

COURSE OVERVIEW HE0890
Crane Operations

Course Title
 Crane Operations

Course Date/Venue
 Session 1: April 27-May 01, 2025/Boardroom 1,
 Elite Byblos Hotel Al Barsha, Sheikh
 Zayed Road, Dubai, UAE
 Session 2: September 29-October 03, 2025/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 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.

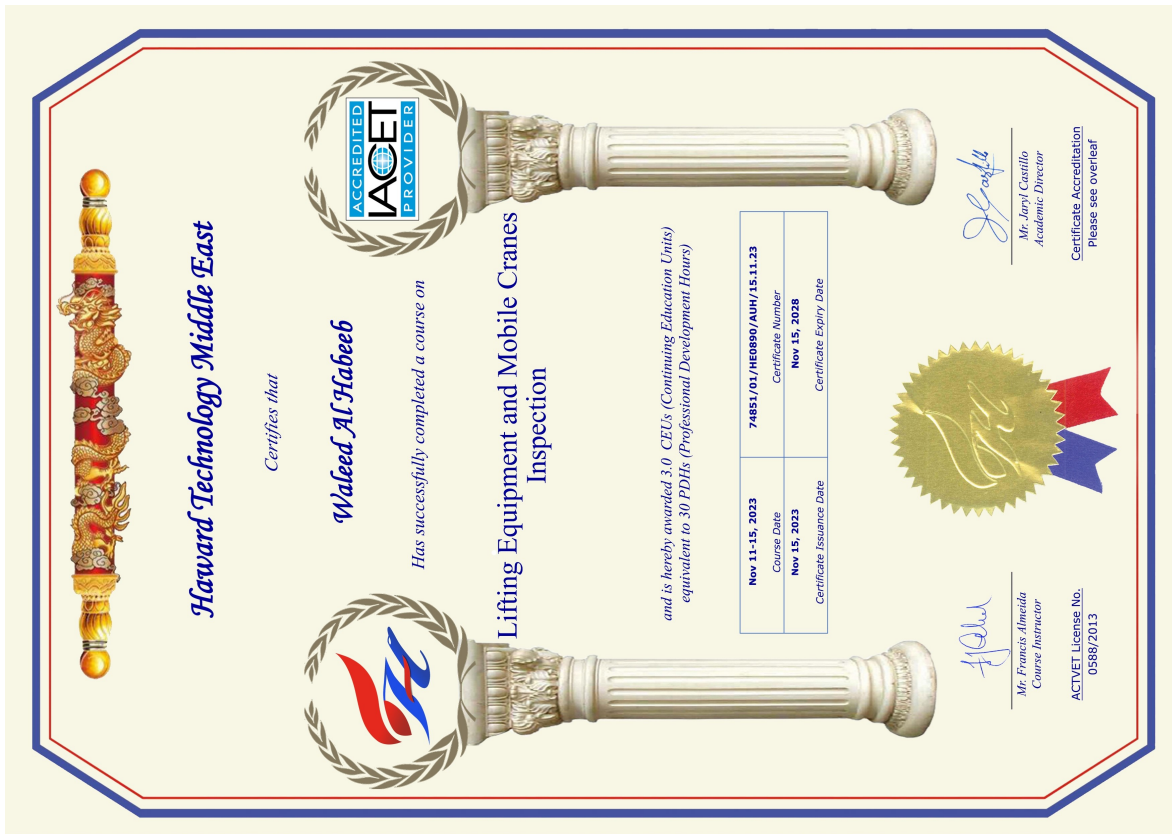

Course Certificate(s)

- (1) Internationally recognized Competency Certificates and Plastic Wallet Cards 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. 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:-


Lifting Equipment and Mobile Cranes Inspection
 Certification Number: 74851
 Certification Date: 15-Nov-2023
 Expiration Date: 15-Nov-2028

This is to certify that **Waleed Al Habeeb** has successfully met the requirements of the **Lifting Equipment and Mobile Cranes Inspection** Program, HE0890.



