



SPARROWS

# DRILLING SERVICES

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With close to 50 years' experience maintaining critical equipment in the oil and gas industry, we have the knowledge and expertise to give you assurance in the reliability, performance, and safety of your drilling equipment.

We deliver inspection, maintenance, repair, overhaul, and recertification on all classes of drilling rigs, drilling systems, and drilling equipment that ensures the integrity and performance of your equipment and drilling campaign.

We work across the globe, travelling to onsite locations and providing local support via the workshops that we have located in every region of the world. We also hold several API accreditations so you can be assured that your equipment is serviced to the highest standards.

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# DRILLING EQUIPMENT INSPECTION & SUPPORT

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Q2-0271  
Q2-0369

With operational hubs and workshops across the globe we provide local expertise and capability wherever your equipment is situated, allowing us to provide a quick and cost-effective service and an alternative option to the OEM.

In Singapore and Abu Dhabi, our facilities are certified to American Petroleum Institute (API) Specification Q2, assuring our high standards of quality and technical delivery.

Our skilled teams of service engineers and technicians have extensive experience in carrying out CAT III & CAT IV inspection, overhauls, troubleshooting and commissioning on all types of drilling equipment.

As well as support in our local service centres, our field service technicians can be mobilised to site to carry out inspection and repairs – reducing downtime and overall cost.

## Category III and Category IV Inspections on all aspects of drilling equipment delivered on:

- Mast and substructure
- Crown block
- Travelling block and hook
- Offline access cranes
- Swivel
- Top drive
- Iron roughneck
- Deadline anchor
- Drawworks
- Winches
- Pipe handler
- Catwalk
- Mud pumps
- Pressure vessels
- Trailer packages
- Rotary table.

# INSPECTIONS & OVERHAULS

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These can be conducted on the rig, at the clients' facilities or at one of the many Altrad Sparrows workshop facilities.

- Certification to support CAT III and IV inspections, issued under an API Q2 licence and referenced against the relevant API RP
- Provision of mechanical and electrical teams to support the Rig Acceptance Process, interfacing with the client and the drilling contractor to allow rigs to go "On Ticket" more promptly
- Maintenance teams to support rig crews to expedite punch lists as and when additional support is required
- Support for stacked assets storage and preservation for cold stacked, or running equipment for warm stacked

- Quality management system verified to industry standards (ISO9001, API Q1, API Q2 and API 7K.
- Projects delivered to OEM standards or above and in accordance with API recommended practices.

Service experience on the following assets:

- Drillships
- Jack ups
- Land rigs
- Semi submersibles
- Platform drilling packages.

# DRILLING RIG JACKING SYSTEMS, INSPECTION & MAINTENANCE

The evolving nature and the intermittent use of jacking systems means correct maintenance and inspection are critical to preserving asset integrity and safeguarding crews.

Our experienced team perform inspection, maintenance, overhaul, refurbishment and repairs on all types of jacking system, ensuring you have confidence in the reliability of your equipment.

## INSPECTION AND TESTING

We utilise a wide range of traditional and advanced examination and testing techniques carried out by qualified inspectors, and our rig activation services support you to achieve classification. We also provide services to "one-off" systems including reverse engineering of components where OEM support is no longer available.

Altrad Sparrows carry out inspections, maintenance and repair on a variety of jacking systems including:

- LeTourneau
- National NS400
- Baker Marine
- CFEM
- Gusto
- Thyssen Krupp
- Keppel OTD.

We undertake inspections of leg racks to determine the status of your rack teeth through profiling and detailed measurement. This enables us to identify any possible damage or deformation to prevent future major failures.

## REPAIR AND OVERHAUL

Our local expertise and capability allows us to deliver a quick and cost-effective service for jacking system repair, overhaul, commissioning, upgrade and recertification.

We work to all classification, certification and OEM requirements to ensure compliance. Services include:

- Visual inspection
- Annual inspection
- Five yearly SPS
- Boroscopic inspection
- Gearbox overhauling
- Repair and upgrade.

