



TUV / IICS 4.1 CERTIFIED OFFSHORE CRANE INSPECTOR & API RP 2D - OFFSHORE CRANE INSPECTOR CERTIFICATION PROGRAM

COURSE DURATION: 7 DAYS

WHAT'S UNIQUE ABOUT THIS COURSE?

This program has three interrelated purposes:

- Firstly, to introduce students to the **safe operating environment and inspection procedures** of Offshore Class Cranes
- Secondly, to develop **practical crane inspection skills** with an actual crane,
- And finally, to assess each student's **abilities** through an evaluation process.

Instruction will include **lectures, discussions, videos, Power-Point presentations** and **practical lessons** by **using an actual crane**.

Participants can now pursue **TUV / IICS 4.1 Certified Offshore Crane Inspector** certification, the international certification body.



Log in to www.international-inspector-certification.com for more information about IICS.

REACH US Today for Greater Safety, Quality, Reliability, Productivity, Profitability
HRD Approved Training Provider (since Year 2002). Registered with Ministry of Finance



COURSE OBJECTIVES

At the end of the course, delegates will:

- ✓ Become a "competent personnel" to inspect offshore cranes and lifting equipment.
- ✓ Be able to understand the relevant standards.
- ✓ Become confident in carrying out difficult tasks.

COURSE OUTLINE

DAY 1

- IICS/ TUV Nord final assessment and certification
 - * Examination structure
 - * How to prepare myself for the examination
- Introduction into Off-shore pedestal Cranes and other Lifting Equipment
- The Law, Rules and Regulations, applicable standards and codes
- "Competent Crane Personnel", as described in Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)
- "The Crane Inspector"
 - * Responsibility
 - * Training and qualification
- Equipment and tools needed by the crane inspector
- Safe working practices, OSHA
- API Spec 2C " Offshore Pedestal-mounted Cranes"
 - * Crane part, Terms and Definitions
 - * Documentation
 - * Basic design and structural criteria, other requirements
 - * Crane Ratings
 - * Manufacturing requirements
 - * Design validation
 - * Duty cycles

DAY 2

- API RP 2D "Operation and Maintenance of Offshore Cranes"
 - * Additional Terms and Definitions
 - * Basics of Crane operation
 - * Inspection & Testing requirements
 - * Maintenance, repair & replacement
 - * Wire Ropes
 - * Slings



WHO SHOULD ATTEND?

- QA/QC and Maintenance Personnel from Oil & Gas Companies
- Government Agencies who inspect offshore cranes
- Third Party Inspection (TPI) companies
- Companies who wish for competent staff

COURSE DURATION

- 6 Days Training + 1 day Exam

DAILY SCHEDULE

- 8:30am - 5:30pm

- API Specification 9A "Specification for Wire Rope"
 - * Requirements towards to wire ropes
 - * Inspection and Testing of wire ropes
- ASME B30.9 "Slings"
 - * Definitions, Terminologies
 - * Chain slings
 - * Wire rope slings
 - * Synthetic webbing slings

DAY 3

- Site visit & practical (morning session)
- ASME B30.10 "Hooks"
 - * Definitions, Terminologies
 - * Hook types, components
 - * Inspection
 - * Removal & Repair
- Report preparation

DAY 4

- Site visit & practical (morning session)
- Other related ASME standards
- ASME B30.4 "Portal and Pedestal Cranes"
- ASME B30.26 "Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings"
- Owner specific Requirements
- Other International Requirements
- Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)
- Approved Code of Practice and Guidance, L 113 (2014)
- Technical guidance on the safe use of lifting equipment offshore (2007)
- BS 7121 "Code of practice for the safe use of cranes"
 - Part 2-1 "Inspection, Maintenance and through examination"
- EN 13385 "Steel wire ropes. Safety"
- EN 13889 "Forged steel shackles for general lifting purposes"
- EN 13414 "Steel wire rope slings" - Part 1: "Slings for general lifting service"
- EN 1492 Part 1: "Specification for flat woven webbing slings, made of man-made fibres, for general purpose use"
- EN 1492 Part 2: "Specification for round slings, made of man-made fibres, for general purpose use"
- ISO 4309 "Cranes - Wire ropes - Care and maintenance, inspection and discard"



ITEMS TO BRING

- Code Books - latest addition (Hardcopy or Softcopy)
 - API Spec 2C
 - API Spec 2D
 - API Spec 9A
 - ASME B30.4
 - ASME B30.9
 - ASME B30.10
- Calculator
- PPE for the practical days (Coverall, Safety Boots, Helmet, Safety Glasses, Gloves, Earplugs)
- Lots of Questions
- A "CAN-DO" Attitude

Stationeries such as pen and highlighter will be provided.