J. Castillo
Mr. Jaryl Castillo
Academic Director

Haward Technology is accredited by:




Lifting Equipment and Mobile Cranes Inspection
 Certification Program

This program is designed to assist companies in identifying professionals who have satisfied the minimum competencies specified in HE0890. Haward Technology does not warrant or guarantee the performance of any professional certified under this program.

P.O. Box 26070
 Abu Dhabi, UAE
 Tel: +971 2 30 91 714
 Http://www.haward.org

F. Almeida
Mr. Francis Almeida
Course Instructor

ACTVET License No.: 05888/2013

Haward Technology is accredited by:



(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

* Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology *



Haward Technology Middle East

Continuing Professional Development (HTME-CPD)

CEUs

CEU Official Transcript of Records

TOR Issuance Date: 15-Nov-23

HTME No. 74851

Participant Name: Waleed Al Habeeb

Program Ref.	Program Title	Program Date	No. of Contact Hours	CEU's
HE0890	Lifting Equipment and Mobile Cranes Inspection	November 11-15, 2023	30	3.0

Total No. of CEU's Earned as of TOR Issuance Date **30**

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




P.O. Box 26070, Abu Dhabi, United Arab Emirates | Tel.: +971 2 3091 714 | E-mail: info@haward.org | Website: www.haward.org


* Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology * CEUs * Haward Technology *

Certificate Accreditations

Certificates are accredited by the following international accreditation organizations: -

- 
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.

- 
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.

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. John Burnip, EHS, SAC, STS, NEBOSH-ENV, NEBOSH-IGC, NEBOSH-IFC, NEBOSH-PSM, NEBOSH-IOG, TechIOSH, is a **NEBOSH Approved Instructor** and a **Senior HSE Consultant** with over **50 years** of practical **Offshore & Onshore** experience within **Oil, Gas, Refinery, Petrochemical** and **Nuclear** industries. His wide experience covers **NEBOSH** International General Certificate in Occupational Health & **Safety**, **NEBOSH** National Certificate in Construction Health & Safety, **NEBOSH** Certificate in Process Safety Management, **NEBOSH** Environmental Management Certificate, **NEBOSH** Certificate in Fire Safety, **NEBOSH** International Oil & Gas Certificate, **PHA**, **HAZOP**, **HAZCOM**, **HAZMAT**, **HAZID**, **Hazard & Risk Assessment**, **Emergency Response Procedures** Behavioural Based Safety (**BBS**), **Confined Space Entry**, **Fall Protection**, **Emergency Response**, **H₂S**, Safety Management System (**ISO 45001**), **Accident/Incident Investigation** System and Report PSM, **Risk Assessment**, **SCE FMEA Failure Investigations**, Site Management Safety Training (**SMSTS**), **Occupational Health & Safety** and **Industrial Hygiene**, **Crisis Management & Damage Control** in Oil & Gas Industry, **Enhancing HSSE Safety Performance & Effectiveness**, **Overhead & Gantry Crane Safety**, **HSSE Principles & Practices Advanced**, **Lifting & Rigging Equipment** Lifting Tackles Inspection License/Relicense, **API 780 Security Risk Assessment Methodology** for Petroleum & Petrochemical, **Advanced Process Safety Management** with **PHA**, **Quantitative and Qualitative Risk Assessment**, **IADC/API Mobile Drilling Rig Inspections**, **Maintenance and Audits**, **H₂s Training and Rescue with Respiratory Equipment**, Job Safety Analysis (**JSA**), **Work Permit & First Aid**, Project HSE Management System, Health & Hygiene Inspection, **PTW Control**, Process Modules Fire & Gas Commissioning, **MSDS**, Ergonomics, **Lockout/Tagout**, Fire Safety & Protection, **Spill Prevention & Control**, **Tower & Scaffold Inspection**, **Scaffolding Operations**, **Scaffolding Equipment**, **Bracket Scaffolds**, **Scaffolding Labelling**, **Prefab Scaffolding**; Erecting, Maintaining & Dismantling **Scaffolding** in accordance with the **British Standards Code of Practice 5973**; **Heavy Lifting** operations, **Cantilevered Hoists**, **Offshore Operations**, **Offshore Construction**, **Basic Offshore Safety** Induction & Emergency Training (**BOSIET**), **Onshore Fabrication & Offshore Pipelaying & Hook-Up**, **Crane Inspection**, **Crane Operations**, **Oilfield Startup & Operation**, **Steel Fabrication**, **OSHA**, **ISO 9001**, **ISO 14001**, **OHSAS 18001** and **IMO (SOLAS)** Regulations. Mr. Burnip has greatly contributed in upholding the highest possible levels of safety for numerous International Oil & Gas projects, Generation Systems & Platform Revamp, **LPG & Gas Compression**, **Marine**, **Offshore** and **Power Plant Construction**. Currently, he is the **HSE Advisor** of **Solvay** wherein he is responsible in planning and implementation of the corporate safety program (**OSHA codes**).

