

Skills Programme Curriculum Document



Curriculum Code		Curriculum Title	
900050-000-00-00		Hydraulic Crane Pick Up and Carry C34 Operator	
Quality Partner	Transport Education Training Authority (TETA)		

Table of content

SECTION 1: CURRICULUM SUMMARY	4
1. Occupational Information.....	4
2. Curriculum Information	4
3. Curriculum Structure	4
4. Entry Requirements.....	5
5. Quality Partner Information.....	5
6. Learning Pathway.....	5
SECTION 2: OCCUPATIONAL PROFILE	6
1. Occupational Purpose	6
2. Occupational Tasks.....	6
3. Occupational Task Details.....	6
SECTION 3: CURRICULUM COMPONENT SPECIFICATIONS.....	8
SECTION 3A: KNOWLEDGE COMPONENT SPECIFICATIONS	8
List of Knowledge Modules for which Specifications are included	8
1. 900047-0003-00-KM-01, Safety, Health, Environmental, Risk and Quality (Legislation and QMS), NQF Level 3, Credits 2	9
2. 900047-000-00-KM-02, Basic understanding of Equipment, Materials, Maintenance and Techniques, NQF Level 3, Credits 4	13
3. 900047-000-00-KM-03, Basic Rigging, Slings and freight handling, NQF Level 3, Credits 1 ..	16
4. 900047-000-00-KM-04, Principles of Communication, NQF Level 3, Credits 1	18
5. 900047-000-00-KM-05, Principles of Lifting Machines operations, NQF Level 3, Credits 4	20
SECTION 3B: APPLICATION COMPONENT SPECIFICATIONS.....	23
List of Application Component Specifications.....	23
1. 900050-000-00-PM-01, Conduct pre-start, start-up and operational checks of a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2.....	24
2. 900050-000-00-PM-02, Conduct set-up checks of a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2.....	27

3. 900050-000-00-PM-03, Plan and prepare for lifting with a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2	29
4. 900050-000-00-PM-04, Prepare a Hydraulic Crane Pick Up and Carry C34 for legal compliance to travel, NQF Level 3, Credits 2	32
5. 900050-000-00-PM-05, Operate Hydraulic Crane Pick Up and Carry C34 by lifting, moving and positioning loads, NQF Level 3, Credits 20	34
6. 900050-000-00-PM-06, Secure, refuelling or energising and shutdown a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2.....	37

SECTION 1: CURRICULUM SUMMARY

1. Occupational Information

1.1 Associated Occupation

734301: Crane or Hoist Operator

1.2 Occupation or Specialisation Addressed by this Curriculum

Hydraulic Crane Pick Up and Carry C34 Operator

1.3 Alternative Titles used by Industry

None

2. Curriculum Information

The total credit value for this Skills Programme: 42

This Skills Programme is at NQF Level 3

3. Curriculum Structure

This qualification is made up of the following compulsory Knowledge and Practical Skill Modules:

Knowledge Modules:

900047-000-00-KM-01, Safety, Health, Environmental, Risk and Quality (Legislation and QMS), NQF Level 3, Credits 2

900047-000-00-KM-02, Basic understanding of Equipment, Materials, Maintenance and Techniques, NQF Level 3, Credits 4

900047-000-00-KM-3, Basic Rigging, Slings and freight handling, NQF Level 3, Credits 1

900047-000-00-KM-04, Principles of Communication, NQF Level 3, Credits 1

900047-000-00-KM-05, Principles of Lifting Machine operations, NQF Level 3, Credits 4

Total number of credits for Knowledge Modules: 12

Practical Skill Modules:

900050-000-00-PM-01, Conduct pre-start, start-up and operational checks of a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2

900050-000-00-PM-02, Conduct set-up checks of a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2

900050-000-00-PM-03, Plan and prepare for lifting with a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2

900050-000-00-PM-04, Prepare a Hydraulic Crane Pick Up and Carry C34 for legal compliance to travel, NQF Level 3, Credits 5

900050-000-00-PM-05, Operate Hydraulic Crane Pick Up and Carry C34 by lifting, moving and positioning loads, NQF Level 3, Credits 20

900050-000-00-PM-06, Secure, refuelling/energising and shutdown a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 5

Total number of credits for Application Modules: 30

4. Entry Requirements

NQF Level 3 with Mathematical Literacy

5. Quality Partner Information

Name of body: Transport Education Training Authority (TETA)

Address of body: Sonsono Building, 2nd Floor 344 Pretoria Avenue Randburg 2125

6. Learning Pathway

Horizontal Learning Pathway:

Any of the Crane or Hoist Operator Skills Programmes

Vertical Learning Pathway:

Further Education and Training Certificate: Mechanical Handling (Rigging), NQF Level 4, SAQA ID 59731.

