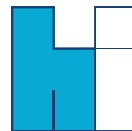




ELECTRO MECHANICAL INNOVATION IN

Oil & Gas



Houghton International
Electro mechanical innovation



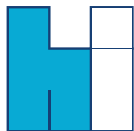
Houghton International

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Houghton International
Electro mechanical innovation

Oil & Gas

Houghton International improves the performance of electro mechanical assets around the world. We use our technical expertise to work with customers to solve their problems offering a high-quality monitoring, maintenance, repair and life extension service for motors, generators, pumps and all electrical rotating equipment.

With a focus on safety, equipment is fully repaired and tested in our IECEx certified facility ensuring optimum performance and reliability. Our qualified site service engineers monitor and maintain motors, generators and pumps in challenging offshore environments globally.

More than a standard overhaul, as standard...

With many years' experience in the repair, maintenance and life extension of electrical rotating machines, Houghton International works with customers in the oil and gas industry globally to improve performance, maximise output and maintain the long term reliability of key assets.

Our offshore certified, multi skilled engineers carry out mechanical and electrical work to a range of rotating equipment including motors, generators and pumps to increase reliability and extend the useful life of the machine.

Overseen and managed by our strong project management team, overhaul and repair work can be carried out in situ offshore or in our fully equipped IECEx approved workshop. Combined with our in house coil manufacture facilities and dynamic motor and pump testing capabilities we are ideally located to service the full spectrum of rotating machines operated in the oil and gas industry. Load testing is also offered on critical assets to ensure equipment has been thoroughly tested prior to being reinstalled and provide added assurance.

Our skilled engineers provide:

- In situ testing
- Fault diagnosis
- Emergency repairs
- In situ repair and overhaul
- Preventative maintenance and condition monitoring
- Motor storage and spares management
- Supply of specialist motors

Our range of site services includes removal and recommissioning, testing and fault finding as well as a range of condition monitoring services to identify any issues in advance and support maintenance plans reducing failures and cost associated with downtime and emergency repairs.

We operate a dedicated technical support/call out service offering access to skilled engineers 24/7 and an emergency repair service to minimise downtime and engineers can be on site within hours to diagnose a fault and plan repairs to ensure critical assets are back up and

KEY INFORMATION

- IECEx certified repair shop
- Multi-disciplined site services team
- Large machine repair capabilities
- Range of dynamic and load testing
- In house coil manufacturing
- Strategically located for quick mobilisation
- Approved for work in UK and Norwegian waters



running in the quickest possible timescale.

Additionally, we can also offer cost effective storage, monitoring and asset management solutions combining our many years of experience with the latest technology to improve maintenance schedules and identify and resolve common faults.

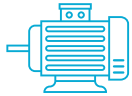
We are also members of First Point Assessment (FPAL), the leading oil and gas industry supply chain database giving our customer added confidence that we have the

skills, experience and capabilities in place to meet their requirements.

Get in touch to find out more about how work alongside maintenance engineering teams, providing the support and expertise required to maintain production.



Our services



Electric Motors

Our electric motor repair and motor rewind services cover a wide range of AC and DC electric motors, including random wound stators and armatures, and non-standard soft coil and preformed high voltage coils for a range of applications.

From standard to more specialist motors, we have experience in the repair, overhaul and life extension of industrial electric motors, including hazardous area equipment (Ex), both in our workshop and in situ, up to 50MW and 40 tonne.



Pumps

We have a team of experts in pump repair and maintenance to help extend the life of pumps and associated ancillaries for industrial use.

Our engineers excel on complex projects where obsolescence is an issue and can reverse engineer failing pump parts, restoring and often improving the performance of aged machines to increase efficiency and reduce running costs. All pumps are fully tested, providing performance analysis and pump curves as required for added assurance.



Generators

We offer mechanical and electrical repairs to a broad range of generators including induction generators, slip ring generators, synchronous – salient pole generators, steam or combustion turbines and generators for industrial application, up to 50MW or 100MW for turbo-alternators.

Our site services include, inspection, testing and fault diagnostics including air gap checks and partial discharge testing, equipment removal and generator installation and commissioning.



High Voltage Coils

Manufactured in house, we offer a range of resin rich and global VPI insulation systems for industrial, power generation and specialist applications. With absolute control over quality, we manufacture stator, armature, field and rotor coils for all types of motors and generators up to 15kV, in diamond and concentric designs.



24 Hour Emergency Repair

We operate a 24 hour call out 365 days of the year and offer an emergency repair service, with engineers working around the clock to restore functionality of critical motors.

We understand time is money for our customers and we work alongside them to solve their problems, efficiently and effectively in the shortest timescale possible.



Gearboxes

Utilising a comprehensive range of in house machining facilities, our mechanical fitters provide maintenance, repair and refurbishment services for gearboxes and associated equipment. From fault diagnostics to the removal, reconditioning and refitting of the complete power transmission system. We overhaul and upgrade all types of industrial gearboxes including bearing and seal replacement and the manufacture of new shafts and gears.



Electro Mechanical Site Services

Our engineers carry out on-site essential maintenance services including brush and bearing changes, motor replacement, mechanical and electrical installation work, laser alignment, dynamic balancing and condition monitoring to support our customers maintenance requirements.



Other Electrical and Mechanical Services

Making use of our fully equipped machine shop, 3D CAD and design capabilities, range of specialist equipment and highly skilled staff, we support industrial and manufacturing engineers by offering reverse engineering of obsolete parts, tool making, dynamic balancing, VPI and welding.



Working with Houghton International

We work collaboratively with customers in the oil and gas industry to improve performance and reliability by solving complex engineering problems and extending the life of electro mechanical assets in their facilities.

As specialists, we have invested in industry-leading technologies and patented solutions to eliminate failures, improve reliability, increase lifespans, and significantly reduce cost and frequency of unplanned maintenance activities.

Innovation drives our business and we are committed to continuous improvement both to internal processes and customer service. We aim to solve our customers problems and add value through innovation.

Quality Assurance

Houghton International operates in sectors where quality procedures and the safety of equipment are critical. As such, we have developed a rigorous quality policy with processes and procedures to ensure that everything we do is of the highest standard.

These policies and procedures are reviewed across all areas of our business on an on-going basis, which reflects our culture of continuous improvement. We continuously invest in our plants and machinery and the training of our staff to guarantee a high-quality process.

Contact us on +44 (0)191 234 3000 to find out more or visit www.houghton-international.com





"The work was carried out in a timely and professional manner."

Gillian Leith

Subcontracts Specialist, Wood plc.

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