

MEHLVILLE FIRE PROTECTION DISTRICT

JOB DESCRIPTION FIRE MASTER MECHANIC

FLSA Status: Non-Exempt; Full Time

Reports to: Fire Chief

Supervises: Not Applicable

Hours worked per week: 40

GENERAL PURPOSE

Perform master mechanic level duties in the maintenance and repair of the District's fleet of gas, diesel, or alternate fuel engines and related equipment, i.e. fire apparatus, ambulances, aerial ladders, automotive, truck, trailers and other vehicular equipment that is engine driven.

ESSENTIAL DUTIES AND RESPONSIBILITIES

- Services all Fire District vehicles, standby power supplies such as auxiliary generators, fire pumps and their components as well as other complex fire apparatus on a regularly scheduled basis.
- Makes major improvements or modifications to new or existing fire apparatus in accordance with District needs and specifications.
- Maintains communication with members of the Fire District to ensure apparatus and equipment is properly cared for and maintained.
- Maintains and repairs tools and appliances carried on fire apparatus.
- Maintains complete and accurate maintenance and repair records for all apparatus and equipment.
- Oversees annual apparatus pump tests.
- Attends training courses, reads and studies assigned materials related to emergency operations and fire apparatus maintenance.
- Inspects diagnoses, troubleshoots, adjusts, tunes, repairs, removes and replaces components.
- Troubleshoots and diagnoses equipment and then repairs ignition, fuel, pneumatic, hydraulic, and mechanical systems.
- Provides expert guidance and performs repairs on braking systems, to include ABS, heavy duty air brake systems, dryers, compressors, valves, regulators, etc.
- Performs mechanical, electrical, and fluid repairs which may require use of specialized equipment including test gauges, computer links, scan tools, power tools, digital voltmeters, and etc.
- Fabricates repair items which may involve the use of welding or cutting torches, welders, presses, etc.
- Tests and diagnoses computer feedback devices i.e. O2 sensors, TPS, MAPS, knock, and other sensors.
- Performs drivability test in order to diagnose drive-train and chassis problems.
- Determines parts required to perform a job; installs set-up components on new vehicles/equipment to configure for service.
- Ensures quality control and inspection of outside contractors that perform work on fire apparatus.
- Other duties as assigned.

LICENSING AND CERTIFICATION

Valid State Driver License of sufficient classification to allow for driving of all vehicles within the District. A Commercial Driver's License (CDL) is preferred. EVT I, II and III, as outlined in NFPA 1071 Standard for Emergency Vehicle Technician Professional Qualification, is preferred.

This Mechanic will be required to achieve Level I and II Fire and Ambulance Apparatus, at minimum, to meet NFPA 1071, within two years of employment.

Certification Requirements

- Automotive Service Excellence (ASE) T1 through T8 heavy equipment
- Heavy Equipment Technology Experience

The Mechanic must have a high school diploma or GED and a minimum of five years experience as a mechanic on heavy equipment, gas and diesel engines or equivalent experience. Fire and ambulance experience preferred.

Any equivalent combination of education, training and experience, which provides the requisite knowledge, skills and abilities for this job, may be substituted for evaluation at the discretion of the Fire Chief.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of:

- State of the art techniques, practices, procedures, test equipment and documentation used in all facets of maintenance performed on automotive, truck, fire first responder vehicles, and all other forms of vehicular equipment.
- Various mechanical principles as applied to power transmission and braking systems, engine types/cycles, electrical and electronic theory and principles, hydraulic theory and principles, shop safety and equipment operation.
- NFPA 1901, Standard for Automotive Fire Apparatus
- NFPA 1911, Standard for the Inspection, Maintenance, Testing, and Retirement of In-Service Automotive Fire Apparatus
- District policies and procedures
- Industry standards on driver, fire scene and shop safety practices

Skills required:

- Drivability analysis
- Fault determination through systematic troubleshooting of hydraulic, electrical, pneumatic, and mechanical system combinations using latest industry test equipment
- Metal repair, fabrication, and reverse engineering of unavailable parts using various forms of metal joining, welding, and powered equipment

Ability to:

- Translate written guidance into workable troubleshooting and repair procedures aimed to returning vehicles to service in minimum time
- Use sound judgment in ordering parts and ensuring quality maintenance is performed at all times
- Set the standard for professional excellence at MFPD
- Recommend safety policies and procedures
- Monitor outsourced repairs
- Learn the operation of fire suppression and other emergency equipment.

- Follow verbal and written instructions.
- Effectively communicate verbally and in writing.
- Establish effective working relationships with employees, other agencies and the general public.
- Make independent judgments which have considerable impact on the District.
- Assist in writing specifications for new fire apparatus, aerials, ambulances and command vehicles.

RESPONSIBILITY FOR PUBLIC CONTACT

Frequent contact requiring courtesy, discretion and sound judgment.

TOOLS AND EQUIPMENT USED

Tasks require the ability to operate, maneuver, and/or control the actions of equipment, machinery, tools, and/or materials, commensurate with duties of the position.

PHYSICAL DEMANDS

Tasks require sufficient clarity of speech and hearing or other communication capabilities, with or without reasonable accommodation, which permits the employee to discern verbal instructions, alarm and warning systems, including backup alarms, and to diagnosis engine problems and relay maintenance needs to the Chief of the Department. Tasks require sufficient vision or other powers of observation, with or without reasonable accommodation, which permits the employee to perceive and discriminate color or shades of color, comprehend written work instructions and work orders, inspect heavy equipment and automotive parts, fluid levels, equipment operation and make necessary repairs. Tasks require sufficient manual dexterity with or without reasonable accommodation, which permits the employee to operate a variety of automotive shop tools and make adjustments to equipment. Tasks require sufficient strength to lift and carry 40 pound objects for varying distances; some tasks may require lifting of up to 80 pounds. Tasks require sufficient personal mobility, stamina, flexibility and balance to perform maintenance and repair functions that require bending, stooping, kneeling, stretching or other physical exertions, with or without reasonable accommodation, which permits the employee to work under vehicles, in cramped spaces, climb and work on ladders and aerial lifts up to 100 feet and remove and replace parts for repair and replacement. Tasks require sufficient ability to endure prolonged exposure to arid desert conditions such as dirt, dust, pollen, odors, and prolonged sun and heat exposure during summer months.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The primary duties of this position are performed in an automotive shop environment and an outdoor environment that may involve adverse weather conditions, vehicular traffic, cramped spaces and hazards involving the use of power tools and equipment and hazardous materials.

Work may be performed in emergency and stressful situations and may involve on the fire scene work. Individual may be exposed to hearing alarms and hazards including smoke, noxious odors, fumes, chemicals, liquid chemicals, solvents and oils.

The noise level in the work environment is usually moderate to loud. Hearing protection is recommended.

The duties listed above are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to the position.

This job description does not constitute an employment agreement between Mehlville Fire Protection District and employee and is subject to change by MFPD as the needs of the District and requirements of the job change.