



COURSE OVERVIEW HE0890

Lifting Equipment and Mobile Cranes Inspection

Course Title

Lifting Equipment and Mobile Cranes Inspection

Course Date/Venue

December 09-13, 2024/Fujairah Meeting Room, Grand Millennium Al Wahda Hotel, Abu Dhabi, UAE

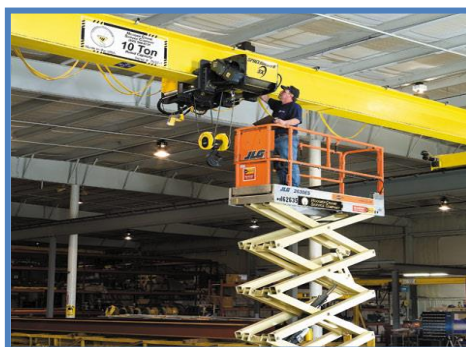
Course Reference

HE0890

Course Duration/Credits

Five days/3.0 CEUs/30 PDHs

Course Description



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

The course will discuss the causes and results of crane accidents and understand the responsibilities of operator, rigger and supervisor; identify the different types of components and terminology of mobile and overhead cranes; provide knowledge on how mobile and overhead cranes are rated; and how to interpret and use load charts.

Participants of the course will be able to implement safe operating practices and procedures including pre-lift considerations; perform pre-operational inspections; prepare for a critical lift; conduct pick and carryout operations safely; perform multi-crane lifts; apply the procedures for boom assembly/disassembly; determine correct hand signals and responsibility of signal persons; implement the procedures for working cranes around power lines and avoid crane contact with power lines; comply with OSHA and ANSI/ASME safety requirements, especially when hoisting personnel with cranes; practice various rigging skills including wire rope, slings, chain, rigging hardware, lifting devices, calculating sling load, reeving, determining load weight, safe rigging practices and procedures; and prepare lift plan.





Course Objectives

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

- Apply a comprehensive knowledge and skills on the operation of mobile and overhead cranes and solve practical lift problems in a professional manner
- Discuss causes and results of crane accidents and understand the responsibilities of operator, rigger and supervisor
- Identify the different types of components and terminology of mobile & overhead cranes
- Acquire knowledge on how mobile & overhead cranes are rated and how to interpret and use load charts
- Implement safe operating practices and procedures including pre-lift considerations
- Perform pre-operational inspections and prepare for a critical lift
- Conduct pick and carry operations safely and perform multi-crane lifts
- Apply the procedures for boom assembly/disassembly and determine correct hand signals and responsibility of signal persons
- Implement the procedures for working cranes around power lines and avoid crane contact with power lines
- Comply with OSHA and ANSI/ASME safety requirements, especially when hoisting personnel with cranes
- Practice various rigging skills including wire rope, slings, chain, rigging hardware, lifting devices, calculating sling load, reeving, determining load weight, safe rigging practices and procedures and how to prepare lift plan

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, sample video clips of the instructor’s actual lectures & practical sessions during the course conveniently saved in a **Tablet PC**.

Who Should Attend

This course provides an overview of all significant aspects and considerations of mobile and overhead crane operation and troubleshooting for crane operators, rigging supervisors and site foremen. Further, the course is suitable for project managers, engineers and HSE staff.

Course Fee

US\$ 5,500 per Delegate + **VAT**. This rate includes H-STK® (Haward Smart Training Kit), buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Accommodation

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



- (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

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Haward Technology Middle East

Continuing Professional Development (HTME-CPD)

CEUs

CEU Official Transcript of Records

TOR Issuance Date: 14-Nov-22

HTME No. 74852

Participant Name: Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
HE0890-IH	Mobile Lifting Equipment Operation & Maintenance	November 10-14, 2022	32.5	3.25

Total No. of CEU's Earned as of TOR Issuance Date 3.25

TRUE COPY



Jaryl Castillo
Academic Director

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




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Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -

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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.

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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.

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 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. Russell Mason is an **International Expert** in **Lifting & Rigging Operations** with over **20 years** of experience in **Crane, Rigging, Slinging, Lifting and Deck Operations, Construction Operations, Scaffolding, Forklift, Safety Audits, Compliance with OSHA Safety Requirements** and other heavy equipment operations. His experience includes **HLO** and **Welding** operations. He is currently an Independent Consultant providing consultancy services on **Lifting, Rigging, and Crane Operations** to various companies all over **Australia, Europe and Asia**.

