

# Work Processes Schedule

## ELECTRICAL EQUIPMENT REPAIRPERSON (MAGNETO REPAIRER)

**RAPIDS: 0643M**

O\*NET/SOC: 47-2111.00

REVISION DATE: 03/2015

Repair electric motors and electronic modules. Operate and repair mobile electric power generators. Troubleshoot equipment electrical circuits and electrical power distribution systems. Repair the electrical systems of engineer equipment. 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 1120, 1141, 1142, 1169, 6073, 6499

USCG EM

USN AS, CE, CT, EM, EMN, ET, ETN, ETR, ETV, GS, IC

### Related Instruction

Any trade related schools/courses totaling 576 hours.

### Additional Requirement

CTT rating must have NEC 1702, 1734, 1736, or 1737

Total Hours: **8000**

Skill	Description	Hours
A	<b>CARE AND USE OF HAND TOOLS</b>	500
B	<b>CARE AND USE OF TEST AND MEASURING EQUIPMENT TO INCLUDE:</b> Voltmeter. Ammeter. Ohmmeter. Oscilloscope, Power Supplies, Signal Generators. Wattmeter. Frequency Indicator.	1315
C	<b>KNOWLEDGE OF SOLDERING</b>	250
D	<b>KNOWLEDGE AND USE OF PREVENTIVE MAINTENANCE PROGRAM</b>	180
E	<b>SAFETY</b>	210
F	<b>ELECTRICAL TROUBLESHOOTING</b> Test machinery, circuitry and components. Measure voltage, current and resistance. Trace short or open circuitry. Understand use of insulation materials. Diagnose trouble in power circuits. Locate and repair faulty electrical equipment.	900
G	<b>ELECTRICAL WIRING</b> Familiarity with proper cable and wire (size and insulation).	500
	<b>MAINTENANCE OF ELECTRICAL EQUIPMENT, LIGHTING EQUIPMENT, STARTERS, ETC.</b>	

<b>H</b>	<p>Knowledge of routine maintenance required, such as oil change, cleaning and inspection. Proper oils and greases to be used for specific piece of equipment. Removed electrical equipment from service and obtain clearances before switching. Proper care of storage batteries. Knowledge of simple lighting circuits and methods of repairing lighting and fixtures.</p>	450
<b>I</b>	<p><b>INSTALLATION AND MAINTENANCE OF ROTATING MACHINERY</b></p> <p>Theory, care and installation methods of AC and DC generators and motors, (including single-phase, poly phase, synchronous and induction constant and variable speed for AC and series, shunt and compound wound DC machines). Routine care. Methods of checking motor loads. Adjustments and repairs of starters. Reconnection for different voltages and speeds. Care for commutators.</p>	800
<b>J</b>	<p><b>INSTALL AND ADJUST METERS, RELAYS AND CONTROLS</b></p> <p>Basic theory of watt-hour, meter, voltmeter, ammeter and wattmeter. Analysis of control diagrams. Knowledge of relays and remote controls. Knowledge of proper uses of voltmeters and ammeters. Understanding of interlocking controls. Knowledge of operation of industrial instruments such as temperature recorders, etc. Determine location of grounds and short circuits and apply emergency correction. Knowledge of protective relays and protection schemes to include coordination concepts.</p>	900
<b>K</b>	<p><b>GENERAL MAINTENANCE</b></p>	1045
<b>L</b>	<p><b>DIESEL ENGINE MAINTENANCE</b></p> <p>Fuel Systems and components. Lubrication systems and components. Air system (combustion, cooling, exhaust). Governor systems.</p>	950