State of Michigan
Civil Service Commission

Capitol Commons Center, P.O. Box 30002
Lansing, MI 48909

Position Code
1. HYEQMCHE

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** Southwest Region
5. Working Title (What the agency calls the position) Heavy Equipment Mechanic E	**11. Section** Operations
6. Name and Position Code Description of Direct Supervisor LAMPROS, SHAWN E.; TRANSPORTATION MAINT SPV-2	**12. Unit** Coloma Garage
7. Name and Position Code Description of Second Level Supervisor INGOLD, GLENN; TRANSPORTATION MAINT SPV-3	**13. Work Location (City and Address)/Hours of Work** 3880 Red Arrow Hwy, Benton Harbor, MI 49022 / 6:00 am to 4:30 pm, M-Th (Days & Hours will vary)

14. General Summary of Function/Purpose of Position

This position provides maintenance and repair services on Michigan Department of Transportation (MDOT) vehicles and equipment at the Coloma Garage. This position performs a full range of maintenance, repair, and preventative maintenance activities on heavy equipment. Prepares work orders and cost/materials estimates using computerized programs.

This position operates a vehicle or vehicle/trailer combination with a Gross Vehicle Weight Rating (GVWR) of 26,001 pounds or more while performing road tests and diagnostic tasks.

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: 70**

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

This duty requires the incumbent to drive a vehicle and/or vehicle/trailer combination with a GVWR weighing more than 26,001 pounds.

Individual tasks related to the duty:

- Performs 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.
- Tunes, repairs, diagnoses, and rebuilds gas and diesel engines using manufacturers guidelines and specifications.
- Services, diagnoses, and repairs 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.
- Repairs, maintains, and diagnoses braking systems including hydraulic and air with or without ABS.
- Repairs, maintains, and diagnoses electrical systems including computer control systems and multiplex circuits.
- Repairs, maintains, and diagnoses hydraulic systems including open and center valves, pressure compensated systems. gear pumps, and load sense piston pumps, hydraulic cylinders, and hoses.
- Performs annual DOT inspections required by Federal Motor Carrier Safety Regulations.
- Installs, repairs, maintains, and programs various ground speed salt control systems associated with MDOT's fleet of snowplow equipment.
- Repairs, maintains, and diagnoses cooling systems and air conditioning systems including controls.
- Road tests new and older equipment to evaluate condition.

Duty 2

General Summary: **Percentage: 10**

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

Individual tasks related to the duty:

- Utilizes manufacturers computer software for diagnosis and programming of on-board computer control system on vehicles and equipment.
- Utilizes scan tools for diagnosis of on-board computer control systems.
- Performs work order data entry and has ability to look up equipment specification information utilizing equipment maintenance management software.
- Keeps track of time and materials using equipment maintenance management software.
- Utilizes computer resources to locate equipment data and repair information.

Duty 3

General Summary: **Percentage: 10**

Fabricates, modifies, and installs special equipment or replacement parts utilizing welders (MIG & TIG), acetylene torch sets, plasma cutter, metal cutting saws, mills, and lathes.

Individual tasks related to the duty:

- Fabricates new and replacement equipment and/or components.
- Identifies and has knowledge of when to weld to truck frames or components on trucks with computerized engine controls is necessary.
- Installs special devices such as hitch plates, distance measuring devices, throttle controls, safety lighting, etc., is essential.

Duty 4

General Summary: **Percentage: 10**

Services, repairs, and maintains components of aerial man-lifts and cranes. Performs inspections outlined in the owner’s manuals, ANSI and MIOSHA regulations.

Individual tasks related to the duty:

- Performs repairs and maintenance on aerial manlifts, 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 of truck mounted or battery powered self-propelled scissors lifts, cables and winches of cranes, etc.
- Performs all safety inspections per ANSI, 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, cost/quality of parts utilized. Makes informed decision of where to purchase required parts. Considerable independent judgment is needed when making decisions.

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

Decisions involving repairs exceeding $500.00.
Decisions involving outsourcing of jobs.
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.

Must have the ability to perform manual labor which includes transporting heavy tools and materials weighing up to 100 lbs. Install equipment, including over and under vehicles. Ability to detect and troubleshoot problems on machines and programs. Inspect vehicles and/or equipment and perform assigned repairs. Constant exposure to exhaust fumes and various chemicals. Some duties must be performed outdoors during inclement weather when needed. The ability to traverse uneven ground. Ability to work in confined spaces. At times, the job requires remaining in a stationary position over time and extensive use of a computer. Be available outside normal working hours for maintenance/emergency operations, in all weather conditions. Ability to travel throughout the region. This position is required to operate a vehicle or a vehicle/trailer combination with a GVWR of 26,001 pounds or more.

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):

N	Complete and sign service ratings.	N	Assign work.
N	Provide formal written counseling.	N	Approve work.
N	Approve leave requests.	N	Review work.
N	Approve time and attendance.	N	Provide guidance on work methods.
N	Orally reprimand.	N	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 provides maintenance and repair services on Michigan Department of Transportation (MDOT) vehicles and equipment at the Coloma Garage. This position performs a full range of maintenance, repair, and preventative maintenance activities on heavy equipment. Prepares work orders and cost/materials estimates using computerized programs.

This position operates a vehicle or vehicle/trailer combination with a GVWR of 26,001 pounds or more while performing road tests and diagnostic tasks.

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 function of the work area is to maintain the transportation infrastructure in a reasonable and safe condition. This position is responsible for ensuring equipment is available and working properly so it can be used to perform maintenance of Michigan's highway infrastructure.

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.

Associates degree in Heavy Equipment or Heavy Truck Repair preferred.

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

Alternate Education and Experience

Heavy Equipment Mechanic 9 - 11
Possession of an associate's degree in Heavy Duty Truck/Heavy Equipment Repair may be substituted for two years of experience assisting skilled trades people in the repair and maintenance of heavy equipment.

KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of:

- 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.
- Gas and electric cutting/welding equipment.
- Determine work priorities and assign work to employees.

Ability to:

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

CERTIFICATES, LICENSES, REGISTRATIONS:

This position is a Test-Designated Position. The employee is subject to random drug and alcohol testing while employed in this position.

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 and must maintain throughout employment in the position.

Possession of a State of Michigan or Automotive Service Excellence (ASE) Mechanic Certification in Heavy Truck and Air Brake is preferred.

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.

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

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**