

## Helicopter Mechanic (3742)

### Task List 2023

#### Helicopter Mechanics Maintenance and Repair Work

1. Inspects, overhauls, maintains, troubleshoots, and repairs the following helicopter components, such as rotor blades and rotor hub assemblies, engines, engine mounts, power plant components, and power train components including drive shafts, gear boxes, and flight control systems in order to keep equipment functioning effectively.
  - a) rotor blades and rotor hub assemblies
  - b) engines, engine mounts, and power plant components
  - c) power train components including drive shafts and gear boxes
  - d) flight control systems
  - e) airframes, landing gear, and aircraft bodies
  - f) fuel systems, including tanks, controls, pumps, and lines
  - g) electrical systems and components
  - h) instruments, such as tachometers, air pressure and temperature instruments
  - i) hydraulic control systems
2. Examines and interprets information from squawks and worksheets received from pilots, mechanics, mechanic supervisors, and Quality Assurance in order to make adjustments and repairs, and troubleshoot and identify problems (e.g., fine tuning the dynamic balance of rotor assemblies and drive shafts).
3. Reads and interprets manufacturers' maintenance manuals, wiring diagrams, and part manuals in order to facilitate inspection, maintenance, and repair.
4. Removes defective mechanical parts from helicopters by replacing with new, serviceable, or overhauled parts and preparing removed parts for overhaul or repair.
5. Overhauls helicopter components by disassembling, cleaning, inspecting, repairing, reassembling, and testing them in order to maintain condition and serviceability.
6. Fabricates helicopter parts required for approved repairs or modifications (e.g., radio rack, instrument panel) using specialized tools such as metal shears, saws, sheet metal tools, mills, and lathes.
7. Troubleshoots electrical circuits for opens, shorts, grounding, and proper insulation using multi-meters, circuit testers, and other specialized equipment in order to diagnose electrical system anomalies.

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8. Makes minor helicopter repairs to electrical equipment and circuits such as replacing defective wires or replacing connectors or other parts.
9. Tests helicopter units or assemblies by selecting the correct equipment and/or computer program (e.g., balance equipment, temperature sensing, laptop), and observing, reading, and/or collecting data during maintenance ground runs and/or test flights.
10. Prepares parts for inspection or testing by removing coatings (e.g., paint, adhesives, sealants) using chemical stripping compounds or dry media.
11. Paints parts or touches up damaged protective coatings using the proper equipment, such as spray guns, spray booth, or brushes.
12. Furnishes and maintains personal hand tools (e.g., wrenches, screwdrivers, ratchets) and power tools (e.g., pneumatic or electric) in serviceable condition for use.
13. Conducts daily and periodic helicopter inspections (e.g., oil levels, lights, leaks) in accordance with manufacturers' recommendations.

### Work Documentation

14. Communicates verbally and/or in writing with supervisors, pilots, and other employees in order to receive new assignments and progress updates on current assignments while working in the shop or the field.
15. Completes inspection forms and provides order forms for parts, materials, and tools for supervisor approval as required.
16. Makes written entries to aircraft records such as airframe and engine maintenance logbooks in order to document work performed.