

MICHIGAN CIVIL SERVICE COMMISSION
JOB SPECIFICATION
MACHINIST

JOB DESCRIPTION

Employees in this job perform maintenance, repair, and fabrication work to cut, grind, or shape metal and plastic parts into conformance with specified dimensions.

Position Code Title - Machinist-E

Machinist 7

This is the entry level. The employee performs a range of Machinist assignments while learning the methods of the work.

Machinist 8

This is the intermediate level. The employee performs an expanding range of Machinist assignments in a developing capacity.

Machinist E9

This is the experienced level. The employee performs a full range of Machinist assignments and uses independent judgement to make decisions in specific work situations.

Position Code Title - Machinist-A

Machinist 10

This is the advanced level. The employee functions as a crew leader, overseeing the work of lower-level Machinists and/or others, and performing experienced-level Machinist assignments; or, as a senior worker performing duties which have been recognized by Civil Service as having greater complexity than those assigned at the experienced level.

NOTE: Employees can progress to the experienced level based on satisfactory performance and possessing required experience.

JOB DUTIES

NOTE: Listed job duties are typical examples of work of positions in this classification. Not all duties assigned to every position are included, nor will all positions be assigned every duty. The general description of job duties does not authorize performance contrary to any state or federal licensing or certification requirements.

Studies specifications, blueprints, or damaged tools and machine parts to determine parts to be fabricated.

Selects materials to be machined and measures and marks dimensions and reference points for machining operations.

Operates lathes, milling machines, precision grinders, drill presses, band saws, shapers, welders, and other powered metal-working tools.

Uses precision measuring devices such as height gauges, micrometers, vernier calipers, and dial indicators.

Uses hand tools such as files, scrapers, mallets, wrenches, screwdrivers, and riveters.

Diagnoses malfunctions and tests repaired equipment.

Orders supplies and maintains inventory.

Maintains records and reports related to the work.

Develops specifications from general description of parts or assemblies to be fabricated and draws or sketches device to be made.

Cleans, maintains, and repairs tools and equipment.

Estimates time and materials required to complete an assignment.

Assists in training others in work techniques.

Performs related work and other tasks as assigned.

Additional Job Duties

Machinist 10 (Crew Leader)

Assigns work to crew members.

Instructs and trains in proper work methods and processes.

Reviews job performance by observing and critiquing work techniques and completed assignments.

Machinist 10 (Senior Worker)

Develops, modifies, designs, and tests prototypes.

Creates complex or non-routine Computer Numerically Controlled (CNC) milling machine programs.

Selects and machines exotic materials (i.e. aluminum, abrasion resistant steel) emphasizing efficient operation and minimal cutting, tool wear, and/or breakage.

Performs non-routine machine shop maintenance and repair, lubrication and cleaning of machine tools, equipment and mechanical, electrical and hydraulic systems.

Develops, designs or performs complex repairs on various tools, machines or equipment, of a specialized nature for state and/or non state entities.

Serves as a subject matter expert when reviewing and recommending equipment usability, life expectancy, and salvage potential.

Provides guidance and instruction on agency specialized equipment and machining processes.

JOB QUALIFICATIONS

Knowledge, Skills, and Abilities

NOTE: Some knowledge is required at the entry level, developing knowledge is required at the intermediate level, considerable knowledge is required at the experienced level and thorough knowledge is required at the advanced level.

Knowledge of the standard practices, materials, tools, and equipment used in the work.

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

Knowledge of the machining qualities, properties and uses of various metals such as aluminum, brass, steel, cast iron, and stainless steel.

Skill in the use of tools and equipment of the machinist trade.

Ability to apply machinist craft techniques, processes, and principles.

Ability to make mathematical computations.

Ability to follow blueprints, specifications, and instructions.

Additional Knowledge, Skills, and Abilities

Machinist 10 (Crew Leader)

Ability to train and oversee the work of others.

Ability to prioritize, organize, and coordinate the work of the unit.

Ability to prepare and maintain records related to the work.

Machinist 10 (Senior Worker)

Ability to perform the most complex assignments.

Working Conditions

Some jobs require an employee to be exposed to hazardous work environments.

Physical Requirements

The job duties require an employee to lift and/or move heavy objects.

The job duties require an employee to stand for extended periods of time.

Education

Education typically acquired through completion of high school.

Experience

Machinist 7

No specific type or amount is required.

Machinist 8

Two years of experience assisting a skilled machinist in a general machine shop.

Machinist E9

Four years of experience in the machinist trade, including two years equivalent to a Machinist 8.

Machinist 10

Five years of experience in the machinist trade, including one year equivalent to a Machinist E9.

NOTE: Civil Service can individually evaluate equivalent combinations of education and experience providing required knowledge, skills, and abilities to qualify.

Special Requirements, Licenses, and Certifications

See individual position descriptions.

JOB CODE, POSITION TITLES AND CODES, AND COMPENSATION INFORMATION

Job Code

MACHINIST

Job Code Description

MACHINIST

Position Title

Machinist-A

Machinist-E

Position Code

MACHNSTA

MACHNSTE

Pay Schedule

A31-012

A31-029

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02/18/2024