



## **IDENTIFICATION**

<b>Department</b>	<b>Position Title</b>	
Infrastructure	Regional Heavy Equipment Mechanic	
<b>Position Number</b>	<b>Community</b>	<b>Division/Region</b>
33-0163	Yellowknife	North Slave Region

## **PURPOSE OF THE POSITION**

The Heavy Equipment Mechanic (HEM) is responsible for maintaining, repairing and/or reconditioning all heavy and light equipment required in the maintenance of roads, bridges, camps and infrastructure in the North Slave Region.

## **SCOPE**

The position is located at the Yellowknife highway's maintenance camp, but also works periodically out of the Edzo highway's maintenance camps and reports to the Regional Manager, Highway Operations.

The Heavy Equipment Mechanic implements a planned service, maintenance and repair program for all heavy and light equipment utilized at Yellowknife and Edzo highway maintenance camps in order to provide maximum equipment availability, operating at their optimum capability.

## **RESPONSIBILITIES**

### **1. Recondition components that have a shorter lifespan than the equipment frames or bodies to restore the components to original specified capability by:**

- Analysing and inspecting failure, to determine cause and extent of repairs as necessary.
- Dismantling components such as engines, transmissions, differentials, electrical equipment, hydraulic systems, air systems, etc.
- Measuring surfaces and refurbishing by polishing.
- Identifying parts within a component.
- Reassembling components and adjusting to original specifications.

- 2. Repair equipment that has failed mechanically, to restore it to its original specified capability by:**
  - Analysing failure to determine cause and extent of repairs needed.
  - Dismantling equipment.
  - Inspecting and measuring for worn or failed components.
  - Identifying parts required and preparing parts orders.
  - Replacing components.
  - Reassembling equipment and adjusting to original OEM specifications.
  - Cleaning and painting components or whole equipment.
- 3. Service equipment to reduce incidence of early or untimely failure by:**
  - Conducting preventative maintenance servicing using the preventative maintenance program.
  - Adjusting components in accordance with service manuals.
  - Cleaning components.
  - Checking or replacing fluids and filters.
- 4. Perform other duties such as:**
  - Welding, brazing and soldering.
  - Completing service reports and time cards.
  - Maintaining shop equipment and tools.
  - Assisting operators by relating required maintenance procedures.
  - Keeping work area clean and free of safety hazards.
- 5. Travel to field maintenance camps on the NWT highway system to provide service and repairs to mobile fleet given the same responsibilities as outlined in duties numbered 1 through 4.**
- 6. Recondition, rebuild, and repair equipment with a dollar value of \$100 to \$40,000 in parts and materials per unit.**
  - HEM controls extent and nature of repairs within the original estimates. Where during the course of the work the HEM finds cost estimates will increase, they will bring this to the attention of the Mechanical Foreman for review.
- 7. Performs preventative maintenance (PM) checks A, B and C with a dollar value of \$100 to \$2,000 dependent on level of PM and type of equipment.**
  - HEM determines the timing and requirement for level of PM for the particular unit and proceeds at own discretion.
- 8. Prepares condition reports, where inspections of a particular unit can lead to repair in the amounts shown above or recommendation for surplus and replacement of the unit. Replacements costs of mobile equipment can range from \$1,000 to \$200,000.**
  - HEM completes condition reports based on experience and knowledge and makes recommendations for repair or replacement to the Mechanical Foreman.

## **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, outdoors, in extreme summer and winter weather conditions and in remote locations. All duties will include exposure to fumes, fuels, oils, lubricants, other solvents and somewhat dangerous or hazardous working conditions. Must have a full set of mechanic hand tools of proven quality.

### **Sensory Demands**

All five senses are developed in all duties to investigate and determine the nature of problems in equipment servicing and repair. Attention of all senses, in particular hearing, sight, smell, and must be paid during the course of the work, to ensure the safety of the HEM and co-workers.

### **Mental Demands**

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

## **KNOWLEDGE, SKILLS AND ABILITIES**

### **Technical**

- Broad knowledge of all equipment, from heavy to light, mobile equipment to stationary units such as generator sets.
- Considerable knowledge of standard repair methods, tools, equipment and techniques.
- Extensive knowledge and experience on motor graders, highway trucks, tractors, loaders and crawler tractors.
- Ability to sign off equipment, to train apprentice mechanics and to carry out the duties of the job efficiently.
- Ability to locate and diagnose mechanical problems.
- Ability to interpret diagrams and specifications.

### **Managerial or Supervisory**

- Teaching, supervisory and communication skills to train apprentice mechanics.
- Time management and organization skills to estimate resource requirements for repairs and to complete the necessary shop repair orders and condition reports.
- Leadership and supervisory skills required to act in supervisor's (Mechanical Foreman)

position while on leave, if need arises.

- Ability to prioritize work based on operational demand and sound decision making ability.

### **Communication**

- Verbal communication skills are required to relay information on equipment repair/service requirements to operators, Mechanical Foreman, Parts Person and suppliers/manufacturers, and Field Supervisors.
- Some written communication skills required to complete estimates, shop repair orders, condition reports and other paperwork associated with equipment service and repair.
- Daily contacts are made to the Mechanical Foreman, Field Supervisor and other HEM's to do with servicing, repair and follow up instructions regarding equipment maintenance.
- Occasional contact is with the equipment operators to give maintenance instruction on newly repaired equipment.

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

- Secondary School Diploma – successful completion of Grade 12.
- Journeyman Heavy Equipment Mechanic Certification (Ticket).
- Minimum 5 years' experience as a HEM with 2 years directly related work experience post Journeyman certification.
- Incumbent must possess a Class 3 Driver's Licence and be able to produce a medical clearance to confirm fitness to perform physical requirements of the position.

### **ADDITIONAL REQUIREMENTS**

#### **Position Security**

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

#### **French language** (check one if applies)

- 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

#### **Aboriginal language:** Choose a language

- Required
- Preferred