

**OAKDALE IRRIGATION DISTRICT
JOB DESCRIPTION
WELDER-FLEET/EQUIPMENT MECHANIC**

DEFINITION

Under general supervision of the Auto Shop Chief to use a variety of tools and equipment to perform journeyman level welding and cutting work in the fabrication and repair of metal works, equipment and tools, to make minor and major mechanical repairs to gasoline and diesel driven vehicles and other equipment, both under field and shop conditions, and to do related work as required.

EXAMPLES OF ESSENTIAL DUTIES

This work is extremely physical in nature and it is essential that the employee be physically and mentally able to work as outlined under the "Typical Physical and Mental Activities" section of this job description.

Use acetylene and electrical equipment in the heating, welding, cutting and brazing of metals in accordance with standard trade practices and safe working procedures.

Safely operate machine-shop type tools, equipment and machinery, such as forge anvils, 2 to 5 pound sledge hammers, drill presses, metal benders, metal punches, forklifts and the like.

Cut, weld and resurface small and large castings, braze various non-ferrous metals; hard face special metal parts.

Set up, regulate and make minor repairs to welding, cutting, brazing, grinding and finishing equipment normally used in the metal work and welding trades.

Design, layout, fabricate, disassemble and repair gates, valves, ladders, rails, structures, machinery, equipment and parts commonly found in the repair and improvement of irrigation and domestic water works.

Safely operate hoists, cranes, trucks, forklifts and other mechanical equipment to lift, transport and move raw materials, finished components and other fixtures used to repair and improve irrigation and domestic water works and their appurtenances.

Have the strength and agility to perform metal working and welding operations under both field and shop conditions.

Have the strength and agility to perform welding, cutting and other metal fabrication procedures in confined spaces and at elevated work surfaces.

Have ability to weld in vertical, horizontal and overhead positions satisfactorily.

Keep Supervisor apprised of changed working conditions, and of the need for materials, supplies, tools and equipment purchases necessary for the safe and efficient operation of the position.

Lift to the height of 3 to 6 feet and carry metal components, parts and equipment weighing up to 50 pounds for up to 2 hours daily, for distances normally not exceeding 100 feet.

Make good judgment decisions involving safe and proper work procedures and the order in which assignments are completed.

Inspect, diagnose and locate mechanical difficulties on District automobiles, trucks and a variety of construction equipment.

Determine extent of necessary repairs.

Overhaul, repairs and adjust engines, transmissions, differentials and clutches.

Tune up engines, replacing ignition parts and cleaning and adjusting carburetors.

Inspect vehicles for compliance with applicable local, state and federal laws relating to smog emissions inspections and repairs and motor carrier inspections and repairs.

Replace or repair faulty parts including wheel bearings, lights, switches, relays, generators, alternators, carburetors, distributors, clutches, oil seals, shock absorbers, exhaust systems, steering mechanisms, and related parts and equipment.

Install and maintain special equipment on District vehicles.

Perform preventative inspection on cars, trucks and other equipment.

Replace, overhaul, repair and adjust gas and diesel engines, transmissions, torque converters, clutches, differentials and other faulty automotive and equipment parts and components.

Inspect and perform regular service on District vehicles and construction equipment.

Keep Supervisor apprised of the progress on assigned work and the need for major tool, equipment and part purchases necessary to operate efficiently.

Keep Supervisor apprised of work overloads and the need for additional temporary help necessary to keep District operations running smoothly and without delay.

Apprise Supervisor when work is complete and new assignments are needed.

Maintain work, time and materials records and prepare clear and accurate reports upon request.

Efficiently use materials, equipment and other resources.

Respond to emergencies as needed.

TYPICAL PHYSICAL AND MENTAL ACTIVITIES

Make good judgment decisions involving the use of safe and efficient work procedures.

In a sitting position, operate District vehicles and equipment in order to access work sites, to analyze reported and suspected problems, and to transport materials between job sites. Frequently travel along irregular terrain to reach problem areas and to test repaired and damaged equipment. Areas traveled vary greatly from place to place, subsequently the employee may, in addition to dust and noise, be exposed to violent shaking and jars due to rough and rutted roadways. Operation of District vehicles and equipment total approximately 1 to 2 hours per day. Such sitting frequently involves intermittent pulling, gripping, grasping, twisting of the wrists and elbows and extensive neck motion and flexion.

