STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE	OFFICE/BRANCH/SECTION	
CT Heavy Equip Mechanic	Division of Equipment/Maintenance & Repair/Shop10 /3234	
WORKING TITLE	POSITION NUMBER	REVISION DATE
Heavy Equipment Technician (Shop)	932-030-3713-030	04/15/2026

As a valued member of the Caltrans team, you make it possible to improve lives and communities through transportation.

GENERAL STATEMENT:

Within the Division of Equipment (DOE), under the direction of a Highway Mechanic Supervisor and/or direction of a Caltrans Heavy Equipment Mechanic Leadworker, the incumbent will typically work in a shop environment, constructing, inspecting, diagnosing, repairing and servicing various fleet equipment types used by the Department. Completes various records and reports, uses computer equipment for various tasks. May assist in instructing or giving direction to helpers, apprentices or other employees. Primary work location is the main shop or sub shop.

Incumbent must possess a valid class C driver license and will assume responsibility for reasonable safeguards, proper use and handling of materials, tools, equipment and facilities at all times. The use of personal protective equipment (PPE) is required. It may be necessary to work outside and/ or travel to assist at a field mechanic's location, or a highway maintenance station. The incumbent must be able to work in these areas in inclement weather, which may include severe cold or heat. At times it may be necessary to assist with the daily operation of the shop. Job assignments may be subject to travel, rotation, changes of shift, including work hours and work days.

CORE COMPETENCIES:

As a CT Heavy Equip Mechanic, the incumbent is expected to become proficient in the following competencies as described below in order to successfully perform the essential functions of the job, while adhering to and promoting the Department's Mission, Vision, Values, Strategic Imperatives and Goals. Effective development of the identified Core Competencies fosters the advancement of the following Leadership Competencies: Change Commitment, Risk Appetite, Self-Development/Growth, Conflict Management, Relationship Building, Organizational Awareness, Communication, Strategic Perspective, and Results Driven.

- **Flexibility and Managing Uncertainty :** Adjusts thinking and behavior in order to adapt to changes in the job and work environment. (Safety, Equity, Climate Action, Prosperity, Employee Excellence - Collaboration, Equity, Innovation, Integrity, People First, Pride, Stewardship)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety, Equity, Employee Excellence - Collaboration, Integrity, Pride, Stewardship)
- **Initiative:** Ability to identify what needs to be done and doing it before being asked or required by the situation. Seeks out others involved in a situation to learn their perspectives. (Safety, Employee Excellence - Collaboration, Innovation, People First, Pride)
- **Problem-solving and Decision-making :** Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. (Safety - Collaboration, Innovation, People First, Pride)
- **Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Safety, Employee Excellence - Collaboration, Innovation, People First)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Safety - Collaboration, Equity, Innovation, Integrity, People First, Pride, Stewardship)
- **Communication:** Expresses oneself clearly in all forms of communication. Gives feedback and is receptive to feedback received. Knows that listening is essential. Keeps others in the Division and other functional units informed as appropriate. (Safety, Employee Excellence - Collaboration, Innovation, People First)
- **Forward Thinking:** Anticipates the implications and consequences of situations and takes appropriate actions to be prepared for possible contingencies. Anticipates and prepares for future developments. (Safety, Employee Excellence - Collaboration, Innovation)
- **Technical Expertise:** Depth of knowledge and skill in a technical area. (Safety, Employee Excellence - Collaboration, Innovation)

TYPICAL DUTIES:

