



Job Description

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Job Title

Mechanical and Rotating Machine Lead Engineer

Job Location

Dar es Salaam

Category

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Job Type

Full Time

Job level

Intermediate

Industry

-

Open to Expatriates

Only Open to Tanzanian Nationals

Minimum Requirements

Min Budget

-

Max Budget

-

Primary Industry

-

Secondary Industry

-

Primary Category

-

Secondary Category

-

Certificate

-

Qualification

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Summary

The Mechanical and Rotating Machinery Lead Engineer provides technical ownership and engineering leadership for rotating and static mechanical equipment from an Owner's perspective. The role safeguards equipment reliability, mechanical integrity, maintainability, safety and compliance throughout engineering, procurement, construction, installation, pre-commissioning, commissioning, operation, maintenance, repair and modification.

The position acts as the focal technical interface between the Owner, EPS/EPC contractors, OEMs, vendors, subcontractors, QA/QC, construction, commissioning, operations and maintenance teams for timely resolution of mechanical equipment and site engineering matters.

The role covers rotating machinery such as centrifugal and positive displacement pumps, compressors, electric motor-driven machinery, fans, blowers, mechanical seals, couplings, bearings, lubrication systems, auxiliary systems and packaged equipment. It also covers static equipment including pressure vessels, storage tanks, heat exchangers, columns, drums, filters, strainers, valves, marine loading arms and mechanical handling equipment

Responsibilities

ACTIVITIES

- Lead the mechanical and rotating equipment discipline and provide technical direction, priorities and assurance across the assigned project scope.
- Review mechanical engineering drawings, datasheets, specifications, calculations, procedures, vendor documents, technical reports and other deliverables through Aconex and applicable document-control systems.
- Confirm that engineering deliverables comply with project requirements, applicable codes and standards, OEM requirements and verified site conditions; follow comments through to satisfactory technical closure.
- Review and resolve site technical queries arising during construction, installation, testing, commissioning and maintenance, including third-party technical comments and design/site discrepancies.
- Perform field surveys, equipment inspections and site verification; develop practicable engineering solutions and technically sound alternatives where site constraints make the original solution impractical.

- Review Field Material Requests, material substitutions and technical compatibility with service conditions, specifications and design requirements.
- Initiate or provide technical input to NCRs; review corrective actions and technical dispositions and coordinate closure with engineering, construction, vendor and quality teams.
- Review subcontractor ITPs, method statements, repair procedures and installation procedures; identify required hold, witness, surveillance and verification points.
- Plan, coordinate, schedule and monitor critical mechanical activities and identify constraints that may affect H3SE, quality, schedule, equipment integrity or operability.
- Provide technical oversight during equipment receipt, preservation, installation, levelling, grouting, alignment, assembly, testing, reinstatement and commissioning.
- Coordinate OEM and specialist vendor intervention, technical clarifications, repair recommendations, modifications and performance improvement actions.
- Participate in FAT, SAT, functional tests and performance verification; record deficiencies, track punch points and advise on final mechanical acceptance and handover.
- Ensure current approved design documents and vendor requirements are used and that changes are controlled before implementation.
- Monitor assigned activities and issue clear technical status reports highlighting risks, constraints, pending decisions, material shortages and potential schedule impacts.
- Mentor engineers and local personnel, promote knowledge transfer and maintain effective multidisciplinary collaboration.

ROTATING MACHINERY RESPONSIBILITIES

- Monitor equipment performance, reliability, vibration, temperature, lubrication condition, mechanical seal performance and other critical operating parameters.
- Lead troubleshooting of abnormal vibration or noise, bearing and seal failures, alignment issues, lubrication problems, overheating and performance degradation.
- Review vibration analysis, lubricant and oil analysis, performance data and other condition-monitoring results to identify developing faults.
- Define overhaul scopes, inspection requirements, repair methodologies, dimensional checks and acceptance criteria.
- Provide technical oversight for shaft alignment, balancing, shaft runout, bearing clearances, mechanical seal installation, coupling installation and other critical tasks.
- Review inspection and overhaul findings and determine repair, refurbishment or replacement requirements.
- Assess OEM recommendations and incorporate technically appropriate measures into reliability strategies.
- Identify recurring failures and lead permanent corrective actions, including Root Cause Analysis, equipment modification, material improvement and component upgrades.