Employee may stand intermittently for moderate durations ranging up to 20 to 40 minutes at each occurrence for approximately 4 to 5 hours per day. Standing will occur intermittently with walking, sitting, kneeling, squatting, crawling, climbing, and carries for brief to moderate durations of 20 to 40 minutes or more, daily.

Job requires intermittent walking for brief to moderate durations for a total of 1 to 2 hours. Distances walked will range from a few feet to as much as a quarter mile at each occurrence. Walking surfaces will generally be concrete or a similar relatively smooth material however, when working under field conditions the walking surface may often be irregular, sloping, wet to dry and smooth to broken.

In performance of inspections and in the maintenance and repair of equipment items, the employee will find it necessary to kneel, squat and climb. Each such demand is intermittent and totals 20 to 40 minutes per day. These functions will be performed on a variety of work surfaces including dirt, pavement and metal and may occur on sloping and narrow surfaces requiring a great deal of balance.

Once in a while it may be necessary to lay on the back/stomach and to crawl on various work surface types for brief to moderate periods (30 minutes to 1 hour), especially when it is necessary to reach and work on something under a piece of equipment.

Movements such as reaching, pushing/pulling, twisting, bending, stooping, lifting, carrying, gripping and grasping are frequently performed and will each total approximately 2 to 4 hours per day. Tasks such as pulling on wrenches and opening and closing security panels frequently require that these movements be performed in conjunction with one or more of the others. Frequently pulls and pushes objects such as twisting wheel handles on irrigation control gates (valves) and movement of materials to working sites. Work involves frequent grasping with hands and strenuous use of back, stomach, and arm muscles.

Additionally, the employee may also use his hands and arms as well as his feet and push and pull the tasks described herein.

Twisting of the wrist and elbows in conjunction with reaching, pushing, pulling, bending, lifting, and gripping and grasping, twisting of the upper torso will occur throughout the shift for up to periods of 3 to 4 hours and twisting of knees and ankles will occur when the employee performs routine inspection and maintenance tasks.

Some bending of the wrists may be repetitive in nature for brief to moderate periods of 10 to 15 minutes. Bending of the knees and ankles will total approximately 6 to 8 hours, with intermittent, brief to continuous movement, occurring throughout the work shift.

Intermittent to continuous reaching and bending of the elbows, knees/ankles for brief to moderate durations; however, typically for periods of 5 to 7 hours or more. Reaching and bending functions are generally performed in conjunction with the other motor movements.

Stooping or bending at the waist may be performed while the employee is in a great many positions, including standing, sitting, kneeling, and squatting. Intermittent stooping ranges from 5 to 15 minutes at each occurrence for a daily total of approximately 3 to 4 hours

Employee will perform intermittent neck motion/flexion ranging up to 10 minutes at each occurrence for about 4 or 5 hours per day.

Regularly ascend and descend ladders, stairs, scaffolding ramps, and the like using feet, legs and arms. Frequently performs these activities while carrying tools, equipment, and materials used in the trade.

Most heavy lifting will be performed with the assistance of another employee. Such lifting is in conjunction with reaching, pushing, pulling, stooping, and gripping and grasping and will generally involve weights up to 60 pounds. The employee may hand-carry items over a variety of surfaces ranging from smooth and level to sloping and broken, dry to wet in order to assist in the repair of equipment items and in order to move repair equipment to suitable locations. The items carried will normally be less than 20 pounds; however, they may range up to 60 pounds. Distances traveled while carrying will not normally exceed 50 feet when at heavier loads, however, on occasion the employee may carry lighter items up to as much as one-quarter of a mile.

Uses both hands and fingers to grip and grasp will primarily be of a firm nature for brief to moderate durations ranging for 5 to 7 minutes at each occurrence, for daily totals between 5 to 7 hours.

The employee will perform intermittent finger manipulation and some fine finger dexterity movements when using the phone and radio and to make repairs using small tools and when performing fine adjustments, such as carburetor and timing adjustments. Such movements will total about 2 to 3 hours per day.

Work involves exposure to environmental elements, shop chemicals and gases, and the visual and physical hazards associated with welding, brazing, burning, melting, grinding, and polishing various types of metal materials and their coatings.

Continuous normal or corrected-to-normal hearing and vision are required to perform the tasks associated with this work.

