

# COURSE OVERVIEW HE0440 Certified Lifting & Rigging Equipment

Lifting Tackles Inspection License/Relicense

# **Course Title**

Certified Lifting & Rigging Equipment: Lifting Tackles Inspection License/Relicense

# Course Reference

HE0440

# **Course Duration/Credits**

Five days/3.0 CEUs/30 PDHs

# **Course Date/Venue**

| Session(s) | Date                 | Venue   |
|------------|----------------------|---|
| 1          | February 11-15, 2024 | Boardroom, Warwick Hotel Doha, Doha, Qatar                                |
| 2          | May 05-09, 2024      | Boardroom 1, Elite Byblos Hotel Al Barsha, Sheikh Zayed Road, Dubai, UAE  |
| 3          | August 05-09, 2024   | Fujairah Meeting Room, Grand Millennium Al Wahda<br>Hotel, Abu Dhabi, UAE |
| 4          | November 03-07, 2024 | Al Aziziya Hall, The Proud Hotel Al Khobar, Al Khobar, KSA                |

# **Course Description**







This practical and highly-interactive course includes practical sessions and demonstration where participants carryout lifting and rigging operations. Theory learnt in the class will be applied using a mobile crane and assorted rigging through hands-on practical sessions.

The absence of good lifting practices contributes to a large percentage of material handling accidents. This course, through classroom problems and practical sessions, will enhance the competencies of engineers and other technical staff for reviewing and approving lifting plans for various lifting equipment. The course will instruct attendees in determining the correct size and type of lifting equipment required to safely perform lifting operations.

This course is designed to ensure that all personnel involved in rigging and lifting operations have an understanding of the requirements pertaining to rigging operations, the development and approval of the lifting plans, the requirements for pre-use inspection and discard criteria of lifting equipment, the safe working procedures for rigging and to ensure delegates can use lifting equipment safely without exceeding the load limit imposed on them.

















The course will train attendees how to prepare, review and approve the lifting plans. It will guide participants on the use and inspection of lifting equipment, hazards and controls required for static and mobile lifting equipment, lifting procedures, colour coding and risk assessment.

The course will discuss the various types of static and mobile lifting equipment including cranes, wire ropes, slings, hitches, shackles, hooks, eye bolts, turnbuckles, spreader beams, man-baskets, sheares, blocks, drums, chains, hoists, jacks and rollers.

The course will end up by a competency exam (theory & practice) to certify successful participants as "Certified Lifting & Rigging Officer/Inspector".

#### **Course Objectives**

Upon the successful completion of this course, each participant will be able to:-

- Get certified as a "Certified Lifting & Rigging Officer/Inspector"
- Apply proper techniques and procedures in lifting equipment management
- Discuss the heavy lift philosophy and procedures as well as the applicable safety rules during the lifting operations
- List the colour codes used at the sites and discuss the reasons and advantages of using colour coding for lifting equipment
- Apply the certification requirements for Lifting Plan Engineers
- Develop, review and approve lift plans for various lifting operations
- Apply the methods of pre-lift planning/lifting plans including the lift plan requirements, module lift and ANSI/OSHA standards
- Inspect the various types of lifting equipment including wire rope slings, polyester webbing, round (endless) sling, chains, etc
- Recognize the requirements for mobile crane safety including crane signals, crane identification, hoisting systems and crane safety features
- Carryout risk assessment methodology and identify the various hazards connected to lifting equipment

#### Exclusive Smart Training Kit - H-STK®



Participants of this course will receive the exclusive "Haward Smart Training Kit" (H-STK®). The H-STK® consists of a comprehensive set of technical content which includes electronic version of the course materials conveniently saved in a Tablet PC.

#### **Who Should Attend**

This course provides an overview of all significant aspects and considerations of lifting and rigging equipment for construction engineers, lifting equipment engineers, rigging engineers, project engineers, plant engineers, maintenance engineers, safety program managers and all senior personnel involved in lifting operations.



















#### **Course Certificate(s)**

(1) Internationally recognized Wall Competency Certificates and Plastic Wallet Card Certificates will be issued to participants who completed a minimum of 80% of the total tuition hours and successfully passed the exam at the end of the course. Successful candidate will be certified as a "Certified Lifting & Rigging Officer/Inspector". Certificates are valid for 5 years.

