Total Hours: **8000**

Skill	Description	Hours
A	GENERAL ADMINISTRATION Maintain logs. Maintain records. Prepare reports. Maintain custody records. Order directives. Order manuals. Order publications. Prepare planned maintenance schedules.	500
B	TECHNICAL ADMINISTRATION Use charts, diagrams, and schematics. Complete maintenance data system forms. Use maintenance and service instructions. Maintain test equipment inventory. Use maintenance information automatic retrieval system. Complete planned maintenance system (PMS) feedback reports. Maintain technical library. Maintain Visual Information Display Systems (VIDS). Interpret technical directives. Use publications. Read and interpret blueprints, production illustrations, and other specifications to determine location, identity, and relationship of parts.	200
C	SAFETY Conform to prescribed safety practices.	250
D	LOGISTICS Order supplies and equipment. Inventory material and equipment.	250
E	AVIATION SUPPORT OPERATIONS Operate support equipment. Prepare aircraft for ground maintenance. Service aircraft on the flight line.	800

F	<p>MECHANICAL MAINTENANCE</p> <p>Perform aircraft jacking and hoisting operations. Remove and install pumps, motors, pressure regulators, and recoil struts. Remove, clean, and install actuating system components. Measure and adjust brake clearance. Perform aircraft weighing. Replace brake assemblies, lining, pucks, disc, master cylinder, power brake valves, and emergency system components. Adjust control and actuating mechanisms and linkages. Adjust nose wheel steering mechanisms. Analyze aircraft hydraulic/pneumatic system malfunctions and determine corrective action. Analyze malfunctions of flight control systems and determine corrective action. Adjust landing gear controls, locks, doors, micro switches, and mechanical linkages. Adjust working mechanisms of installed parts and assemblies to blueprint specifications. Operate rigging and control system to determine functional performance, and rework or adjust system components.</p>	1500
G	<p>HYDRAULIC/PNEUMATIC MAINTENANCE</p> <p>Bleed hydraulic systems. Inspect hydraulic systems. Locate and repair leaks in hydraulic/pneumatic systems. Remove, clean, and replace hydraulic system filters. Replace sealing devices in hydraulic/pneumatic components. Replace hydraulic and pneumatic components of flight control systems. Replace landing gear assemblies. Trouble shoot hydraulic/pneumatic systems and components. Decontaminate aircraft hydraulic system. Adjust hydraulic and pneumatic components.</p>	1500
H	<p>FABRICATION AND MANUFACTURING</p> <p>Fabricate and fit tubing and flexible hose assemblies.</p>	200
I	<p>TEST EQUIPMENT</p> <p>Operate general purpose test equipment. Maintain test equipment. Conducts pressure, leak, and functional tests of installed systems, using test equipment.</p>	350
J	<p>CORROSION CONTROL AND MATERIAL PRESERVATION</p> <p>Detect and treat corrosion. Analyze extent of corrosion damage. Monitor corrosion control program.</p>	200
K	<p>SURVIVAL EQUIPMENT MAINTENANCE</p> <p>Remove, service, and install emergency air bottles.</p>	50
L	<p>QUALITY ASSURANCE</p> <p>Comply with Foreign Object Damage (FOD) program. Comply with tool control program. Perform maintenance requirement inspections. Obtain hydraulic samples. Inspect the installation, alteration, and repair of equipment. Inspect and test power system, actuating system, and landing gear system components. Conduct quality assurance inspections.</p>	200

M	<p>ASSEMBLY AND INSTALLATION</p> <p>Assemble and install plumbing and hydraulic systems and components in aircraft, following blueprints and production illustrations, using hand and power tools and test equipment. Assemble and install parts and assemblies, using hand tools and power tools. Lay out location of parts and assemblies, such as surface control boosters, landing gears, vacuum units, and fuel, oil, oxygen, and water systems, according to specifications, using measuring and marking instruments.</p>	500
N	<p>REPAIRS</p> <p>Repair or replace malfunctioning system components. Fabricate parts incidental to assembly and installation, using shop equipment.</p>	500
O	<p>ACTUATING STRUCTURES EQUIPMENT</p> <p>Assemble and install rigging and control assemblies and systems that actuate aircraft structures such as; rudder, canopy, and wing surfaces, according to specifications using hand and power tools and equipment. Install mechanical linkages and actuators. Assemble, hang, connect, and install rigging and control assemblies and systems, including cables, cylinders, components of ailerons and flaps, pulleys, mountings, and brackets, working from established station lines and index points using templates, jigs, fixtures, hand and power tools.</p>	500
P	<p>ALIGNMENTS AND ADJUSTMENTS</p> <p>Set, adjust, and synchronize rigging and control system components to establish tolerances and requirements. Verify specified tension of cables using tensiometer.</p>	500