



# CITY OF OMAHA CLASS SPECIFICATION

**CLASSIFICATION TITLE: FABRICATION MECHANIC II**

**BARGAINING UNIT:** [CIV BARGAINING](#)

**CODE NUMBER:** 6561

**PAY RANGE CODE:** [08135](#)

**REVISION DATE:** 10/26/17

## **NATURE OF WORK:**

This is skilled work at the journey level as a lead person in the fabrication and repair of ferrous and non-ferrous metal parts and equipment. Work may include designing items to be fabricated, welded, and modified. The majority of work performed will be spent in fabrication and mechanical repair as directed or as needs dictates.

**ESSENTIAL FUNCTIONS:** *(Any one position may not perform all the duties listed, nor do the listed examples include all the duties that may be performed in positions allocated to this class.)*

Repairs deteriorating equipment using gas and electrical welding equipment.

Fabricates from raw material items which include catwalks, handrails, conveyors, grates, bar screens, decks, various types of pins, and latching devices.

Repairs and maintains welding equipment.

Makes repairs by disassembling or cutting away damaged portions, welding, brazing, or bolting the new material into place, and milling and polishing the material ensuring the repairs are made to required tolerances.

Installs equipment and fabricated items. May be directed to transport items to a remote work-site, move the items into position, and weld or bolt them into place.

Determines from detailed plans, blueprints, sketches, broken parts, and oral or written instructions the type of fabrication or repair needed for each project and the amount and types of materials to use.

Performs skilled machine work by operating pipe threaders, lathes, grinders, buffers, drill presses, power presses, saws, mills, planers, and other tools and equipment.

Supervises subordinate personnel, assigns tasks, and provides technical instruction.

Assists with the development of work schedules, job priorities, and assignments for subordinate crew members.

Recommends parts, materials, and tools to be ordered and maintains a supply of metal stock.

Completes work orders and maintains repair records.

Maintains regular job attendance in accordance with a schedule established for the position by the supervisor.

Performs other related duties as assigned or as the situation dictates within the scope of this classification.

**REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:**

Knowledge of and ability to operate a computer or other technology using standard or customized computer or systems software applications appropriate to the assigned tasks.

Knowledge of the standard procedures, methods, tools, and materials of the metal working trades.

Knowledge of the properties of ferrous and non-ferrous metals used in fabrication work.

Knowledge of occupational hazards and safety procedures of the metal working trades.

Skill in planning, laying out, and performing fabrication.

Skill in making accurate measurements.

Skill in the use and care of tools, equipment, and materials common to the metal work trades.

Ability to learn and adapt to advances in computer and electronics device technology and software.

Ability to understand and interpret technical manuals, blueprints, and sketches and to work from written or oral instructions.

Ability to maintain records and prepare reports.

Ability to adhere to safety policies, procedures, and guidelines.

Ability to establish and maintain effective working relationships with fellow employees and members of the general public.

**EDUCATION AND EXPERIENCE:** *(The knowledge, skills, and abilities above may be acquired through, but are not limited to, the following combination of education and/or experience.)*

High school graduation or its equivalent preferred

AND

Four (4) years of fabrication and maintenance experience.

**SPECIAL QUALIFICATIONS**

Must possess and maintain a valid motor vehicle operator's license from the time of appointment.

Must possess a forklift operator's permit by the end of the probationary period.

Fleet Management employees must possess the attached list of tools at the time of appointment.

**WORKING CONDITIONS:** *(The conditions herein are representative of those that must be met by the employee to successfully perform the essential functions of the job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.)*

Work is performed primarily in and around industrial building sites involving working amid high noise levels, vibrating machinery, moving mechanical parts, and electrical currents. Work may be performed in high places and confined spaces, in conditions such as high humidity, fumes, odors, dust, mists, gases, and exposure to chemicals. Work may also be performed outdoors in all weather conditions.

