



INDEPENDENT

ROUGH TERRAIN CENTER

JOB TITLE: **DESIGN ENGINEER- PRODUCT DEVELOPMENT**

Department: Product Development
Reports to: Engineering Manager

FLSA: ☒ Exempt ☐ Non-Exempt

JOB SUMMARY:

The Design Engineer provides engineering technical support to the Product Development department. Is responsible for developing new products, as well as supporting and sustaining current products. Experience in rough terrain, off-highway, military, material handling, or construction equipment is preferred.

ESSENTIAL PERFORMANCE REQUIREMENTS:

- Responsible for engineering new and sustaining current product designs.
- Duties include but are not limited to machine design (3D modeling, drawings, etc.), data acquisition, product testing, assembly of prototypes, and technical production support.
- Prepares technical reports from test results, analyze data for design improvement.
- Flexible schedule to facilitate travel needs for field testing and supplier or customer assistance.
- Ability to adapt to change while ensuring the overall goal is met.
- Adheres to the established specifications and standards related to each project.
- Provide input on project schedules as required.

COMPETENCIES:

To perform the job successfully, an individual should demonstrate the following competencies:

- Design/Test Engineering – Generates creative solutions; translates concepts and information into images and/or products; uses feedback to modify designs; applies design principles; demonstrates attention to detail, correlates engineering principles and test data, translates test data into technical report.
- Adaptability – Adapts to change in the work environment; changes approach or method to best fit the situation; able to deal with change, delays or unexpected events.
- Quality - Demonstrates accuracy and thoroughness.
- Problem Solving – Identifies and resolves problems in a timely manner.
- Teamwork - Contributes to building a positive team spirit.
- Organizational Support - Follows policies and procedures.
- Safety and Security - Observes safety and security procedures.

QUALIFICATIONS:

To perform this job, an individual must be able to accomplish each essential requirement satisfactorily. The requirements listed below are representative of the training, experience, knowledge, and skill required for this job. Reasonable accommodation may be made to enable individuals with disabilities to perform the essential functions listed above.



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Education/Experience

A bachelor's degree in mechanical engineering is preferred, but we will consider candidates with equivalent knowledge through work experience. Some vehicle, industrial truck, and mobile equipment hydraulics experience, as well as design and testing of mobile equipment, preferably within the material handling industry. Experience in data acquisition recording, analysis, and reporting a plus.

Understanding of the technical concepts of engineering principles, codes and standards is required. Must have 3D CAD modeling and drafting skills. Experience using CATIA V5 and SmartTeam are preferred. Must demonstrate a strong work ethic, flexibility, multi-tasking ability and be a fast learner.

Knowledge and Skills

- Ability to read and interpret documents such as engineering drawings, safety rules, operating and maintenance instructions, and procedure manuals. Ability to write routine reports and correspondence. Ability to speak effectively before groups of customers, suppliers or employees of the organization.
- Ability to add, subtract, multiply, and divide in all units of measure, using whole numbers, common fractions, and decimals. Ability to compute rate, ratio, and percent and to draw and interpret bar graphs.
- Ability to apply common sense understanding to carry out instructions furnished in written, oral, or diagram form. Ability to deal with problems involving several concrete variables in standardized situations.
- Proven mechanical abilities, knowledge of various electrical and mechanical processes, assembly techniques, weld processes, and hand tool use.
- Experience with test equipment such as: load cells, transducers, strain gages, anemometers, calibration, etc. is preferred.
- Experience with finite element analysis, root cause analysis, accelerated component testing, and FMEA (DFMEA / PFMEA) is preferred.

WORK ENVIRONMENT:

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is regularly exposed to work near moving mechanical parts. The employee is occasionally exposed to fumes or airborne particles; toxic or caustic chemicals and risk of electrical shock. The noise level in the environment is usually moderate.

PHYSICAL DEMANDS:

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.



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The employee must regularly lift and /or move more than 25 pounds. Specific vision abilities required by this job include Close vision, Distance vision, Peripheral vision, Depth perception and Ability to adjust focus. While performing the duties of this job, the employee is regularly required to sit, stand, and walk; use hands to finger, handle, or feel; reach with hands and arms and talk or hear. The employee is occasionally required to climb or balance and stoop, kneel, crouch, or crawl.

The above job description is not intended to be an all-inclusive list of duties and standards of the position. Incumbents will follow any other instructions, and perform any other related duties, as assigned by their supervisor.