During Mr. Burnip's long career life, he had successfully carried out numerous projects in **Europe**, **North America**, **South America**, **Southeast Asia**, **Middle East** and the **North Sea**. He had worked for **Delta Offshore Group**, **Solvay Asia Pacific**, **Likpin Dubai**, **SADRA/DOT**, **ZADCO**, **McDermott International (USA**, **Qatar**, **Egypt**, **India**, **Oman**, **Dubai** and **Abu Dhabi**), **PDO**, **Shell**, **ARAMCO**, **Salman Field**, **Leman Offshore Gas Field**, **GEC**, **Harland & Wolff PLC Belfast** in **North Ireland**, **Howard Doris – Kishorn** in **Scotland**, **Westinghouse Electric** in **Brazil** and **South Korea** and **Chevron Oil** in **Scotland** as the **Commissioning Project Engineer**, **Project & Safety Engineer**, **Estimating Engineer**, **Senior Instrument Engineer**, **Instrument Field Engineer**, **Lead Instrument Engineer**, **Instrument Engineer**, **Engineer**, **Emergency Response Training Manager**, **HSE Advisor**, **HSE Instructor**, **HSE Supervisor**, **Instrumentation Supervisor**, **Instrumentation Specialist**, **Project Coordinator**, **Instrumentation Technician** and **Tank Farm Instrumentation Technician**.

Mr. Burnip has a **Bachelor's degree** in **Business Studies** from the **Somerset University (UK)**. He is a **Certified/Registered Tutor** in **NEBOSH Certificate in Environmental Management**, **NEBOSH International General Certificate**, **NEBOSH International Certificate in Fire Safety & Risk Management**, **NEBOSH Process Safety Management Certificate** and **NEBOSH International Oil & Gas Certificate**; a **Certified Safety Auditor (SAC)**; a **Certified ISO 45001 Auditor**; an **Environmental Health and Safety Management Specialist** on **Fall Protection**, **Elevated Structures**, **Material Handling**, **Trenching & Excavations**; a **Welding Brazing Safety Technician**; a **Certified Safety Administrator (CSA)** - General Industry; a **Safety Manager/Trainer** – General Industry; a **Petroleum Safety Manager (PSM)** - Drilling & Servicing; a **Petroleum Safety Specialist (PSS)** - Drilling & Servicing; a **Safety Planning Specialist**; a **Safety Training Specialist**; a **Certified Instructor/Trainer**; a **Certified Internal Verifier/Assessor/Trainer** by the **Institute of Leadership & Management (ILM)** and further holds a Certificate in **Mechanical Engineering Craft Practice** from the **City & Guilds of London Institute**; a **NEBOSH Level 3 Construction Certificate (UK)**; and holds a **Cambridge Teaching Certificate**. He is a well-regarded member of the **National Association of Safety Professionals**, the **Association of Cost Engineers (UK)**, **Institution of Occupational Safety & Health (TechIOSH)** and an **Associate Member of World Safety Organization**. Further, he has conducted innumerable trainings, workshops and conferences worldwide.