**EQUIPMENT OPERATION:** *(Any one position may not use all of the tools and equipment listed nor do the listed examples comprise all of the tools and equipment that may be used in positions allocated to this classification.)*

- |  |                  |
|--|------------------|
| Pneumatic and Electric Grinders                | Anchor Gun       |
| Electric Nibbler                               | Air Jack Hammer  |
| Cutting Torch                                  | Gouger           |
| Lathe  | Buffer           |
| Band Saw                                       | Pipe Threader    |
| Drill Press                                    | Sawsall          |
| Hand Tools                                     | Forklift         |
| Portable Crane                                 | Hoists           |
| Service truck                                  | Belt Sander      |
| Milling Machines                               | Surface Grinders |
| <del>Forklift</del>                            | Computer         |
| Milling Machines                               | Plasma Cutters   |
| Various Types of Presses                       | Printer          |
| Key Seater                                     | Copier           |
| Welders (Mig, Arc, Heliarc, and Oxyacetylene ) |                  |

Previous Revision Date(s): 9/24/92  
11/21/02  
9/27/07

## REQUIRED TOOLS FOR THE FABRICATION MECHANIC II POSITION

The tools listed below are required by the applicant on order to be eligible for the position of Fabrication Mechanic II at Vehicle Maintenance. This is a basic list of tools and the incumbent must be willing to purchase additional tools as needed after employment commences.

### Standard socket set with ratchet

¼" socket set	3/16" – 9/16" sockets
3/8" socket set	5/16" – 1" sockets
½" socket set	7/16" – 1 ¼" sockets
¾" socket set	¾" – 2-3/8" sockets

### Metric socket set with ratchet

3/8" drive socket set	7 mm – 19 mm
½" drive socket set	10 mm – 27 mm

### Wrenches

Combination wrenches	¼" – 1 ½"
Open end wrenches	¼" – 1 ½"
Allen wrench set	.025 – 5/5 (18 piece set)
Pipe wrenches	8" – 12"
Adjustable wrenches	6", 10", 12", & 15"

### Impact socket sets & extensions

3/8" drive	5/16" – 3/4"
½" drive	3/8" – 1 ¼"
3/8" extensions	3", 6", & 10"
½" extensions	2", 3", 5", 10"
½" air impact	

### Standard screw drivers

1/8" x 2"
3/16" x 3"
3/16" x 4"
3/16" x 8"
¼" x 8"
5/16" x 7"

### Phillips screw drivers

#1 3/16"
#2 ¼"
#3 5/16"
#4 3/16" short
#5 ¼" short

Pliers

Electrical  
Snap ring  
Needle nose  
Slip joint  
Battery  
Water pump  
Diagonal

Miscellaneous tools

Selection of combination files  
Standard hacksaw  
Selection of punches and chisels  
Ball peen hammers 16 oz. & 32 oz.  
Wire brush  
Putty knife  
Flashlight  
20' metal tape ruler  
Battery terminal spreader  
Battery terminal cleaner  
Battery terminal puller  
Selection of vise grips 5", 7", 10" curved jaw: 4", 6", 9" long nose: 10" & 11" c-clamp  
4 1/2" electric grinder  
Selection of pry bars 12", 18", & 24"

**FABRICATION MECHANIC II-ENVIRONMENTAL QUALITY CONTROL  
PHYSICAL REQUIREMENTS**

<b>Physical Requirements</b>	<b>EXAMPLES OF RELATED JOB DUTIES</b>	<b>Rarely 1-5%</b>	<b>Occasionally 6-33%</b>	<b>Frequently 34-66%</b>	<b>Continuously 67-100%</b>
Standing	Installing equipment and parts; in the shop repairing equipment; repairing parts and equipment at the different stations.		X		
Walking	Moving around the shop; moving from vehicle to the work sites; moving within the various stations. Individuals ambulate on various terrains and in various weather conditions.		X		
Sitting	Traveling to/from work sites in the work vehicles; performing paper work at desk.	X			
Lifting	Raising and lowering an object weighing up to 80 lb.		X		
Carrying	Transporting tools; equipment, parts to/from Levy station to/shop.		X		
Pushing/ Pulling	Pushing/Pulling tools and equipment up to 100 lb.		X		
Climbing	Using steps to access areas in the stations; using ladders to access parts and equipment in the various levy stations.			X	
Balance	Working on ladders; walking on various terrain in various weather conditions. Works around moving parts, equipment with electrical tools.			X	
Stooping	Accessing parts and equipment when repairing replacing parts and equipment.			X	
Kneeling	Accessing parts and equipment when repairing replacing parts and equipment.	X			
Crouching	Accessing parts and equipment when repairing replacing parts and equipment.			X	
Reaching	Accessing parts and equipment in the stations and in the shop; using tools. Working on parts/equipment from ladders; accessing working on equipment and parts above shoulder level.			X	
Hand Usage	Using tools and equipment when repairing; maintaining and replacing parts and equipment. Tools include: welders, grinders, hand tools, power tools, brooms, shovels.				X
Crawling	Accessing equipment in the levy stations under pumps.	X			

