



COURSE: RIGGER COMPETENCE ASSESSMENT - STAGE 3.

SCOPE AND APPLICABILITY:

The aim and objectives of the Rigger competence assessment are to establish that the learner has the required underpinning knowledge, understanding and practical skills to fulfill the role of Rigger safely and effectively.

TARGET GROUP:

The target group for Rigger Competence Assessment are personnel that wish to become competent riggers - having successfully completed the Rigger Initial Training Standard and Rigger Workplace Experience Logbook or possess sufficient and relevant work experience to be eligible for the Rigger Competence assessment.

REGULATIONS & STANDARDS

- OPITO 9099/9199;
- ISO 12480-1;
- International Marine Contractors Association - IMCA SEL 019, IMCA M 187;
- Offshore Mechanical Handling Equipment Committee - OMHEC;
- Health and Safety Executive – HSE.

COURSE CONTENT:

1. Preparation for Lifting and Moving of Loads
 - 1.1. The hazards associated with a lifting operation
 - 1.1.1. Overloading
 - 1.1.2. Structural Failure
 - 1.1.3. Sudden Movements
 - 1.1.4. Inadequate Inspection
 - 1.1.5. Environmental hazards
 - 1.1.5.1. Wind
 - 1.1.5.2. Rain, snow or ice
 - 1.1.5.3. Visibility
 - 1.2. The purpose of a lifting plan and who produces one
 - 1.2.1. Routine Lifts and Non-Routine Lifts
 - 1.3. The purpose of a lifting risk assessment
 - 1.4. Why a Lifting Plan Must be Followed
 - 1.5. How to Determine the Weight of Loads
2. Key Roles in Lifting Operations
 - 2.1. The relevant roles of personnel involved in lifting operations
 - 2.1.1. Hierarchy
 - 2.1.2. Rigger
 - 2.1.3. Banksman
 - 2.1.4. Slinger
 - 2.1.5. Crane Operator
 - 2.1.6. Reporting Lines
3. Comprehensive Rigging and Lifting Safety and Procedures
 - 3.1. How to Identify Areas Near the Load Where it is Unsafe to Stand
 - 3.2. Load Movement Route Planning Methods and Techniques
 - 3.2.1. Load Capacity Analysis
 - 3.2.2. Rigging Plan
 - 3.2.3. Lift Planning Software
 - 3.2.4. Lift Path Analysis
 - 3.2.5. Pre-Lift Meeting
 - 3.3. Areas of the Installation/Site which Need Special Consideration
 - 3.3.1. Electrical lines and equipment
 - 3.3.2. Personnel and bystanders
 - 3.3.3. Overhead obstructions
 - 3.3.4. Structural integrity of the installation or site
 - 3.3.5. Environmental conditions
 - 3.3.6. Equipment and rigging
 - 3.4. Rigging Principles
 - 3.4.1. SWL
 - 3.4.2. WLL
 - 3.4.3. Difference Between SWL and WLL
 - 3.4.4. Identification of Safe Working Load
 - 3.4.5. Safety Margin
 - 3.4.6. Angles of lift
 - 3.4.7. Lifting equipment and lifting accessories are marked with SWL and WLL
 - 3.5. Pre-use Inspections
 - 3.5.1. Independent Competent Person (ICP)
 - 3.6. Load stability, Safety and Weight Distribution
 - 3.6.1. Determine the load weight
 - 3.6.2. Overall maximum dimensions of the load
 - 3.6.3. Check the lifting equipment
 - 3.6.4. Proper lifting technique
 - 3.6.5. Regular maintenance
 - 3.6.6. Determine the lifting point
 - 3.6.7. COG (Center of Gravity)
 - 3.7. The Types of Faults
 - 3.7.1. Mechanical faults
 - 3.7.2. Electrical faults
 - 3.7.3. Structural faults
 - 3.7.4. Human error
 - 3.8. Toolbox Talk



