FIRE MECHANIC

DEFINITION

Under general supervision, performs journey level mechanical work repairing and maintaining fire apparatus and related equipment; and performs related work as required.

EXPERIENCE AND TRAINING REQUIREMENTS

Six years of full-time experience in the repair and maintenance of heavy trucks, heavy equipment, and power equipment including three years of which must have been at the journey level; OR completion of a recognized apprenticeship program for automotive/equipment repair; OR an equivalent combination of education and experience.

LICENSE OR CERTIFICATE

A valid driver’s license is required at the time of appointment.

A valid Class B Commercial Driver's License with an endorsement for hazardous materials must be obtained within six months of hire.

Certification as an Emergency Vehicle Technician is required upon completion of probationary period.

Must pass a thorough medical examination test prior to appointment.

Must undergo and pass a background investigation prior to being considered for employment.

SUPERVISION EXERCISED

Exercises no supervision.

EXAMPLES OF DUTIES (The following is used as a partial description and is not restrictive as to duties required.)

Maintain, repair and modify fleet equipment compromised of a variety of light, medium, and heavy fire apparatus and maintenance equipment including fire service equipment, computerized testing equipment and diesel/gas, electric power generators.

Determine the cause and extent of component or system failure through test drives, pressure and temperature checks, visual inspection, use of diagnostic equipment and reference to technical service manuals, service information bulletins, blueprints and schematic manuals; diagnose malfunction and order parts required for repairs by researching parts manual to locate proper part, contact vendors if necessary and complete purchase requisitions.

Perform major and minor repairs on all fire apparatus and equipment including diesel and gasoline engines, pumps, transmissions, steering mechanisms, brake systems, differential and drive line components, electrical and wiring systems, suspension, cooling, electrical and hydraulic systems.
Ensure all vehicles and equipment are in safe operating condition with no unauthorized modification; remove unsafe modified vehicles and equipment from service.

Perform periodic inspections to identify maintenance and repairs needed; process maintenance and repair requests and prioritize work; schedule regular maintenance; evaluate repairs as needed and make arrangement for prompt repair.

Maintain and repair fire equipment, tools, and appliances carried on fire apparatus.

Fabricate and install parts, components, and special use items; measure and draw plans, calculate material requirement, cut and assemble the item by either welding or bolting together, and install the finished product.

Maintain and repair fire apparatus components and systems to include water pumps, pump transmissions, drive systems and components, hydraulic and pneumatic plumbing systems and components, valves and pressure relief systems, pump priming systems, foam proportioning systems, compressed air foam systems (CAFS), and level monitoring systems for water and foam.

Maintain and repair fire apparatus emergency systems and emergency lighting components to include strobe, LED, incandescent and Opticom systems; maintain and repair emergency audible warning systems such as sirens, PA, and blast horn.

Schedule maintenance and repairs to be done by outside repair shops; make arrangements for delivery and pick up of vehicles; inspect repairs to ensure work is done correctly.

Maintain parts inventory for prompt completion of anticipated regular or emergency maintenance and repairs; contact part vendor(s) and order parts as needed.

Update and maintain computerized records of completed work, parts, and materials used.

Respond to fire and other emergencies to provide on-scene mechanical support as needed.

Perform duties and responsibilities in a safe and prudent manner that does not expose themselves or others to unnecessary harm or risk of on-the-job injury.

Perform related duties and responsibilities as assigned.

**JOB RELATED AND ESSENTIAL QUALIFICATIONS**

**Full Performance** *(These may be acquired on the job and are needed to perform the work assigned.)*

**Knowledge of:**
Policies and procedures of the Truckee Meadows Fire Protection District.

Computerized fleet maintenance procedures and related software.

**Skill in:**
Improvising as necessary to perform repairs in the field.

**Ability to:**
Perform the full range of maintenance, diagnosis, and repair on fire apparatus and related equipment.

**Entry Level** *(Applicants will be screened for possession of these through written, oral, performance, or other evaluation methods.)*
Knowledge of:
Tools, equipment, materials, and methods used in assembly, overhaul, mechanical diagnosis, maintenance, and repair on fire apparatus and equipment.

Fire equipment systems and operating characteristics of equipment.

Principles of mechanics, hydraulics relating to fire apparatus, suppression equipment, sprinkler systems, and stand pipes.

Welding equipment, methods and techniques.

Skill in:
Hand tools and machines used in the repair of fire apparatus and equipment including lathes, drill presses, grinders, and welding equipment.

Repairing, rebuilding, and modifying all components of vehicles/equipment including rebuilding transmissions and performing extensive electrical and fuel system diagnosis and repair.

Ability to:
Apply the theory and techniques of skilled mechanical trades work in the diagnosis, maintenance, and repair of fire apparatus and equipment.

Use various diagnostic and testing equipment and precision measuring devices.

Operation and maintenance of pumps and related equipment.

Mechanical systems of apparatus, pumps, aerial ladders, and pump panels.

Plan, organize and prioritize daily activities.

Work independently and follow through on assignments.

Read and understand repair order, service manuals, operating systems manuals, and hydraulic and electrical schematics.

Understand and follow oral and written directions. Maintain records of material and equipment used.

Communicate effectively, both orally and in writing.

Establish and maintain effective working relationships with departmental personnel, other agencies, the public, and others contacted in the course of work.

SPECIAL REQUIREMENTS (Essential duties require the following physical skills and work environment.)

Ability to operate apparatus including driving, pump operation, lifting and pulling hose and equipment. Ability to stand and walk for extended periods. Ability to frequently stoop, bend, and kneel. Corrected hearing and vision to normal range. Verbal communication and reading ability. Ability to work at considerable heights. Ability to perform sustained and vigorous activities in a variety of environmental conditions. Ability to tolerate exposure to heat, fumes, smoke pressurized water, and chemicals.

Positions are required to work varied shifts including evenings, weekends and holidays.

This class specification is used for classification, recruitment and examination purposes. It is not to be considered a substitute for work performance standards.