#### Recertification is FOC for a Lifetime.

## **Sample of Certificates**

The following are samples of the certificates that will be awarded to course participants:-

























(2) Official Transcript of Records will be provided to the successful delegates with the equivalent number of ANSI/IACET accredited Continuing Education Units (CEUs) earned during the course.

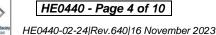




















#### **Certificate Accreditations**

Certificates are accredited by the following international accreditation organizations:-



The International Accreditors for Continuing Education and Training (IACET - USA)

Haward Technology is an Authorized Training Provider by the International Accreditors for Continuing Education and Training (IACET), 2201 Cooperative Way, Suite 600, Herndon, VA 20171, USA. In obtaining this authority, Haward Technology has demonstrated that it complies with the **ANSI/IACET 2018-1 Standard** which is widely recognized as the standard of good practice internationally. As a result of our Authorized Provider membership status, Haward Technology is authorized to offer IACET CEUs for its programs that qualify under the **ANSI/IACET 2018-1 Standard**.

Haward Technology's courses meet the professional certification and continuing education requirements for participants seeking **Continuing Education Units** (CEUs) in accordance with the rules & regulations of the International Accreditors for Continuing Education & Training (IACET). IACET is an international authority that evaluates programs according to strict, research-based criteria and guidelines. The CEU is an internationally accepted uniform unit of measurement in qualified courses of continuing education.

Haward Technology Middle East will award **3.0 CEUs** (Continuing Education Units) or **30 PDHs** (Professional Development Hours) for participants who completed the total tuition hours of this program. One CEU is equivalent to ten Professional Development Hours (PDHs) or ten contact hours of the participation in and completion of Haward Technology programs. A permanent record of a participant's involvement and awarding of CEU will be maintained by Haward Technology. Haward Technology will provide a copy of the participant's CEU and PDH Transcript of Records upon request.



## British Accreditation Council (BAC)

Haward Technology is accredited by the **British Accreditation Council** for **Independent Further and Higher Education** as an **International Centre**. BAC is the British accrediting body responsible for setting standards within independent further and higher education sector in the UK and overseas. As a BAC-accredited international centre, Haward Technology meets all of the international higher education criteria and standards set by BAC.



















# Course Instructor(s)

This course will be conducted by the following instructor(s). However, we have the right to change the course instructor(s) prior to the course date and inform participants accordingly:



Mr. Raymond Tegman is an International Expert in Lifting & Rigging Operations with extensive experience within the Oil & Gas, Petrochemical and Refinery industries. His broad expertise widely covers in the areas of Forklift Inspection, Forklift Operations, MEWP Operations, Safe Rigging & Lifting Tools, Scaffolding Inspection, Lifting & Slinging, Crane Inspection, Lifting & Rigging, Manlift Safety Operations, Scissor Lift Operations, Mobile & Overhead Crane, Electrical Overhead Travel Crane (EOT), Safe Crane Operations, Crane Inspection

& Operations, Certified Crane Lift Supervisor, Rigging, Crane Inspection & Operations, Overhead Cranes Operation, Inspection & Maintenance, Safety Rules, Machinery & Hydraulic Lifting Equipment, Handling Hazardous Chemicals, Spill Containment, Fire Protection, Fire Precautions, Incidents & Accidents Reporting, HSEQ Audits & Inspection, HSEQ Procedures, Environmental Awareness, Waste Management Monitoring, Emergency Planning, Emergency Management, Working at Heights, Root Cause Analysis, HSE Rules & Regulations, Process Safety Management (PSM), Process Hazard Analysis (PHA), Techniques, HAZOP, HSE Risk, Pre-Start-up Safety Reviews, HSE Risk Identification, Assessments & Audit, HSE Risk Assessment & Management Concepts, HSE Management Policy & Standards, HSSE Emergency Response & Crisis Management Operations, Confined Space Entry, Quantitative Risk Assessment (QRA), Hazardous Materials & Chemicals Handling, Safety Precaution & Response Action Plan, Hazard & Risk Assessment, Task Risk Assessment (TRA), Incident Command, Accident & Incident Investigation, Emergency Response Procedures, Job Safety Analysis (JSA), Behavioural Based Safety (BBS), Fall Protection, Work Permit & First Aid, Lock-out/Tag-out (LOTO), Emergency Response, Construction Supervision, Scaffolding Inspection, HAZCHEM, Manual Material Handling, Road Traffic Supervision, ISO 9001 and OHSAS 18001.