## BOROSCOPIC SURVEY

Preventing downtime by using state of the art equipment, we can:

- Carry out inspections of all gear types
- Identify any possible damage within an enclosed gearbox at an early stage
- Reduce time during inspections
- Reduce cost on larger projects.

Jacking system units.



Gearbox refurbishment.



New output shaft and bearing – LeTourneau.





# HYDRAULIC SERVICES

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## REPAIR SERVICES

Having built working relationships with major hydraulics OEMs, we can offer trouble shooting, testing and overhaul of the following components:

- Hydraulic pumps and motors
- Hydraulic valves
- Cylinders
- Accumulators
- Braden hydraulic and electrical winches
- Hydraulic and pneumatic spoolers
- Hydraulic power units.

## HYDRAULIC TEST BENCH

With our 260 CC rev, 300 bar hydraulic test bench, our technicians can test and certify your equipment back to OEM standards. The test bench capabilities allow us to set pressures, flows and control functions prior to completion and ensure proper field installation, giving you confidence that your components can operate in the most challenging conditions.

## HYDRAULIC CYLINDER REPAIR SHOP CAPACITY

We have a full cylinder repair and replacement capability in-house with cylinder tear-down and honing tables installed at our Abu Dhabi facility, allowing us to provide hydraulic services throughout the middle east. Our equipment capability includes:

- Strip, clean and inspect components
- Repair, re-chrome, re-seal and re-build
- Pressure test with DNV witness
- Re-assemble load-holding valves, isolation valves and pipework
- Flush and pressure test with load-holding valves
- Painting
- Crate and shipping
- On-site installation and commissioning.

## ENGINEERING DESIGN SERVICES

Our large engineering team is well equipped to advise on service offerings within fluid power services, as well as:

- Hydraulic system design, modification and upgrade
- Design and build of hydraulic power units
- Obsolescence reviews
- Preparation of engineering reports, calculations, drawings and technical manuals.

## HYDRAULIC SYSTEM MANAGEMENT

Altrad Sparrows offer a hydraulic system management service, ranging from ad-hoc visits through to fully managed service plans. Our service plans are tailored to the system and customer requirements including:

- Field labour support
- Fluid samples
- Hydraulic oil flushing and offline filtration at site
- Hydraulic system performance analysis and optimisation
- Fault-finding and troubleshooting
- Root cause analysis
- Examination of hydraulic components, flexible hose assemblies and pipework
- Replacement of flexible hose assemblies
- Testing of hydraulic components
- Replacement of hydraulic components
- Condition evaluation report.

## RENTAL SERVICES

We can supply an extensive range of rental equipment for specific projects and temporary solutions including:

- Diesel engine driven hydraulic oil flushing unit
- ATEX certified flushing units
- Laser particle analyser
- Offline filtration units
- Chart recorders
- Desiccant type air dryers
- Diesel engine driven centrifugal (flooding / filling) and high-pressure pumps
- Hydraulic power units.







# INSPECTION

## LOLER, NDT AND DROPS SURVEYS

Regular examinations by qualified inspectors are essential to ensure that you:

- Maximise safety and integrity
- Ensure the reliability of safety critical equipment
- Optimise maintenance intervals to improve efficiency and reduce costs
- Provide evidence of compliance to internationally recognised standards
- Detect potential defects and take remedial actions before the equipment becomes unsafe to use.

From one-man jobs to full scale periodic structural inspections, we ensure you have confidence in the reliability of your equipment.

## LOLER AND PUWER SURVEYS

As a specialist in the field of lifting equipment we provide our clients with thorough examinations, management and testing.

Both Lifting Operations and Lifting Equipment Regulations (LOLER) and Provision and Use of Work Equipment Regulations (PUWER) are ingrained in everything we do, and we work in compliance with SI2307, SI2306, SI2183 and SI2184.