Percentage Essential (E)/Marginal (M)[1]	Job Description

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30%	E	Diagnoses appropriate services and repairs for equipment using utilized by the various Departments including heavy equipment and automotive fleet. Utilizes diagnostic software and hardware such as - Caterpillar ET, Cummins Insite, Allison Software, Service Maxx Pro, ECS Trap Software, Donaldson Trap Software, Navistar, Snap-On NEXIQ Pro-Link iQ, as well as laptops and scanners to retrieve diagnostic trouble codes and communicate with the vehicles on board computers. Analyzes collected data, and facilitates the repair of systems such as electronic controls, fuel delivery, emission control system, air brake systems, hydraulic brake systems, and computer controlled automatic and manual transmissions, high voltage generators, propane powered equipment, and Compressed Natural Gas (CNG) powered equipment and Electric powered equipment, hybrid powered systems, pneumatic systems, hydrostatic drive systems, chemical spray systems and paint systems.
25%	E	Conducts preventive maintenance inspections and performs repairs on a variety of equipment within the Department's fleet. The fleet comprises of equipment such as; heavy-duty trucks, semi-tractors, material spreaders, vehicles with two, four, or six-wheel drive, graders, cranes, personnel hoists, dump bodies, cargo bodies, digger derricks, snowplows, mower tractors, assorted trailers, backhoes, loaders, electronic message boards and signs, street sweepers, man lifts, paint stripers, barrier transport machines, passenger cars, and pickups. Inspects, repairs, and adjusts equipment components to ensure optimal operational efficiency and safety, including evaluating fluid levels, hoses, belts, brakes, tires, and clutches in accordance with industry standards. Performs filter and oil changes, lubricates vehicles and motor-driven equipment per Department and manufacturer requirements. Services and maintains tandem drive axles with air or electric shift, hydrostatic-driven systems, and heavy-duty multi-axle suspensions utilizing conventional steel or air springs. Tunes gas and diesel engines, services valves, and adjusts injectors, fuel racks, governors, exhaust brakes, and related components.

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20%	E	Disassembles units, repairs or replaces parts, and reassembles units in the following systems: Power units: Overhauls or replaces engine, cylinder head, crankshaft, camshaft, timing gears, pistons, rods, rings, seals, valves, push-rods, bearings, fuel pump, injectors. Brakes: Repairs or replaces shoes, pads, drums, rotors, hoses, calipers, cylinders, S cams, S cam bushings, slack adjusters, brake springs, brake chambers, brake valves and fittings and lines. Cooling: Flushes radiator replaces hoses and thermostat, repairs or replaces radiator and water pump, fan drives, coolant treatment filters, air intercoolers and engine and hydraulic oil coolers. Drive train: Repairs and replaces drive shaft, differential, axle, manual, automatic and sophisticated computer-controlled transmissions, clutches, transfer cases, power take-off systems, transmission reversers, all wheel drive steering axles and final drives. Electrical: Repairs or replaces fuses, batteries, lights, instruments, warning devices, controls and switches, computer controls, modules, alternators, starters, and defective cables and wiring. Multiplex wiring. This will include 12 and 24-volt systems found on equipment. Exhaust and Emissions Control: Replaces mufflers, manifolds, catalytic converters, diesel particulate filters (DPF) for cleaning and replacement, turbochargers, blowers, exhaust injection systems, exhaust recirculation valves, and pipes. Heating and Air Conditioning: Repairs or replaces heater cores, condensers, compressors, hoses, fans and controls; recharges air conditioning systems. Hydraulic: Repairs or replaces pumps, hoses, valves, winches and cylinders. Pneumatics: Repairs or replaces compressors, air dryers, air governors, brake valves, air tanks and hoses and lines. Steering and Suspension System: Repairs or replaces tie rods, ball joints, gear boxes, shock absorbers, springs, spring pin bushings, steering linkage, kingpins, power steering, hoses, pumps, walking beam, torsion suspensions and air suspensions. Coupling Devices: Adjusts repairs, inspects and replaces fifth wheel hitches and Pintle hitches, tow receivers.
10%	E	Receives and executes assigned work orders. Using the Department's Fleet Maintenance Management software, enters via key data the labor and repair tasks for repairs and services completed on all vehicles and motorized equipment. Records/writes all preventative maintenance and repairs in Permanent Equipment Maintenance Record book (PEMR) on all the Department's fleet. Coordinates with the Parts Room for inventory issuance and returns. May assist in training Apprentices in mechanical repair techniques. Provides instruction and training in the proper methods and processes necessary to perform equipment repair, inspection and preventive maintenance. Road tests vehicles to ensure repairs are satisfactory and meet safety standards. Performs related work as assigned.
5%	E	Fabricates, modifies, assembles, and installs special equipment using mills, lathes, welders, metal brakes, torch sets, plasma cutter and metal cutting saws. This work is interpreted from blueprints and/or verbal direction from Department requests or needs and is completed on new or replacement parts such as utility bodies, dump bodies, cone bodies, hydraulic systems, rock/ snowplows, wing plows, power take off (PTO), wear plates, attenuators, lights and light racks, decals, spray equipment, cone racks, tool boxes and baskets, mower flails, loader buckets.
5%	M	To ensure safety standards, keeps tools and work area clean. May pressure wash equipment. Prepares selected equipment for sale by removing Department identifications such as Department decals, identification numbers, State of California documentation (registration, insurance). Responsible for the proper disposal of hazardous waste such as used oil, used antifreeze, and used batteries.

