



Human Resources

Room 340
411 West First Street
Duluth, Minnesota 55802



218-730-5210



hrinformation
@duluthmn.gov

DATE: September 6, 2022

TO: Civil Service Board

FROM: Laura Dahl
Human Resources Generalist

SUBJECT: Revised Job Classification of Industrial Equipment Technician

RECOMMENDATION: APPROVAL OF THE REVISED JOB DESCRIPTION FOR THE CLASSIFICATION OF INDUSTRIAL EQUIPMENT TECHNICIAN.

Background Information/Summary of Job

As you are aware, the City is undertaking a job description review on all job descriptions last revised over 10 years ago. During this project, the job descriptions are being reviewed by both the supervisor of the position, as well as the incumbent(s). The intent of this process is to ensure that the description reflects the current duties of the position, as well as the education, experience, knowledge, skills, and abilities (KSAs) required to perform those duties.

In addition to the revision of the classification specific duties and KSAs, the Human Resources team has created standardized language that is included in all job descriptions and varies slightly based on their level of responsibility. You will see those language additions throughout the revised descriptions, including two new sections regarding supervision received and supervision given.

The Industrial Equipment Technician was last revised in 1998. The purpose of this position is to maintain a wide variety of off-road and small engine equipment. The changes to the job description are very minimal.

The job classification was discussed with the Basic Union and incumbents, and all are agreeable to the proposed job description.

Recommendation

Based on the above information, and in accordance with Section 13-7 of the Civil Service Code, I recommend that the Civil Service Board approve the revised job description for Industrial Equipment Technician.

Industrial Equipment Technician

SUMMARY/PURPOSE

The Industrial Equipment Technician is responsible for maintaining a wide variety of off-road and small engine equipment.

SUPERVISION RECEIVED

For both one-of-a-kind and repetitive tasks, the supervisor makes specific assignments that are accompanied by clear, detailed, and specific instructions. Incumbents work as instructed and consult with the supervisor.

SUPERVISION GIVEN

Does not supervise.

ESSENTIAL DUTIES AND RESPONSIBILITIES

1. Conduct detailed preventative maintenance, failure diagnostics, and repairs to complex systems by following factory manuals, using computer diagnostic equipment, and established maintenance schedules and procedures on gas and diesel small engines and off-road equipment.
2. Repair, adjust, or modify as necessary engines, fuel systems, ignition systems, brake systems, electrical systems, drive systems, hydraulic systems, and related systems and components.
3. Maintain vehicles and equipment in accordance with maintenance schedules, factory repair information, and industry standards.
4. Perform scheduled inspections and test operation of city-owned, leased, and operated equipment and vehicles.
5. Assist staff in providing operator training through consultation or by providing technical information and demonstration of maintenance procedures.
6. Perform general fabrication and metalworking using torches, grinders, and drill presses.
7. Assist other technicians in the completion of their tasks by providing technical or physical assistance.
8. Assist in looking up or ordering parts required for repairs to equipment.
9. Perform emergency repairs away from the shop to return the vehicle or equipment to operation, or to enable returning the vehicle or equipment to the shop for further repair.
10. Complete cost estimates for time, labor, and materials so the supervisor can prioritize, budget and schedule equipment repair projects in an efficient manner.
11. Operate vehicles and equipment to transport to repair location, diagnose malfunctions, verify operation, or perform repairs.
12. Clean vehicles and equipment as necessary to perform repairs.
13. Clean and maintain shop equipment, tools, and the general shop area.
14. Maintain all required records using computerized record keeping systems. Document work completed, track labor time for each work code, document parts and fluids consumed.
15. Perform routine maintenance on light duty on-road vehicles and equipment according to established maintenance schedules. Examples of such maintenance include changing engine or transmission oil and oil filter, lubricating components, checking or inspecting the operation of major systems, etc.
16. Repair and change and balance tires and align wheels.
17. Inspect and replace suspension components such as springs, shocks, struts, and ball joints.
18. Install accessory equipment as required.
19. Be an effective team member by exhibiting self-motivation, supporting other employees in handling tasks, interacting effectively and respectfully with others, showing a desire to contribute to the team effort, accepting assignments willingly, and completing tasks within agreed upon timelines.
20. Other duties may be assigned.