During his career life, Mr. Mason worked as a **Senior Construction Manager, Construction Manager, Construction Supervisor, Lifting & Rigging Superintendent, Lifting & Rigging Supervisor, Deck Operations Supervisor, Crane Operator** and **Rigging Specialist**. He worked in various companies such as **AUST Corporation, Rydans Construction, All Area Rigging Company, Le Blanc Communications, Fluor Daniel, James Hardie Construction, NQEA, Citra Construction, Humes Construction** and **Queensland Public Works & Highways**.

Mr. Mason has a **Bachelor** degree in **Engineering & Industrial Skills**. Further, he is a **Certified Instructor/Trainer** and has obtained international **certifications** for **Advanced Rigging, Advanced Scaffolding, Mobile Crane (PIN-JIB, Hydraulic, no tonnage restriction), Dogman, Forklift, O/H Gantry, Front End Loader** and other heavy equipment.

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: Monday, 09th of December 2024

0730 – 0800	Registration & Coffee
0800 – 0815	Welcome & Introduction
0815 – 0830	PRE-TEST
0830 – 0900	Introduction ASME B30.5 • Mobile crane types • BS7121
0900 – 0930	Crane Nomenclature Boom • Jig • Outriggers • Sheaves • Block • Drum, etc.
0930 – 0945	Break
0945 – 1030	Defining Areas of Operation Front • Sides • Rear • Reasons
1030 – 1130	Leveling and Stability
1130 – 1230	General Information on Wire Rope Wire Rope Lays • IWRC Rope • Identifying Rope Damage
1230 – 1245	Break
1245 – 1400	Use of Load Chart
1400 – 1420	Line Speed & Line Pull SAE J881
1420 – 1430	Recap
1430	Lunch & End of Day One





Day 2: Tuesday, 10th of December 2024

0730 – 0830	Reeving <i>Boom Noze Sheaves • Effect Of Multi-Lines on Load Capacity and Hook Velocity</i>
0830 – 0930	Proper Interpretation of International Crane Hand Signals
0930 – 0945	Break
0945 – 1030	Correct Method of Setting the Machine on Outriggers <i>Lift Site Preparation • Proper Leveling of Cranes • Cribbing • Ground Bearing Pressures</i>
1030 – 1130	Solving Practical Lift Problems Using Load Chart
1130 – 1245	Video Presentation <i>Haward VME-12, "Rigging and Lifting with Small Hydraulic Cranes"</i>
1245 – 1300	Break
1300 – 1320	OSHA General Checklist for this Type of Machine
1320 – 1345	Operation of Hydraulic Cranes vs. Lattice Boom Cranes
1345 – 1420	Video Presentation <i>Haward VME-14, "Rigging and Lifting with Mobile Construction Equipment"</i>
1420 – 1430	Recap
1430	Lunch & End of Day Two

Day 3: Wednesday, 11th of December 2024

0730 – 0830	Correct Methods of Load Blocks and Rigging
0830 – 0930	Simultaneous Operation of Several Crane Functions
0930 – 0945	Break
0945 – 1030	Solving Stress Problems with Wire Rope
1030 – 1130	Maximum Permissible Radius of a Given Crane
1130 – 1245	The Use of Personnel Baskets <i>Construction • Standards • Types</i>
1245 – 1300	Break
1300 – 1345	"Tracking" Loads
1345 – 1420	Video Presentation <i>Haward VME-13, "Tips from the Pros - Rigging and Lifting"</i>
1420 – 1430	Recap
1430	Lunch & End of Day Three

Day 4: Thursday, 12th of December 2024

0730 – 0830	Transportation to Site for Practice on Mobile Crane
0830 – 0930	Practical Session 1 <i>Identification of All Cab Controls (Upper and Lower) and Instruments, Including Warning Devices • Set Up Crane for Traveling, Check Oil, Fuel and etc. Before Starting • Axle Lockout Operation</i>
0930 – 0945	Break
0945 – 1100	Practical Session 2 <i>When and how to Use Crab and Cramp Steering • Pick and Carry Operation (Load Chart, Tire Pressure, Outrigger, etc.) • Positioning Crane to Make a Pickup (Cribbing, Outriggers, Levelling, etc.)</i>
1100 – 1200	Practical Session 3 <i>Crane Operation (with Small Load 4,000 lbs., Safety First, Swinging, Telescoping, Two Blocking, by Telescoping and Booming Down, Hoisting, Booming, Hand Signals)</i>





1200 – 1245	Practical Session 4 Crane Operation (cont'd) (Load Chart, Mostly in Classroom, Boom Angle Indicator, Reeving, Attachments, Manuals and Jibs, Cable, Simulate a Concrete Pour)
1245 – 1300	Break
1300 – 1345	Practical Session 5 Crane and Configuration on Outriggers (The use of Personnel Baskets, Cribbing, Outrigger Extended, Leveling Machine, HOW-TO-BOOM)
1345 – 1420	Practical Session 6 Crane and Configuration on Outriggers (cont'd) (WINCH, PICK AND CARRY)
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 Four