Our scope of supply includes:

- Thorough examinations and testing
- Advice on how you can improve the use of your lifting equipment
- A streamlined method to manage certification packages
- Assistance with training of client personnel
- Audits and audit processes
- Written schemes of examination.

## DROPS SURVEYS

An effective Dropped Objects Prevention Scheme (DROPS) survey plays an important role in supporting the safety practices of any asset.

Altrad Sparrows is a long-standing member of DROPS and carries out a range of dropped object surveys. We can perform stand-alone DROPS surveys or as an addition to any other work scope already taking place. We can often rectify issues as they are identified, saving time and costs.

## NDT TECHNIQUES

Conventional and advanced Non Destructive Testing (NDT) techniques we utilise include:

- Close Visual Inspection (CVI)
- Magnetic Particle Inspection (MPI)
- Liquid Penetrant Inspection (LPI)
- Ultrasonic Testing (UT)
- Eddy Current Inspection (ECI)
- Alternating Current Field Measurement (ACFM)
- Phased Array Ultrasonic Testing (PAUT)
- Time of Flight Diffraction (ToFD)
- Electromagnetic (E-mag).

All NDT surveys can be carried out via rope access which is a cost-effective alternative to stripping down a full piece of equipment or erecting scaffolding.

In areas where the use of rope access or scaffolding is not an option, Unmanned Aerial Vehicle (UAV) drone inspections can reduce costs and timescales on a project.

# CRANE MANUFACTURING

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We design and manufacture API 2C 7th edition licensed box boom and lattice boom design cranes with a lifting capacity ranging from 1.8 to 200 Te.

Our crane designs have evolved from the original brands of American Aero, Titan Cranes and Energy Cranes, re-engineered to enhance performance and capacity.

Our cranes are all based on a variety of standard proven designs which we make bespoke to your requirements through the high level of customisation we can offer. The major benefits to clients using our cranes are:

- Reliability
- Ease of operation
- Straightforward maintenance
- High level of customisation
- Adaptability to different regional standards
- Ability to integrate advanced technology.

Our engineering teams provide rapid, efficient support for all our cranes and have the in-depth knowledge and expertise which only comes from years of experience in the field. Should any issues arise, our flying squads are on-call to solve them at very short notice, worldwide.

## OUR MANUFACTURING FACILITIES

Altrad Sparrows cranes are designed and built in-house at our manufacturing facility in Abu Dhabi, which is equipped to undertake welding fabrication, assembly and testing of all new cranes. Our test and storage facilities include crane test stands, a dedicated winch test stand, and an outdoor assembly area and storage yard.



