

MECHANIC I/II/SENIOR

DEFINITION

Under immediate (Mechanic I) to general (Mechanic II) supervision, to direction (Senior Mechanic), performs a variety of duties relating to the diagnosis, maintenance and servicing, repairs, and overhauls of a wide variety of light- and heavy-duty diesel, gasoline, hybrid-electric, and natural gas-powered trucks, construction equipment, and automobiles; installs and repairs vehicle-mounted equipment, operates a variety of hand and power tools and sophisticated diagnostic equipment; and performs related duties as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives immediate supervision (Mechanic I), to general supervision (Mechanic II), to direction (Senior Mechanic) from assigned supervisory or management personnel. At I/II level, exercises no direct supervision over staff. Senior Mechanic exercises technical and functional direction over and training to lower-level staff.

CLASS CHARACTERISTICS

Mechanic I: This is the entry level in the Mechanic class series. Initially under close supervision, incumbents will learn to perform routine daily operations related to the maintenance and repair of a wide variety of motorized vehicles and equipment. As experience is gained, assignments become more varied, complex, and difficult; close supervision and frequent review of work lessens as an incumbent demonstrates skill to perform the work independently. Positions at this level usually perform most of the duties required of the positions at the Mechanic II position level but are not expected to function at the same skill level and usually exercise less judgement in matters related to work procedures and methods. Work is usually supervised while in progress to ensure performance fits an established structure or pattern, and reviewed in detail upon completion for soundness, appropriateness, and comfortability to policy requirements. Exceptions or changes in procedures are explained in detail as they arise.

Mechanic II: This is the fully qualified journey-level classification in the Mechanic class series. Positions at this level are distinguished from the Mechanic I level by the performance of the full range of duties as assigned, working independently, and exercising judgement and initiative. Incumbents at the Mechanic II level may be assigned back-up crane or combination jet-vac equipment operator duties. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. Work is occasionally reviewed upon completion for accuracy.

Senior Mechanic: This is the advanced journey-level classification in the Mechanic class series and is responsible for performing the most complex and specialized work assignments. Incumbent regularly works on tasks which are varied and complex, requiring considerable discretion and independent judgement. Positions in the classification rely on experience and highly specialized tools to inspect, trouble-shoot, diagnose, and perform major repairs and overhauls to all manner of vehicles and equipment, work on special projects, and provide functional lead direction and workflow coordination to lower-level employees. Assignments are given with general guidelines and incumbents are responsible for establishing objectives, timelines, and methods to deliver services. Position has responsibility for ensuring regulatory

compliance, ensuring maintenance schedules are followed, and participates in the selection and specification of new equipment.

Position acts in a lead capacity and works with accountability for on-going decision-making responsibilities associated with the work. Coordinates mechanic duties, prioritizes and assigns work tasks, evaluates performance of subordinate mechanics, makes recommendations for training to maintain capability as technology advances.

Positions in the Mechanic class series are flexibly staffed; positions at the II-level and Senior-level are normally filled by advancement from the I-level and II-level, respectively. Progression to the II-level and Senior-level is dependent on satisfactory work performance (an overall performance rating of "exceeds standards" or higher on most recent annual performance evaluation is required), the incumbent meeting the minimum qualifications for the classification including any licenses and certifications, and management approval.

EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)

Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the typical functions of the job.

Positions at the Mechanic I and/or II level may perform some of these duties and responsibilities in a learning capacity.