- 3.9. Handovers During Lifting Operations
 - 3.10. Types of lifting accessories
 - 3.10.1. Slings
 - 3.10.1.1. Synthetic Slings
 - 3.10.1.2. Critical safety issues to consider when using synthetic slings
 - 3.10.1.3. Chain Sling
 - 3.10.1.4. Alloy Chain Slings
 - 3.10.1.5. Wire Rope Sling
 - 3.10.1.6. Sling Configuration
 - 3.10.2. Hooks and Latches
 - 3.10.2.1. Hook Inspection
 - 3.10.2.2. Load Hook Inspection
 - 3.10.3. Shackles
 - 3.10.3.1. Shackles inspection
 - 3.10.4. Spreader and Equalizer Beams
 - 3.10.4.1. Spreader and Equalizer Beams Inspection
 - 3.10.5. Turnbuckles
 - 3.10.5.1. Turnbuckles Inspection
 - 3.10.6. Cable Clips
 - 3.10.7. Pad Eyes, Eyebolts, Other Anchor Points
 - 3.10.8. Sheaves and Blocks
 - 3.10.8.1. Typical Block Components
 - 3.10.8.2. Blocks Mechanical Advantages
 - 3.10.9. Rings, Links, Swivels
 - 3.10.10. Dispose of waste materials
 - 3.10.10.1. Wire rope and wire rope slings
 - 3.10.10.2. Alloy chain slings
 - 3.10.10.3. Synthetic web slings
 - 3.10.10.4. Synthetic round slings
 - 3.10.10.5. Lifting hardware
 - 3.10.11. Damage to Synthetic Slings
 - 3.10.11.1. Abrasion
 - 3.10.11.2. Acid Damage
 - 3.10.11.3. Cuts
 - 3.10.11.4. Missing or Illegible Identification
 - 3.10.12. Broken Wires, Corrosion, and Deformation to Wire Rope
 - 3.10.13. Broken or Damaged Rigging Hardware
 - 3.11. Rigging Loft
 - 3.12. What Should You do if You Think Your Equipment is Not Safe?
 - 3.13. Quarantine System
 - 3.14. Dynamic Factors
 - 3.15. Communication system
 - 3.15.1. Hand signals
- 4. Lifting, Moving, Lowering and Landing of a Load
 - 4.1. Pre-use and post-use Inspection of Lifting Equipment
 - 4.2. How to Identify and Report
 - 4.2.1. Visual inspection
 - 4.2.2. Testing
 - 4.2.3. Maintenance records
 - 4.2.4. Reporting
 - 4.3. Correctly Store
 - 4.3.1. Chains and slings
 - 4.3.2. Shackles
 - 4.3.3. Hoists and winches
 - 4.3.4. Lifting beams and spreader bars
 - 4.3.5. Hooks
 - 4.3.6. Synthetic slings
 - 4.4. Restore the Worksite
 - 4.4.1. Move the load
 - 4.4.2. Lower the load
 - 4.4.3. Return the equipment
 - 4.4.4. Clean up the area
 - 4.5. Post-Work Debriefings

COURSE DESIGN:

Theoretical – 12 hours.

TOTAL: 20 hours.

Practical – 8 hours.

PREREQUISITE(S):

Option 1:

(a) A valid Rigger Initial Training Certificate

And

(b) A fully completed and valid Rigger Workplace Experience Logbook and supporting evidence for each of the 10 tasks*, such as a copy of the lifting plan, permit or toolbox talk, based on the Rigger Initial Training Standard and Rigger Workplace Experience Logbook requirements. The logbook must be signed as true and valid by the employing company head of discipline or the employing company discipline manager and confirmed by the Centre as being present and correct prior to assessment taking place.

*Supporting evidence is not required for learners who completed the Initial Training Standard (previously Stage 1) between February 29th, 2020, and February 28th, 2022.

Or

(c) If a learner completed the Initial Training Standard (previously Stage 1) between February 29th, 2020, and February 28th, 2022 and does not have a completed Workplace Experience Logbook, a formal letter from a current employer, meeting the below criteria, may be accepted.

The letter must:

- 1) Be on company letterhead;
- 2) State that the learner has met the equivalent of the Workplace Experience Logbook criteria;
- 3) Include details of the senior employer representative's position in the company, full contact details, and be signed and dated by the senior employer's representative;
- 4) Be sent directly from the employer to the Centre prior to assessment and not provided by the Learner.

Option 2:

(d) An Approved Rigger Competence Assessment or Re-Assessment Certificate awarded with the previous 30 months.

Option 3:

(e) Evidence that they have been assessed as competent and have achieved an equivalent qualification/certification by a nationally recognized awarding body, awarded within the previous 30 months**.

Please note that after two years the certificate would no longer be valid (see Note 1 below).