National Certificate: Supervision of Construction Processes, NQF Level 4; SAQA ID 59298

SECTION 2: OCCUPATIONAL PROFILE

1. Occupational Purpose

Operate a Hydraulic Crane Pick Up and Carry C34 that is designed and constructed for the purpose of raising or lowering a load or moving it in suspension in accordance with NCoP Code C34.

2. Occupational Tasks

Conduct Hydraulic Crane Pick Up and Carry C34 pre-start, start up and operational checks (NQF Level 3)

Conduct mobilisation and demobilisation of a Hydraulic Crane Pick Up and Carry C34 (NQF Level 3)

Operate a Hydraulic Crane Pick Up and Carry C34 (NQF Level 3)

3. Occupational Task Details

3.1 Conduct Hydraulic Crane Pick Up and Carry C34 pre-start, start up and operational checks (NQF Level 3)

Unique Product or Service:

Hydraulic Crane Pick Up and Carry C34 ready for operation

Occupational Responsibilities:

Conduct pre-start, start-up and operational checks of a Hydraulic Crane Pick Up and Carry C34

Conduct set-up checks of Hydraulic Crane Pick Up and Carry C34

Occupational Contexts:

Processes and procedures to conduct Hydraulic Crane Pick Up and Carry C34 pre-start, start-up and operational checks

3.2 Conduct mobilisation and demobilisation of a Hydraulic Crane Pick Up and Carry C34 (NQF Level 3)

Unique Product or Service:

Hydraulic Crane Pick Up and Carry C34 is prepared for lifting

Occupational Responsibilities:

Plan and prepare for lifting with a Hydraulic Crane Pick Up and Carry C34

Prepare a Hydraulic Crane Pick Up and Carry C34 for legal compliance to travel

Occupational Contexts:

Processes and procedures for mobilisation and demobilisation

3.3 Operate Hydraulic Crane Pick Up and Carry C34 (NQF Level 3)

Unique Product or Service:

Load lifted, moved and positioned

Occupational Responsibilities:

Operate Hydraulic Crane Pick Up and Carry C34 by lifting, moving and positioning loads

Secure, refuelling and shutdown a Hydraulic Crane Pick Up and Carry C34

Occupational Contexts:

Processes and procedures to attach, pickup and lowering procedures of Hydraulic Crane Pick Up and Carry C34 operations in accordance with NCoP Code C34

Processes and procedures to secure and shut down the Hydraulic Crane Pick Up and Carry C34 as appropriate to the environment

SECTION 3: CURRICULUM COMPONENT SPECIFICATIONS

SECTION 3A: KNOWLEDGE COMPONENT SPECIFICATIONS

LIST OF KNOWLEDGE MODULES FOR WHICH SPECIFICATIONS ARE INCLUDED

900047-000-00-KM-01, Safety, Health, Environmental, Risk and Quality (Legislation and QMS), NQF Level 3, Credits 2

900047-000-00-KM-02, Basic understanding of Equipment, Materials, Maintenance and Techniques, NQF Level 3, Credits 4

900047-000-00-KM-03, Basic Rigging, Slings and freight handling, NQF Level 3, Credits 1

900047-000-00-KM-04, Principles of Communication, NQF Level 3, Credits 1

900047-000-00-KM-05, Principles of Lifting Machine operations, NQF Level 3, Credits 4

1. 900047-0003-00-KM-01, Safety, Health, Environmental, Risk and Quality (Legislation and QMS), NQF Level 3, Credits 2

1.1 Purpose of the Knowledge Module

The main focus of the learning in this knowledge module is to build an understanding of the Safety, Health, Environmental, Risk and Quality Legislation theory required for the practice of the Lifting Machine environment. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 2.5 days.