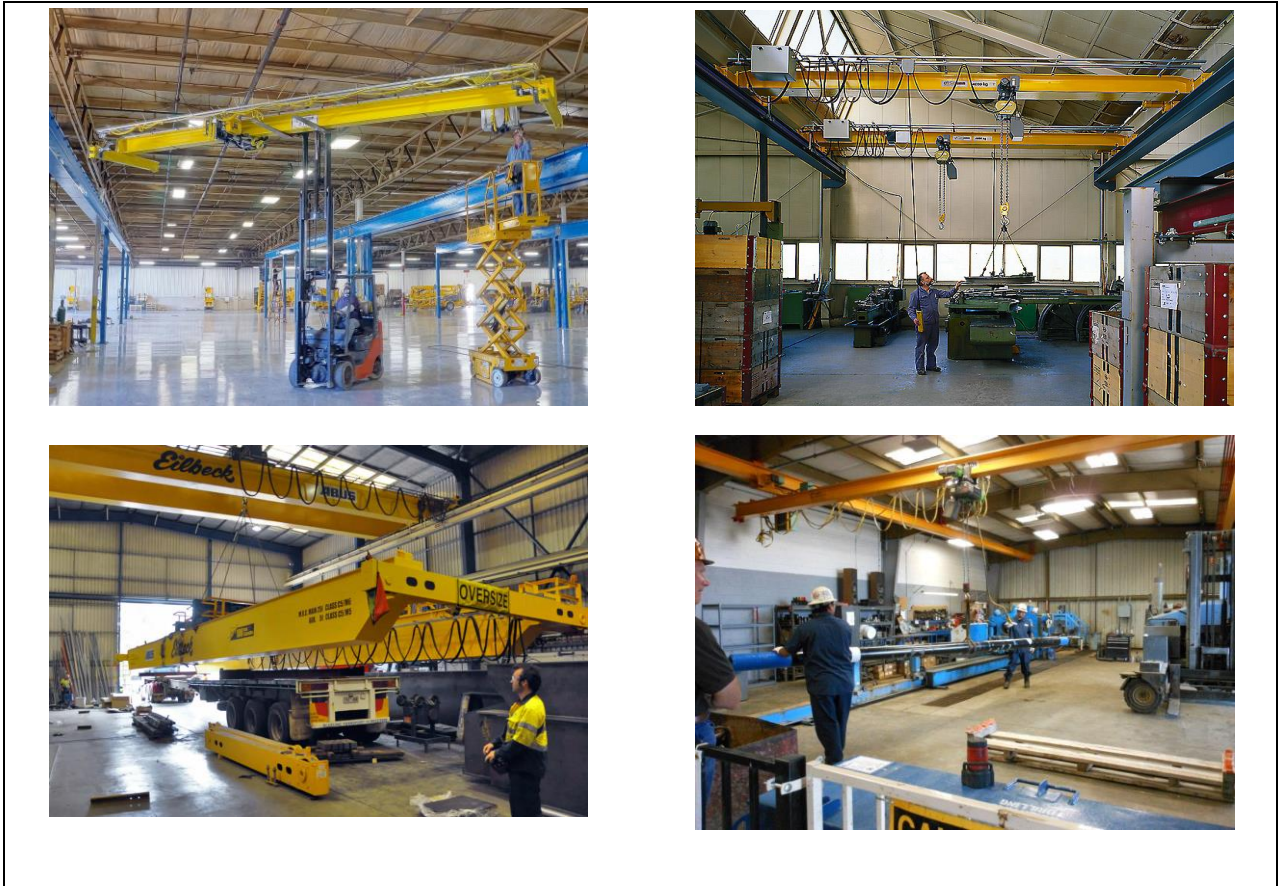
Day 5: Friday, 13th of December 2024

0730 – 0830	Crane Inspections Inspecting Slings, Chains, Shackles, etc. • Inspection Checklist
0830 – 0930	Calculation of Weights of Materials such as Steel, Concrete, etc.
0930 – 0945	Break
0945 – 1030	Proper Crane Operation and Avoiding Sudden Stops BS7121 Parts 1 and 3 • Maintenance Checklists
1030 – 1130	Crane Shutdown Procedures
1130 – 1230	Crane Lift Plan Method and Risk Assessment Safety Management
1230 – 1245	Break
1245 – 1300	Class Forum Questions and Answers Session
1300 – 1315	Course Conclusion
1315 – 1415	COMPETENCY EXAM (Theory & Practice)
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: -



Course Coordinator

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