

## **MECHANIC III**

### **Definition:**

Under general supervision, determines the cause and extent of operational problems in a wide variety of equipment powered by gasoline, diesel or alternative fuel engines; makes major and minor repairs on equipment; advises and assists other mechanics in diagnosing problems and taking corrective action and performs related work as required.

### **Essential Duties and Responsibilities:**

The essential duties and responsibilities of the class include the following:

Inspects motorized, mechanical and hydraulic equipment.

Diagnoses trouble codes to determine the extent of needed repairs.

Tunes and replaces engines, fits and adjusts valves and pistons.

Replaces rods and gears.

Cleans, repairs and replaces a variety of equipment parts to include carburetors, fuel pumps, strainers, fuel lines, fuel tanks, fuel injectors, throttle bodies and gauges.

Wires and reconditions electrical systems to include the testing, repair and replacement of starters, magnetos, generators, distributors, relays, lights and switches.

Relines and adjusts brakes.

Overhauls hydraulic, booster and vacuum systems.

Overhauls, repairs, installs and adjusts engines, transmissions, clutches, differentials, carburetors, generators, distributors and pumps.

Fits and adjusts bearings, installs axles and fits pistons and rings.

Performs basic machine shop work incidental to mechanical repairs.

Uses welding equipment to fabricate metal parts/equipment and repair broken parts.

Maintains a variety of routine records and may use a computer to input data.

Drives/operates a variety of City vehicles.

Performs a variety of automotive inspections, to include smog and preventative maintenance inspections.

May assist lower level mechanics.

May act in a lead capacity and assist with the training and work direction of lower level fleet maintenance employees.

**Other Duties and Responsibilities:**

Performs other projects/tasks as assigned.

**Class Characteristics:**

Mechanic III is a multi-incumbent class within the Maintenance Services Department. An incumbent of this class performs journey level work in a specialized field of automotive repair as a major function of the position. The areas of specialization include the repair and maintenance of heavy duty fire equipment and the diagnosis and correction of particularly difficult operational problems. The required skill level of an incumbent Mechanic III exceeds that which would be expected of a journey level mechanic performing only general automotive repair work. The work of an incumbent Mechanic III is performed with considerable independence and is normally reviewed only upon completion.

**Contacts and Relationships:**

A Mechanic III has contact with in-house vehicle users, vendors, outside field service mechanics and Fire Department staff and establishes and maintains contact with other Maintenance Services Department staff.

**Qualification Guidelines:**

The knowledge and abilities which are required to perform the duties and responsibilities of this class are as follows:

**Knowledge of:**

Diagnostic equipment to include scanners, engine analyzers, volt meters and ohmmeters.

Maintenance and operation of heavy duty fire fighting vehicles and equipment.

Computer engine (DDEC) and computer electronic transmission systems.

Air brake systems and arc welding techniques.

Tools, equipment and procedures involved in the maintenance and repair of engines and other power driven equipment.

Chassis overhaul and upgrade.

Fire truck ladder inspection and repair.

Fuel, ignition, air conditioning, cooling, mechanical and electrical systems.

Operation and maintenance of internal combustion engines.

Computer applications as they relate to area assigned.

Safety precautions and practices necessary when working with automotive equipment.

**Ability to:**

Diagnose electronic/automotive computer problems.

Read and write at the level required for successful job performance.

Read and understand electrical wiring and hydraulic schematics.

Properly maintain and repair heavy-duty fire fighting vehicles and equipment.

Operate sophisticated diagnostic equipment.

Maintain and repair a variety of motorized equipment.

Operate shop tools, including drills, pressers, grinders, reamers and brake relining machines.

Understand and carry out oral and written directions independently.

Communicate effectively orally.

Establish and maintain effective relationships with those contacted in the course of work.

Complete forms, record data and transfer data from one form to another.

Act in a lead capacity as needed.

**A typical way to obtain the knowledge and abilities is as follows:**

**Education:** Two years of vocational training in engine and/or automobile maintenance to include power train/differential repair.

**AND**

**Experience:** Five years of experience in the mechanical repair of automotive and power driven equipment, to include experience in mid-range diesel engine repair, engine and chassis overhaul and electronic systems repair.

**Physical Tasks and Working Conditions Include the Following:**

Work is performed in an open automotive shop environment. Incumbents are exposed to the elements, the noise of machinery and vehicles, fumes, exhaust emissions, grease, engine oils, solvents, chemicals, dust, electrical hazards, mechanical hazards, vehicle hazards and vibration. Incumbents stand and walk on level and slippery/uneven surfaces, twist, bend, push, pull, crouch, climb stairs, reach, bend and crawl, grasp, drag, lift and carry items weighing 50 pounds or less. Incumbents may work above shoulder level with power and/or hand tools weighing 15 pounds or less and work in confined spaces. Mechanic IIIs drive/operate vehicles on City business, assist in the testing of and are exposed to a wide variety of automotive equipment and hand and power tools. Incumbents must be able to meet the physical requirements of the class and have mobility, vision, hearing, sense of smell and dexterity levels appropriate to the duties to be performed.

**Special Requirements:**

Valid and appropriate California Driver's License and acceptable driving record at time of appointment and throughout employment in this position.

Possession of a complete set of mechanic's hand tools.

Possession of or to ability to acquire a specialized motor vehicle operator's license within six months of employment in this position.

Based on area of assignment, possession of or ability to obtain Fire Mechanic Level I and II Certifications as issued by the California Fire Chief's Association within six months of employment in this position.

Based on area of assignment, possession of or ability to obtain a Smog Inspector License as issued by the California Bureau of Automotive Repair within 12 month of employment in this position.

Some positions may come under State of California Department of Transportation regulations and/or testing guidelines.

Shift work is required and incumbents are subject to overtime.

**Other:**

Possession of or ability to obtain Automotive Service Excellence Certifications for heavy and/or light duty vehicles is preferred but not required.

**Fair Labor Standards Act Designation:** Non-exempt.

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