

HEAVY EQUIPMENT MASTER MECHANIC

DEFINITION OF WORK

Employees in this classification perform advanced and highly skilled mechanical work in the repair and maintenance of heavy construction equipment and automotive vehicles. Positions assigned to this classification are distinguished from the Heavy Equipment Mechanics I and II by level of diagnosis and repair work performed. Unlike Heavy Equipment Mechanics I and II employees, that receive assistance on more complicated repairs, employees in this class make independent judgments and decisions within the framework of accepted trade practices. They use judgment in determining the extent of repairs needed, based on analysis performed, user reports, inspection reports, and vehicle records. Work at this level is accomplished with little or no review during progress or upon completion. Employees spend the majority of the time devoted to complex mechanical system diagnosis and repair work.

EXAMPLES OF WORK

Mechanics at this level are able to trace and locate defects which cause hydraulic and other major systems to fail or not perform up to specifications. They analyze malfunctions and determine the extent of repairs necessary by visual and auditory examinations and by the use of a wide variety of test equipment. Mechanics at this level are able to select and comply with technical manuals, illustrations, specifications, diagrams, schematics, and similar guides to make repairs and modifications according to specifications and procedures. They can connect, align, and adjust parts and systems to assure proper operation of the complete system or vehicle. Employees perform a complex mechanical systems analysis using diagnostic instruments. Employees diagnose and troubleshoot malfunctions in automotive, heavy/light trucks, and heavy construction equipment; assume responsibility for the most complex repair projects; and assist and advise less-experienced mechanics. Employees perform related work as required.

EMPLOYMENT STANDARDS

Education and Experience:

High school or General Educational Development diploma and five years of experience in the repair of vehicles and/or heavy equipment; or an equivalent combination of education and experience.

Knowledge, Skills, and Abilities:

Knowledge to serve as a "technical expert" within the work unit and ability to guide and coach others. Thorough and extensive understanding of the most difficult and complex systems. Ability to independently take necessary actions to ensure that industry service standards and procedures are followed when handling multiple, complex assignments. Ability to read and interpret Original Equipment Manufacturer (OEM) manuals and use diagnostic tools. Mechanics at this level are knowledgeable of electrical, electronic, hydraulic, pneumatic, and other non-mechanical systems which have a functional relationship and effect on the operation of mechanical systems. They have a thorough knowledge of hydraulic lifting, loading, turning, and positioning systems and their mechanical, hydraulic, pneumatic, electrical, and electronic controls. They have a basic knowledge of electronics sufficient to identify and replace defective components. Considerable knowledge of the occupational hazards and safety precautions of

equipment repair work and shop operations. Skill in the use and care of tools, equipment, and materials used in the diagnosis, maintenance and repair of automotive, heavy construction and related equipment. Ability to read manuals and wiring schematics; exercise analytical judgment in detecting malfunctions in mechanical equipment; understand and follow oral and written instructions; assist other mechanics; perform the manual labor associated with mechanical repair work; and establish and maintain effective working relationships as necessitated by work assignments.

SPECIAL REQUIREMENTS

Must have and maintain a valid NC Class A CDL driver's license with HAZMAT endorsement with an acceptable driving record and a law enforcement background check. Possession of Automotive Service of Excellence (ASE) certification in brake systems and preventive maintenance inspections to be completed within one year of hire. Certified in CFC recovery to be completed within one year of hire. Requires drug screening test and receipt of negative results for the use of drugs specified by County policy. Must meet industrial physical examination for sight, hearing, cardiovascular, pulmonary, chest x-rays, blood pressure, blood sugar and lead levels, chemistry profiles such as cholesterol and liver functioning, etc., prior to employment. Must possess a master mechanics tool set.

ADA REQUIREMENTS

Employees are subject to hazards while working inside the shop, in confined spaces, while exposed to heavy machinery and during times working in an outside environment. Employees may be exposed to various hazards such as loud noises, and hazardous spills with fumes, oils, gases, or flammable liquids. Work may subject employee to compliance with final OSHA standards on bloodborne pathogens.

PHYSICAL REQUIREMENTS

Some duties require movement of heavy objects, sometimes within very confined spaces. Must be able to physically perform the basic life operational functions of standing, walking, hearing, kneeling, reaching, feeling, grasping, pushing, pulling, bending, climbing, crawling, fingering, and performing repetitive motions. This is medium to heavy work requiring the exertion of 100 pounds of force occasionally, up to 50 pounds of force frequently, and up to 20 pounds of force constantly to move objects. Vocal communication is required for expressing or exchanging ideas by means of the spoken word; hearing is required to perceive information at normal spoken word levels; visual acuity is required for depth perception, color perception, preparing and analyzing written or computer data, visual inspection involving small defects and/or small parts, use of measuring devices, assembly or fabrication of parts at or within arm's length, operation of machines, and operation of motor vehicles or equipment; the worker is subject to inside and outside environmental conditions, extreme cold, extreme heat, noise, hazards, atmospheric conditions, and oils, various chemicals used in normal shop operations; and use of safety equipment, goggles, shoes, etc. Must possess the visual acuity to perform repair work and to operate vehicles and equipment.

Heavy Equipment Master Mechanic
Page 2

July 2012