



## 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 Welder

### **RECOMMENDATION: APPROVAL OF THE REVISED JOB DESCRIPTION FOR THE CLASSIFICATION OF WELDER.**

#### **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 Welder was last revised in 2012. The purpose of this position is to perform skilled work in fabrication, and maintenance and repair welding on fleet vehicles and other city assets. 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 Welder.

## **Welder**

### **SUMMARY/PURPOSE**

Perform skilled work in fabrication, and maintenance and repair welding on fleet vehicles and other City assets.

### **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. Perform skilled welding and fabrication work to modify, maintain, and repair fleet vehicles, plows, and other City assets.
2. Consult with Service Center Supervisor and other City staff to determine the need, scope, and timeline for repairs and fabrication.
3. Cut, grind, shape, and form metal items to size and shape necessary.
4. Create, read, and/or interpret fabrication plans.
5. Design patterns and modify equipment to increase functionally.
6. Disassemble and reassemble equipment to reach and repair component parts as listed above.
7. Clean metal parts by brushing, blasting, chemical application, etc. Prep, prime, and paint surfaces as necessary.
8. Maintain and clean tools, welding equipment, and the assigned work area. Dispose of scrap materials in accordance with EPA and City requirements.
9. Advise on the selection and purchase of necessary tools, materials, and equipment.
10. Follow all relevant safety practices and guidelines.
11. Maintain an adequate inventory of supplies and materials for operations assigned. Recommend new materials to inventory and provide input on suppliers.
12. Maintain a current body of knowledge concerning products and methods for joining metals.
13. Assist other technicians in the completion of their tasks by providing technical or physical assistance.
14. Complete cost estimates for time, labor and materials so the supervisor can prioritize, budget, and schedule repair projects in an efficient manner.
15. Inspect, maintain, and repair trailers in accordance with City and DOT requirements.
16. Test and repair trailer lighting and braking systems.
17. Maintain all required records using computerized recordkeeping systems. Document work completed, track labor time for each work code, and document parts consumed.
18. Operate vehicles and equipment to transport to repair location, perform repairs, or load materials.
19. Operate repair vehicle with mobile welding equipment, complete repairs in the field as necessary.
20. 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.
21. 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. Certificate or degree in Welding or a related professional field, and two (2) years of related professional experience; OR a combination of four (4) years of related education and/or working experience to include professional fabricating, cutting, and joining metal items.
2. License Requirements
- A. Possess and maintain a valid Minnesota Class D driver's license or privilege.
  - B. Must obtain overhead crane and forklift certification during the probation period and maintain certification thereafter.
  - C. Class B driver's license or privilege is preferred.
3. Knowledge Requirements
- A. Thorough knowledge of the properties of various metals.
  - B. Thorough knowledge of the tools, materials, and techniques of welding.
  - C. General knowledge of low voltage vehicle wiring and electrical systems and their repair.
  - D. General knowledge of vehicle braking systems, both hydraulic and air.
  - E. General knowledge of basic math including addition, subtraction, multiplication, and division.
  - F. Knowledge of problem-solving and conflict-resolution techniques.
  - G. Knowledge of applicable safety requirements.
  - H. Knowledge of, or the ability to learn, City policies and procedures.
4. Skill Requirements
- A. Skill at welding using various welding techniques (MIG/TIG/Arc) in all positions on variety of materials.
  - B. Skill at welding and cutting using oxygen/acetylene gas and plasma cutting equipment.
  - C. Skill at reading blueprints, drawings, plans, and patterns.
  - D. 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.
  - E. Skill in managing one's own time.
  - F. Skill in completing assignments accurately and with attention to detail.
5. Ability Requirements
- A. Ability to weld using various processes and equipment.
  - B. Ability to drive various items of equipment into and out of the shop for repair.
  - C. Ability to use tools for disassembly and reassembly of equipment.
  - D. Ability to read, layout and create plans for welding projects and equipment modifications.
  - E. Ability to repair trailer electrical lighting systems.
  - F. Ability to repair trailer braking systems.
  - G. Ability to work outside in inclement weather.
  - H. Ability to position the body to effect repairs in confined spaces, such as underneath dashboards, under vehicles, etc.
  - I. Ability to reach, hold, position, maneuver, and operate hand tools and replacement parts.
  - J. Ability to identify wires, and other parts by color and other identifying information.
  - K. 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.
  - L. Ability to communicate and interact effectively with members of the public.
  - M. Ability to communicate effectively both orally and in writing.
  - N. Ability to understand and follow instructions.
  - O. Ability to problem-solve a variety of situations.
  - P. Ability to set priorities and complete assignments on time.
  - Q. 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: 4431
WC: 5506	Pay:	EEOF: Admin/Finance	CC:	Resolution:

## Welder

### Purpose:

Fabricate, cut, join ~~SUMMARY/PURPOSE~~

Perform skilled work in fabrication, and maintenance and repair metal items.

### Functions:

1. ~~\_\_\_\_\_ Fabricate, cut, join, and repair metal items.~~

\* ~~\_\_\_\_\_ A. Read welding on fleet vehicles and interpret blueprints, drawings, plans, patterns, and specifications other City assets.~~

\* ~~\_\_\_\_\_ B. Cut metal items using various methods, such as band saws, hack saws, hand and power shears and snips, gas torch and plasma cutting equipment, etc.~~

\* ~~\_\_\_\_\_ C. \_\_\_\_\_~~

### 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. Perform skilled welding and fabrication work to modify, maintain, and repair fleet vehicles, plows, and other City assets.

2. Consult with Service Center Supervisor and other City staff to determine the need, scope, and timeline for repairs and fabrication.

3. Cut, grind, shape, and form metal items to size and shape necessary, to allow for finished weld bead and bead penetration, and to clean up the finished part.

4. Create, read, and/or interpret fabrication plans.

5. Design patterns and modify equipment to increase functionally.

\* ~~\_\_\_\_\_ D. Join metal items using various methods and equipment, such as gas torch welder, stick electrode welder, wire feed welder, tungsten inert gas welder, plasma welder, etc.~~

\* ~~\_\_\_\_\_ E. Repair cracked and broken components using methods and equipment such as those listed above.~~

6. \* ~~\_\_\_\_\_ F. Disassemble and reassemble equipment to reach and repair component parts as listed above.~~

\* ~~\_\_\_\_\_ G. Clean metal parts by brushing, blasting, chemical application, etc.~~

7. \* ~~\_\_\_\_\_ H. Inspect vehicles to determine repairs. Prep, prime, and paint surfaces as necessary and to verify proper finished repair and road worthiness in accordance with DOT requirements.~~

2. ~~\_\_\_\_\_ Maintain vehicle pulled trailers.~~

\* ~~\_\_\_\_\_ A. Repair trailers using methods and practices such as those listed above.~~

~~\_\_\_\_\_ B. Test and repair trailer lighting systems.~~

~~\_\_\_\_\_ C. Test and repair trailer braking systems.~~

~~\_\_\_\_\_ D. Inspect trailers to determine repairs necessary and to verify proper finished repair and road worthiness in accordance with DOT requirements.~~

3. ~~\_\_\_\_\_ Perform related duties.~~

\* ~~\_\_\_\_\_ A. Move equipment into and out of the shop for repair.~~

\* ~~\_\_\_\_\_ B. Operate repair vehicle with mobile welding equipment.~~

4. ~~\_\_\_\_\_ C. and clean Design patterns and modify equipment to increase functionally.~~

8. ~~\_\_\_\_\_ D. Maintain tools, welders, welding equipment, and the assigned work area. Dispose of scrap materials in accordance with EPA and City requirements.~~

9. ~~\_\_\_\_\_ E. Advise on the selection and purchase of necessary tools, materials, and equipment.~~

10. \* F. — Follow all relevant safety practices and guidelines.
11. G. — Maintain an adequate inventory of supplies and materials for operations assigned.  
Recommend new materials to inventory and provide input on suppliers.
4. H. — Maintain a current body of knowledge concerning products and methods for joining metals.

