

Title	Hydraulics Mechanical Engineer
Job Opportunity Code	GR-HYD005-18
Department	Hydraulics
Reporting to	Department Manager
Main Location	Elefsina, Greece
Form of Employment	Full time
Final Submission Date	18.01.2018, 17:00 GMT+2

Job Description and Purpose

The position requires creativity and alternative thinking to develop new ideas, answer to work-related problems and contribute to the successful design and development of all the Group's bespoke and novel equipment. The candidate will be responsible for installation, troubleshooting and repairing of high-pressure hydraulic and mechanical assemblies and systems. Work includes production, engineering setups, installations, testing and repair. Qualified candidates will possess strong troubleshooting, problem solving skills, strong hydraulic and mechanical skills, and experience using basic tools. They must have excellent knowledge of hydraulic & mechanical design.

Important Note

As part of your role, you will be handling sensitive information in terms of technology private information and thus you will be granted a higher user security clearance. Please be aware that because of these critical duties, you will be subject to system monitoring, and supervisory evaluation to ensure continuous adherence to security clearance processes and procedures. Higher security clearance users are subject to a zero tolerance policy for security violations.

Major Responsibilities

- Hydraulic Design
 - Hydraulic circuit design and layout using 2D AutoCAD;
 - Hydraulic circuit design of open and closed systems with extensive integration;
 - Sizing and selecting of OTS hydraulic, pumps, motors, valves, etc.;
 - Design and development of hydraulic pumps and motors;
 - Manifold design;
 - Seal sizing and selection;
 - Fluid selection and specifications;
 - General mechanical design knowledge;
 - Tolerance stack-up analysis;
 - 3D component modeling and design an asset;
- Systems Integration
 - Integration of hydraulic and electrical control systems into an integrated mechanical design;
- Installations/ assemblies and systems
 - Assembles and modifies sub-assemblies, final assemblies and systems;
 - Designs, develops and implements new systems;
 - Operates hand tools and small power tools and understands their use and function;
 - Understand open-channel and pressured conveyance system hydraulics;
 - Analyze design specifications, manuals, and other data to evaluate the feasibility, cost, and maintenance requirements of designs or applications;
 - Specify system components or direct modification of products to ensure conformance with engineering design and performance specifications;
 - Oversee installation, operation, maintenance, and repair to ensure that machines and equipment are installed and functioning according to specifications;
 - Design or review simple mechanical, hydraulic, pneumatic, ventilation and/or instrumentation systems using analytical and investigative methods and techniques to ensure systems meet required specifications;

- Guide and assist technicians in fabrication and installation of simple mechanical and related equipment and routine systems in order to ensure conformance of product and systems with engineering design and specifications;
- Participate in the improvements of machine operation, production process, standards and company procedures;
- Testing
 - Inspects and tests products to ensure proper operation per established test criteria;
 - Sets up and tests units to meet specified requirements;
 - Knowledge and ability to work hands-on in order to trouble-shoot and maintain current and future test and support equipment;
- Repairs
 - Performs required repairs to return unit to operational state;
 - Develop, apply and maintain resources used to support new and existing repair capabilities;
 - Ability to track and analyze repair history in order to have a positive impact on repair performance and minimize premature failures;
 - Conducts scheduled maintenance and housekeeping duties on machinery. Accomplish machine shop work, piping repairs, fuel oil/lubes loading/transfers, use hand, air and electrically powered tools, maintain repetitive motions when using a chain falls or operating valve knobs and wheels, and endure high ambient temperatures;
- Troubleshooting
 - Keeps supervisor apprised of all unresolved and/or potential problems that would negatively affect production schedules;
 - Troubleshoots hydraulics/ mechanics down to the component level to determine cause and remedy of any malfunction;
 - Troubleshoots mechanical problems to determine route cause of issue and recommend a corrective action;
 - Recognizes failures and set up problems, isolates problems and takes appropriate action to resolve those problems;
- Other
 - Act as a coordinator between the implementation team and the department manager;
 - Must be able to provide technical advice when required;
 - Possibility of traveling to employer sites (domestically and globally) as required to implement projects/repairs;

Position Requirements

Education & Training

(The extent or level of knowledge or training obtained by formal education or outside study that is necessary to achieve normal job performance and proficiency. Such knowledge is to be considered the minimum education required for performing the position responsibilities.)

