

TRANSPORTATION WORKER 4**Nature of Work**

Under limited supervision, at the advanced level performs specialized skilled work in the construction and maintenance of highways and related buildings and structures, the operation of under bridge inspection trucks, or in core drilling. May be exposed to hazardous working conditions and inclement weather. Core drilling positions involve regular overnight travel. 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 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.

Operates an under bridge inspection truck to transport and position inspectors to specific locations under bridges.

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 structures 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.

Positions drilling rig on drilling site using a winch and steel cables.

Assembles drilling rig and related equipment on location using wrenches, hammers and other tools.

Interprets boring layout to determine location of drilling site and equipment needed.

Operates drilling rig to collect core samples.

Classifies the rock or soil found in the sample by type and hardness of strata.

Labels core boxes for depth and location of sample.

Drives medium to heavy truck to transport drilling rig to drilling site.

Prepares reports of drilling activity, materials and equipment used.

Repairs drilling rig and related equipment of minor mechanical and structural problems.

Organizes and directs the work of crews, cleaning buildings, repairing and maintaining mechanical and electrical.

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

Performs pre-operational check of equipment.
Performs advanced level work in the complete maintenance, repair and overhaul on a variety of heavy and light gasoline and diesel-powered equipment.
Performs necessary repairs to a variety of hydraulic systems.
Troubleshoots manual, automatic or power shift transmissions.
Trains and directs other mechanics in performing job duties.
Maintains a safe and orderly work area.
Evaluates and recommends equipment for future purchase.

Knowledge, Skills and Abilities

Knowledge of advanced level methods, materials, tools and equipment used in the maintenance and repair of gasoline and diesel powered equipment.
Knowledge of the operation of trucks equipped to reach under bridges.
Knowledge of the Division of Highways Equipment Management System.
Knowledge of the standard safety procedures of the Division of Highways.
Knowledge of the nomenclature, use and maintenance of welding equipment and cutting equipment.
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.
Knowledge of materials, design and assembly procedures used in welding.
Knowledge of the type of rock, aggregate and soil found in core drilling.
Knowledge of safety practices for core drilling work.
Skill in the manipulation of levers and other controls that move articulating booms.
Skill in the use of tools and equipment used in the repair of motor driven equipment.
Ability to diagnose mechanical problems and determine appropriate procedures for repairs.
Ability to train lower level mechanics.
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 pressures 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 understand and follow oral and written instructions.
Ability to maintain effective working relationships with others.
Ability to operate a drilling rig, water pump, air compressor and related equipment to drill for core samples.
Ability to operate a heavy truck to transport drilling rig and related equipment.
Ability to assemble drilling rig and related equipment.
Ability to classify types of rock, aggregate and soils from core drilling.
Ability to perform minor maintenance on drilling rig and related equipment.
Ability to maintain simple records (time cards, work repair orders).

Minimum Qualifications

Training:

No formal education required.

Experience:

Six years of experience in welding, bridge construction/repair, highway equipment repair, core drilling, oil gas drilling, the operation of drilling equipment or augers, or heavy equipment operation.

Special Requirement:

(1) A valid Motor Vehicle Operator's License; (2) A valid class A or B Commercial Driver's License may be required at the discretion of the appointing authority; (3) Completion of the Certified Mechanic Program or Department of Transportation Welder Certification Program of the Division of Highways; (4) Specific positions may require certification from a federal EPA approved testing organization as a certified technician required by the Clean Air Act on Refrigerant recycling.

Promotional Only:

Six years of combined experience in Bridge Construction/Repair and/or Welding and Certification as a welder by the Division of Highways may substitute for the required six years of welding experience.

Established: 11/16/93

Revised: 1/11/96, 4/18/96, 9/22/97, 11/01/01, 7/19/07, 1/10/11, 6/22/11, 11/29/11

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