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

Day 2

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	<i>Break</i>
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	<i>Break</i>
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	<i>Lunch & End of Day Two</i>

Day 3

0730 – 0830	Correct Methods of Load Blocks and Rigging
0830 – 0930	Simultaneous Operation of Several Crane Functions
0930 – 0945	<i>Break</i>
0945 – 1030	Solving Stress Problems with Wire Rope
1030 – 1130	Maximum Permissible Radius of a Given Crane



1130 – 1245	The Use of Personnel Baskets Construction • Standards • Types
1245 – 1300	Break
1300 – 1345	"Tracking" Loads
1345 – 1420	Video Presentation Haward VME-13, "Tips from the Pros – Rigging and Lifting"
1420 – 1430	Recap
1430	Lunch & End of Day Three

Day 4

0730 – 0830	Transportation to Site for Practice on Mobile Crane
0830 – 0930	Practical Session 1 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
0930 – 0945	Break
0945 – 1100	Practical Session 2 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.)
1100 – 1200	Practical Session 3 Crane Operation (with Small Load 4,000 lbs., Safety First, Swinging, Telescoping, Two Blocking, by Telescoping and Booming Down, Hoisting, Booming, Hand Signals)
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

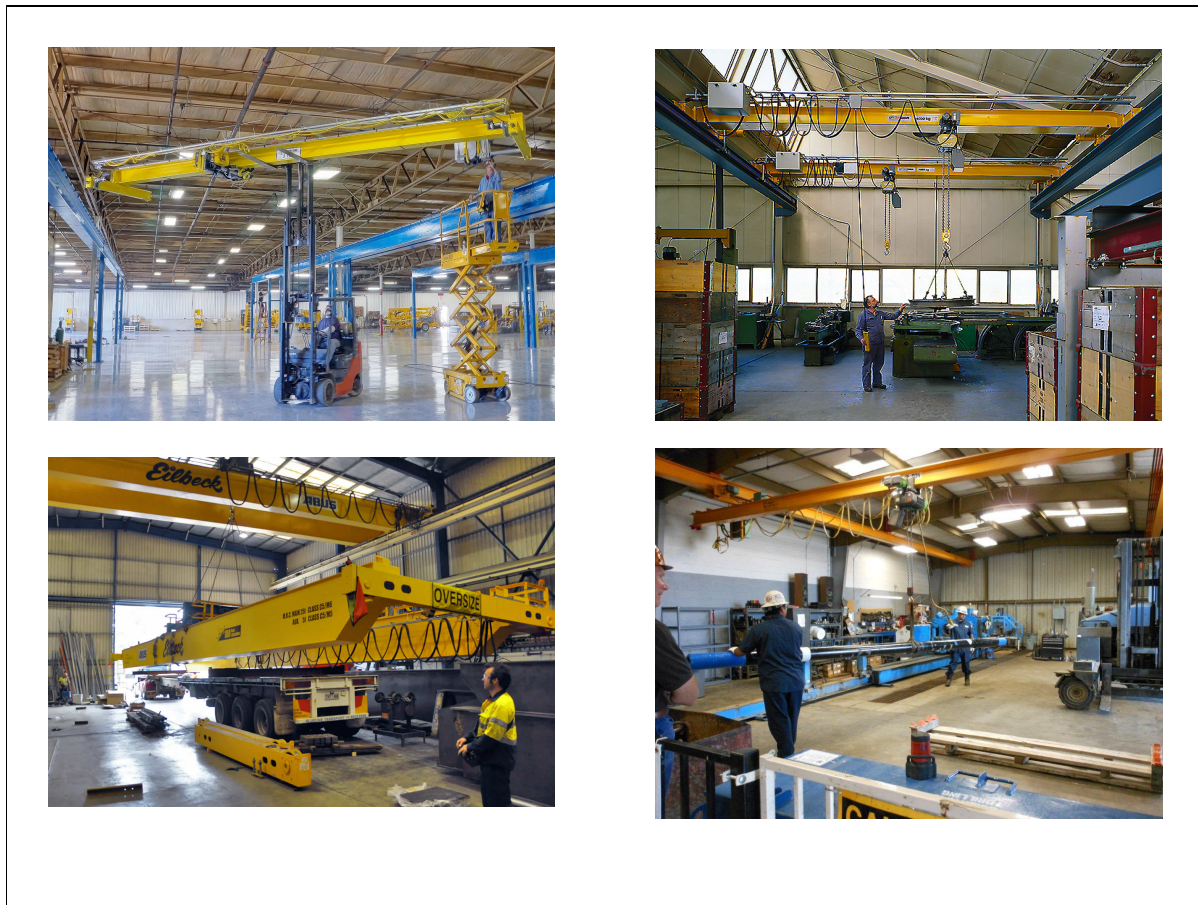
0730 – 0830	Crane Inspections Inspecting Slings, Chains, Shackles, etc. • Inspection Checklist
0830 – 0930	Calculation of Weights of Materials such as Steel, Concrete, etc.
0930 – 0945	Break
0945 – 1030	Proper Crane Operation and Avoiding Sudden Stops BS7121 Parts 1 and 3 • Maintenance Checklists
1030 – 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