JOB REQUIREMENTS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed are representative of the knowledge, skills, and abilities required.

1. Education & Experience Requirements

- A. Associate's degree in automotive technology, diesel engine repair, or a closely related field, and two (2) years of related professional experience repairing off-road equipment, small engines or road vehicles; OR a combination of four (4) years of related education and/or working experience to include diagnosing and repairing off-road equipment, small engines or road vehicles.

2. License Requirements

- A. Possess and maintain a valid Minnesota Class D driver's license or privilege.
- B. ASE Certification is preferred.
- C. Must obtain forklift certification during the probation period and maintain certification thereafter.
- D. Class B driver's license or privilege is preferred.

3. Knowledge Requirements

- A. Thorough knowledge of the principles, methods, equipment, and tools used in the maintenance and repair of off-road equipment, and gas and diesel powered 2 and 4 cycle small engines.
- B. Thorough knowledge of all applicable safety standards, rules, laws, and procedures.
- C. General knowledge of automotive vehicle and equipment maintenance procedures.
- D. General knowledge of applicable driving laws and regulations.
- E. General knowledge of vehicle inspection standards and procedures.
- F. Working knowledge of problem-solving and conflict-resolution techniques.
- G. Working knowledge of, or the ability to learn, City policies and procedures.

4. Skill Requirements

- A. Extensive skill in inspecting, diagnosing, and repairing off-road and small engine equipment malfunctions.
- B. Extensive skill in disassembling and reassembling equipment and system components.
- C. Skill in using electronic diagnostic equipment and precision measuring instruments.
- D. Skill in the use of hand and power tools.
- E. Skill in performing routine maintenance on on-road vehicles and equipment.
- F. Skill in the operation of office equipment including, but not limited to, general computer systems, job required software applications, the internet, and modern office equipment.
- G. Skill in managing one's own time.
- H. Skill in completing assignments accurately and with attention to detail.

5. Ability Requirements

- A. Ability to read and interpret technical manuals and schematic diagrams.
- B. Ability to acquire increasingly complex mechanical skills.
- C. Ability to become skilled in the use of computerized analysis and repair equipment.
- D. Ability to record information in the proper manner in both written work orders and computer databases.
- E. Ability to work outside in inclement weather.
- F. Ability to position the body to effect repairs in confined spaces, such as underneath dashboards, under vehicles, etc.
- G. Ability to reach, hold, position, maneuver, and operate hand tools and replacement parts.
- H. Ability to identify wires and other parts by color and other identifying information.
- I. Ability to create and maintain a positive working environment that welcomes diversity, ensures cooperation, and promotes respect by sharing expertise with team members, fostering safe work practices, and developing trusting work relationships.
- J. Ability to communicate and interact effectively with members of the public.

- K. Ability to communicate effectively both orally and in writing.
- L. Ability to understand and follow instructions.
- M. Ability to problem-solve a variety of situations.
- N. Ability to set priorities and complete assignments on time.
- O. Ability to attend work as scheduled and/or required.

Physical Demands

The work requires considerable and strenuous physical exertion such as frequent climbing of tall ladders, lifting heavy objects over 50 pounds, and crouching or crawling in restricted areas.

Work Environment

The work environment involves high risks with exposure to potentially dangerous situations or unusual environmental stress requiring a range of safety and other precautions (e.g., working at great heights under extreme outdoor weather conditions, or in similar situations in which conditions cannot be controlled).

HR: LD	Union: Basic	EEOC: Skilled Craft Workers	CSB:	Class No: 4242
WC: 5506	Pay:	EEOF: Streets/Highways	CC:	Resolution:

Industrial Equipment Technician

SUMMARY/PURPOSE: ~~Repair~~

The Industrial Equipment Technician is responsible for maintaining a wide variety of off-road and maintain 2 & 4 cycle gas and diesel powered small engine equipment.

FUNCTIONAL AREAS:

1. ~~Repair 2 & 4 cycle gas and diesel powered equipment.~~

* ~~A. Diagnose operational deficiencies in equipment.~~

* ~~B. SUPERVISION RECEIVED~~

For both one-of-a-kind and repetitive tasks, the supervisor makes specific assignments that are accompanied by clear, detailed, and specific instructions. Incumbents work as instructed and consult with the supervisor.