The learning will enable learners to demonstrate an understanding of:

KM-01-KT01: Theories and principles of relevant legislation, regulations and codes (30%)

KM-01-KT02: Concepts, theories and principles of Safety, Health, Environment, Risk and Quality (30%)

KM-01-KT03: Concepts, theories and principles of first aid (20%)

KM-01-KT04: Concepts, theories and principles of firefighting (10%)

KM-01-KT05: Theories and principles of Wellness and Contagious Diseases (10%)

1.2 Guidelines for Topics

1.2.1 KM-01-KT01: Theories and principles of relevant legislation, regulations and codes (30%)

Topic elements to be covered include:

KT0101 Principles of specifications, standards and regulations

KT0102 Driven Machinery Regulations Act in relation to Lifting Machine operations

KT0103 National Code of Practice regulations

KT0104 The role of the Department of Labour

KT0105 Occupational Health and Safety Act (OHS Act) and Mine Health and Safety Act

KT0106 Road Traffic Act applicable to mobile Lifting Machine operations

KT0107 Legislation applicable to Employers and Employees

Internal Assessment Criteria and Weight

IAC0101 Identify and explain different standards and specifications regulating Lifting Machine environments

IAC0102 Explain the impact of specific aspects of the Driven Machinery Regulations Act in relation to the Lifting Machine environment

IAC0103 Identify and discuss the impact of not adhering to the National code of Practice when operating Lifting Machine

IAC0104 Discuss the importance of compulsory and non-compulsory registrations with the Department of Labour and relevant regulating authorities and the frequency of renewal of the Lifting Machine operator license

IAC0105 Explain the impact of specific aspects of the applicable OHS Act and Safety Act on lifting activities

IAC0106 Discuss the importance of adhering to the Road Traffic Act when driving mobile Lifting Machine on public roads

(Weight 30%)

1.2.2 KM-01-KT02: Concepts, theories and principles of Safety, Health, Environment, Risk and Quality (30%)

Topic elements to be covered include:

- KT0201 Principles of safety and workplace safety
- KT0202 Types of potential hazards and emergency situations
- KT0203 Types of signage
- KT0204 Principles of reporting emergency procedures
- KT0205 Types of injuries
- KT0206 Principles of environmental controls (housekeeping)
- KT0207 Types of fires and mechanisms
- KT0208 Types of personal protective equipment
- KT0209 Principles of job-specific medical testing and examination

Internal Assessment Criteria and Weight

- IAC0201 Discuss the principles and purpose of workplace safety
- IAC0202 Identify and discuss potential hazards and associated risks as well as emergency situations at a Lifting Machines environment and how to minimise these
- IAC0203 Explain the possible impacts of not properly identifying and dealing with risks and hazards
- IAC0204 Identify and describe the different types of signage and their meanings
- IAC0205 Identify and explain the importance of reporting emergency procedures in the Lifting Machine environment
- IAC0206 Identify and discuss various types of injuries that can be sustained at a Lifting Machine environment
- IAC0207 Explain the importance of maintaining a clean, tidy and safe working environment
- IAC0208 Identify and discuss the various types of fires and their causes
- IAC0209 Identify and discuss the various fire extinguishers and the types of fires they will be used to extinguish
- IAC0210 Identify and explain the purpose of PPE in respect of Lifting Machine operations and the various work environments
- IAC0211 Discuss the importance of controlling and avoiding spillages that can impact the environment
- IAC0212 Identify and select the correct type of Lifting Machine relevant to the application
- IAC0213 Explain the importance of medical examinations to ensure optimal health of operator
- IAC0214 Discuss the impact of intoxication at the work site

(Weight 30%)

1.2.3 KM-01-KT03: Concepts, theories and principles of first aid (20%)

Topic elements to be covered include:

KT0301 Types of potential hazards and emergency situations

KT0302 Principles of documenting emergency procedures

KT0303 Types of injuries

KT0304 Processes of conducting CPR (mouth-to-mouth resuscitation)

KT0305 Principles for dealing with infectious diseases

KT0306 Types of visible vital signs, signs of shock and first aid

Internal Assessment Criteria and Weight

IAC0301 Discuss how the potential hazards around an injured person can be identified, controlled and provide reasons for doing this

IAC0302 Describe the possible visible vital signs of an injured person and what could be done to reassure and calm the injured person

IAC0303 Explain the importance of not moving an injured person, having the contact details of various emergency services available and being able to access a first aid box

IAC0304 Discuss the principles basic first aid

IAC0305 Explain the most important issues to consider the most appropriate method, and correct procedure to control serious bleeding

(Weight 20%)

1.2.4 KM-01-KT04: Concepts, theories and principles of firefighting (10%)

Topic elements to be covered include:

KT0401 Elements of fire (Triangle of Combustion)