During his career life, Mr. Tegman has gained his practical and field experience through his various significant positions and dedication as the **Operations Manager**, **Safety & Maintenance Manager**, **Safety Manager**, **Road/Traffic Supervisor**, **Crane Supervisor**, **Assessor/Moderator**, **Safety Consultant**, **Safety Advisor**, **Safety Officer** and **Liaison Officer** from Zero Harm, SHRA Training & Services (Health & Safety), Road Crete, Balwin Property Development, DEME International, Gladstone Australia, Godavari Gas Pipeline and New Castle NCIG.

#### **Accommodation**

Accommodation is not included in the course fees. However, any accommodation required can be arranged at the time of booking.



















## **Training Methodology**

All our Courses are including **Hands-on Practical Sessions** using equipment, State-of-the-Art Simulators, Drawings, Case Studies, Videos and Exercises. The courses include the following training methodologies as a percentage of the total tuition hours:-

30% Lectures

20% Practical Workshops & Work Presentations

30% Hands-on Practical Exercises & Case Studies

20% Simulators (Hardware & Software) & Videos

In an unlikely event, the course instructor may modify the above training methodology before or during the course for technical reasons.

#### **Course Fee**

| Doha      | <b>US\$ 6,500</b> per Delegate. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.                           |
|-----------|--|
| Dubai     | <b>US\$ 5,500</b> per Delegate + <b>VAT</b> . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.             |
| Abu Dhabi | <b>US\$ 5,500</b> per Delegate + <b>VAT</b> . This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.             |
| Al Khobar | <b>US\$ 5,500</b> per Delegate + <b>VAT</b> . This rate includes H-STK <sup>®</sup> (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day. |

#### **Course Program**

The following program is planned for this course. However, the course instructor(s) may modify this program before or during the course for technical reasons with no prior notice to participants. Nevertheless, the course objectives will always be met:

#### Day 1

| 0730 - 0800 | Registration & Coffee   |
|-------------|---|
| 0800 - 0815 | Welcome & Introduction  |
| 0815 - 0830 | PRE-TEST  |
|             | Heavy Lift Philosophy & Procedures                                      |
| 0830 - 0930 | Types of Cranes • Crane Components • Steps in Crane Setup on Sites •    |
|             | General Lifting Procedures  |
| 0930 - 0945 | Break   |
| 0945 – 1100 | Heavy Lift Philosophy & Procedures (cont'd)                             |
|             | Marking of Lifting Equipment • Sling Loads & Angles • Establishing Load |
|             | Weight & Center of Gravity • Hand Signals                               |
| 1100 – 1230 | Safety & Lifting  |
|             | Health & Safety Legislation • Inspection Definitions                    |
| 1230 - 1245 | Break   |

















|             | Safety & Lifting (cont'd)   |
|-------------|---|
| 1245 - 1420 | Safe Use of Wire Ropes • Safe Use of Chain Slings • Safe Use of Shackles &      |
|             | Eyebolts • Safe Use of Beam Clamps & Trolleys                                   |
|             | Recap   |
| 1420 – 1430 | Using this Course Overview, the Instructor(s) will Brief Participants about the |
|             | Topics that were Discussed Today and Advise Them of the Topics to be            |
|             | Discussed Tomorrow  |
| 1430        | Lunch & End of Day One  |

Day 2

| Day Z       |   |  |
|-------------|---|--|
| 0730 - 0930 | Colour Coding   |  |
| 0730 - 0930 | Reasons of Colour Coding for Lifting Equipment • Colour Codes at Site     |  |
| 0930 - 0945 | Break   |  |
|             | Colour Coding (cont'd)  |  |
| 0945 - 1100 | Process of Changing the Colour Code • Procedure for Equipment that Arrive |  |
|             | on Site without the Right Colour Coding                                   |  |
|             | Certification Requirement/Lifting Plan Engineers                          |  |
| 1100 - 1230 | Certification Necessity • Load Planning • Lifting Plan Engineers • Hook-  |  |
|             | up (Rigging)  |  |
| 1230 - 1245 | Break   |  |
| 1245 1420   | Certification Requirement/Lifting Plan Engineers (cont'd)                 |  |
| 1245 – 1420 | Load Signalling • Hoisting Equipment • Crane Operators                    |  |
| 1420 – 1430 | Recap   |  |
| 1430        | Lunch & End of Day Two  |  |