SUPERVISION GIVEN

Does not supervise.

ESSENTIAL DUTIES AND RESPONSIBILITIES

1. Conduct detailed preventative maintenance, failure diagnostics, and repairs to complex systems by following factory manuals, using computer diagnostic equipment, and established maintenance schedules and procedures on gas and diesel small engines and off-road equipment.
 2. Repair, adjust, or modify as necessary engines, fuel systems, ignition systems, brake systems, electrical systems, drive systems, hydraulic systems, and related systems and components, often in the field and under time pressures.
 3. * ~~C. Maintain pollution control systems vehicles and equipment~~ in accordance with manufacturer maintenance schedules, factory repair information, and industry standards.
 4. * ~~D. Clean~~ Perform scheduled inspections and test operation of city-owned, leased, and operated equipment and vehicles.
 5. Assist staff in providing operator training through consultation or components as necessary by providing technical information and demonstration of maintenance procedures.
 - * ~~E. Operate equipment as required for diagnosis and repair, or to move.~~
 6. ~~F. Order~~ Perform general fabrication and metalworking using torches, grinders, and drill presses.
 7. Assist other technicians in the completion of their tasks by providing technical or physical assistance.
 8. Assist in looking up or ordering parts required for repairs to equipment.
 9. ~~G. Maintain all~~ Perform emergency repairs away from the shop to return the vehicle or equipment to operation, or to enable returning the vehicle or equipment to the shop for further repair.
 10. Complete cost estimates for time, labor, and materials so the supervisor can prioritize, budget and schedule equipment repair projects in an efficient manner.
 11. Operate vehicles and equipment to transport to repair location, diagnose malfunctions, verify operation, or perform repairs.
 12. Clean vehicles and equipment as necessary to perform repairs.
 13. Clean and maintain shop equipment, tools, and the general shop area in a clean, safe manner.
 14. ~~H. Maintain all required records using computerized record keeping systems. Document work completed, track labor time for each work code, document parts and fluids consumed.~~
2. ~~Perform routine maintenance on vehicles and equipment.~~

15. * ~~A.~~ ~~Perform routine maintenance light duty~~ on ~~road~~ vehicles and equipment according to established maintenance schedules. Examples of such maintenance ~~includes~~include changing engine or transmission oil and oil filter, lubricating components, checking or inspecting the operation of major systems, etc.

16. * ~~B.~~ Repair and change and balance tires and align wheels.

17. * ~~C.~~ Inspect and replace suspension components such as springs, shocks, struts, and ball joints, ~~etc.~~

18. * ~~D.~~ Install accessory equipment as required.

19. ~~MINIMUM~~ Be an effective team member by exhibiting self-motivation, supporting other employees in handling tasks, interacting effectively and respectfully with others, showing a desire to contribute to the team effort, accepting assignments willingly, and completing tasks within agreed upon timelines.

20. Other duties may be assigned.

JOB REQUIREMENTS:

~~1.~~ ~~EDUCATION AND EXPERIENCE~~

~~H~~ ~~A.~~ ~~Two years verifiable shop experience maintaining and repairing 2 and 4 cycle gas and diesel powered ("small engine") equipment and auxiliary components.~~

~~H~~ ~~B.~~ ~~One year verifiable experience providing routine maintenance on vehicle systems.~~

~~H~~ ~~C.~~ To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed are representative of the knowledge, skills, and abilities required.

1. Education & Experience Requirements

A. Associate's degree in automotive technology, diesel engine repair, or a closely related field, and two (2) years of related professional experience repairing off-road equipment, small engines or road vehicles; OR a combination of four (4) years of related education and/or working experience to include diagnosing and repairing off-road equipment, small engines or road vehicles.

