

THE CITY OF LOS ANGELES



CIVIL SERVICE COMMISSION

**CLASS SPECIFICATION****06-22-2023****HEAVY DUTY EQUIPMENT MECHANIC, 3743**

**Summary of Duties:** Employees in this class perform journey-level work in the maintenance and repair of construction, road maintenance, marine, or firefighting equipment; or builds and installs or modifies equipment for special purposes.

**Class Characteristics:** Incumbents of this class normally work on construction, road maintenance, marine, firefighting, and other equipment generally of a heavy nature and requiring special techniques and practices. These heavy duty equipment typically have a Gross Vehicle Weight Rating (GVWR) of 26,001 or more, typically have 3 or more axels and may have a pneumatic or air brake system. Occasionally, they may do some automobile and truck maintenance and repair work similar to that of an Equipment Mechanic. A Heavy Duty Equipment Mechanic may work in a construction equipment repair shop or may be assigned to make repairs in the field, sometimes under inclement weather conditions. When in the field, employees in this class must rely on their own judgment in determining the type and extent of repairs needed and whether or not the work can be done in the field. In the shop, Heavy Duty Equipment Mechanics are normally subject to craft supervision and usually receive detailed assignments, either orally or in the form of plans, sketches, or written work orders. A Heavy Duty Equipment Mechanic is frequently required to hand fit and adjust various parts made for special equipment, using hand tools and common shop machines, such as drill presses and grinders. The work does not require the skilled operation of precision machine tools, although the use of overhead cranes and other hoisting gear is necessary. Employees of this class may be assigned to work with an apprentice for training purposes.

**Examples of Duties:**

- Repairs heavy construction, road maintenance, marine, or firefighting equipment, such as gasoline, diesel and alternative fuel, such as compressed natural gas, tractors, motor graders, flushers, sweepers, refuse collection, bulky item vehicles and their auxiliary hydraulic systems, skip loaders, rollers, power shovels, fire apparatus, cranes, manlift devices, hoists, trenching machines, backfillers, concrete mixers, compressors, generators, pumps, riding mowers, and pneumatic tools;
- May repair automobiles, buses, and trucks;
- Removes, repairs, overhauls, and installs engines, brake systems, clutches, transmissions, differential assemblies, hydraulic pumps and systems, low and high pressure water pumps, valves, piping systems, tanks, fuel injection systems, and accessories commonly found on construction, road maintenance, marine, and firefighting equipment;
- Installs pistons, rings, and pins;

- Adjusts bearings;
- Cleans carburetors;
- Tunes motors;
- Refaces and reseats valves;
- Repairs ignition systems;
- Repairs track rollers, carriers, and idlers;
- Replaces broken gas lines, brake lines, hoist cables, steering gears, drive shafts, and other parts;
- Checks and aligns front ends;
- Repairs fire equipment bodies;
- Straightens frames and axles;
- Repairs and overhauls mechanical equipment and accessories on fireboats;
- May repair or install lights, wiring systems, and other electrical parts;
- Inspects heavy equipment in the field to detect operating faults and to make minor repairs;
- Writes reports on the condition of equipment, outlining repair work to be done in the shop;
- May use a data terminal or personal computer to input and retrieve maintenance information;
- Assembles trailers and mounts special equipment, such as air compressors, water pumps, or hoists;
- Alters equipment to meet special requirements;
- Road tests equipment;
- Uses electric drills, grinders, valve facers, drill presses, hydraulic presses, hoists, and other shop machines;
- Operates motor analyzers, dynamometers, and various gauges;
- Performs rough welding and brazing;
- Inspects equipment in the shop to determine necessary work;
- Follows industry safety procedures and practices and identifies hazards, if any;
- Follows oral instructions, blueprints, or sketches;
- Makes routine reports and keeps routine records;
- May direct a helper;
- May train an apprentice;
- May drive an automobile or light truck in field repair work; and
- May occasionally be assigned other duties for training purposes or to meet technological changes or emergencies.

**Minimum Requirements:**

1. Completion of a recognized apprenticeship as a heavy duty equipment mechanic; **or**
2. Two years of full-time paid experience as a journey-level equipment mechanic which includes the repair of a variety of heavy duty gasoline and diesel powered vehicles or off road construction equipment or watercraft; **or**
3. Five years of full-time paid experience in equipment maintenance and repair, of which two years must have been in the maintenance and repair of heavy duty gasoline and diesel powered vehicles or off road construction equipment or watercraft.

**License:**

- A valid California driver's license may be required prior to appointment.
- A valid California Class A and/or Class B driver's license with Tanker and/or Hazmat endorsement(s) and a valid medical certificate may be required prior to appointment.
- A valid marine Diesel Engine & Support Systems certification issued by the American Boat and Yacht Council (ABYC) or equivalent Detroit Diesel Factory Certification for marine diesel engine and support systems may be required.

**Physical Requirements:**

- Must be able to push, pull, lift, and/or carry up to 75 pounds;
- Good flexibility, balance, and coordination may be required for tasks including, but not limited to, walking on uneven surfaces, climbing equipment, and foot pedal operation;
- Some tasks, such as completing a brake job, may require continuous muscular exertion that lasts more than two minutes (muscular endurance);
- Some tasks, such as rotating tires, may require exertion of maximum physical effort for 5 to 90 seconds (anaerobic capacity); and
- Some tasks, such as various plumbing and piping activities, may require sustaining physical effort for more than five minutes resulting in increased breathing and heart rate (cardiovascular endurance).

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Such accommodation will be evaluated on a case by case basis and depend, in part, on the specific requirements for the job, the limitations related to the disability, and the ability of the hiring department to reasonably accommodate the limitations.

**As provided in Civil Service Commission Rule 2.5 and Section 4.55 of the Administrative Code, this specification is descriptive, explanatory, and not restrictive. It is not intended to declare what the duties and responsibilities of any position shall be.**