DAY 5

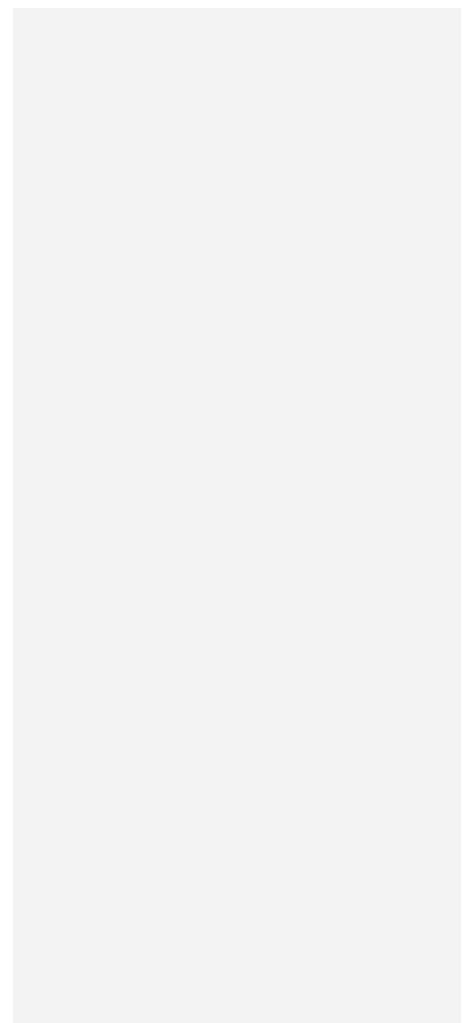
- Continue of day 4
- Case studies

DAY 6

- Inspection of other related lifting devices and equipment
- Introduction into repair of structural crane parts by welding
- Non-destructive Testing in the crane inspection field (NDT)
- Question and answer session
- Revision

DAY 7

- Examination
 - Session 1 (Morning)
 - Session 2 (Afternoon)





TRAINER'S PROFILE

KWAN KAR KHUEN

Kwan, Kar Khuen having the passion for continuous learning and is well versed with all the Rexroth Hydraulic product and other reputable brands such as a pump, motor, pistons and valves.

Kwan is well equipped to offer maintenance, repair, refurbishment, engineering advice, installation, testing, commissioning and inspection in all facets of hydraulics, pneumatic, electric and mechanical drive technology for industrial, agriculture, oil & gas, marine and water industries.

He is knowledgeable on API 2C SPECIFICATIONS for Offshore Cranes and API RP 2D SPECIFICATIONS for Operations and Maintenance for Offshore Cranes.

He has the skills and experienced along with knowledge and tools to precisely diagnose the fault and hence providing cost effective maintenance and shorter downtime for your equipment.

In addition, he also has the capability and facilities for crane refurbishment, modification and upgrading services.

He has successfully graduated in Crane Inspection Courses to become a Qualified Crane Inspector.

Kwan possesses an excellent cross-cultural communication skills with international living experience and regional exposure. With the ability to read and modify the hydraulic circuit, he is able to troubleshoot and to carry out on maintenance for the hydraulic system.

SPECIAL SKILLS:-

- Hydraulic maintenance services and trouble shoot for more than 15 years.
- Inspection on hydraulics system, onshore and offshore cranes for more than 10 years.
- Electrical and Control for more than 8 years.

EDUCATIONAL / TECHNICAL QUALIFICATIONS:-

- Technical Specialist at **Lebroil Engineering**
 - * Perform troubleshoot, crane inspection, design hydraulics schematics and refurbishment of crane
- Supervisor in **Rabutec Sdn Bhd**
 - * Perform troubleshoot, crane inspection, design hydraulics schematics and refurbishment of crane
- Hydraulic Foreman in **Mammoet (M) Sdn Bhd**
 - * Maintenance/Repair (Facilities & Machinery)
- Service Technician in **Bosch Rexroth**
 - * Maintenance/Repair (Facilities & Machinery)
- Higher National Diploma (HND) in Engineering (Mechatronic/ Electromechanical) at Colleague Premier Yayasan Perak, Malaysia until December 1997.

