

MECHANIC I
MECHANIC II

DEFINITION

To perform a variety of skilled vehicle and equipment mechanical, electrical, electronic, and hydraulic maintenance and repair tasks related to gasoline, diesel, compressed natural gas (CNG), alternative fuel and electric powered automobiles which may include light trucks, passengers, police, fire, electric utilities, public transit vehicles, and a variety of medium and heavy equipment such as backhoes, loaders, pavers, street sweepers, and refuse collection vehicles.

DISTINGUISHING CHARACTERISTICS

Mechanic I - This is the entry level class in the Mechanic series. Positions in this class typically have little or no directly related work experience and work under immediate supervision while learning job tasks. The Mechanic I class is distinguished from the II level by the performance of less than the full range of duties assigned to the II level. Incumbents work under immediate supervision while learning job tasks, progressing to general supervision as procedures and processes of assigned area of responsibility are learned.

Mechanic II - This is the class in the Mechanic series and is distinguished from the I level by the ability to perform the full range of duties assigned with only occasional instruction or assistance as unusual or unique situations arise. Positions in this class are flexibly staffed and are normally filled by advancement from the I level.

This class is distinguished from the Senior Mechanic in that the latter performs advanced journey level work and provides technical and functional supervision to assigned staff.

SUPERVISION RECEIVED AND EXERCISED

Mechanic I

Receives immediate supervision from the Fleet Services Supervisor; and receives technical and functional supervision from a Senior Mechanic.

Mechanic II

Receives general supervision from the Fleet Services Supervisor; and receives technical and functional supervision from a Senior Mechanic.

EXAMPLES OF ESSENTIAL DUTIES – Duties may include, but are not limited to, the following:

Perform maintenance, repair, and service duties related to a variety of vehicles and equipment used in the diverse fleet of city departments.

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Inspect, troubleshoot, diagnose, and identify mechanical, electrical, electronic, and hydraulic problems and defects; make repairs and adjustments to a wide variety of vehicles and equipment found in a municipal fleet environment.

Disassemble, overhaul, and reassemble gasoline, diesel and alternative fuel engines, transmissions, including heavy duty automatic types; repair and adjust clutch units, differentials, final drive units, and front ends.

Read, interpret and understand principles, methods, materials, procedures, blueprints, drawings, equipment specifications, vendor service manuals, logic diagrams and electric and hydraulic schematics used in the installation, testing, maintenance, operations and modification of a wide variety of electrical and electronic equipment and devices.

Troubleshoot, diagnose malfunctions and repair, maintain and adjust mechanical, hydraulic, heating and air conditioning, safety equipment and devices on vehicles and equipment.

Document complex preventative maintenance principles and practices associated with the repair and maintenance of vehicles and equipment.

Estimate time and materials for repairs; communicate status of repair, maintenance or fabrication work to supervisor; request supplies and parts as needed and maintain work, time and materials records.

Disassemble, reassemble, overhaul, tune-up, install, inspect, repair and calibrate gasoline, diesel, CNG, and alternative fuel engines, transmissions, light and heavy duty automatic and manual; repair and adjust clutch units, differentials, final drive units, suspension; replace ignition parts and clean and adjust carburetors; repair and replace components, power steering, tracks and related sprockets, rollers and idlers, hydraulic control systems, pumps, valves, pressure regulators, lines, hoses, and plumbing on multiple fluids.

Replace electrical equipment such as generators, starters, distributors, relays, lights and switches; diagnose and repair computer-controlled vehicle elements (i.e., Police, Fire, Electric support vehicles, etc.) and replace components as needed.

Install, inspect, maintain, troubleshoot and repair motor controls and automated switchgear, control systems, instrumentations, programmable controllers, radio frequency data communication equipment, and other devices related to vehicles and equipment.

Perform routine mechanical fabrication, welding and machining of parts and tools as needed to modify and repair various vehicles and equipment including minor auto body repairs; assist in the installation, fabrication, and construction of various projects; read and interpret specifications and perform work accordingly.

Troubleshoot, diagnose, recognize, identify, repair, and maintain electrical equipment and vehicles including pulling cables, terminating wires, and modifying circuits on both A/C and D/C, electrical relays, alarm systems, transmitters, gauges, sensors, lighting, starters, circuit breakers, power meters, switches, generators, distributors and ignition components, and onboard computer modules.

Interpret control strategies and programmable logic controller programs to diagnose process and equipment failures with control and instrumentation equipment, network communications, fiber optic, Ethernet and 2-way radio, video and camera systems, mobile computer docking systems, hybrid and electric vehicle high voltage batteries (100v-800v), components contractors, inverters, converters, drive motors, control systems, charging interface and stations.

Troubleshoot, diagnose, recognize, identify, repair, and perform maintenance on aerial bucket trucks, large and small capacity cranes, aerial boom digger derrick and ladder trucks; repair fire apparatus including water and foam pump maintenance, inspection, testing and repair.

