

**State of Michigan
Civil Service Commission**
Capitol Commons Center, P.O. Box 30002
Lansing, MI 48909

Position Code

1. HYEQMCHEA71R

POSITION DESCRIPTION

This position description serves as the official classification document of record for this position. Please complete the information as accurately as you can as the position description is used to determine the proper classification of the position.

2. Employee's Name (Last, First, M.I.)	8. Department/Agency TRANSPORTATION CENTRAL OFFICE
3. Employee Identification Number	9. Bureau (Institution, Board, or Commission) Highway Operations
4. Civil Service Position Code Description HEAVY EQUIPMENT MECHANIC-E	10. Division Grand Region
5. Working Title (What the agency calls the position) Heavy Equipment Mechanic	11. Section Automotive & Equipment (A&E)
6. Name and Position Code Description of Direct Supervisor TANIS, RYAN J; HEAVY EQUIPMENT MCH SPV-2	12. Unit Maintenance/Fleet
7. Name and Position Code Description of Second Level Supervisor PERKINS, CURTIS W; TRANSPORTATION MAINT SPV-3	13. Work Location (City and Address)/Hours of Work 1400 Scribner NW, Grand Rapids, MI 49504 / M-F, 7:30am-4:30pm (hours may vary)

14. General Summary of Function/Purpose of Position

This position performs heavy equipment repair and maintenance on MDOT vehicles and equipment in the Grand Region and could include various garages as directed by supervisor. Periodic repairs in the field are required as well. This position performs a full range of maintenance, repair, and preventative maintenance activities on light and heavy equipment and prepares work orders and cost/materials estimates using computerized programs. The employee uses considerable independent judgment in making decisions. This position may require travel throughout the region. Operate a vehicle or vehicle/trailer combination with a Gross Vehicle Weight Rating (GVWR) of 26,001 pounds or more (e.g., heavy-duty trucks) when performing maintenance activities.

15. Please describe the assigned duties, percent of time spent performing each duty, and what is done to complete each duty.

List the duties from most important to least important. The total percentage of all duties performed must equal 100 percent.

Duty 1

General Summary:

Percentage: 60

Perform maintenance and repair activities on various pieces of heavy equipment including, but not limited to, heavy-duty trucks, back hoes, skid steer and articulating loaders, rotary screw compressors, graders, aerial towers, spray equipment, cement saws, and trailers. Install, service, repair, and maintain material spreaders, underbody blades, dump bodies, snowplows, and systems associated with snowplow trucks.

Individual tasks related to the duty:

- Perform routine maintenance checks and adjustments on such things as fluid levels, hoses, belts, brakes, tires, clutches, changes filters and oil, and lubricates vehicles and equipment.
- Tune, repair, diagnose, and rebuild gas and diesel engines using manufacturers' guidelines and specifications.
- Service, diagnose, and repair drivelines including single and multi-drive axles with air or electric shift, locking differentials, and rear suspension systems including walking beams, rubber, and leaf springs.
- Repair, maintain, and diagnose braking systems including hydraulic and air with or without antilock braking systems (ABS).
- Repair, maintain, and diagnose electrical systems including computer control systems and multiplex circuits.
- Repair, maintain, and diagnose hydraulic systems including open and closed center valves, pressure compensated systems, gear pumps, load sense piston pumps, and hydraulic cylinders and hoses.
- Perform annual Department of Transportation (DOT) inspections required by Federal Motor Carrier Safety Regulations.
- Install, repair, maintain, and program various ground speed salt control systems associated with MDOT's fleet of snowplow equipment.
- Repair, maintain, and diagnose cooling systems and air conditioning systems including controls.

Duty 2

General Summary:

Percentage: 20

Utilize computers and computerized software for diagnosis and work order data entry.

Individual tasks related to the duty:

- Diagnose and program on-board computer control system on vehicles and equipment utilizing manufacturer's computer software.
- Diagnose on-board computer control systems utilizing scan tools.
- Perform work order data entry and look up equipment specification information utilizing equipment maintenance management software.
- Keep track of time and materials using equipment maintenance management software.
- Locate equipment data and repair information utilizing computer resources.

Duty 3

General Summary:

Percentage: 10

Fabricate, modify, and install special equipment or replacement parts utilizing welders (MIG & TIG), acetylene torch sets, plasma cutters, metal cutting saws, mills, and lathes.

Individual tasks related to the duty:

- Fabricate new and replacement equipment and/or components.
- Weld truck frames or components on trucks with computerized engine controls.
- Install special devices such as hitch plates, distance measuring devices, throttle controls, safety lighting, etc.

Duty 4

General Summary:

Percentage: 10

Service, repair, and maintain components of aerial man-lifts and cranes. Perform inspections outlined in the owners' manuals, American National Standards Institute (ANSI), and Michigan Occupational Safety and Health Administration (MIOSHA) regulations.