Speak in English at a level sufficient to communicate effectively over the phone, in person, over the radio, and in small groups.

QUALIFICATIONS

Knowledge of

The maintenance and repair needs of automobiles, trucks, track layer and wheeled tractors, excavators, graders, and other equipment used in the operation, maintenance, and construction of District facilities, and the various mechanical and related electrical trade processes involved in the maintenance, adjustment and repair of such equipment.

Safe operating procedures related to the tools, equipment, materials and supplies used by the District that may be used by or encountered by the employee when working on equipment both in the shop and in the field and techniques employed in the welding and metal work trades

Safe work practices related to tools and equipment used to maintain, repair and analyze vehicles and equipment. Safe and efficient processes and procedures used in arc and gas welding, brazing, hard facing, and welding rod ratings, applications and properties.

Safe and efficient processes and procedures used in the operation of hand brushing tools, grinding and other metal fabrication tools and equipment.

Working knowledge of the tools and equipment used when performing metal work and welding operations.

Tools, equipment and procedures used in the overhaul, repair and adjustment of automotive and related power driven equipment.

Operating principles of gasoline and diesel engines and of mechanical repair of vehicles and equipment.

Working knowledge of small engines, centrifugal pumps and generators.

Maintenance and operation of hydraulic equipment.

Appropriate precautionary measures to mitigate occupational hazards of the trade and as occasioned in the performance of work in and around a shop-working environment and in the field on irrigation and domestic water system works and their appurtenances.

Hazards and safety precautions to use when working with various metals in relation to welding and brazing, such as their reaction to heat, fusing qualities and the proper temperature for welding, cutting or brazing.

Vehicular and safety codes and procedures affecting the operation of hoists, cranes, forklifts, trucks and other equipment used in the transport, fabrication and movement of parts, tools and equipment.

Safe work practices and procedures.

Ability to

Perform journeyman level welding and metal fabrication work.

Perform sheet metal work, painting, sand blasting and steam cleaning.

Safely use a variety of welding and shop tools and equipment with skill, including but not limited to, automotive machine shop equipment, micrometers, drill presses and valve and honing equipment.

Maintain a variety of shop and repair records.

Use and understand a variety of diagnostic equipment such as scopes, scanners and gas analyzers.

Understand and carry out oral and written directions in English.

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

Safely work in confined spaces and in elevated work positions.

Safely operate, maintain and make minor repairs to various types of construction, shop, metal and welding type equipment.

Ability to work overtime or various shifts as assigned.

Safely and efficiently work without direct supervision on a multitude of assignments at various field locations.

Use good judgment in the performance of typical and special work assignments, paying particular attention to details.

Perform without fear in confined spaces, in the vicinity of loud noises, in inclement weather, and on elevated platforms.

Understand and follow oral and written instructions in English.

Read blueprints and perform basic layout and design work.

Estimate job material, supplies and equipment requirements.

Learn and employ District procedures to accomplish assigned tasks.

Perform heavy manual labor.

Operate a variety of contractor type equipment.

Work alone or with the assistance of another employee.

EDUCATION AND EXPERIENCE

Education

Equivalent to completion of twelfth grade, supplemented by specialized training for diagnostic equipment.

Experience

Two years of experience in the repair of automotive, light and heavy trucks and construction type equipment, and in welding and metal equivalent to a journeyman level.

NECESSARY SPECIAL REQUIREMENTS

Must provide two acceptable forms of identification as proof of citizenship.

Possession of a valid California driver's license with ability to obtain a Class "A" California driver's license within six months of hire or transfer, and a good motor vehicle driving record as evidenced by freedom from multiple or serious traffic violations or accidents for at least two (2) years duration. The driving record will not contribute to an increase in the District's automobile insurance rates.

A Department of Motor Vehicles "Driver Record Information" printout will be required at the time of hire.

Possession of an appropriate certification in structural steel welding with E7018 welder's certification within 6 months.

Pass a chemical and physical examination upon the offer of employment but prior to the time of hire.

Respond to emergencies, work overtime as needed and work schedules as assigned.

The essential duties and other contents of this job description, and the responsibilities, duties, and requirements for acceptable performance have been explained to me and I understand them. I further understand that it is impossible to identify all the duties and expectations for the position and realize that my daily assignments may vary greatly according to District needs.

Employee Signature

Date

Supervisor Signature

Date