

## Sr. Designer

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**Department:** Engineering

**FLSA Status:** Exempt

**Grade/Level:**

**Job Type:** Regular

**Work Schedule:**

Weekdays Monday through Friday.

**Job Status:** Full Time

**Reports To:** Engineering Manager – Structural Systems

**Amount of Travel Required:** up to 10%

**Positions Supervised:** None

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### POSITION SUMMARY

Plan, develop and revise models and specifications for agricultural and construction heavy equipment products by using CAD software. Supports the build, test and evaluation of components and prototypes, ensuring that all design goals and requirements are met. Other responsibilities may include reproducing and archiving designs.

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### ESSENTIAL FUNCTIONS

#### Reasonable Accommodations Statement

To accomplish this job successfully, an individual must be able to perform, with or without reasonable accommodation, each essential function satisfactorily. Reasonable accommodations may be made to help enable qualified individuals with disabilities to perform the essential functions.

#### Essential Functions Statement(s)

- Uses top-down design principles to create and enforce best practices and procedures for CAD design.
- Assists in defining and determining feasibility of design concepts with project engineers, transferring ideas and concepts into workable units.
- Exercises creative thinking in design work, utilizing knowledge and different approaches and design practices and current manufacturing methods and procedures.
- Analyzes job assignments and determines needs in terms of time, design, cost and other resources required for the completion of assignments to meet project due dates.
- Makes necessary design calculations using established engineering practices to properly configure structural and functional components for function and durability.
- Aids in selection, recommendation and usage of materials and components to determine piece part specifications insuring proper fit of all components in project prototype/product.
- Produces individual piece part sketches, models and drawings for all parts required, ensuring that all design work meets pertinent industry standards, particularly safety and quality.
- Analyzes prototype, field, lab, manufacturing or quality reports recommending changes, redesign or replacement to solve problems, before production build cycle begins.
- Assists manufacturing and suppliers with development of patterns/tooling and related equipment needed for producing new products.
- Supports investigations, tests and layouts as required for any reported current production design problems to achieve desired improvements.
- Consistently seeks to improve design capabilities through study, reading, observation and evaluation.
- Communicates effectively with R & D and manufacturing staff during prototype and pilot builds, and continues to maintain a collaborative team relationship.

## POSITION QUALIFICATIONS

### Competency Statement(s)

- Active Listening - Ability to actively attend to, convey, and understand the comments and questions of others.
- Analytical Skills - Ability to use thinking and reasoning to solve a problem.
- Accountability - Ability to accept responsibility and account for his/her actions.
- Accuracy - Ability to perform work accurately and thoroughly.
- Communication, Oral - Ability to communicate effectively with others using the spoken word.
- Communication, Written - Ability to communicate in writing clearly and concisely.
- Deductive Reasoning - Ability to apply principles of logical or scientific thinking to a wide range of intellectual and practical problems.
- Detail Oriented - Ability to pay attention to the minute details of a project or task.
- Initiative - Ability to make decisions or take actions to solve a problem or reach a goal.
- Innovative - Ability to look beyond the standard solutions.
- Presentation Skills - Ability to effectively present information publicly.
- Reliability - The trait of being dependable and trustworthy.
- Goal Oriented - Ability to focus on a goal and obtain a pre-determined result.
- Judgment - The ability to formulate a sound decision using the available information.
- Organized - Possessing the trait of being organized or following a systematic method of performing a task.
- Technical Aptitude - Ability to comprehend complex technical topics and specialized information.
- Self-Motivated - Ability to be internally inspired to perform a task to the best of ones ability using his or her own drive or initiative.
- Problem Solving - Ability to find a solution for or to deal proactively with work-related problems.

### SKILLS & ABILITIES

- Education:** Associate's Degree (two year college or technical school) Required, Field of Study: Drafting, Design or Mechanical Engineering Technology  
Bachelor's Degree (four year college or technical school) Preferred, Field of Study: Mechanical, Industrial, Ag Engineering or related study
- Experience:** 5+ plus years of experience in Assembly/Machine Design  
Expert in GD&T. Top-down and bottom-up design principles a must.  
Agricultural and heavy equipment experience preferred in an equipment manufacturing organization.  
Experience preparing and maintaining detailed design drawings, specifications, BOMS, NX and Team Center a big plus. Other relevant experience considered.
- Computer Skills:** Microsoft Office Suite including Outlook, Word, Excel; 3D CAD modeling, PROE/Creo, NX, TeamCenter or other PDM experience required. 3D modeling experience of piping and harness, a plus.
- Certifications & Licenses:**
- Other Requirements:** Familiar with Industrial Engineering Standards, such as ASME, SAE, ASTM, etc. AS3D CAD experience required. Sheetmetal, piping and surfacing a plus.

**PHYSICAL DEMANDS**

- N (Not Applicable)** Activity is not applicable to this position.
- O (Occasionally)** Position requires this activity up to 33% of the time (0 - 2.5+ hrs/day)
- F (Frequently)** Position requires this activity from 33% - 66% of the time (2.5 - 5.5+ hrs/day)
- C (Constantly)** Position requires this activity more than 66% of the time (5.5+ hrs/day)

<b>Physical Demands</b>		<b>Lift/Carry</b>	
Stand	O	10 lbs or less	O
Walk	O	11-20 lbs	O
Sit	F	21-50 lbs	O
Manually Manipulate	O	51-100 lbs	N
Grasp	O	Over 100 lbs	N
Reach Outward	O		
Reach Above Shoulder	O	<b>Push/Pull</b>	
Speak	F	12 lbs or less	O
Climb	O	13-25 lbs	O
Crawl	N	26-40 lbs	N
Squat or Kneel	N	41-100 lbs	N
Bend	O		

**Other Physical Requirements**

**WORK ENVIRONMENT**

Office environment in a controlled atmosphere building.