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5%	M	May be assigned to other State of California repair department locations such as CalFire or other Department Districts to perform preventative maintenance and repairs on various equipment throughout the state. These specific duties are listed above.

[1]ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.
MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others.

SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS
Does not supervise. May be asked to be a mentor mechanic to an apprentice.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS
Knowledge of: Methods, materials, tools and equipment used in construction, assembly, overhaul, repair and adjustment of gas- and diesel-powered trucks, heavy construction and maintenance equipment; operating characteristics of heavy construction and maintenance equipment and gas-and diesel-powered trucks; and basic occupational safety and health work practices to protect their own safety and health and the safety and health of others.

Skill in: Mechanical repair, adjustment, and fabrication of special equipment.

Ability to: Communicate effectively as required for successful job performance; fabricate, diagnose, repair and make adjustments to various equipment and systems (e.g., heavy construction and maintenance equipment, gas- and diesel-powered trucks and electronic systems); install and test pumps, motors and similar equipment; perform welding; estimate repair costs; work from drawings and sketches and make sketches of broken parts for replacement; make repairs in the field without supervision.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR
Inaccurate estimation of repairs or poor judgment in making repairs or assembly of equipment could result in damage, costly re-work, or loss of equipment, and could create a safety hazard causing injury to state employees or the general public.

Incumbent is responsible for their actions, decisions, quality of completed work, and proper use of state time, equipment and materials. Improper performance of duties and/or failure to adhere to established policies, procedures and guidelines could lead to adverse action and possible termination.

This position has been designated as safety sensitive in accordance with Department of Personnel Administration Rules 599.960 and 599.961. Use of alcohol and/or drugs that impede the employee's ability to perform their duties safely and effectively could clearly endanger the health and safety of others, resulting in injury and or death.

PUBLIC AND INTERNAL CONTACTS
Extensive contact with other Division of Equipment shop personnel and field mechanics, Department district employees and various vendors.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS
Ability to: stand and walk on concrete flooring all day, frequently stooping, bending, keeling, crouching, pushing, pulling, reaching, twisting, being able to lift, carry, and climb; lift and move 20 lbs. repeatedly, 20-50 lbs. frequently to occasionally and over 50 lbs. Rarely. Also lift up to 40 lbs. overhead occasionally; climb stairs carrying objects weighing up to 50 pounds occasionally; operate forklifts and hand operated material-handling devices.

Possession of a class "C" drivers license and be able to travel to distant locations in inclement weather.

Will be required to wear safety equipment including eye protection (safety glasses), ear protection, safety vest, and hard hat or bump cap etc. Must be able to wear protective clothing as required and furnished by the DOE.

WORK ENVIRONMENT
Incumbent will work in a shop and/or field environment. Incumbent may work with others or by themselves. Duties may involve work in variable/inclement conditions. May be dispatched to assist at other field mechanic’s locations or other highway maintenance stations. Incumbent may be exposed to dirt, noise, uneven surfaces, hazardous materials and various temperatures. May be subject to travel, rotation, changes of shift, work hours and workdays, and mandatory overtime. Must be able to work during emergency or declared emergency situations.

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I have read, understand and can perform the duties listed above. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

I agree that by providing my electronic signature for this form, I agree to conduct business transactions by electronic means and that my electronic signature is the legal binding equivalent to my handwritten signature. I hereby agree that my electronic signature represents my execution or authentication of this form, and my intent to be bound by it.

EMPLOYEE (Print)	
EMPLOYEE (Signature)	DATE

I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)	
SUPERVISOR (Signature)	DATE

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