

CERTIFIED WELDER**Nature of Work**

Under general supervision, at the full-performance level, an employee in this class specializes in fabricating, welding, cutting and installing steel in the repair and renovation of highway maintenance equipment or construction of bridges. Work may be performed under hazardous conditions and in inclement weather on high steel structures. An hourly rate of pay is assigned to this class. Performs related work as required.

Examples of Work

Repairs or constructs bridges with fabricated steel by welding using electric metal arc welding equipment according to American Welding Society Standards (AWS).

Repairs highway maintenance equipment and vehicles using gas and electrical welders, torches and other welding equipment.

Welds metal re-bar or piling together to strengthen concrete forms or extend-welds metal re-bar or piling together to strengthen concrete forms or extend pilings in the erection of new bridges.

Cuts and grinds structural steel using acetylene gas cutting torches and power grinders.

Climbs high steel structures to perform welding tasks on metal bridge components.

Separates weld seams using power hammers and hand hammers to prepare for rewelding.

Adjusts pressure gauges on acetylene or gas cutting torches to assure proper operation for smooth cutting of metals.

Lays out plans according to specifications for cutting metals used in repairing high steel structure bridges.

Checks work area periodically for presence of volatile gases and toxic fumes.

Maintains welding equipment, checks pressure gauges and valves to ensure adherence to safety procedures.

Repairs equipment in the field by welding metal components together to allow continued operation of machinery.

Inspects work for accuracy and completeness according to plans and specifications.

Knowledge, Skills and Abilities

Knowledge of the nomenclature, use and maintenance of welding equipment and cutting tools.

Knowledge of acetylene, propane and other gases, characteristic dangers and uses with welding and cutting equipment.

Knowledge of welding rod specifications as outlined by American Welding Society (AWS).

Knowledge of basic mathematics.

Knowledge of melting temperatures of various metals used in bridge maintenance repair.

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Knowledge, Skills and Abilities cont'd.

Knowledge of materials, design and assembly procedures used in welding.
Ability to read and layout plans.
Ability to cut and fit metal component in the rebuilding or repair of equipment or high steel structures.
Ability to regulate fuel pressure gauges on gas welding and cutting equipment.
Ability to climb high steel structures.
Ability to operate welding equipment used in highway bridge maintenance.
Ability to follow oral and written instructions.
Ability to maintain effective working relationship with others.

Minimum Qualifications

TRAINING Certification as a welder by the American Welding Society, the American Petroleum Institute or the American Society of Mechanical Engineers.

SUBSTITUTION Three years of full-time or equivalent part-time paid experience in welding.

SPECIAL REQUIREMENT The applicant must become certified in welding by the Department of Highways Materials Control, Soil and Testing Division after hire.

AND

A Commercial Driver's License may be required after employment.

NOTE: Preference in appointment may be shown to applicants possessing a valid certification as a welder by the American Welding Society, the American Petroleum Institute or the American Society of Mechanical Engineers.

Established: 5/17/83

Revised: 10/04/83, 4/10/84, 12/18/87, 12/9/91

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