



## **IDENTIFICATION**

<b>Department</b>	<b>Position Title</b>	
Infrastructure	Apprentice Welder	
<b>Position Number</b>	<b>Community</b>	<b>Division/Region</b>
33-14559	Hay River	Highway/South Slave

## **PURPOSE OF THE POSITION**

The Apprentice Welder provides support to ensure that all heavy and light mobile and fixed equipment that is used for maintaining the department's infrastructure, is repaired, reconditioned and maintained in a timely, efficient, dependable, and orderly manner, in accordance with current codes, specifications and departmental policy and procedures.

## **SCOPE**

Reporting to the Supervisor, Maintenance Facility this is an apprentice position working under the supervision of a Journeyman tradesperson and is responsible for providing welding fabrication, maintenance and repair services for the Department's mobile equipment fleet and stationary power units at the Hay River Highway Maintenance Facility.

## **RESPONSIBILITIES**

### **1. Enter work orders for maintenance and completed repair activities by;**

- Ensuring completeness, accuracy, and compliance to the established (Webworks) data entry procedures, standards, guidelines and policies.
- Ensuring work orders created in (Webworks) are completed on a timely and efficient basis to allow for on-going evaluation of equipment condition.
- Ensuring the availability of information required through support of (Webworks) for cost effective fleet management and compliance of required data entry of maintenance activities.

**2. Modify equipment, components, and attachments by:**

- identifying modifications required to equipment, components or attachments;
- designing modifications to ensure original purpose of equipment component or attachment is maintained or enhanced;
- ensuring modification complies with all safety standards and procedures;
- implementing modification in the most cost-effective manner.

**3. Weld equipment and components to repair the wear or breakage caused by abrasion, impact, fatigue, or abuse by:**

- identifying repairs and making recommendations regarding repairs;
- ensuring repairs allow machine to perform as designed or enhance the performance;
- ensuring all repairs comply with all safety standards and procedures and completing repairs in the most cost-effective manner.

**4. Fabricate equipment, tools, and components to meet the needs of the various users in the department by:**

- designing equipment, tools and components;
- discussing design with supervisory personnel and users to ensure the designed unit meets the need of the user and complies with all safety standards and practices;
- ensuring the design is done in the most cost effective manner;
- ordering the parts and materials required to complete the fabrication;
- fabricating the equipment, tool or component and testing it to ensure it meets requirements;
- assemble parts list and drawings for future repairs and/or replacements.

**5. Operate the milling machine, radial arm drill and lathe for completing repairs, modifications and fabrication of equipment, tools, or components by:**

- milling key ways, mounting plates and flat surfaces to OEM specified tolerances;
- rebuilding wear surfaces by cutting away old materials, metalizing or welding and machining to OEM specifications;
- precision drilling of attachments and aligned components to ensure precise fit and long service life;
- manufacture seal and bushing installers, puller adapters and assembling jigs.

**6. Maintain welding and machine shop area and materials by:**

- ensuring all equipment and tools used are in good operating condition;
- ensuring that all personnel using the precision equipment are properly trained to avoid accident or injury and unnecessary damage to the equipment;
- ensuring material inventory is correct as to type and quantity;
- ensuring material is accounted for and charged out as required;
- keeping work area clean and free of safety hazards.

**7. Travel to field maintenance camps on the NWT highway system to provide service and repairs to mobile fleet as required.**

**8. Recondition, rebuild, and repair equipment with a dollar value of \$100.00 to \$60,000.00 in parts and materials per unit.**

- Control the extent and nature of repairs within the original estimates. Where during the course of the work, the mechanic finds cost estimates will increase they will bring this to the attention of the Supervisor, Maintenance facility for review.

**9. Prepare condition reports of a particular unit that can lead to repair in the amounts shown above or recommendation for surplus and replacement of the unit. Replacement costs of mobile equipment range from \$1,000.00 to \$500,000.00.**

- Complete the condition reports based on the observations from inspection, experience and knowledge and make recommendations for repair or replacement to the Supervisor, Maintenance Facility.

## **WORKING CONDITIONS**

### **Physical Demands**

All of the duties require some level of physical effort. Most include strenuous physical effort for the full duration of the workday. The effort would include heavy lifting, stretching, reaching, operation of tools and other heavy equipment. Both upper and lower body physical strength and agility is required.

### **Environmental Conditions**

Although most of the duties are conducted within a heated and ventilated workshop, there will be some requirement to conduct these duties in the field, out of doors, in extreme summer/winter conditions and in remote locations. All duties will include exposure to fumes, fuels, oils, lubricants, other solvents, and somewhat dangerous or hazardous working conditions. Some work will include the use of breathing apparatus when welding in confined spaces.

### **Sensory Demands**

All five senses are deployed in all duties. Attention of all senses, in particular hearing, sight, smell, must be paid during the course of the work, to ensure the safety of the Welder and co-workers.

## **Mental Demands**

Creativity, innovation and well thought out approaches to equipment/component repair and fabrication are required in all duties to ensure economic and efficient repair of the equipment.

## **KNOWLEDGE, SKILLS AND ABILITIES**

### Technical:

- Knowledge of standard metal fabrication repair methods, tools, equipment, and techniques.
- Knowledge of all equipment, from heavy to light, mobile equipment to stationary units such as generator sets.
- Ability to modify and fabricate component repairs to light and heavy equipment.
- Ability to interpret diagrams and specifications.

### Communication:

- Ability to complete written estimates, shop repair orders, condition reports and other reports associated with equipment service and repair.
- Ability to communicate effectively with supervisor and clients to perform the required work.
- Ability to understand apprenticeship theory, training and interpret service, repair and parts manuals.

### **Typically, the above qualifications would be attained by:**

- Minimum Grade 12 education
- Successful completion of the Trade Entrance Exam
- Valid Class 5 driver's license

## **ADDITIONAL REQUIREMENTS**

### **Position Security** (check one)

- No criminal records check required
- Position of Trust – criminal records check required
- Highly sensitive position – requires verification of identity and a criminal records check

### **French Language** (check one if applicable)

- French required (must identify required level below)

Level required for this Designated Position is:

#### ORAL EXPRESSION AND COMPREHENSION

Basic (B)  Intermediate (I)  Advanced (A)

#### READING COMPREHENSION:

Basic (B)  Intermediate (I)  Advanced (A)

#### WRITING SKILLS:

Basic (B)  Intermediate (I)  Advanced (A)

- French preferred

### **Indigenous Language:** Select Language

- Required
- Preferred