- Diagnoses and performs major repairs and overhauls to light and heavy gasoline, propane, natural gas, hybrid-electric, and diesel engines, involving inspection and replacement of broken or worn parts including, but not limited to engines and engine sub-components. Maintains, troubleshoots, and performs repairs to stationary and portable generators.
- Inspects, troubleshoots, diagnoses, repairs, cleans, adjusts, and installs fuel, ignition, electrical, and cooling systems involving repair and replacement of such parts as carburetors, fuel injectors, fuel pumps, relays, controls and injector pumps, spark plugs, starter motors, distributors, alternators, generators, computer controls for engines, transmissions, brakes, and other systems, voltage regulators, wiring switches, batteries, radiators, thermostats, high pressure water pumps, etc.
- Diagnoses and repairs pneumatic and hydraulic systems and associated power take-off equipment, transmission and anti-locking brake system electronic computer hardware, heating systems, transmissions, transaxles, clutches, steering mechanisms, vehicle and equipment air brakes, air conditioning systems, and refrigerant retrofits.
- Diagnoses and repairs all aspects of equipment and vehicles in the field, including emergencies and after-hours.
- Installs and repairs vehicle mounted equipment such as electric cranes, hoists, hydraulic lift equipment, welders, and compressors; installs catalysts and particulates emission filters, and operates communication software.
- Performs preventive maintenance work on construction equipment, automobiles, light and heavy trucks, back-hoes, loaders, skid-steer, and other equipment; repairs, mounts, and balances tires; performs wheel alignments.
- Maintains emission files for State inspection and B.I.T. Program compliance for heavy equipment and trailers.
- Performs welding work on vehicles, equipment, and tools; fabricates metal parts for vehicles,

equipment tools, tanks, plates, grates, etc.; straightens and repairs bent vehicles, equipment, and tools; fabricates and installs bumpers, tow bars, ladder racks, toolboxes, pipe railings, etc.

- Reads and interprets blueprints, sketches, drawings, manuals, and specifications; estimates labor, materials, and equipment required to complete assignments.
- Repairs and rebuilds high-pressure water pumps, hoses, and controls at car washing facility, and other specialized pumps; repairs and replaces clutches, roll-up doors, vehicle body and chassis parts; rewires trailers and equipment; troubleshoot, identify, and repairs short circuits; repairs and replaces electric dash gauges.
- Road tests vehicles; inspects vehicles in the shop and field; services, maintains, and repairs small engines; performs smog checks and certifies vehicles; repairs missing, modified, or non-functional emission control equipment.
- May work in confined space (permit required) areas.
- May provide training and instruction to lower-level employees.
- Maintains accurate, up to date records on all maintenance repair and service activity. Utilizes Computerized Maintenance Management System (CMMS). Creates, updates, and closes work orders. Creates and maintains Preventive Maintenance schedules for fleet and equipment assets. Creates and updates fleet and equipment assets in CMMS database.
- Rebuilds equipment by disassembling, cleaning, and repairing mechanical malfunctions; reassembles and tests equipment to ensure that it is in proper working condition.
- Maintains accurate, up to date records on hazardous waste materials. Maintains storage and containment areas for oils, greases, lubricants, anti-freeze, hydraulic fluids, etc.
- Provides staff assistance to the Maintenance Manager; conducts a variety of studies and investigations related to fleet and equipment preventive and corrective maintenance strategies. Makes recommendations for fleet and equipment upgrades and replacements.
- Orders replacement parts to perform maintenance and repairs as necessary. Maintains inventory of replacement parts and equipment.
- Operates and maintains a variety of hand tools, power tools, pneumatic tools, and other equipment in the performance of assigned mechanical duties.
- Reads, understands, and ensures compliance with the District Safety Manual; attends safety meetings, as required; reports all accidents, violations, or infractions to supervisor.
- Responds to emergency call out situations.
- Performs related duties as required.

QUALIFICATIONS

Positions at the Mechanic I-level and/or II-level may exercise some of these knowledge and abilities statements in a learning capacity.

Knowledge of:

- Methods, techniques, parts, tools, and materials used in the overhaul, maintenance, and repair of light to heavy gasoline, natural gas, propane, electric and diesel-powered vehicles, and related equipment, including automatic and manual transmissions, brakes, suspension, and steering systems.
- Operational characteristics of a diverse range of systems and components in light and heavy