2. License Requirements

A. Possess and maintain a valid Minnesota Class "~~C~~" ~~Commercial~~D driver's license or equivalent ~~privilege~~.

B. ~~D.~~ ASE Certification is ~~considered a plus~~preferred.

E. ~~Ability to acquire and maintain MN DOT Inspector's Certification.~~

~~2.~~ ~~KNOWLEDGE~~

- ~~C. H A. Extensive~~ Must obtain forklift certification during the probation period and maintain certification thereafter.
~~D. Class B driver's license or privilege is preferred.~~

3. Knowledge Requirements

- ~~A. Thorough~~ knowledge of the principles, methods, equipment, and tools used in the maintenance and repair of ~~gas-off-road equipment, and gas~~ and diesel -powered 2 and 4 cycle (~~"small engine"~~) ~~equipment~~ engines.
~~H B. Thorough~~ knowledge of ~~automotive vehicle and equipment maintenance procedures.~~
~~B. H C. Knowledge of all~~ applicable safety standards, rules, laws, and procedures.
~~C. General knowledge of automotive vehicle and equipment maintenance~~ procedures.
~~D. D General~~ knowledge of applicable driving laws and regulations.
~~E. E General~~ knowledge of vehicle inspection standards and procedures.

3. SKILLS

- ~~F. H A. Working knowledge of problem-solving and conflict-resolution techniques.~~
~~G. Working knowledge of, or the ability to learn, City policies and procedures.~~

4. Skill Requirements

- ~~A. Extensive skill in inspecting and, diagnosing, and repairing off-road and small engine equipment malfunctions.~~
~~H B. Extensive skill in repairing 2 and 4 cycle gas and diesel-powered ("small engine") equipment.~~
~~B. H C. Extensive skill in disassembling and reassembling equipment and system components.~~
~~C. H D. Skill in using electronic diagnostic equipment and precision measuring instruments.~~
~~D. H E. Skill in the use of hand and power tools.~~
~~E. H F. Skill in performing routine maintenance on on-road vehicles and equipment.~~

4. ABILITIES

- ~~F. H A. Skill in the operation of office equipment including, but not limited to, general computer systems, job required software applications, the internet, and modern office equipment.~~
~~G. Skill in managing one's own time.~~
~~H. Skill in completing assignments accurately and with attention to detail.~~

5. Ability Requirements

- ~~A. Ability to read and interpret technical manuals and schematic diagrams.~~
~~B. H B. Ability to write~~ acquire increasingly complex mechanical skills.
~~C. Ability to become skilled in the use of computerized analysis and repair equipment.~~
~~D. Ability to record information, such as on- in the proper manner in both written work orders, maintenance records, etc and computer databases.~~
~~E. H C. Ability to use computerized diagnostic and repair equipment~~ work outside in inclement weather.
~~H D. Ability to make accurate measurements.~~
~~H E. Ability to keep accurate records.~~
~~H F. Ability to perform simple welds on steel using various equipment.~~
~~F. H G. Ability to position the body to effect repairs in confined spaces, such as underneath dashboards, under vehicles, etc.~~

- G. Ability to establish, reach, hold, position, maneuver, and operate hand tools and replacement parts.
- H. Ability to identify wires and other parts by color and other identifying information.
- I. Ability to create and maintain effective working-a positive working environment that welcomes diversity, ensures cooperation, and promotes respect by sharing expertise with team members, fostering safe work practices, and developing trusting work relationships.
- J. ~~H—H.~~ Ability to work outside in inclement weather year round communicate and interact effectively with members of the public.
- K. ~~H—I.~~ Ability to perform HEAVY communicate effectively both orally and in writing.
- L. Ability to understand and follow instructions.
- M. Ability to problem-solve a variety of situations.
- N. Ability to set priorities and complete assignments on time.
- O. Ability to attend work as scheduled and/or required.

Physical Demands

The work (requires considerable and strenuous physical exertion such as frequent climbing of tall ladders, lifting 100 pounds maximum and/or frequently lifting or carrying heavy objects weighing up to over 50 pounds), and crouching or crawling in restricted areas.

* Essential functions of the classification:

H Minimum requirements necessary on the first day of employment.Work Environment

The work environment involves high risks with exposure to potentially dangerous situations or unusual environmental stress requiring a range of safety and other precautions (e.g., working at great heights under extreme outdoor weather conditions, or in similar situations in which conditions cannot be controlled).

HR: CTLD	Union: Basic	EEOC: Skilled Craft Workers	CSB: 19980407 _____	Class No: 4242
WC: 5506	Pay: 27 _____	EEOF: St Streets/Highways	CC: 19980511 _____	Resolution: 98-0352R _____