Respond to service calls for emergency road repair.

Tune up engines, replace ignition parts, and clearing and adjusting carburetors; prepare and replace vehicle and equipment electrical equipment such as generators, starters, distributors, relays, lights and switches.

Repair and replace air and hydraulic braking systems; adjust all brakes including anti-lock types; repair or replace heating and air conditioning systems; recharge air conditioners, as certified.

Diagnose and repair computer-controlled vehicle elements and replace components as needed.

Repair a variety of safety equipment and devices, including airbag systems, as certified.

Repair power steering, tracks and related sprockets, rollers and idlers, hydraulic control systems, pumps and lines.

Weld, fabricate, and assemble parts and equipment for City vehicle and power-driven equipment.

Inspect and road test repaired equipment, as certified.

Conduct inspections of Compressed Natural Gas (CNG) tanks for integrity and compliance.

Perform smog, Heavy Duty Inspection and Maintenance regulatory testing, and opacity testing as certified.

Estimate time and materials necessary to perform the work; communicate status of repair, maintenance, or fabrication work; purchase supplies and parts as needed; maintain work, time, and materials records.

Build and maintain positive working relationships with co-workers, other City employees, and the public using principles of good customer service.

Perform related duties as assigned.

MINIMUM QUALIFICATIONS

Mechanic I

Knowledge of:

Basic operating principles of electric motors and engines fueled by gasoline, diesel, or alternative fuels.

Lubricating systems and oils, greases and attachments used in lubricating vehicles and equipment.

Less complex vehicle and equipment components related to maintenance and repair and associated tools and uses.

Basic principles and methods of gas and electrical welding and fabrication.

Basic principles and practices of record keeping.

Ability to:

Learn to perform multi-skilled work in the troubleshooting, maintenance and repair of mechanical, electrical/electronic equipment related to vehicle and equipment gasoline, diesel, compressed natural gas, alternative fuel and electric powered equipment.

On a continuous basis, know and understand operations, and observe safety rules; intermittently analyze problem equipment; identify and locate equipment; interpret work orders; remember equipment location; and explain jobs to others.

Intermittently, sit while studying or preparing reports; bend, squat, climb, kneel and twist when installing, repairing, and servicing equipment; perform simple and power grasping, pushing, pulling, and fine manipulation; and lift or carry weight of 50 pounds or less.

Learn to operate a computer as necessary to perform job duties, including diagnostic tasks.

Keep computer and manual records such as work orders, work performed, and supplies/parts purchased; prepare required reports.

Communicate clearly and concisely, both orally and in writing.

Respond to field requests for vehicle repair/maintenance.

Operate equipment in a safe and efficient manner.

Work regular shifts as assigned; may be assigned to call back and/or emergency schedules that include evenings, weekends, and/or holidays.

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

Experience and Training

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Experience:

One year of experience in semi-skilled work in performing servicing tasks related to a wide variety of vehicles and equipment found in a municipal fleet environment including gasoline, diesel, or alternative fuel powered automotive, heavy construction, and other power-driven equipment.

Training:

Equivalent to completion of the twelfth (12th) grade, GED, or higher level degree.

License or Certificate

Possession of a valid California Class C driver's license by date of appointment.

A valid California Class B driver's license with passenger and airbrake endorsements must be obtained within six months of date of appointment.

Three (3) valid certificates as an Automotive Service Technician issued by the National Institute for Automotive Service Excellence (ASE) within six months of date of appointment.

Mechanic II

In addition to the qualifications for the Mechanic I:

Knowledge of:

Operating principles of electric motors and engines fueled by gasoline, diesel, or alternative fuels.

Principles and practices of welding and fabrication.

Electrical and hydraulic system theory.

Ability to:

Independently perform multi-skilled vehicle and equipment mechanical, electrical, electronic, and hydraulic troubleshooting, maintenance and repair tasks related to a wide variety of vehicles and equipment found in a municipal fleet environment including gasoline, diesel, or alternative automobiles, light and heavy trucks, and construction equipment.

Experience and Training

Experience:

Two years of increasingly responsible experience performing maintenance and repair work similar to that of a Mechanic I with the City of Roseville.

Training:

Equivalent to completion of the twelfth (12th) grade, GED, or higher level degree.

License or Certificate

Possession of a valid California Class C driver's license by date of appointment.

A valid California Class B driver's license with passenger and airbrake endorsements must be obtained within six months of date of appointment.

Eight (8) valid certificates as an Automotive Service Technician issued by the National Institute for Automotive Service Excellence (ASE) by the date of appointment.

09-15-23

06-01-18

11-04-10

09-11-07

05-12-07

10-27-97

09-26-97

07-30-96

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Light Equipment Mechanic/Heavy Equipment Mechanic