- vehicles and equipment.
- Methods and techniques of using specialized light and heavy vehicle and equipment diagnostic tools.
- Operation and maintenance of a wide variety of hand, power and shop tools, and equipment common to the field.
- Practices and procedures of shop and field welding including the operation of oxyacetylene and electric arc welding equipment; welding properties of various metals and alloys.
- Lubrication systems, including oils and greases used in servicing and maintaining vehicles and equipment.
- Methods, techniques, tools, and equipment used to align vehicles and equipment.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.
- Principles, methods, materials, tools, and equipment used in the maintenance and repair of pumps, valves, pump drive gear heads, gear reduction boxes, engines, motors, and other mechanical systems.
- Operating characteristics and application of electrical test equipment.
- Operational characteristics of both water and wastewater treatment plant systems and equipment.
- Advanced methods and techniques of performing diagnostic troubleshooting services.
- Operational characteristics of tools and equipment used in pump maintenance activities.
- Proper procedures used in the maintenance and repair of hand and power tools.
- Mathematical principles.
- Operating characteristics of computers and applicable software applications.
- Principles and practices of record keeping.
- Precautions necessary for working with high voltage.
- Occupational hazards and standard safety practices.
- Pertinent federal, state, and local laws, codes, and regulations.

Ability to:

- Independently diagnose and repair a wide range of complex mechanical problems in both light- and heavy-duty vehicles and construction equipment.
- Operate and maintain a wide variety of hand, power and shop tools, and equipment.
- Estimate necessary materials and equipment to complete assignments.
- Prepare records and basic reports.
- Read and interpret manuals, specifications, and drawings.
- Use shop mathematics to make calculations.
- Fabricate and repair a wide variety of metal parts, equipment, and tools.
- Maintain maintenance logs and records.
- Understand and follow oral and written instructions.
- Make sound independent judgments within established guidelines.
- Organize work, set priorities, meet critical deadlines and follow-up on assignments.
- Meet deadlines in a fast paced and changing environment; handle multiple assignments simultaneously.
- Use tact, initiative, prudence and judgment within general policy and procedural guidelines.
- Effectively use computer systems, software applications relevant to work performed and modern business equipment to perform a variety of work tasks.
- Effectively use computerized maintenance management system (CMMS).
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Education:

Equivalent to completion of the twelfth (12th) grade supplemented by specialized trade school training in diesel or gasoline powered mechanics. Specialized training in advanced automotive diagnosis and repair is desirable.

Experience:Mechanic I

- Two (2) years of experience in the maintenance and repair of light and heavy vehicles and construction equipment.

Mechanic II

- Four (4) years of progressively responsible experience in the maintenance and repair of light and heavy vehicles and construction equipment, including medium-to-complex diagnosis, troubleshooting, and repairs.

Senior Mechanic

- Six (6) years of progressively responsible experience in the maintenance and repair of light and heavy vehicles and construction equipment, including advanced diagnosis, troubleshooting, and repairs. One (1) year in a lead capacity is desirable.

Licenses and Certifications:

- Possession of a valid California Class C driver's license, to be maintained throughout employment.
- Possession of a valid California Class A driver's license is desirable.
- Possession of a valid forklift operator certification must be obtained within twelve (12) months of employment, to be maintained throughout employment.
- Possession of, or ability to obtain crane operator certification issued by the National Commission for the Certification of Crane Operators, within twenty-four (24) months of employment.

PHYSICAL DEMANDS AND WORKING ENVIRONMENT

The conditions herein are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.

ENVIRONMENT

Indoor/outdoor, and heavy industrial environment; travel from site to site; exposure to noise, dust, oil, grease, smoke, fumes, noxious odors, gases, gasoline, diesel fuel, vibrations, electrical energy, radiant energy and all types of weather and temperature conditions; exposure to hazardous traffic conditions; work in, on, or around complex machinery; work and/or walk on various types of surfaces including slippery or uneven

surfaces and rough terrain; work in confined spaces; incumbents may be required to work extended hours including evenings and weekends.

PHYSICAL

- Level Three
- NIDA
- Pulmonary

Incumbents require sufficient mobility to walk, stand, and sit for prolonged periods of time; frequently stoop, bend, kneel, crouch, crawl, climb, reach and twist; push, pull, lift, and/or carry 100lbs, exposure to harsh weather, hazardous chemicals, confined spaces, respirator. Use of large mechanical tools, electrical parts, and frequent exposure to extended periods of noise; operate assigned equipment and vehicles; ability to verbally communicate to exchange information.

VISION

See in the normal visual range with or without correction; vision sufficient to read computer screens and printed documents; and to operate assigned equipment.

HEARING

Hear in the normal audio range with or without correction.