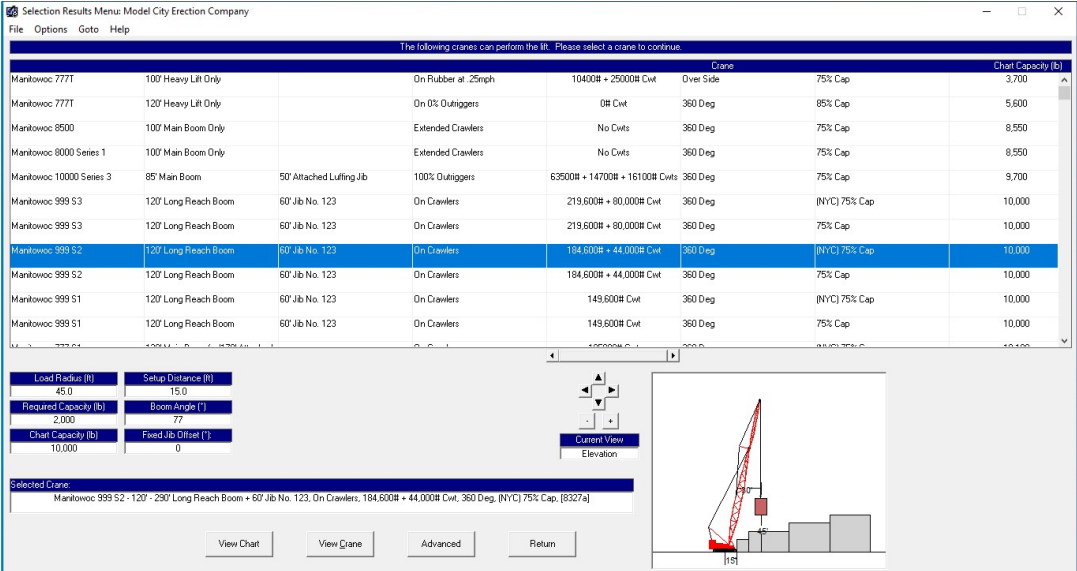
Practical Sessions/Site Visit

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



Simulators (Hands-on Practical Sessions)

Practical sessions will be organized during the course for delegates to practice the theory learnt. Delegates will be provided with an opportunity to carryout various exercises using one of our state-of-the-art simulators “Compu-Crane” simulator.



The screenshot displays the 'Selection Results Menu: Model City Erection Company' window. It features a table of crane models with columns for 'Crane' and 'Chart Capacity (lb)'. The selected crane is a Mantowoc 999 S2 with a 120' Long Reach Boom and 60' Jib No. 123, featuring 184,600# + 44,000# Cwt, 360 Deg, and (NYC) 75% Cap. The interface also includes control panels for 'Load Radius (ft)', 'Setup Distance (ft)', 'Required Capacity (lb)', 'Boom Angle (°)', 'Chart Capacity (lb)', and 'Fixed Jib Offset (ft)'. A 3D crane model is visible on the right side of the interface.

Compu-Crane

Course Coordinator

Mari Nakintu, Tel: +971 2 30 91 714, Email: mari1@haward.org