- Advance training in Mechanical & Hydraulics theory such as one would receive at a university, technical trade schools etc. or even by multiple years of on the job training;
- Experience with Hydraulic & Mechanical system applications and implementation;
- Excellent knowledge of Hydraulic & Mechanical design (preferably Inventor and/or SolidWorks);
- Knowledge of Mechanical Design and CAD systems (AutoCAD): Pneumatics, Hydraulics and Control Circuits will be ideal;
- Knowledge of pressure vessel, fluid bearing, or centrifugal pump design and manufacture;
- Knowledge of fluid mechanics;
- Working knowledge of subsea equipment technology is very helpful;

- Must have a mechanical background;
- Clear and effective oral and written communication skills in English language;
- Additional working knowledge of foreign languages (e.g. Italian) are to be considered as extra skills;

Experience

(The minimum experience required to perform the job. This experience can be gained in previous employment in a similar job and/or on the job with the current employer. Experience in this factor is measured in time periods e.g. 3-6 months, 3-5 years, 10-15 years etc.)

- Minimum 6-7 years working experience in hydraulics, mechanical engineering. Other working experience is under consideration as well;
- Minimum 2 years working experience in maintenance;

Skills & Personal Qualities

(The minimum set of skills and personal qualities required to perform the job. Skills required are presenting the expertise or talent to do a job or task. Personal qualities describe the life skills need to be used to communicate and interact with other people, both individually and in groups. Both indicate the candidate's qualifications as they relate to the job and how they fit in the company culture.)

- Strong problem solving skills and ability to troubleshoot in a logical manner;
- Ability to exercise judgment within procedures and practices to determine appropriate action;
- Strong interpersonal and analytical skills operating with high level of responsibility and independency;
- Ability to quickly assimilate new information;
- Ability and willingness to learn new skills;
- Ability to perform multiple tasks and respond to emergency situations effectively;
- Flexibility in work habits and work schedule;
- Maintain good working relationships with other employees;

Decision Making & Problem Solving

(The mental skills and mental effort required to perform the job. The complexity of decisions and ingenuity required describes the variety and routine involved with assigned tasks and responsibilities, the frequency of problems and the extent to which the work requires analytical ability and exercise of judgement.)

- Tasks are considered complex and may be of several varieties;
- Judgement exercise within procedures and practices to determine appropriate action; (common sense)
- Analysis of data generally applied to the solution of specific problems;
- Problems may occur as a regular part of the job;
- Candidate works on assigned objectives and may work occasionally independently on special projects;
- Candidate must possess problem solving skills and ability to troubleshoot in a logical manner;

Supervisory & Management Responsibility

(Job responsibilities in regards to directing, controlling and coordinating the efforts of employees' e.g. supervisory, training, management and advisory responsibilities. Describes the responsibilities for advising management, providing functional advice and control for coordinating activities or groups. Indicates the number of direct and indirect reports and their position(s).)

- The candidate at times may need to guide a team to implement a project;

Independence of Action

(Describes the extent and closeness of supervision required and received, as well as the availability and involvement of the immediate supervisor. Consideration should be given to standard practices, instruction and procedures, as well as built in checks and reports that provide the employees with controls and restricts independence of action.)

- Occasional supervision required. Candidate would work along on routine work and checks with supervisor only when in doubt. Production generally precedes a check on the quality of work. Established methods and procedures are clearly established and general instructions provided;

Consequence of Error & Budget Responsibilities

(Describes the responsibility for loss to the organization due to any single error resulting from actions or decisions involving the work function. Includes financial and material responsibility, responsibility for accuracy, and the safety of other. Describes the responsibility for establishing a budget and final accountability for its control. In some cases, budget responsibility may be indirect or influential.)

