



We constantly seek to engineer our performance through a culture built on meticulous excellence, precision efficiency and inspired integration, where time-served expertise is honored and a passion for people nurtured. To ensure that we continue be the most regarded, sought after and respected provider of dynamic integrated Rig Inspection anywhere in the world.





#### engineered performance

OVER 30 YEARS EXPERIENCE

OVER 115 NATIONS VISITED

OVER 15,000 RIGS INSPECTED Our mission statement perfectly conveys the core values of the company, namely to deliver an integrated service, flexible in approach and collaborative in application, engineered to the most exacting standards, providing all major Oil and Gas operators and contractors, both onshore and offshore, with the highest standard of cost effective solutions available anywhere in the world.

ADC is an independent family owned business, and as such you can rely on our integrity and objectivity. You can also take confidence in that we recognise that our greatest asset is our 60+ hand picked team of specialist engineers. It is because of them that we constantly invest in the latest training to ensure our personnel are fully compliant and competent in all rig-related technological and legislative advances.

Being so comprehensively equipped, our specialist divisional teams are able to identify the full range of problems, be they digital, mechanical, electrical or hydraulic which may occur onboard a drilling rig. However, unlike our competitors, we also seek to work in partnership with the drilling contractor to provide support in their identification of appropriate solutions, enabling us to be just as active with regard to the solution as we were with the problem.

Another unique aspect of ADC, which is central to our operations at home or in the field is integration and the benefits integrated thinking can produce. Unlike other inspection providers where specialist departments work autonomously, we have invested extensively to create not only a physical working environment, but a company wide culture where all our professionals and specialist divisions integrate and interact on a daily basis.

To further support that integration, we have recently made a substantial investment in state-of-the-art video-conferencing facilities.

This makes it much simpler to assemble the entire project team regardless of their current location to focus jointly on any project issues. Additionally it saves travel cost and time, with the attendant environmental benefits.

Lastly, after over 30 years of trading experience, we are as determined as ever to be the most innovative and forward thinking rig inspection consultancy anywhere in the world, developing new operational solutions such as our **ALL40NE** divisional initiative as well as spearheading unique technological advances for rapid reporting with our TRAMSWEB service. All which enables us to stay ahead of the ever changing needs of the Oil and Gas industry and the ever evolving drilling rig environment.





#### ADC's unique concept in Integrated Rig Inspection.

4 highly regarded specialist inspection divisions, working as experts in their own field, collectively combine through innovative collaboration, integrated management and reporting systems to supply ALL your inspection needs in ONE single comprehensive inspection service.

#### BENEFITS INCLUDE:

#### **Accelerated reporting**

presented in a single understandable format.

#### Intelligence sharing

accessible to all divisional teams to produce greater in-depth analysis.

#### **TRAMS3** live feed

to provide Clients with real time progress updates of the inspection.

## Reduced inspection periods

resulting in decreased downtime and lower overall costs

It all adds up to the most intelligent and integrated rig inspection service available anywhere in the world, designed to meet the ever changing demands of today's Oil & Gas industry.

# SUPPORTED BY TRAMS3 RAPID REPORTING SYSTEM

**THE MAJOR CONCERN** within the rig community is downtime, its length, and how it's managed. Excessive downtime brings economic concerns, whilst restricted downtime impacts on HSE. What is abundantly obvious is that all activities undertaken during the downtime window need to be **efficient** and **effective**, so as to achieve maximum results within the smallest time frame. It is because of this key requirement, that all ADC Rig Inspections utilise the **unique TRAMS3 rapid reporting** system as the vehicle by which all inspections are conducted and completed.

#### TRAMS3 DELIVERS:

- A global standard for rig inspection reporting; reporting based on classic audit procedure in accordance with ISO 19011.
- A streamlined reporting environment with transparency and traceability at its core.
- Online access evaluation, enabling continuous monitoring to check the progress of the inspection.
- A service where every client report for every rig is available to every member of TRAMS3, so that inspection duplication is dramatically reduced saving valuable time and money.