## BOX BOOM RANGE

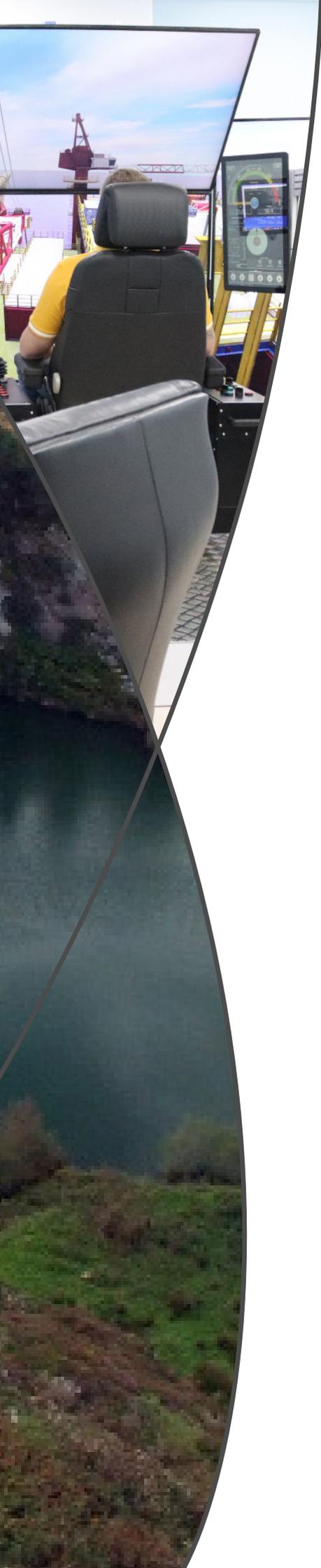
|                    |                                                                                                                                                                                                                            |
|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EC20 series</b> | <ul style="list-style-type: none"> <li>• Light duty / low maintenance for unmanned single caisson structures</li> <li>• Max on-board load 12.5 US tons / 10 tonnes</li> <li>• Boom lengths range from 20ft-40ft</li> </ul> |
| <b>EC35 series</b> | <ul style="list-style-type: none"> <li>• Light duty / low maintenance</li> <li>• Max on-board load 19.5 US tons / 17.7 tonnes</li> <li>• Boom lengths range from 30ft-50ft</li> </ul>                                      |
| <b>EC40 series</b> | <ul style="list-style-type: none"> <li>• Intermediate double taper box boom</li> <li>• Max on-board load 26 US tons / 23.6 tonnes</li> <li>• Boom lengths from 30ft-70ft</li> </ul>                                        |
| <b>EC50 series</b> | <ul style="list-style-type: none"> <li>• Medium duty double taper box boom</li> <li>• Max on-board load 47.5 US tons / 43 tonnes</li> <li>• Boom lengths from 40ft-80ft</li> </ul>                                         |
| <b>EC65 series</b> | <ul style="list-style-type: none"> <li>• High-end design for heavier loads or extended reach</li> <li>• Max on-board load 95 US tons / 86 tonnes</li> <li>• Boom lengths from 40ft-100ft</li> </ul>                        |
| <b>EC80 series</b> | <ul style="list-style-type: none"> <li>• Designed for heavier loads and vessel applications</li> <li>• Max on-board load 80 US tons / 72.5 tonnes</li> <li>• Boom lengths from 40ft-120ft</li> </ul>                       |

## LATTICE BOOM RANGE

|                      |                                                                                                                                                                                                                |
|----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>EC650 series</b>  | <ul style="list-style-type: none"> <li>• Simple lattice boom / main plus auxiliary hoist crane</li> <li>• Max on-board load 44 US tons / 40 tonnes</li> <li>• Boom lengths range from 60ft-120ft</li> </ul>    |
| <b>EC750 series</b>  | <ul style="list-style-type: none"> <li>• Mid range pedestal crane for routine service</li> <li>• Max on-board load 78 US tons / 71 tonnes</li> <li>• Boom lengths range from 60ft-140ft</li> </ul>             |
| <b>EC800 series</b>  | <ul style="list-style-type: none"> <li>• Designed for heavier loads and vessel applications</li> <li>• Max on-board load 90 US tons / 81.6 tonnes</li> <li>• Boom length from 80ft-120ft</li> </ul>            |
| <b>EC900 series</b>  | <ul style="list-style-type: none"> <li>• Designed to lift heavier loads or extended reach</li> <li>• Max on-board load 83 US tons / 75 tonnes</li> <li>• Boom lengths from 80ft-180ft</li> </ul>               |
| <b>EC1000 series</b> | <ul style="list-style-type: none"> <li>• Designed for harsh dynamic conditions</li> <li>• Max on-board load 160 US tons / 145 tonnes</li> <li>• Boom length 80ft-200ft</li> </ul>                              |
| <b>EC1100 series</b> | <ul style="list-style-type: none"> <li>• Designed to for heavier loads / deepwater operations</li> <li>• Max on-board load 220 US tons / 199 tonnes</li> <li>• Boom lengths from 100-200ft</li> </ul>          |
| <b>EC1200 series</b> | <ul style="list-style-type: none"> <li>• Built to withstand extreme load / harsh operating conditions</li> <li>• Max on-board load 312 US tons / 283 tonnes</li> <li>• Boom lengths from 80ft-220ft</li> </ul> |







# TRAINING

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When people are trained, assessed and certified by us you can be assured of their competence to carry out their role to the Altrad Sparrows exacting and industry leading standard.