Note 1: Learners who possess an Rigger Assessment or Re-Assessment Certificate which has expired by more than 6 months will be required to attend the Rigger Initial Training prior to undertaking the Rigger Competence Assessment. In these instances, there will be no requirement to complete a Work Experience Logbook. Rigger Competence Assessment/Reassessment Standard

**It is the responsibility of the Center to confirm and demonstrate appropriate recognition and equivalency of the Learners qualification/certification.



MINIMUM/MAXIMUM NUMBER OF DELEGATES

This course requires a minimum of 2, and a maximum number of 4 trainees.

The assessor-to-learner ratio is 1:1 (while four learners may be assessed within the group of learners, the assessor can only fully assess one learner at a time).

In instances where there are only two learners are under assessment, the training programme may be completed over the duration of a single day.

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

MAIN SAFETY ISSUES:

- Special cares to avoid: Passing under the loads, placing the body parts between suspended loads or imminent movement cargoes;
- Know and use standardized manual signs as the main means of communication;
- Hold pre-shift meetings;
- Previously know the location of escape routes;
- Conduct risk analysis;
- Be careful and identify inadequate atmospheric conditions;
- Communication between team and operator;
- Inspection of equipment.

REQUIRED EQUIPMENT:

- As a minimum, the following equipment is required to meet the stated content of the Rigger Competence Assessment:
 1. Appropriate PPE e.g., safety boots, safety helmet, eye protection, hearing protection and gloves;
 2. A variety of loads to be lifted e.g., structural steelwork, steelwork assemblies, pipework assemblies, plant and equipment, loads with an offset center of gravity etc.;
 3. Examples damaged lifting equipment and lifting accessories;
 4. Appropriate lifting equipment typically found in a workplace rigging loft, to include:
 - Chain blocks;
 - Lever hoists;
 - Snatch blocks;
 - Wire rope hoist (Tirfor);
 - Beam clamps (universal and standard);
 - Beam trolley;
 - Master links;
 - Shackles;
 - Chain Slings;
 - Wire rope slings;
 - Fiber slings;
 - Eye bolts and Eye nuts;
 - Swivel hoist rings;



- Turnbuckles;
 - Jacks*;
 - Machine skates*.
- All equipment must be maintained, inspected and tested in accordance with applicable legislation and standards. Certificates and maintenance schedules should be always available.
 - Note: Damaged lifting equipment - purposely used for specific assessment criteria by the approved center - must be securely controlled and clearly identifiable to the assessor and center support staff.

PROCEDURE FOR PRACTICAL EXERCISES:

- Communicate, discuss and ensure understanding of the prepared lifting plan and risk assessment with the lifting team and ensure control measures are implemented;
- Carry out dynamic risk assessment for any additional potential hazards associated with the lifting operation;
- Implement any additional control measures to address the identified hazards;
- Communicate, discuss and agree with appropriate personnel, actions to take related to the lifting operation in the event of an emergency;
- Inform the relevant personnel of the lifting operation and identify any potential disruption to operations;
- Obtain the resources identified in the lifting plan required to move the load, following relevant rigging loft procedures;
- Carry out pre-use inspection of lifting equipment and certification is current;
- Ensure the lifting equipment is free of obvious defects throughout the duration of the task;
- Prepare the load according to specified requirements of the lifting plan;
- Protect the load from damage during the lifting operation;
- Attach the lifting accessories to the load using industry best practice;
- Determine the center of gravity of a load that has an offset center of gravity;
- Install and position the lifting equipment for balanced weight distribution;
- Ensure appropriate barriers are installed at appropriate areas;
- Give clear instructions to the lifting team before and during the moving of the load;
- Use the identified method of communications derived from the risk assessment, lifting plan and permit-to-work, and comply with signaling protocols agreed within the lifting team, or company-specific protocols;
- Progressively apply force/tension to the load via the attached lifting equipment, until the weight of the load is fully taken up;
- Confirm the load security before raising to the minimum height required for moving;
- Maintain load security and stability throughout transportation of the load;
- Take adequate precautions to maintain the safety of personnel and surroundings during the moving of the load;
- Correctly position the load in the intended location and progressively remove the lifting equipment force/tension;



EVO
HUMAN SAFETY SOLUTIONS

Rigger Competence Assessment

- Safely disconnect the load from the lifting equipment and remove the lifting accessories
- Work effectively as part of a team;
- Compliance with relevant health and safety legislation and guidelines at all times.

CERTIFICATION:

Training certificate.

CERTIFICATE VALIDITY PERIOD:

Recommendable: 2 years.