### BE VIRTUALLY PRESENT 24|7

**TRAMSWEB** is a dynamic, daily updated, online reporting environment provided as part of the TRAMS3 rapid reporting system. **TRAMSWEB** enables clients to view the full scope of their audit and what elements have been completed, as well as accessing the growing bank of inspection data including minor, major and critical non-conformances listings supported by HD photos and GoPro video.

To view a video explaining how **TRAMSWEB** works, you can either scan this page with your LAYAR app (*using the download instructions opposite*) or alternatively visit:

www.adc-tramsweb.com



TRAMS3



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OUR VIDEO





## RIG INSPECTIONS DIVISION

After thirty years inspecting rigs worldwide you can imagine we've gained quite a reputation; the words consistently used by our clients to underpin this reputation are professionalism, experience, attention to detail, integration, contribution and quality of reporting.

We are proud of our independent status and approach to audit and inspection, which helps us work as part of a team with Operators and Drilling Contractors alike. In practice, we apply sound engineering judgement and common sense when assessing the potential risks and the resultant actions required, while at all times adhering to industry and legislative standards.

Our inspection experience not only spans the full gamut of operating rigs, from compound (mechanical) drive land drilling rigs to Generation 7 and DP3 drill ships, but also enables us to deliver inspections of the highest standard, by firstly insisting on understanding our clients operational requirements and then applying five basic but pretty powerful questions, which form the foundation of every rig audit we undertake:

#### THESE ARE:

- **FUNCTIONALITY**
- **AVAILABILITY**
- RELIABILITY
- **SERVICEABILITY**
- **INTERDEPENDENCY**

Our inspections aim to contribute to getting the drilling rig prepared for drilling operations; we understand

that to do that we must fit in with the onshore and offshore teams and provide direct and prompt feedback to enable early repair and rectification of any non-conformances identified.

Recognising the importance for reporting to be delivered as quickly as possible, has led us to develop a revolutionary software rapid reporting tool TRAMS3. Unique to ADC and used on every one of our inspections, TRAMS3 not only accelerates reporting, it also allows all key stakeholders, via TRAMSWEB, to be 'virtually present' on a daily basis to the progress of the inspection. Built with transparency and traceability at its core, requirements and responsibilities are clearly identified enabling significant time, cost and safety benefits to be realised when rectifying non-conformances.

**TRAMS3** combined with ADC's experienced inspection specialists, enables us to be arguably the only company that can deliver detailed and comprehensive rig auditing within the shortest possible timescale anywhere in the world.

## ADC Rig Inspections cover all aspects of a rigs life

### OPERATIONAL ASSURANCE & WITNESS ACCEPTANCE TESTING:

Whether the rig is new construction or undergone overhaul our operational assurance and witness acceptance testing aims to assure that the drilling rig and its equipment is proven 'fit for purpose'.

ADC operational assurance and witness acceptance testing usually culminates in the conductance of the systems integration test (SIT) of the rigs equipment and systems. However, ADC can be fully involved much earlier at the construction phase of the rig equipment, providing

services ranging from monitor and expedition on build and delivery through to witnessing FAT (Factory Acceptance Testing) of the individual equipment components. This involvement at the construction phase results in the development of familiarity and understanding on the functional design and operable capacities of the equipment – this knowledge can then be applied during operational assurance and witness of acceptance testing of the full rig.

#### PRE-CHARTER:

The aim of the pre-charter inspection is to provide a comprehensive assessment of the rig operability status, equipment condition and compliance to Operator requirements. This is achieved by a combination of focused inspections conducted on past rig operational and safety performance, rig-based systems (HSE management, maintenance and certification) and physical inspection of rig equipment.

#### IN SERVICE:

Working proactively with the contractor, inspections monitor and measure in-service performance against agreed client criteria, with analysis of all safety critical elements (SCE's) adhering to the FARSI performance model of: Functionality, Availability, Reliability, Serviceability and Interdependency.

We pride ourselves on our extensive engineering knowledge of over 30 years, and our ability to deliver a 60+ strong team of engineering professionals available on a 'call out basis anywhere in the world. Working alongside your own rig management team, we will define and tailor the precise scope of service that fits your specific needs.