All our trainers are staff members who have been selected for their technical expertise and industry experience.

Our centre of excellence in Aberdeen is the only one of its kind anywhere in the world. A Liebherr BOS 2600 pedestal crane, mounted over a flooded quarry, delivers a unique development opportunity for crane operators to practice and build their skills in the offloading and backloading of supply vessels.

We have invested in two state-of-the-art crane simulators that provide maximum impact for testing a crane operator's reaction to emergency situations. The simulators enable us to conduct stage 3 re-assessments, adding client value as there is no logistical impact and cost for offshore travel.

## **ALTRAD SPARROWS OFFSHORE CRANE OPERATOR STANDARD**

Our crane operator standard is recognised as the oil and gas industry's international 'de facto' standard. This dominant position is a product of over 45 years' experience as the offshore leaders in lifting operations.

We now offer stage 1 and 2 combined training which aims to provide candidates with the critical knowledge and control skills required for safe crane operations at a stage 2 standard. Candidates may have little or no previous operating experience but must have a base understanding of lifting operations and safe lifting practices for offshore crane operations.

## **GLOBAL PRESENCE**

With training also available at our other specialist centres in Singapore, Angola, the USA, and Abu Dhabi, we deliver rigging, lifting, banksman, and crane operator courses to ensure competency in the workforce.

Our Abu Dhabi facility includes an offshore crane simulator, rigging frame, overhead crane, rigging loft and crane components to allow candidates to have hands-on practice and build their skills in a safe environment.

## **BESPOKE / ON-LOCATION**

We recognise that standard training courses don't always meet our client's specific requirements and that is why we regularly design bespoke courses that deliver tailored content.

We don't just offer courses at our training centres, we often deliver at client locations, anywhere in the world, both onshore and offshore.



# PARTNERSHIP AGREEMENTS

Having close relationships with our customers, we understand the difficulties that can arise when there is limited after-market support from your vendor.

With our global supply chain and worldwide network of facilities, we have the capability to support multiple equipment types from cranes, hoists, and winches, to catwalks, roughnecks, and load cells.

We have established partnerships with major manufacturers in the industry and can provide after-market support at our facilities as dedicated OEM approved service centres.

Key partners include:

- **JD Neuhaus:**  
[www.jdngroup.com](http://www.jdngroup.com)
- **ETS:** [www.ets-spa.com](http://www.ets-spa.com)
- **Braden Winches:**  
[www.pacarwinch.com/braden](http://www.pacarwinch.com/braden)
- **MIPEG:**  
[www.aanderaa.com/mipeg-crane-monitoring-system](http://www.aanderaa.com/mipeg-crane-monitoring-system)
- **Red Rooster:**  
[www.redroosterlifting.com](http://www.redroosterlifting.com)
- **William Hackett:**  
[www.williamhackett.co.uk](http://www.williamhackett.co.uk)
- **Bosch Rexroth:**  
[www.boschrexroth.com](http://www.boschrexroth.com)
- **Dana Brevini:**  
[www.brevinipowertransmission.com](http://www.brevinipowertransmission.com).

The benefits of our service agreements are:

- Competitive pricing on spare parts
- Direct access to OEM for technical support, either virtually or on location
- Reduced lead times
- OEM certification provided to lifecycle inspections
- Availability of regional technical support.

JD Neuhaus UH125 monorail hoist before and after refurbishment.





# AN ALTRAD COMPANY

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Altrad Sparrows is part of the Altrad Group, with a global network of technical and engineering expertise which can be deployed anywhere around the world.



Altrad Sparrows facilities.



The Altrad Group has 200 active subsidiaries spread over 59 countries.

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## DELIVERY ASSURED

For more information please visit [www.altradsparrows.com](http://www.altradsparrows.com)



SPARROWS