

MECHANIC TECHNICIAN II

DEFINITION OF CLASS:

The work of this class is to perform fully skilled maintenance and repairs on heavy and mobile equipment, diesel, alternative fuel and/or gasoline powered buses and related equipment.

DISTINGUISHING CHARACTERISTICS:

The Mechanic Technician II is the journey level class in the Mechanic Technician series. This Mechanic Technician II class is distinguished from Transit Bus and Heavy Equipment Mechanic Technician Lead classes in that the latter is the advanced working/lead level class in the series.

MAJOR DUTIES:

An employee in this class is responsible for: exercising independent judgment to carry out preventive maintenance tasks; determining causes of vehicle/equipment operating problems by tracing and locating defects; selecting and safely using proper tools, equipment, devices, manuals, references, and efficient procedures and techniques; and making repairs to heavy equipment/vehicles and/or transit bus vehicles. A Mechanic Technician II plans and carries out the successive steps and handles problems and deviations in the work in accordance with instructions, policies, and previous training.

EXAMPLES OF DUTIES: (Illustrative Only)

- Traces and locates defects and causes of mechanical, electrical, computer and other problems to determine type and extent of necessary repairs using diagnostic tools, manufacturers' repair/maintenance manuals and schematics.
- Selects and complies with appropriate repair specifications and procedures.
- Tears down and rebuilds components and assemblies of gasoline and diesel-powered vehicles by fitting and installing needed parts such as pistons, valves, bearings, gears, and cylinders to appropriate tolerances; makes changes or modifications in accordance with specifications and guidelines.
- Road/performance tests vehicles and equipment during and occasionally upon completion of maintenance and/or repair work.
- Connects, meshes, aligns, and adjusts items and systems to assure proper operation of the complete system or vehicle.
- Maintains records of time and materials used.
- Participates in training programs and instructs lesser skilled employees.
- Reads and interprets sketches, specifications, and service manuals.
- Works in machine shop and machine tools and rebuilds equipment, parts, and materials needed for repair work; and fabricates parts, hydraulic hoses, and tools when unavailable.
- Maintains work area in a clean and orderly manner.
- Requests parts and checks them for compliance with manufacturers' specifications.
- Participates in vehicle collision investigations to determine whether any mechanical failure contributed to a collision, or the extent of the damages, in order to develop skills in these areas.
- Performs related duties as required.

SUPERVISORY CONTROLS:

Under general supervision, is responsible for: exercising independent judgment to carry out preventive maintenance tasks; determining causes of vehicle/equipment operating problems by tracing and locating

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defects; selecting and safely using proper tools, equipment, devices, manuals, references, and efficient procedures and techniques; and making repairs to heavy equipment/vehicles and/or transit bus vehicles.

SUPERVISION EXERCISED: Employees in this classification do not supervise other positions.

GUIDELINES:

Work is performed in accordance with technical manuals, illustrations, specifications, diagrams, and schematics. Due to changes during production, schematics and manuals may be incomplete, inaccurate, or absent. A Mechanic Technician II plans and carries out the successive steps and handles problems and deviations in the work in accordance with instructions, policies, and previous training.

COMPLEXITY:

Complexity of the class derives from work on gasoline and diesel engine vehicles and equipment which include hydraulic, pneumatic, mechanical, electrical, electronic and computer-controlled utility systems, controls, and features, many of which work in consonance with and are dependent upon each other for proper functioning. In addition, the large variety of equipment spanning many model years which have to be maintained/repared to exacting tolerances and clearances, and the frequent completion of repair work started by another employee or on limited information supplied by vehicle/equipment operators further complicates the work.

SCOPE AND EFFECT:

The impact of properly performed work is the provision of vehicles which are both operationally safe and capable of performing in the manner for which they were designed.

CONTACTS:

Contacts are primarily with employees in the immediate work area, crew/shift, to which an employee is assigned for the purpose of receiving information and instructions; and with manufacturers' representatives to discuss incomplete/inaccurate schematics and repair/service manuals, and replacement parts and systems

PUBLIC SERVICE /ASSISTANCE:

This class of work may entail some public service/assistance, but it is incidental to the primary focus of the work performed.

HAZARDS:

Performance of the work of the class regularly involves exposure to loud noises, vibrations, dust, dirt and grease. The work requires employees to push, pull, turn, position and otherwise move parts, assemblies, components, equipment and tools often near or immediately adjacent to running engines where employees are exposed to compressed air, electrical current, belts, pulleys, fan blades and sharp edges. Additional hazards include spring-loaded parts, lifts and presses on wet/greasy floors, hot hydraulic fluids and oils, acetylene and oxygen cutting torches near flammable substances, battery acid and cleaning solvents, and working at heights of from ten to twenty feet above the ground or floor level. Performance of the work of the class may occasionally expose employees to human/animal waste and/or body fluids. These hazardous working conditions require employees to strictly follow safety procedures and regularly employ safety equipment including safety glasses, rubber and leather gloves, hearing protection, eye and face shields, respiratory masks, and steel toe shoes.