**Minimum Qualifications:**

Assist other technicians in the

**Education & Experience**

12. + A. — Successful completion of ~~a certified welding program either through an employer and/their tasks by providing technical or an educational institution~~ physical assistance.
13. + B. — ~~Three years of full-~~Complete cost estimates for time, labor and materials so the supervisor can prioritize, budget, and schedule repair projects in an efficient manner.
14. Inspect, maintain, and repair trailers in accordance with City and DOT requirements.
15. Test and repair trailer lighting and braking systems.
16. Maintain all required records using computerized recordkeeping systems. Document work completed, track labor time for each work code, and document parts consumed.
17. Operate vehicles and equipment to transport to repair location, perform repairs, or load materials.
18. Operate repair vehicle with mobile welding equipment, complete repairs in the field as necessary.
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** ~~experience in Requirements~~

- A. Certificate or degree in Welding or a related professional field, and two (2) years of related professional experience; OR a combination of four (4) years of related education and/or working experience to include professional fabricating, cutting, and joining metal items.

**2. License Requirements**

- + A. ~~Possession of Possess and maintain a valid Minnesota Driver's License or equivalent.~~
  - A. A Commercial driver's Class D driver's license or privilege.
  - B. Must obtain overhead crane and forklift certification during the probation period and maintain certification thereafter.
  - B.C. Class B driver's license or privilege is preferred.

**3. Knowledge Requirements**

- A. + A. — ~~Extensive~~ Thorough knowledge of the properties of various metals.
- B. + B. — ~~Extensive~~ Thorough knowledge of the tools, materials, and techniques of welding.
- C. C. — General knowledge of low voltage vehicle wiring and electrical systems and their repair.
- D. D. — General knowledge of vehicle braking systems, both hydraulic and air.
- A. + E. — General knowledge of basic math including addition, subtraction, multiplication, and division.

**Skills**

- E. + A. — Knowledge of problem-solving and conflict-resolution techniques.
- F. Knowledge of applicable safety requirements.
- G. Knowledge of, or the ability to learn, City policies and procedures.

**4. Skill Requirements**

- A. Skill at welding using electric arc welder, both AC and DC, and in various welding techniques (MIG/TIG/Arc) in all positions on variety of materials.
- B. + B. Skill at welding and cutting using oxygen/acetylene gas and plasma cutting equipment.
- + C. Skill at welding using metal/inert gas equipment
- C. + D. Skill at reading blueprints, drawings, plans, and patterns.

Abilities

- D. + 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.
- E. Skill in managing one's own time.
- F. Skill in completing assignments accurately and with attention to detail.

5. Ability Requirements

- A. Ability to weld using various processes and equipment.
- B. + B. Ability to drive various items of equipment into and out of the shop for repair.
- C. + C. Ability to use tools for disassembly and reassembly of equipment.
- D. + D. Ability to read, layout and fabricate create plans for welding projects and equipment modifications.
- E. E. Ability to repair vehicle trailer electrical lighting systems.
- F. F. Ability to repair vehicle trailer braking systems.

Physical Abilities

- G. + A. Ability to work outdoors outside in inclement weather.
- + B. Ability to work from ladders, scaffolds, or lift equipment.
- H. + C. Ability to work position the body to effect repairs in confined spaces, such as underneath dashboards, under vehicles, etc.
- I. + D. Ability to lift, carry, and reach, hold parts weighing up to 50 pounds to, position them for welding, maneuver, and operate hand tools and replacement parts.
- J. + E. Ability to stand, walk, kneel, crouch, and stoop as needed perform identify wires, and other parts by color and other identifying information.
- K. 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 activities practices, and developing trusting work relationships.
- L. + F. Ability to communicate and interact effectively with members of the public.
- M. Ability to communicate effectively both orally and in writing.
- N. Ability to understand and follow instructions.
- O. Ability to problem-solve a variety of situations.
- P. Ability to set priorities and complete assignments on time.
- Q. Ability to attend work on a regular basis as scheduled and/or required.

\* Essential functions of the position

+ Job requirements necessary the first day of employment

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: <del>CTLD</del>	Union: Basic	EEOC: Skilled Craft Workers	CSB: <del>02/07/2012</del> _____	Class No: 4431
WC: 5506	Pay: <del>28</del> _____	EEOF: Admin/Finance	CC: <del>02/27/2012</del> _____	Resolution: 12- <del>0094R</del> _____