

IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES ▼
HUMAN RESOURCES ENTERPRISE

MACHINIST

DEFINITION

Performs skilled work operating machine tools in the fabrication of a variety of metal components for machinery and equipment; performs related work as required.

The Work Examples and Competencies listed are for illustrative purposes only and not intended to be the primary basis for position classification decisions.

WORK EXAMPLES

Shapes and sizes metal items using lathes, shapers, power saws, milling machines, drill presses and other metal-working power equipment by using taps, dies, files and similar hand tools; checks completed work using micrometers, dial gauges, calipers and other precision measuring instruments.

Rebuilds electric and manual clutches, pumps, central valves, rams, hydraulic and mechanical jacks, transmission and power takeoffs by disassembling and inspecting parts for wear/malfunction and repairing/ replacing same.

Bores cylinders, rebushes and resizes connecting rods, grinds crankshafts, and resurfaces cylinder heads and block tops; installs valve seats and guides; regrinds flywheels and clutch pressure plates; rebuilds clutch pressure assemblies; line-bores main bearings and crankshaft bearings; checks and aligns connecting rod and piston assemblies; and turns and grinds semi-finished pistons through the use of machine tools.

Machines bushings; turns steel, bronze and other shaftings to close tolerances and cuts keyways in shafting.

Builds, maintains and repairs laboratory equipment and other special materials testing research apparatus used in Department of Transportation operations.

Measures crankshafts, engine blocks, cylinder heads and component parts with micrometers to determine extent of repairs needed.

Fabricates new tools and adaptors for unusual job situations.

Orders parts and materials necessary for completion of jobs.

COMPETENCIES REQUIRED

Knowledge of the standard methods, materials, tools and equipment of the machinist or tools and die trade.

Knowledge of the occupational hazards and necessary safety precautions applicable to this work.

Ability to learn to operate purchased and add on components for existing equipment and newly purchased equipment.

Ability to interpret customer requests to determine needs, materials, equipment and estimate the duration of each job.

Ability to understand and execute oral and written instructions.

Ability to work out-of-doors in all types of weather conditions.

Ability to lift and load items weighing up to 95 pounds to the height of 55 inches above the ground.

Ability to read and communicate, both orally and in writing in order to follow written instructions and/or to prepare written reports.

Ability to interpret plans and sketches for proposed equipment modifications or adaptations.

Ability to establish and maintain effective working relationships with internal and external customers to insure proper communication of needs and requirements in order to complete fabrication and machined work.

Ability to operate hand and power tools and equipment safely.

Skill in the use and care of the tools, equipment, and materials of the trade.

Displays high standards of ethical conduct. Exhibits honesty and integrity. Refrains from theft-related, dishonest and unethical behavior.

Works and communicates with internal and external clients and customers to meet their needs in a polite, courteous, and cooperative manner. Committed to quality service.

Displays a high level of initiative, effort and commitment towards completing assignments efficiently. Works with minimal supervision. Demonstrates responsible behavior and attention to detail.

Responds appropriately to supervision. Makes an effort to follow policy and cooperate with supervisors.

Aligns behavior with the needs, priorities and goals of the organization.

Encourages and facilitates cooperation, pride, trust and group identity. Fosters commitment and team spirit.

Expresses information to individuals or groups effectively, taking into account the audience and nature of the information. Listens to others and responds appropriately.

EDUCATION, EXPERIENCE, AND SPECIAL REQUIREMENTS

One year of machinist work experience;

OR

substitution of successful completion of nine months in a recognized trade school curriculum in machinist or tool and die making for the required experience.

NECESSARY SPECIAL REQUIREMENTS

Positions in this job class in the Department of Transportation must possess a valid Commercial Driver's License Instruction Permit upon hire. Within 14 calendar days following appointment, a valid Class A or B Commercial Driver's License must be obtained with air brake and other required endorsements in order to continue employment.

NOTE

Title 49 of the Code of Federal Regulations (parts 391 & 40), requires a pre-employment drug screen of all positions in this job class in the Department of Transportation and will require ongoing participation in the employer's random drug and alcohol testing program.

Effective Date: 09/04 BK