

National Occupational Standards

Sector: Building and Construction

Occupation: Assistant Mobile Crane Operator

MQF Level: 2

Units:

- AMCO201: Contribute to health and safety requirements in the workplace
- AMCO202: Assist in the daily walk around checks prior to operating the mobile crane
- AMCO203: Assist in the drawing of the list plan and understand the lift plan
- AMCO204: Assist in the setting up and dismantling of the mobile crane
- AMCO205: Assist the mobile crane operator during lifting operations

AMCO201: Contribute to health and safety requirements in the workplace

This unit lists the knowledge and skills required by a person holding this position to contribute to carrying out safe work activities in compliance with health and safety activities.

Upon completion of this unit the persons carrying out this work will possess the necessary knowledge and skills to follow health and safety procedures which ensure that their actions do not create health and safety risks to self or to others.

Performance Criteria

The candidate must have the necessary knowledge and skills to:

1. Follow safe working practices in accordance with the workplace health and safety regulations.
2. Identify potential hazards associated with own work practices and the workplace and report them in accordance with organisational procedures.
3. Follow correct procedures in the event of hazards or injury or ill health.
4. Carry out work practices to comply with supplied information to contribute to a healthy, safe, and secure working environment.

Required Knowledge

The Level 2 Assistant Mobile Crane Operator must know and state:

1. Their roles and responsibilities under the Health and Safety Act as amended by Act XXXII of 2000 or any subsequent current legislation.
2. Their health concerns associated with the workplace and safe practices when carrying out work activities.
3. The importance of co-operating with their employer on matters related to health and safety to safeguard their own wellbeing and that of others affected by their work activities.
4. The organisational policies regarding legislation and guidance which need to be complied with.
5. The potential hazards in the workplace such as electricity and other utility services, contaminants, hazardous and non-hazardous substances, waste materials, working at height, work equipment, access equipment, obstructions, fire risks, manual handling, proximity, third party hazards, and changing weather conditions.
6. The importance of being aware and alert to the presence of hazards on site and other work areas.
7. The effect of any toxic or hazardous substances detected on site and what precautions need to be taken.
8. The risks to health within a construction environment- substances hazardous to health, drugs, and alcohol.
9. The importance of correct storage of combustibles and chemicals on site.

10. The arrangements to follow regulations regarding security on site and in the workplace e.g. storage of materials, components, tools, plant and equipment.
11. The importance of working around mobile plant and equipment on site- keeping safe distances away from working machinery.
12. The security arrangements and procedures that should be observed and followed when working on site.
13. The procedures for dealing with accidents and emergencies associated with the workplace and environment.
14. The importance of reporting accidents and near misses to superiors.
15. Personal responsibility for behaviour of health, safety and welfare on site and the consideration of others.

Required Skills

The Level 2 Assistant Mobile Crane Operator must be able to follow instructions to:

1. Comply with their individual duties and legal obligations under the Health and Safety Act XXXVII of 2000 or any subsequent current legislation.
2. Work according to health and safety regulations and other relevant regulations that apply to the work requirements
3. Comply with safe working practices in accordance with organisational procedures.
4. Recognise any hazards and hazardous materials associated with workplace activities and how changing circumstances could increase those hazards.
5. Report any hazards and risks and changing circumstances to superiors in accordance with organisational procedures.
6. Report near misses and accidents to superiors.
7. Recognise emergency situations and report them in accordance with organisational requirements.
8. Identify and use the provided Personal Protective Equipment (PPE) and Respiratory Equipment (RPE) when necessary to carry out work duties.
9. Comply with organisational procedures for safely working around mobile plant and equipment.
10. Assist in carrying out work activities to protect work areas from damage.
11. Demonstrate good personal behaviour for workplace health safety and welfare.

AMCO202: Assist in the daily walk around checks prior to operating the Mobile Crane

This unit lists the knowledge and skills required by a person holding this position to contribute to the carrying out of the daily walk around check of the mobile crane.

Upon completion of this unit the persons carrying out this work will possess the necessary knowledge and skills to assist the mobile crane Operator in the daily walk around check which will then ensure that the mobile crane can be operated in this lift and is free from any visible defects.

Performance criteria

1. The candidate must have the necessary knowledge and skills to:
2. Identify any faults in the mobile crane.
3. Follow the correct procedure to report any faults or defects to his superiors.
4. Assist in rectifying any faults.

Required Knowledge

The MQF Level 2 Assistant Mobile Crane Operator must know and state:

1. The effect of any defects on the proper operations of the mobile crane.
2. How to follow organisational procedures in assisting the mobile crane operator in filling of the daily walk around check sheet.
3. How to follow and understand instructions given by the crane operator in the checking of the mobile crane during the daily walk around check.
4. The understanding of the crane structure, booms, outriggers, slewing table, sheave and hook block, wire ropes, motors, and brakes.
5. The understanding of the fluid level gauges, pressure gauges and labels attached to the mobile crane.
6. The position of crane sensors and have basic knowledge about the function of load moment indicators and crane instrumentation.
7. How to report any defects in the mobile crane.

Required Skills

The MQF Level 2 Assistant Mobile Crane Operator must be able to follow instructions to:

1. Select and use the correct PPE during the walk around check.
2. Be able to follow instructions the mobile crane operator during the daily walk around check.

3. Know how to access and open/close lids and caps to check fluid levels.
4. Know how to open and close hatches to check for any faults.
5. Know how to climb safely onto the crane structure.

AMCO203: Assist and understand the lift plan

A lift plan is to be planned prior to every lift; the lift plan should include all the required details to carry out the lift safely.