MINIMUM QUALIFICATIONS:

Education: High school diploma or equivalent (GED or High School Proficiency Examination)

Experience: Four (4) years of verifiable experience in problem diagnosis, repair, maintenance and inspection of a variety of transit bus, automotive, heavy duty diesel or gasoline transit buses, or heavy-duty trucks, and successful completion of the Fleet Management Services Mechanic Technician Training Program.

Licenses, Registrations, Certifications, or Special Requirements:**At Time of Employment Application:**

- Possession of a valid Class “C” (or equivalent) driver’s license from applicant’s state of residence.

First Day of County Employment:

- Possession of either a valid Class “A” or “B” (or equivalent) Commercial Driver’s License (CDL) with Passenger and Air Brake Endorsement, issued by applicant’s state of residence; or
- A valid Instructional Permit for a Class "A" or "B" Commercial Driver's License (CDL) with Passenger and Air Brake Endorsement, issued by applicant's state of residence.

Upon Completion of the Probationary Period:

- Possession and maintenance at all times of a valid Class “A” or “B” (or equivalent) Commercial Driver’s License (CDL) with Passenger and Air Brake Endorsement, issued by applicant’s state of residence;
- A valid US Environmental Protection Agency Air Conditioning Certification (Clean Air Act, 1990, Section 608 and 609) appropriate to the equipment serviced/inspected; and
- A valid Occupational Safety and Health Administration (OSHA) Industrial Forklift Certification.

Knowledge, Skills, and Abilities:*Thorough Knowledge of:*

- The mechanical makeup, operation, and working relationships of a variety of medium-heavy duty truck/engineering equipment and transit bus systems, assemblies and parts, including such major systems as diesel, multi-fuel, and gasoline engines; automatic and manual transmissions and gear reduction systems, including those with torque converters, planetary gears, and multiple gear ranges; driveline assemblies including differentials, power dividers, and dual speed axles; and hydraulic lifting, loading, turning, positioning and stabilizing systems including their mechanical, hydraulic, pneumatic and electronic controls.
- How computer, electrical, transistorized, and other non-mechanical systems tie in with and affect the operation of mechanical systems to perform journey level functions.
- The equipment standard and tools, equipment, diagnosis, and test procedures and practices used in the repair and preventive maintenance of medium heavy equipment and/or transit bus equipment and includes skill in the use of computerized diagnostic and performance tuning software.
- Regulations and practices governing the conditions of the vehicles and equipment repaired and maintained, environmental requirements governing refrigerant use/hazardous waste disposal and related functional regulations policies and procedures at sufficient levels to work in compliance with guidelines.
- The occupational hazards and safety precautions of the medium heavy equipment/transit bus mechanic trade to work safely.

Skill in:

- The diagnosis of mechanical, electrical and electronic malfunctions.
- The use of the hand and power tools and equipment associated with the heavy equipment and/or transit bus mechanic trade.
- Removing and tearing down major components and assemblies including engines, transmissions, and power take-offs; and to rebuild, adjust, re-install, align and mesh components and assemblies.

Ability to:

- Safely operate all vehicles/equipment maintained/repared and their respective components.
- Distinguish between color-coded objects such as electrical wiring.

Work Environment:

Must have the ability and willingness to perform repair work in any weather conditions and in all of the following settings: a centralized vehicle maintenance facility, machine shop, highway maintenance depot, on the road, land-fills, or wherever a break down occurs.

Physical Demands:

Ability to work in tiring and uncomfortable positions for long periods, and must continuously bend, reach, stretch, lift, stoop, climb and crouch often on top of, in, and under vehicles and engines in cramped and awkward positions. Performance of the work of the class regularly involves exposure to loud noises, vibrations, dust, dirt and grease. Employees must perform physically strenuous work overhead, while standing, lying down, or sitting; and pull, push, lift and carry items which weigh up to 100 pounds, and occasionally in excess of 100 pounds.

PROBATIONARY PERIOD:

Individuals appointed or promoted to a position in this class will be required to serve a probationary period of six (6) months, during which time performance will be carefully evaluated. Continuation in this class will be contingent upon successful completion of the probationary period.

MEDICAL PROTOCOL: Core II Exam and Drug/Alcohol Screen.

PROMOTION POTENTIAL: May be competitively promoted to Transit Bus Mechanic Technician, Lead or Heavy Equipment Mechanic Technician, Lead after two (2) years of Mechanic Technician II experience, possession of all required licenses/certifications, ASE Master Technician Certifications in Transit Bus *or* Medium and Heavy Trucks, and recommendation of the appointing authority.

CLASS SPECIFICATION HISTORY:

Class Established: February 1966 **Revised:** November 1973
December 1984
Classification Study: May 1991 (M)
July 1999
Classification Study: October 2003 (M)
March 2005
June 2006
June 2008
August 2009
April 2010
August 2013
October 2014
Class Study: October 2017
Revised (format): April 2018
August 2019
Revised: Medical Protocol per OMS Review: February, 2022

Note: *Revised Minimum Qualifications*