**FABRICATION MECHANIC II-FLEET MANAGEMENT  
PHYSICAL REQUIREMENTS**

<b>Physical Requirements</b>	<b>EXAMPLES OF RELATED JOB DUTIES</b>	<b>Rarely 1-5%</b>	<b>Occasionally 6-33%</b>	<b>Frequently 34-66%</b>	<b>Continuously 67-100%</b>
Standing	Working on various parts of equipment, welding, cutting, fabricating and grinding equipment parts on a work table that is 36" in height.			X	
Walking	Gathering tools, finding various equipment throughout shop needed to complete tasks, walking around the equipment to make repairs.		X		
Sitting	Driving forklift, fabricating small equipment.		X		
Lifting	Raising and lowering an object weighing up to 175 lb.			X	
Carrying	Transporting an object up to 75 lb and over a distance of up to 25 feet.			X	
Pushing/ Pulling	Pushing/Pulling tools and equipment up to 50 lb a distance of up to 10 feet.		X		
Climbing	Getting on and off various vehicles, climbing ladders. Climbing heights and frequency varies on equipment being worked on.		X		
Balance	Balance while accessing confined areas on large machinery.	X			
Stooping	Welding, cutting, hammering, and grinding on various equipment below waist level.		X		
Kneeling	Repairing damaged lower body part of equipment/vehicle.	X			
Crouching	Access confined areas in equipment that needs to be repaired.		X		
Reaching	Gathering tools needed, accessing parts above shoulder height or below waist level, welding, grinding.		X		
Hand Usage	Running fork lift, manipulating tools, grinding.				X
Crawling	Access confined spaces in large machinery.	X			

**FABRICATION MECHANIC II-MISSOURI RIVER WASTEWATER TREATMENT PLANT  
PHYSICAL REQUIREMENTS**

<b>Physical Requirements</b>	<b>EXAMPLES OF RELATED JOB DUTIES</b>	<b>Rarely 1-5%</b>	<b>Occasionally 6-33%</b>	<b>Frequently 34-66%</b>	<b>Continuously 67-100%</b>
Standing	Installing equipment and parts; in the shop repairing equipment; repairing parts and equipment at the different stations.		X		
Walking	Moving around the shop; moving from vehicle to the work sites; moving within the various stations. Individuals ambulate on various terrains and in various weather conditions.		X		
Sitting	Traveling to/from work sites in the work vehicles; performing paper work at desk.	X			
Lifting	Raising and lowering an object weighing up to 172 lb.		X		
Carrying	Transporting tools; equipment, parts to/from Levy station to/shop.		X		
Pushing/ Pulling	Pushing/Pulling tools and equipment up to 95 lb.			X	
Climbing	Using steps to access areas in the stations; using ladders to access parts and equipment in the various levy stations.			X	
Balance	Working on ladders; walking on various terrain in various weather conditions. Works around moving parts, equipment with electrical tools.			X	
Stooping	Accessing parts and equipment when repairing replacing parts and equipment.			X	
Kneeling	Accessing parts and equipment when repairing replacing parts and equipment.	X			
Crouching	Accessing parts and equipment when repairing replacing parts and equipment.			X	
Reaching	Accessing parts and equipment when repairing replacing parts and equipment. Working on parts/equipment from ladders; accessing working on equipment and parts above shoulder level.			X	
Hand Usage	Using tools and equipment when repairing; maintaining and replacing parts and equipment. Tools include: welders, grinders, hand tools, power tools, brooms, shovels.				X
Crawling	Accessing equipment in the levy stations under pumps.	X			