That's why we provide our rig inspection services on a modular basis. That way we can agree the exact requirement with you and match the precise resources you require to meet your needs.





## CYBER RIG SOFTWARE CONTROL SYSTEM INSPECTIONS DIVISION

In recent years the industry has seen the rapid development of upstream technology to enable drilling to go deeper, more intelligently and with greater efficiency. The drilling operation now enjoys high levels of automation with integrated control systems being responsible for the safety, reliability and performance monitoring of everything from drilling and BOP control to dynamic positioning and power management.

With these advanced systems come advantages but also emerging challenges. Due to the increasingly complex nature of new generation rig control systems, the need for effective and reliable auditing, verification of performance and safety compliance is essential.

Utilising highly qualified and experienced Control System engineers supplemented by training from ADC's Virtual Academy and Original Equipment Manufacturers, ADC's Control System division are recognised as specialists in inspecting and auditing drilling and marine related control systems and software covering all systems from modern land rigs through to 7th Generation Ultra Deepwater Drillships.

With years of experience in the field, ADC's Control Systems Inspection Division has proven to be of major advantage to clients, credited with identifying and resolving a broad range of issues prior to acceptance of new build and in service rigs and identifying major potential sources of downtime across a broad spectrum of rig types and systems.

Whether evaluating a new build rig or retrofitting advanced systems into an older rig, ADC's unique synergy of

drilling experience and control system expertise is here to ensure maximum efficiency and safety whilst significantly reducing costly downtime.

#### **SERVICES PROVIDED:**

#### SOFTWARE:

- Vendor software process assessment.
- Factory Acceptance Testing of software.
- ◆ Software Management Processes.
- Software Management of Change.
- Software Security.

#### CONTROL SYSTEMS INSPECTED:

- Drilling Control.
- ◆ BOP Control.
- Fire and Gas.
- Motion Compensation.
- Vessel Management.
- Bulk Systems
- Bilge and Ballast.
- Dynamic Positioning.
- Power Management.
- Remotely Operated Vehicles.
- Jacking Systems.

#### RISK ANALYSIS:

Cranes.

- FMEA review, witness and gap analysis.
- Identification of single point failures and human barriers.
- Tubular Handling Surveys: Conducted in conjunction with HSE Department to evaluate the Tubular Handling, people, processes and equipment from supply boat to well centre. These typically inspect, rig equipment condition, control systems, operational procedures, equipment maintenance, Crew Competence and Management Systems.

#### ACCEPTANCE TESTING:

- Acceptance test plans for control system equipment.
- Systems Integration Testing -Involving all rig equipment operated in operational scenarios to demonstrate capability.

#### **OPERATIONS:**

- Evaluation of control systems operational processes and procedures.
- Evaluation of anti-collision systems for safe and optimal performance.
- Development of control system training manuals and checklists.
- Operational support for new, innovative or poorly documented control systems.
- Support of jack up rig moving operations by provision of jacking systems expertise.

#### MANAGEMENT:

Policies and procedures relating to

- advanced control systems.
- Management of Change.
- Management of System Overrides.
- Management of Alarms.
- Management of non-standard operating modes.

#### MAINTENANCE:

- Alarm Analysis Alarm records are evaluated in order to provide information on the health of both the equipment under control and the control system.
- Review of Maintenance procedures and records relating to control systems.

#### INCIDENT INVESTIGATION:

 Utilizing detailed system knowledge, ADC can assist in incident investigation by conducting a system evaluation and utilize combinations of alarm records, I/O logs and replay facilities to provide an electronic picture of events.