Upon completion of this unit the assistant mobile crane operator should be able to assist in the drawing up of this lift plan. The assistant crane operator should also be able to understand the lift plan and assist the crane operator in its implementation.

Performance criteria

The candidate must have the necessary knowledge and skills to:

1. Identify potential hazards for this lift.
2. Report those hazards to his superiors so as these are listed and included in the risk assessment.
3. Understand the instructions of the mobile crane operator during the briefing of the lift plan.
4. Assist in preparing the lifting tackle to be utilised for this lift.

Required Knowledge

The MQF Level 2 Assistant Mobile Crane Operator must know and state:

1. That all risks should be mitigated in a risk assessment.
2. That hazards should be reported to the superiors and take mitigation measures how to reduce or eliminate the risk of an accident.
3. The range and the lift capacity of this mobile crane.
4. The load weight to be lifted, load height and operating radius.
5. The terrain where the crane outriggers are to be set and communicate them to his superiors to include them in the lift plan.
6. The lift plan, taking into consideration all the required factors.

Required Skills

The MQF Level 2 Assistant Mobile Crane Operator must be able to follow instructions to:

1. Look for hazards nearby the area where the mobile crane is to be set up.
2. Assist in the siting of the mobile crane.
3. Give the required feedback to his superiors about the lift to be carried out.
4. Understand the briefing of the lift plan, given from his superiors.
5. Select the appropriate lifting gear as specified in the lift plan.

AMCO204: Assist in the setting up and dismantling of the mobile crane

This unit lists the knowledge and skills required by a person holding this position to contribute to setting out and dismantle of the mobile crane on site.

Upon completion of this unit the assistant mobile crane operator carrying out this work will possess the necessary knowledge and skills to assist the Crane Operator setting up and dismantling of the mobile crane on site, the assistant mobile crane operator should be able to communicate and understand the orders given by his superior.

Performance criteria

The candidate must have the necessary knowledge and skills to:

1. Identify potential hazards during setting up of the mobile crane.
2. Report those hazards to his superiors and take discuss mitigation measures with his superiors.
3. Understand the instructions of the mobile crane operator during the setting up and dismantling of the mobile crane.
4. Assist the mobile crane operator attach and modify the counterweights configuration.
5. Assist the mobile crane operator change the reeving system.
6. Assist the mobile crane operator install or demount fly jib.
7. Prepare the correct the lifting tackle as instructed in the lift plan.
8. Prepare and place the required blocks to place underneath the crane outriggers.
9. Communicate effectively and give feedback to the crane operator, during setting up and dismantling of the mobile crane.

Required Knowledge

The MQF Level 2 Assistant Mobile Crane Operator must know and state:

1. How to place the required supports underneath the mobile crane outriggers.
2. How to check that the mobile crane is away from any hazards communicate with the crane driver about any hazards.
3. How to act as a spotter if the crane operator is not having a clear visibility from the driving position.
4. How to assist the mobile crane operator attach and modify the counterweights configuration.
5. How to assist the mobile crane operator change the reeving system.
6. How to assist the mobile crane operator install or demount fly jib.
7. That no bystanders or pedestrians should be in the area where the mobile crane is to be set up.

8. That the area should be cordoned adequately.

Required Skills

The MQF Level 2 Assistant Mobile Crane Operator must be able to follow instructions to:

1. Place the correct supports underneath the mobile crane outriggers, assist in setting the outriggers.
2. Identify and hazard that was not identified in the lift plan.
3. Understand the instructions given from his superiors.
4. Assist the mobile crane operator to install counterweights.
5. Assist the mobile crane operator to alter the reeving system.
6. Assist the mobile crane operator to install fly gib.
7. Understand when it is required to act as spotter and guide the mobile crane operator in his manoeuvre.

AMCO205: Assist the Crane operator during lifting operations

This unit lists the knowledge and skills required by a person holding this position aid the mobile crane operator during the lifting operation.

Upon completion of this unit, the assistant mobile crane operator carrying out this work will possess the necessary knowledge and skills to assist the Crane Operator during the operation of the mobile crane on site, the assistant mobile crane operator should be able to communicate and understand the orders given by his superior.

Performance criteria

The candidate must have the necessary knowledge and skills to:

1. Identify potential hazards during the lifting operation.
2. Report those hazards to the mobile crane operator and discuss mitigation measures with the crane operator.
3. Understand the instructions of the mobile crane operator during the operation of the mobile crane.
4. Watch out for any changing parameters during the lifting operation.
5. Communicate effectively and give feedback to the crane operator, during lifting.
6. Act as a spotter and direct the mobile crane operator in his manoeuvring.

Required Knowledge

The MQF Level 2 Assistant Mobile Crane Operator must know and state:

1. How to place the correct supports underneath the mobile crane outriggers.
2. How to identify and hazard that was not identified in the lift plan.
3. The instructions given from his superiors.
4. The instructions from the mobile crane operator to install counterweights.
5. The instructions from the mobile crane operator alter the reeving system.
6. Instructions from the mobile crane operator to install fly gib.
7. When it is required to act as spotter and guide the mobile crane operator in his manoeuvre.

Requires Skills

The MQF Level 2 Assistant Mobile Crane Operator must be able to follow instructions to:

1. Place the correct supports underneath the mobile crane outriggers.
2. Identify and hazards that were not identified in the lift plan.
3. Understand the instructions given from his superiors.
4. Assist the mobile crane operator to install counterweights.
5. Assist the mobile crane operator alter the reeving system.
6. Assist the mobile crane operator to install fly gib.

7. Understand when it is required to act as spotter and guide the mobile crane operator in his manoeuvre.