**FABRICATION MECHANIC II-PAPIO WASTEWATER TREATMENT PLANT  
PHYSICAL REQUIREMENTS**

<b>Physical Requirements</b>	<b>EXAMPLES OF RELATED JOB DUTIES</b>	<b>Rarely 1-5%</b>	<b>Occasionally 6-33%</b>	<b>Frequently 34-66%</b>	<b>Continuously 67-100%</b>
Standing	Installing equipment and parts; in the shop repairing equipment; repairing parts and equipment at the different stations.		X		
Walking	Moving around the shop; moving from vehicle to the work sites; moving within the various stations. Individuals ambulate on various terrains and in various weather conditions.		X		
Sitting	Traveling to/from work sites in the work vehicles; performing paper work at desk.		X		
Lifting	Raising and lowering an object weighing up to 95 lbs.		X		
Carrying	Transporting tools; equipment, parts to/from vehicle to/from shop.		X		
Pushing/ Pulling	Maneuvering/manipulating tools and equipment (welders). Sliding/manipulating sheets/plates of metal – the size, weight and thickness will vary. The force may be up to 100 lb.		X		
Climbing	Stairs- access Digester 900 and 901; Reactor Room 5 levels with 12-15 steps per level; access levels in the grit room. Ladder- access pipe Scaffolding- access pipes. In/out of the scissor lift.			X	
Balance	Working on ladders; walking on various terrain in various weather conditions. Works around moving parts, equipment with electrical tools.			X	
Stooping	Accessing parts and equipment when repairing replacing parts and equipment.	X			
Kneeling	Accessing the pump to change out the gasket in the boiler room; accessing pipe below floor level in the boiler room trench.	X			
Crouching	Accessing parts and equipment when repairing replacing parts and equipment.			X	
Reaching	Accessing parts and equipment in the stations and in the shop; using tools. Working on parts/equipment from ladders (example replacing the blow down tank); accessing working on pipes, equipment and parts above shoulder level.			X	
Hand Usage	Using tools and equipment when repairing; maintaining and replacing parts and equipment. Tools include: welders, grinders, hand tools, power tools, brooms, shovels.				X
Crawling	Accessing under pumps.	X			

**FABRICATION MECHANIC II-PARKS DIVISION  
PHYSICAL REQUIREMENTS**

<b>Physical Requirements</b>	<b>EXAMPLES OF RELATED JOB DUTIES</b>	<b>Rarely 1-5%</b>	<b>Occasionally 6-33%</b>	<b>Frequently 34-66%</b>	<b>Continuously 67-100%</b>
Standing	Operating the welders and grinders in the shop repairing equipment; fabricating and repairing parts and equipment at the different stations; assembling fabricated parts.		X		
Walking	Moving around the shop; moving from vehicle to the work sites. Individuals ambulate on various terrains and in various weather conditions.		X		
Sitting	Traveling to/from work sites in the work vehicles; able to perform some welding tasks (filter for pool) while sitting.	X			
Lifting	Raising and lowering an object weighing up to 50 lbs.		X		
Carrying	Transporting tools; equipment, parts to/from vehicle to/from shop.		X		
Pushing/ Pulling	Maneuvering/manipulating tools and equipment (welders). Sliding/manipulating sheets/plates of metal – the size, weight and thickness will vary. The force may be up to 40 lb.		X		
Climbing	In/out of vehicles; using rolling stairs for accessing/viewing parts and components on vehicles.			X	
Balance	Works around moving parts, equipment with electrical tools.			X	
Stooping	Accessing parts and equipment when repairing replacing parts and equipment; accessing parts when welding; accessing parts that are staged at lower shelf (13")			X	
Kneeling	Accessing lower components when working on vehicles (trucks, tractors).	X			
Crouching	Accessing parts and equipment when repairing replacing parts and equipment; accessing parts when welding; accessing parts that are staged at lower shelf (13")			X	
Reaching	Accessing parts and equipment in the stations and in the shop; using tools. Accessing the underside of the truck when it is raised for repair.			X	
Hand Usage	Using tools and equipment when repairing; maintaining and replacing parts and equipment. Handling tools and hoses. Tools include: welder, grinders, hand tools, power tools, clamps, measuring tapes, hand ratchets, air tools and other tools and equipment.				X
Crawling	Accessing/inspecting trucks and tractors.	X			