#### **REGULATIONS:**

Rigs evaluated for compliance with:

∴ API ∴ ISO ∴ IEC∴ ABS ∴ DNV andNORSOK Regulations

## EQUIPMENT MANUFACTURERS:

As a sample, ADC has proven experience with the control systems and automation systems of the following rig equipment manufacturers:

- NOV, CYBERBASE, AMPHION
- A CAMERON, TTS, X-COM
- ♣ MH WIRTH, DRILLVIEW
- BENTEC, INFODRILL
- 🚣 JELEC
- HONG HUA
- KONGSBERG
- # EMERSON
- **EXCEL MARCO**
- ♣ LEIBHERR
- # BLM
- 🚹 KENZ
- # ZPMC
- **SIEMENS**





## BOP, WELL CONTROL AND ROVINSPECTION DIVISIONS

BOP and WELL CONTROL equipment manage the high-risk part of the oil and gas extraction process, and undoubtedly represent the most safety critical components on any rig. It therefore goes without saying that the need for meticulous inspection and detailed reporting regimes for these sophisticated integrated and interdependent systems is essential.

Inspecting both surface BOP equipment and subsea BOP's, ADC's specialist BOP & Well Control Inspection
Division brings to bear over 30 years of subsea expertise with specialist inspection teams being fully conversant with the complete range of equipment from traditional manual controls through to Multi-plex electronic systems, ensuring all equipment complies to current regulatory requirements and best practices.

Using API S53 as our benchmark, our core priority is the identification and pragmatic management of RISK. This is achieved through deploying multidisciplinary teams of professionals who combine a 'new hands' technological expertise with an 'old hands' understanding of the acceptable operational parameters of systems and equipment. Through the employment of our unique rapid reporting tool **TRAMS3** we are able to provide essential risk assessment information including the levels of risk identified. Essential information, provided in many cases when the inspection team is still aboard, enabling all relevant stakeholders to respond as rapidly as possible, ensuring costly downtime is kept to a minimum.

Our specialist teams inspect the mechanical, hydraulic, pneumatic, electrical, and control system components of all Well Control Equipment (WCE) including diverter,

riser, choke manifold, and MUX BOP systems. Our inspections encompass all risk assessment and surveillance activities in the equipment lifecycle, including CONOPS, HAZOP/HAZID, FMECA, FAT, Commissioning, Acceptance, Startup Support, and Troubleshooting & Remediation, and regulatory compliance.

Lastly, we strongly believe that rig documentation should be treated with the same importance as the onboard equipment, and as such it is therefore essential to involve and work with the rig contractor during the inspection process. In reviewing existing maintenance records and inspection reports our specialist engineers can advise on shortcomings and help support and encourage best practice, and in so doing provide the most comprehensive BOP and Well Control Inspection Service available anywhere in the world

## REMOTELY OPERATED VEHICLES:

Over the last decade the drive to discover and exploit new reserves of oil has taken drilling into deeper and deeper waters bringing with it a whole new set of operational demands and dangers. Responding to this the industry has invested heavily in the development and widespread utilisation of Remotely Operated Vehicles (ROV's), to replace human activity when the safety risk is judged too great. Thanks to recent advances in technology and design, today's ROV's are highly complex and capable pieces of equipment and have become a crucial asset for the deep sea drilling environment.

Recognising the essential role played by these critical machines, and the need for them to comply to the requirements of APIS53,

ADC has assembled a specialist ROV AUDIT TEAM that benefit from not only decades of inspection experience of BOP and well control equipment, but also draw upon specialist expertise gained from working on, and maintaining complex integrated control systems within the aviation industry.

ADC's new ROV team conduct audits to ensure compliance to API, NORSOK and ISO standards as well as UK HSE regulations such as LOLER and PUWER where applicable. ADC audits also take into consideration and utilise the approved codes of practice as detailed by IMCA.

Typically an acceptance audit of a rig based ROV system includes the following inspection aspects:

- 1. SURVEY, INSPECTION AND FUNCTION TESTING OF EQUIPMENT 2. CONDITION AND FITNESS FOR PURPOSE INSPECTION OF THE FOLLOWING:
- a) Remote Operated Vehicle (including vehicle, power systems, manipulators, cameras, lights, instrumentation and auto functions)
- b) Tether Management System, Launch and Recovery System and Umbilical cable
- c) Control Cabin and control and telemetry systems
- d) Maintenance facilities and spares

#### 3. SURVEY FOR BOP CAPABILITY AND COMPLIANCE WITH API S53 REQUIREMENTS

Through ADC's ROV Audit Team's comprehensive auditing and verification of performance and compliance, rig operators can be confident that their onboard ROV's will not only deliver optimum performance but will help significantly to reduce the incidence of unexpected faults with resultant savings in costly downtime.