#### Day 3

|             | Pre-Lift Planning/Lifting Plans   |
|-------------|---|
| 0730 - 0930 | Lift Plan Requirements • Critical Lift • Critical Lift Plan Analysis •          |
|             | Calculating Soil Bearing Capacity • Crane Weight                                |
| 0930 - 0945 | Break   |
| 0945 - 1100 | Pre-Lift Planning/Lifting Plans (cont'd)  |
|             | Load Calculation • Soil Bearing Load • Crane Set-Up Summary                     |
|             | Pre-Lift Planning/Lifting Plans (cont'd)  |
| 1100 – 1230 | Fin Fan Lift • Heat Exchanger Lift • Module Lift • Fractionator Lift •          |
|             | ANSI/OSHA Standards   |
| 1230 - 1245 | Break   |
| 1245 - 1420 | Inspection of Lifting Equipment   |
|             | Wire Rope Slings • Polyester Webbing Sling • Round (Endless) Sling •            |
|             | Chains • Shackles • Eyebolts • Plate Clamps                                     |
| 1420 - 1430 | Recap   |
|             | Using this Course Overview, the Instructor(s) will Brief Participants about the |
|             | Topics that were Discussed Today and Advise Them of the Topics to be            |
|             | Discussed Tomorrow  |
| 1430        | Lunch & End of Day Three  |

















# Day 4

| Day 4       |   |
|-------------|---|
|             | Inspection of Lifting Equipment (cont'd)  |
| 0730 - 0930 | Hooks • Chain blocks • Pull Lines • Tirfors • Beams Clamps / Pad Eyes •         |
|             | Sheave (Snatch) Blocks • Air / Hydraulic Winches                                |
| 0930 - 0945 | Break   |
|             | Mobile Cranes   |
| 0045 1100   | Crane Signals • Operational Aids • Crane Identification • Crane Types •         |
| 0945 – 1100 | Hoisting Systems • Site Preparation • Set-up & Assembly • Boom                  |
|             | Inspection & Repair • Crane Gantry • Crane Jibs • Wire Rope Factors             |
|             | Mobile Cranes (cont'd)  |
|             | Crane Stability • Outriggers Position • Load Charts • Conditions                |
| 1100 - 1230 | Affecting Capacity • Traveling with Load • Telescoping Booms • Boom             |
|             | Contact Hazard • Crane Log Books • Crane Inspection • Crane Operation           |
|             | • Crane Safety Features   |
| 1230 - 1245 | Break   |
|             | Risk Assessment Methodology   |
| 1245 - 1420 | Fatality Reports • What Causes Accidents? • Personal Lifting Techniques •       |
|             | Personal Safety Equipment • Special Considerations                              |
|             | Recap   |
| 1420 1420   | Using this Course Overview, the Instructor(s) will Brief Participants about the |
| 1420 – 1430 | Topics that were Discussed Today and Advise Them of the Topics to be            |
|             | Discussed Tomorrow  |
| 1430        | Lunch & End of Day Four   |

# Day 5

| <i>,</i> -  |  |
|-------------|--|
| 0730 - 0930 | Practical Lifting & Rigging Training using Live Crane          |
| 0930 - 0945 | Break  |
| 0945 - 1100 | Practical Lifting & Rigging Training using Live Crane (cont'd) |
| 1100 - 1230 | Practical Lifting & Rigging Training using Live Crane (cont'd) |
| 1230 – 1245 | Break  |
| 1245 – 1300 | Practical Lifting & Rigging Training using Live Crane (cont'd) |
| 1300 - 1315 | Course Conclusion  |
| 1315 – 1415 | COMPETENCY EXAM (Theory & Practical)                           |
| 1415 – 1430 | Presentation of Course Certificates                            |
| 1430        | Lunch & End of Course  |

















# **Practical Sessions/Site Visit**

Site visit will be organized during the course for delegates to practice the theory learnt:-









<u>Course Coordinator</u>
Jaryl Castillo, Tel: +974 4423 1327, Email: <u>jaryl@haward.org</u>

















