

# CRANE & LIFTING LOOSE GEAR MAINTENANCE AND INSPECTION

## HSE021

### COURSE DESCRIPTION

This course provides comprehensive training on the maintenance, inspection, and safe use of cranes and lifting gear. This course covers the principles of crane operation, types of lifting equipment, regulatory requirements, and best practices for maintenance and inspection. It is designed to enhance the knowledge and skills of participants, ensuring they can safely and effectively handle cranes and lifting equipment in various work environments.

### COURSE OBJECTIVES

By the end of this course, participant will be able to:

- Understand the types and components of cranes and lifting gear.
- Learn the principles of crane operation and the mechanics of lifting equipment.
- Gain knowledge of regulatory standards and safety guidelines related to cranes and lifting gear.
- Develop skills in inspecting and maintaining cranes and lifting equipment to ensure safety and compliance.
- Identify common faults and defects in lifting gear and learn appropriate corrective actions.
- Improve safety awareness and best practices in crane and lifting operations.

### WHO SHOULD ATTEND

- Crane operators and riggers
- Maintenance personnel responsible for lifting equipment
- Safety officers and supervisors overseeing crane operations
- Engineers and technical personnel involved in crane design and safety

### COURSE DURATION

5 Working Days

### COURSE OUTLINES

1. Introduction to Cranes and Lifting Gear
  - Types of cranes
  - Components of cranes
  - Types of lifting gear

## **2. Principles of Crane Operation**

- Mechanical principles
- Load dynamics
- Rigging principles

## **3. Regulatory Standards and Safety Guidelines**

- National and international standards
- Occupational safety regulations
- Industry best practices

## **4. Maintenance of Cranes and Lifting Gear**

- Routine maintenance procedures
- Preventive maintenance strategies
- Documentation and record-keeping

## **5. Inspection Techniques**

- Visual inspection methods
- Non-destructive testing techniques
- Criteria for safe operation

## **6. Identifying and Addressing Defects**

- Common defects in cranes and lifting gear
- Corrective actions and repair methods
- Reporting and documentation

## **7. Safety Considerations and Best Practices**

- Hazard identification and risk assessment
- Personal protective equipment (PPE)

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