## HSE & DROPPED OBJECTS INSPECTION SERVICES DIVISION

Whilst recognising the importance that the equipment onsite is 'fit for purpose' and performs as

**expected**, we should never forget that the equipment is only as good as it's operator, and that effective HSE is all about competent engaged people.

Maximising operational efficiency and minimizing downtime requires a trained and competent workforce. Legislators and international operators increasingly demand assurance that the people themselves are indeed fit for purpose and that the crews and teams are well balanced and mentored

## TUBULAR HANDLING ASSESSMENTS:

Whilst automation across the drill-floor and in particular tubular handling equipment has many advantages it can and does introduce new hazards.

ADC's Tubular Handling
Assessments are particularly
effective in ensuring the risk of
collision and resultant dynamic
dropped objects are reduced to
ALARP and that all aspects of these
operations are fully considered from
supply boat to rig to well bore.

ADC Tubular Handling Assessments are meeting legislator and industry leaders demands and expectations.

#### **DROPPED OBJECTS SURVEYS:**

ADC are considered to be pioneers in the field of DROPS and are at the forefront in providing services which have been proven to eliminate DROPS, whether static or dynamic.

ADC's scope exceeds standard DROPS surveys by ensuring that work areas and equipment are 'fit for purpose' and that management policies and standards are in line with best practices and legislative requirements.

By deploying time served **oilfield engineers** to conduct these surveys, all aspects of the major drilling and lifting equipment, control systems and associated PM records are also examined and considered.

ADC DROPS Surveys seek to examine the new generation of integrated control systems and related software in order to confirm that systems are fully enabled and that reset procedures and control level authorities are appropriate.

ADC are able to develop bespoke Dropped Object Management Systems for clients and provide comprehensive online training designed to stimulate greater levels of competency and understanding of rig safety.

#### TRAINING & COMPETENCE:

ADC's Training and Competency assessments analyse the suitability and effectiveness of the policies, procedures and systems, to assure clients that supervisory positions on the unit relevant to forthcoming operations are in place, and that crew experience levels are (and remain) appropriate to the specific rig and equipment.

#### SAFETY PHILOSOPHY:

Effective HSE Performance or 'Safety' is achieved by trained and competent personnel operating within effective Management Systems. The HSE related services we offer our clients determine whether the management systems in place are suitable and effective.

'Safety' can be an absolute science

or it can be achieved by getting the basics right on a day to day basis every day. At ADC we believe that 'Safety' can be as simple as thinking about what we do before we do it, looking after one another as we do it and then capturing lessons with the value of hindsight.

## SAFETY & ENVIRONMENTAL MANAGEMENT SYSTEMS:

ADC are regularly requested to audit a rigs Safety and Environmental Management Systems, however to do so in their entirety would require what often proves to be, an unacceptable level of time and manpower. Most, SEMS audit requests are primarily concerned with specific areas, and it's because of this that we have developed bespoke Safety and Environmental Assessment tools, which analyse key aspects of the applicable systems to assure clients that they are suitable and effective.

#### **SAFETY CASES:**

'SEMS' are described and structured within any rig Safety or HSE case. Through involvement with various industry bodies (including the IADC, OGP and ISM) ADC can assure compliance with HSE Case Guidelines globally.







## ADC VIRTUAL ACADEMY ONLINE TRAINING DIVISION



ADC VIRTUAL ACADEMY is a unique e-learning environment designed to equip a new generation of oilfield professionals with a foundational understanding of the variety of systems and operations found onboard a modern drilling rig.

With over 80 units and 19 course modules available (with more on the way), the Academy is accessible anywhere in the world 24/7, enabling students to enjoy not only the freedom to schedule training to suit their lifestyles, but also determine the pace of learning which best suits their ability.

