

## **COURSE: COMPLEMENTARY SAFETY COURSE FOR HOISTING EQUIPMENT OPERATORS - KNUCKLE BOOM CRANE**

### **SCOPE AND APPLICABILITY:**

To provide training and certify offshore personnel (crane operators & deck pushers) so that they can properly and safely operate a hydra lift knuckle boom crane onboard a variety of vessels.

### **REGULATIONS & STANDARDS**

- API RP 2D 7ed;
- PUWER 1998;
- LOLER;
- NORSOK Standard R-003;
- OSHA-1926.1400 Subpart CC – Guindastes.
- ASME Safety Standards;
- U.S Standards 29 CFR 1926.

### **COURSE CONTENT:**

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| <p>a) Platform cranes:<br/>- Introduction to safety in crane operation;<br/>- Crane History and Characteristics;<br/>- Types of equipment (mechanical and non-mechanical);<br/>- Emergency;</p> <p>b) Existing protection and safety devices;<br/>- Work accidents and prevention methods;</p> <p>c) Load chart capacity and lifting angle;<br/>- Loading study;<br/>- load capacity charts and graphs;<br/>- lifting angle;</p> <p>d) Lifting operations:<br/>- Charge transport;<br/>- Transport of people;</p> | <p>e) Applicable provisions of technical standards;<br/>- Ergonomics in the workplace;<br/>- Applicable Collective Protection Equipment;<br/>- Applicable Personal Protective Equipment;<br/>- Care of energized elements;<br/>- Cargo Handling<br/>- Devices applicable to cranes;</p> <p>f) Special situations and risk, such as:<br/>- care of the cabin guards to avoid damage during operation.<br/>- Climatic and maritime conditions (Beaufort scale and wind speed);<br/>- Transfer of cargo between vessels (offload and backload);<br/>- Simultaneous operations (SIMOPs);</p> <p>g) Practical operating exercises.</p> |
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### **COURSE DESIGN:**

Theoretical – 12 hours

Practical – 8 hours

**TOTAL:** 20 hours

### **PREREQUISITE(S):**

Present proven previous experience as a crane operator.

### **MINIMUM/MAXIMUM NUMBER OF DELEGATES**

This course requires a minimum of 1, and a maximum number of 12 trainees.

To offshore trainings, the course number of attendees will comply with the vessels/rig necessity.

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**MAIN SAFETY ISSUES:**

- Previous inspection of equipment;
- Attention when accessing the equipment;
- Initial testing of security features;
- Attention to the signalman;
- Predict cargo movement, especially in relation to the balance;
- Pay attention to the position of the workers involved;
- Eliminate balance sheets;
- Equipment configuration.

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**REQUIRED EQUIPMENT:**

- Articulated boom crane of any capacity;
- PPE for access to crane equipment.

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**PROCEDURE FOR PRACTICAL EXERCISES:**

- Realization of Basic Movements;
- Simulate blind movement with low mass loads;
- Train communication at various levels with signalers;
- Tracking with the load to improve acuity with controls;
- Configure, turn on and off the equipment with supervision of the instructor.

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**CERTIFICATION:**

Training certificate.

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**CERTIFICATE VALIDITY PERIOD:**

Recommendable: 4 year(s).