

As a Heavy Equipment Mechanic Electrical, you will ensure critical airport transportation systems are maintained.

JOB DESCRIPTION

- Heavy Equipment Mechanic Electrical
- Works under the direct supervision of the Heavy Equipment Mechanic Supervisor or Heavy Equipment Mechanic Shift Supervisor.
- Serves in a Heavy Equipment Maintenance Shop in the Engineering and Maintenance Department at Washington Dulles International Airport.

Troubleshoots, repairs, overhauls, and performs preventive maintenance on HVAC systems and electrical/electronic components of various types of mobile equipment and auxiliary generators maintained by the shop. Maintains all critical airport transportation systems. Performs related functions.

GENERAL RESPONSIBILITIES

- Examines equipment, traces/locates defects, identifies replacement parts and repairs/modifies mechanical, electrical and hydraulic systems on heavy equipment and/or HVAC systems.
- Performs preventive maintenance and inspections on vehicles and heavy mobile equipment.
- Maintains, adjusts, dismantles, repairs, overhauls and reassembles cooling/heating units for different types of equipment (e.g. compressors, condensers, pumps, and receivers, etc.)
- Detects, locates, and analyzes faulty operation in various types of electric and air-conditioning control devices.
- Install copper tubing and air-conditioning components while making various repairs.
- Maintains, repairs, and troubleshoots Programmable Logic Controllers (PLC) for mobile lounge hydrostatic drive systems and Plane Mate lift and safety interlock systems.
- Maintains and repairs deficiencies in auxiliary diesel generators, electrical power supplies, and electronic transfer systems which provide power for mobile lounge at terminal.
- Removes refrigerants from air-conditioning units and recycles, recharges refrigerant systems, detects, and corrects leaks in refrigerant systems, and makes mathematical calculations to determine percentage of efficiency on performance of units.
- Makes service calls to stalled or inoperative vehicles and equipment; performs on-site repairs.
- May research new suppliers or substitutions for unavailable parts; may fabricate part(s).
- May perform inspections of vehicles and equipment and prepare labor, parts, and materials requirements for itemized estimates.
- Inputs information and completes work orders for equipment maintained, overhauled or repaired into computerized maintenance management system.
- Performs other duties as assigned.

QUALIFICATIONS

- Four years of progressively responsible experience in the repair and maintenance of electrical systems (up to 670V) on heavy duty equipment. **OR**
 - Four years of approved apprenticeship training in electrical systems for heavy equipment and one year of repair and maintenance of electrical systems (up to 670V) on heavy duty equipment. **OR**
 - Four years electrical repair and maintenance experience on vehicles and 240 hours of electrical systems vocational training for heavy equipment.
- Knowledge of electrical theory, the National Electric Code and the electronic principles used with various electronic/electric controls and ability to work safely on a variety of electrical systems and equipment.
- Journey level skill in analyzing, troubleshooting, and repairing complex interrelated electronic and electro-mechanical systems which require journey-level proficiency in HVAC, electronics, electrical, industrial controls, automatic door systems, and mechanical.
- Knowledge of, and skill in applying, electrical theory, heating and air-conditioning, and electronic and electro-mechanical systems as they relate to recognizing operating deficiencies and making appropriate repairs heavy mechanical equipment.
- Knowledge of, and skill in applying, Environmental Protection Agency (EPA) regulations related to the repair of HVAC systems.
- Skill in using tools-of-the-trade (e.g. manifold gauges, oscilloscope, and power supplies, etc.)
- Ability to analyze data and information (diagrams, and schematics) to perform work.
- Ability to work safely and knowledge of the safety rules, regulations, and procedures needed to do so.
- Ability to speak and write effectively.
- Skill in using a computer, computerized work order system, and time and attendance systems.

PREFERRED QUALIFICATIONS

- Class B Commercial Driver's License.
- Certification as a Type I Refrigerant Technician by the EPA.
- Certification as a Type II Refrigerant Technician by the EPA.
- Certification as a Motor Vehicle Air Conditioner Technician by the EPA.
- Virginia Master Electrician License.
- Virginia Master HVAC License.

EDUCATION

- A high school diploma, a Certificate of General Educational Development (GED), or an equivalent combination of education, experience, and training.

CERTIFICATIONS AND LICENSES REQUIRED

- A state driver's license in good standing.
- Class B Commercial Driver's License within 90 days of hire or placement into the position.

NECESSARY SPECIAL FACTORS

- Operates vehicle airside and landside (requires AOA permit).
- May bend, stoop, crouch, and work in cramped positions; carries/moves objects weighing up to 100 pounds
- Is subject to possible electrical shock, falls large mobile equipment, slips on oily flooring, and hazardous fumes and substances. May work for prolonged periods of time in noise levels in excess of 105db. Wears personal protective equipment as necessary.
- Subject to hold-over and recall on a 24-hour basis for essential services and emergencies such as snow removal.
- Work is typically reviewed in progress and upon completion for quality, quantity, timeliness, teamwork, customer service, and other factors.