STATIC EQUIPMENT RESPONSIBILITIES

- Assure mechanical integrity, reliability and safe operation of static equipment throughout its service life.
- Review inspection findings and provide engineering support for leakage, flange and bolted-joint failures, gasket issues, tube failures, corrosion, cracking, deformation and other integrity concerns.
- Review repair procedures, inspection plans and maintenance scopes for vessels, exchangers, tanks, valves, marine loading arms and associated equipment.
- Determine technically appropriate solutions for defects and deficiencies and ensure repairs, replacements and modifications comply with design codes, project specifications and Company requirements.
- Support equipment reinstatement, testing, commissioning and acceptance following inspection, repair or modification.

CONTEXT AND ENVIRONMENT

The role operates within a complex, multi-contract oil and gas infrastructure environment covering pipeline, above-ground installations, pumping and pressure-reduction stations, terminal facilities, storage and export systems, utilities and packaged mechanical equipment. The position must manage interfaces across engineering, procurement, construction, quality, completion, commissioning, operations and maintenance while maintaining a strong focus on H3SE, technical integrity, schedule, cost and lifecycle performance. Work is performed in a multicultural, multi-location environment with frequent coordination among Company teams, EPS/EPC contractors, OEMs, vendors, third-party inspectors and regulatory or certifying bodies.

ACCOUNTABILITIES

- Be accountable for the technical integrity and fitness for service of assigned rotating and static mechanical equipment.
- Ensure mechanical engineering decisions are documented, risk-based, traceable and aligned with approved design, codes, standards and Company requirements.
- Ensure safe work practices are implemented and demonstrate exemplary behaviour regarding Project H3SE and Code of Conduct expectations.
- Ensure critical equipment preservation, installation, inspection, testing and commissioning activities are executed to approved procedures and acceptance criteria.
- Ensure technical NCRs, queries, punch items, vendor actions and engineering comments are progressed to satisfactory closure.
- Provide timely technical recommendations to the Engineering Manager and escalate unresolved risks or decisions that may affect safety, integrity, operability, cost or schedule.
- Coordinate effectively with other disciplines and ensure mechanical interfaces are identified, managed and closed.
- Contribute to reliable handover by ensuring completion records, test results, vendor documentation, redlines and as-built inputs are complete and traceable.
- Promote lifecycle value by balancing safety, reliability, maintainability, availability, CAPEX and OPEX considerations.

Education & Qualifications

- Bachelor's degree in Mechanical Engineering or an equivalent recognised engineering qualification.
- Strong knowledge of machinery installation, preservation, levelling, grouting, alignment, balancing, testing, troubleshooting, overhaul and acceptance.
- Working knowledge of relevant standards and recommended practices, including API 610, API 617, API 618, API 650, API 682, API 686, ASME B31.3, ASME PCC-1 and applicable pressure equipment and tank standards.

Requirements

- Typically 12 years or more of relevant oil and gas, petrochemical, pipeline, terminal or hydrocarbon-facility experience, including substantial responsibility for rotating machinery and mechanical equipment engineering.
- Demonstrated experience in a lead or senior mechanical engineering role supporting engineering, construction, commissioning, operations or maintenance.
- Proven experience with pumps, compressors, motors, fans, blowers, seals, bearings, lubrication systems, packaged equipment, pressure vessels, tanks, heat exchangers and valves.
- Proficiency in interpreting P&IDs, general arrangements, equipment layouts, vendor drawings, mechanical datasheets, specifications, calculations and maintenance documentation.
- Experience reviewing ITPs, method statements, repair procedures, NCR dispositions, FAT/SAT procedures and mechanical completion documentation.
- Experience with condition monitoring, vibration analysis, lubrication analysis, failure investigation and Root Cause Analysis is highly desirable.
- Competence with Aconex or equivalent EDMS and common business applications including Word, Excel, PowerPoint and Visio.
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Characteristics

- Advanced written and spoken English.
- Clear technical writing, reporting and presentation skills.
- Technical leadership and sound engineering judgement.
- Strong analytical, troubleshooting and problem-solving capability.
- Effective communication, negotiation, planning and organisational skills.
- Ability to manage multiple priorities, interfaces and time-critical decisions.
- High focus on H3SE, quality, reliability, maintainability and lifecycle value.
- Commitment to coaching, local content development and knowledge transfer.
- Autonomous, accountable, adaptable and comfortable working in a multicultural project environment.
- Ability to challenge contractor and OEM recommendations constructively while maintaining collaborative relationships

Reporting To

Engineering Manager

Driving Licence

Not Required

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