- Errors usually discovered when work is either on progress or checked in succeeding operations;
- The effect is usually confined to a single department however, due to importance of the Department regarding project executions, errors may result to a significant loss of time and income to the Group;

Confidentiality

(Describes the integrity and discretion necessary to safeguard confidential data handled or obtained as a regular part of the job.)

- Frequent contact with confidential data or information where disclosure will have a potent adverse internal and/or external effect;

Contacts-Internal and External

(Describes the responsibility for meeting, dealing with and influencing others. Contacts may be internal and external. The nature, purpose, frequency and level of contacts should be described. The level of difficulty and importance of the contacts should be described.)

- Contacts of importance are a regular part of the responsibilities of the position;
- Tact and judgement are required when dealing with others;
- Excellent communication skills are required, both written & oral, when dealing with others;
- Clear and effective oral and written communication skills in English language;
- Ability to react well at all communication levels is important;
- Internal Contacts – Presenting information where tact and judgement is required to obtain approval of action, cooperation or secure a decision;
- External Contacts – Regular contact when dealing with outside contacts however, procedures and standards are established and are to be followed;

Standard Job Requirements

- All individuals are expected to be flexible in undertaking the duties and responsibilities attached to their job and may be asked to perform other duties which reasonably correspond to the general character of their job and their level of responsibility;
- All individuals are expected to maintain personal and professional development to meet the changing demands of the job and participate in appropriate learning and development activities;
- To recognize health and safety is a responsibility of every individual, to take reasonable care of self and others and to comply with Health, Safety and Environmental policies and procedures and compliance with all audits and inspections;

- To promote equality as part of the job and to treat everyone with fairness and dignity;
- All individuals are expected to carry out their duties and responsibilities by adhering to all compliance and auditing requirements for the conduct of ethical and transparent operations including the compliance to all Assodivers policies, guidelines and procedures;

Work Schedule

- The Hydraulics Mechanical Engineer has a schedule that flexes around the need but typically is based on a Monday-Friday, 08:00 to 16:00 availability;
- It is common for the Electronics Engineer/Programmer to work in a flexible basis to meet with deadlines;
- Periodic travelling and overseas stays may be required in the line of business duties;

Working Conditions

Physical Demands

(The nature of physical effort leading to physical fatigue)

Regular physical effort may be required such as walking, crouching, transporting equipment up to 20 kg and working in awkward positions with periods of accurate hand-eye coordination in repairing equipment.

Generally the job requires 20% sitting, 20% walking and 60% standing.

Environmental Conditions

(The nature of adverse environmental conditions affecting the person)

The Mechanical Engineer may have to manage a number of projects at one time and may be interrupted frequently to meet the needs and requests of other employees or the Department Manager. The Candidate may find the environment to be busy, noisy and will need serious organizational, time and stress management skills to complete the required tasks.

Sensory Demands

(The nature of demands on the person's senses)

The areas of work may be noisy and busy making it difficult for the person to concentrate. Regular sensory effort may be requested in testing and repairing delicate equipment, listening to staff describing symptoms of equipment problems.

Mental Demands

(Conditions that may lead to mental or emotional fatigue)

The Mechanical Engineer may have to deal with a moderate stressful environment as there are times were the colleagues/ department managers/ co-operators are acting under pressure and require immediate cooperation.

	Minimal	Moderate	Extreme
Physical Effort			x
Health Risk	x		
Sensory Required			x

Mental Stress		x	
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This job description is intended to convey information essential to understand the scope of the job and the general nature and level of work performed by job holders within this job. However, this job description is not intended to be an exhaustive list of qualifications, skills, efforts, duties and responsibilities or working conditions associated with the position. All the above are illustrative duties and the post holder will be expected to become involved in a range of work to enable the department to respond effectively to the requirements of the Company.