Written by seasoned oilfield professionals and administered by a dedicated development team, one of the Academy's key objectives is to create learning which feels industry authentic, as if the rig's OIM was alongside imparting his first hand knowledge and years of experience, in an easy to understand language and style.

It's that very understanding, and its resultant effect on competence that has driven the Academy's learning construct. Every course within the syllabus employs a unique yet simple 'pass to proceed' structure designed specifically to develop real-time understanding. Results have proven that when understanding is established, competence levels increase significantly.

With an impressive range of dynamic manufacturer animations along with an extensive library of past and present industry images, Virtual Academy's engaging and effective learning experience is now acknowledged as the first choice for Oil and Gas online training worldwide.

## Specific benefits delivered by Virtual Academy:

- A better understanding of the entire drilling operation.
- A better understanding of the diverse parameters within which drilling equipment can operate.
- Better communication between drilling contractors and operators through a fuller understanding of the equipment.
- Greater ability to recognise good and bad practice across the rig operation.
- Increased safety and environmental awareness of drilling operations.
- Global access 24/7.
- Dynamic learning accessible everywhere there's a Broadband connection.
- Learning designed to fit with busy schedules.
- Pass to proceed structure enables learning to progress at a pace compatible to the learner's ability.
- Traceability of learning progress through a bespoke learning management system.

#### **COURSES AVAILABLE:**

## IWCF DRILLING WELL CONTROL LEVEL 2 COURSE

An interactive e-learning training course explaining the fundamentals of well control involving equipment calculations, filling out kick sheets and managing a kill operation – ultimately to prevent a kick or blow-out.

Course - IWCF accreditted.

## UNDERSTANDING RIG INSPECTION PROGRAMME

A comprehensive e-learning training programme leading to an internationally recognised qualification in Rig Inspection. The programme is specifically designed, through multiple courses, to equip candidates with a comprehensive appreciation of the importance of inspections, their scope, the industry standards that apply, and the resulting benefits to asset output and safety.

## UNDERSTANDING DRILLING EQUIPMENT COURSE

A complete e-learning training course explaining the function, operation and key safety and maintenance indicators of both offshore and onshore oil and gas drilling equipment.

Course - IADC DIT accreditted.

## UNDERSTANDING WELL CONTROL COURSE

An e-learning training course explaining the fundamentals of well control involving calculations, filling out kick sheets and managing a kill operation to prevent a kick or blowout.

Ideally suited as pre-course work material for anyone studying for a Drillers Well Control certificate.

### UNDERSTANDING DROPPED OBJECTS COURSE

A wide ranging e-learning training course focusing on successfully managing dropped objects.
Candidates gain an understanding of DROPS and their consequences, how to assess the risks and apply the hierarchy of control measures required for prevention.

Course - IADC DIT accreditted.



INTERNATIONAL HEADQUARTERS UK

ABERDEEN DRILLING CONSULTANTS LTD 32 - 34 Queens Road, Aberdeen, Scotland AB15 4YF

t: +44(0)1224 209123 e: info@adc-engineering.com

INTERNATIONAL OFFICES AND AGENTS IN:

ADC - ASIA PACIFIC Suite 26.1, Level 26, Menara IMC, 8 Jalan Sultan Ismail 50250 Kuala Lumpur, Malaysia.

t: +603 2072 4604 e: Cduncan@adc-engineering.com

**ADC - CHINA** 

In collaboration with FORENERGY Add: 24F., Block C, Shangpin International, No.88 Gaoxin Road, Xi'an 710075, PRC

t: +86-29-88348321 e: billwei@forenergy.com.cn

**ADC - SAUDI ARABIA** In collaboration with GOTECH P.O. Box: 402 Al-Khobar 31952

t: +966 13 8533408 e: Ahammad@gotech.co.sa

ADC - UAE

In collaboration with MOISS Rahma Al Masaood Building, Khalifa Street, P.O. Box: 4352, Abu Dhabi, UAE

t: +971 2 8155990



**ADC - INDONESIA ADC - LIBYA ADC - VIETNAM** 

#### www.adc-engineering.com





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