Individual tasks related to the duty:

- Perform repairs and maintenance on aerial man lifts, cranes, and scissors lifts to include the truck driven hydraulics with air or electric controls, all safety controls and automatic leveling devices, charging systems, hydraulic and electric drives, lifting mechanisms, cables and winches of

cranes, etc.

- Perform all safety inspections per ANSI, Occupational Safety and Health Administration (OSHA), MIOSHA, and equipment manufacturer guidelines.

16. Describe the types of decisions made independently in this position and tell who or what is affected by those decisions.

Independent judgment of necessary tools and methods of repairs and/or parts required, and cost/quality of parts utilized. Makes informed decision of where to purchase required parts.

17. Describe the types of decisions that require the supervisor's review.

Decisions involving repairs exceeding \$2,500.00, decisions involving outsourcing of jobs, and decisions to determine priority of repair projects.

18. What kind of physical effort is used to perform this job? What environmental conditions in this position physically exposed to on the job? Indicate the amount of time and intensity of each activity and condition. Refer to instructions.

Able to move equipment weighing up to 100 pounds; install equipment, including over and under vehicles; inspect vehicles and/or equipment; and perform assigned repairs. Constant exposure to exhaust fumes and various chemicals. Duties may need to be performed occasionally outdoors during inclement weather conditions. This position is required to operate a vehicle or vehicle/trailer combination with a GVWR of 26,001 pounds or more. Be available outside normal working hours for maintenance/emergency operations, in all weather conditions.

19. List the names and position code descriptions of each classified employee whom this position immediately supervises or oversees on a full-time, on-going basis.

Additional Subordinates

20. This position's responsibilities for the above-listed employees includes the following (check as many as apply):

- | | |
|---|--|
| ☐ Complete and sign service ratings. | ☐ Assign work. |
| ☐ Provide formal written counseling. | ☐ Approve work. |
| ☐ Approve leave requests. | ☐ Review work. |
| ☐ Approve time and attendance. | ☐ Provide guidance on work methods. |
| ☐ Orally reprimand. | ☐ Train employees in the work. |

22. Do you agree with the responses for items 1 through 20? If not, which items do you disagree with and why?

Yes.

23. What are the essential functions of this position?

This position performs heavy equipment repair and maintenance on MDOT vehicles and equipment in the Grand Region and could include various garages as directed by supervisor. Periodic repairs in the field are required as well. This position performs a full range of maintenance, repair, and preventative maintenance activities on light and heavy equipment and prepares work orders and cost/materials estimates using computerized programs. The employee uses considerable independent judgment in making decisions. This position may require travel throughout the region. Operate a vehicle or vehicle/trailer combination with a GVWR of 26,001 pounds or more (e.g., heavy-duty trucks) when performing maintenance activities.

24. Indicate specifically how the position's duties and responsibilities have changed since the position was last reviewed.

25. What is the function of the work area and how does this position fit into that function?

The A&E section is responsible for maintenance and repair of a fleet of vehicles and equipment in the Grand Region. This position provides direct hands-on maintenance and repair of the fleet and data entry of such repairs and related purchases.

26. What are the minimum education and experience qualifications needed to perform the essential functions of this position.

EDUCATION:

Education typically acquired through completion of high school.

EXPERIENCE:

Heavy Equipment Mechanic 8

No specific type or amount is required.

Heavy Equipment Mechanic 9

Two years of experience assisting skilled trades workers in the repair and maintenance of heavy equipment.

Heavy Equipment Mechanic E10

Four years of experience assisting skilled trades workers in the repair and maintenance of heavy equipment, including two years equivalent to a Heavy Equipment Mechanic 9.

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of:

- The standard practices, materials, tools, and equipment used in the repair and maintenance of motor vehicles and heavy equipment including safety issues in use of tools, equipment, and supplies.

Skill in:

- The use of gas and electric cutting/welding equipment.

Ability to:

- Diagnose mechanical, electrical, and hydraulic malfunctions.
- Read manuals and schematics.
- Utilize computer software and enter repair information into fleet maintenance management software.

CERTIFICATES, LICENSES, REGISTRATIONS:

- Possession of a Commercial Learner's Permit upon appointment to the position. Continuing employment requires possession of a Commercial Driver's License (CDL) Group A with either an N or X endorsement and no air brake restrictions which must be obtained within 12 months of the date of hire into the position.
- State of Michigan or Automotive Service Excellence (ASE) Mechanic Certification in Heavy Truck and Air Brake preferred.

NOTE: Civil Service approval does not constitute agreement with or acceptance of the desired qualifications of this position.

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Supervisor

Date

TO BE FILLED OUT BY APPOINTING AUTHORITY

Indicate any exceptions or additions to the statements of employee or supervisors.

N/A

I certify that the entries on these pages are accurate and complete.

JENNIFER HADDON

4/24/2025

Appointing Authority

Date

I certify that the information presented in this position description provides a complete and accurate depiction of the duties and responsibilities assigned to this position.

Employee

Date