KT0402 Causes of different types of fires

KT0403 Classes of fires

KT0404 Basic fire-fighting equipment

KT0405 Fire prevention

Internal Assessment Criteria and Weight

IAC0401 Explain the triangle of combustion

IAC0402 Discuss and explain the various causes of fire

IAC0403 List and discuss the various classes of fire

IAC0404 Identify and explain the equipment needed for prevention of fires in terms of general organizational housekeeping

IAC0405 Explain Fire prevention in relation to industry practices and company specific procedures

(Weight 10%)

1.2.5 KM-01-KT05: Theories and principles of Wellness and communicable diseases (10%)

Topic elements to be covered include:

KT0501 Nature of communicable diseases

KT0502 Wellness, Infectious and Occupational diseases

KT0503 Transmission routes

KT0504 Risk prevention

KT0505 Workplace attitudes

KT0506 Impact on industry

Internal Assessment Criteria and Weight

IAC0501 Describe and explain the nature of communicable diseases

IAC0502 Describe and explain Wellness, Infectious and Occupational diseases

IAC0503 Describe and explain the transmission routes of communicable diseases

IAC0504 Describe and explain practices which reduce and prevent the risk of infection

IAC0505 Describe and analyse attitudes towards communicable diseases in the workplace

IAC0506 Identify and discuss pandemics in the industry

(Weight 10%)

1.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Classroom
- Classroom furniture (chairs and tables, audio equipment and all other equipment conducive to a learning environment)
- Stationery (electronic consumables, pencils/paper)
- Lifting Machinery learning material and related hand-outs

Human Resource Requirements:

- Facilitator/learner ratio 1 to 12
- Relevant qualifications/experience
- Criteria for registration of ETD Practitioners with relevant bodies where applicable

Legal Requirements:

- Registration with DoEL
- Compliance to SHERQ
- Compliance with ISO standards where applicable

1.4 Exemptions

The relevant QCTO Recognition of Prior Learning (RPL) Policy applies.

2. 900047-000-00-KM-02, Basic understanding of Equipment, Materials, Maintenance and Techniques, NQF Level 3, Credits 4

2.1 Purpose of the Knowledge Module

The main focus of the learning in this knowledge module is to build an understanding of the theory required for the use of specific tools, equipment, materials and techniques as it pertains to Lifting Machines, and to identify and describe the purpose of the various components that make up Lifting Machines. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 5 days.

The learning will enable learners to demonstrate an understanding of:

KM-02-KT01: Introduction to sectors utilising Lifting Machines (5%)

KM-02-KT02: Characteristics and uses of different materials (10%)

KM-02-KT03: Concepts, properties and theories of Lifting Machines techniques (25%)

KM-02-KT04: Purpose of Lifting Machines components, tools, maintenance and mechanical appreciation (40%)

KM-02-KT05: Importance of determining, estimating and calculating load (20%)

2.2 Guidelines for Topics

2.2.1 KM-02-KT01: Introduction to sectors utilising Lifting Machines (5%)

Topic elements to be covered include:

KT0101 Principles and concepts of the various sectors within lifting operations

KT0102 Role-players within the Lifting Machines environment

KT0103 Code of conduct for working in a Lifting Machines environment

Internal Assessment Criteria and Weight

IAC0101 Describe the composition and structure of the various sectors (e.g. mining, construction, stevedoring, warehousing, and agricultural, etc.) but not limited to within the South African economy utilising Lifting Machines

IAC0102 Identify and describe the various role-players/stakeholders within the Lifting Machines environment and their roles

IAC0103 Explain the importance of a code of conduct within a Lifting Machines environment

(Weight 5%)

2.2.2 KM-02-KT02: Characteristics and uses of different materials (10%)

Topic elements to be covered include:

KT0201 Principles and properties of various types of material

KT0202 Types of lifting equipment relevant for different material types

Internal Assessment Criteria and Weight

IAC0201 Identify and discuss the various types of material and their properties such as steel, granite, hazardous cargo, liquids, oils, reels of paper, containers but not limited to

IAC0202 Describe the handling and storage methods for materials

IAC0203 Identify and select the most suitable types of Lifting Machines and attachments for the safe handling of the respective material

IAC0204 Discuss the implications of selecting the incorrect type of lifting equipment/tackle for the different types of material

(Weight 10%)

2.2.3 KM-02-KT03: Concepts, properties and theories of Lifting Machines techniques (25%)

Topic elements to be covered include:

KT0301 Basic principles for site inspection

KT0302 Application of different types of Lifting Machines and applicable attachments

KT0303 Methods and procedures for operating various types of Lifting Machines and applicable attachments

KT0304 Limitations for use of the equipment, applicable attachments and materials

KT0305 Methods and procedures for Lifting Machines, cabin and jib inspection

Internal Assessment Criteria and Weight

IAC0301 Discuss the preparation and inspection of the site prior to operating the Lifting Machine

IAC0302 Discuss the various types of Lifting Machines and attachments and their intended use

IAC0303 Discuss the instructions for installation of the product in accordance with the manufacturer's installation specifications

IAC0304 Discuss and explain the limitations of the use of Lifting Machines

IAC0305 Discuss the inspection of the Lifting Machines environment and the sign off / close down checks on completion of the job

(Weight 25%)

2.2.4 KM-02-KT04: Purpose of Lifting Machines components, tools, maintenance and mechanical appreciation (40%)

Topic elements to be covered include:

KT0401 Principles and theories of lifting equipment and attachments

KT0402 Concepts, theories and methods of maintenance

KT0403 Principles and concepts of maintenance schedules

Internal Assessment Criteria and Weight

IAC0401 Identify and discuss the various components of the Lifting Machines and attachments

IAC0402 Discuss the functions and purposes of the various types of Lifting Machines and attachment

IAC0403 Explain the importance of maintenance schedules

IAC0404 Discuss the impact of not conducting maintenance timeously
(Weight 40%)

2.2.5 KM-02-KT05: Importance of determining, estimating and calculating load (20%)

Topic elements to be covered include:

KT0501 Purpose and function of calculating and estimating loads

KT0502 Theories and functions of load charts and working envelope

KT0503 Methods for estimating and calculating loads

Internal Assessment Criteria and Weight

IAC0501 Discuss the importance of estimating and calculating loads in relation to the safe movement

IAC0502 Identify and discuss load rating charts and range diagrams

IAC0503 Explain the importance of height, weight and length in relation to platform capacity

IAC0504 Discuss the various methods for calculating loads

(Weight 20%)

2.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Classroom
- Classroom furniture (chairs and tables, audio equipment and all other equipment conducive to a learning environment)
- Stationery (electronic consumables, pencils/paper)
- Lifting Machinery learning material and related hand-outs

Human Resource Requirements:

- Facilitator/learner ratio 1 to 12
- Relevant qualifications/experience
- Criteria for registration of ETD Practitioners with relevant bodies where applicable

Legal Requirements:

- Registration with DoEL
- Compliance to SHERQ
- Compliance with ISO standards where applicable

3.4 Exemptions

The relevant QCTO Recognition of Prior Learning (RPL) Policy applies.

3. 900047-000-00-KM-03, Basic Rigging, Slinging and freight handling, NQF Level 3, Credits 1

3.1 Purpose of the Knowledge Module

The main focus of the learning in this knowledge module is to build an understanding of the importance of rigging and slinging techniques, Risk involved specific steps to overcome risks and different types of lifting tackle and its associated safe working loads. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 1.25 days.

The learning will enable learners to demonstrate an understanding of:

KM-03-KT01: Rigging and slinging techniques (50%)

KM-03-KT02: Safety and suitability of different lifting equipment (50%)

3.2 Guidelines for Topics

3.2.1 KM-03-KT01: Rigging and slinging techniques (50%)

Topic elements to be covered include:

KT0101 Methods of inspection and recording operation fitness

KT0102 Slinging method and application

KT0103 Care and safe storage of equipment

KT0104 Certification of rigging and slinging equipment

Internal Assessment Criteria and Weight

IAC0101 Explain the importance of the documentation relevant to lifting tackle

IAC0102 Identify and explain the various slings (slinging angles) to be utilised

IAC0103 Assess and discuss operational capability of Lifting Machines (correct SWL of slings)

IAC0104 Explain the consequences of incorrect use of rigging and slinging

IAC0105 Discuss the correct methods of storage

IAC0106 Discuss the correct slinging methods

IAC0107 Discuss the importance of inspection and record keeping of slings

(Weight 50%)

3.2.2 KM-03-KT02: Safety and suitability of different lifting equipment (50%)

Topic elements to be covered include:

KT0201 Risks involved in rigging and slinging

KT0202 Slinging techniques

KT0203 Defective slinging and rigging equipment

Internal Assessment Criteria and Weight

IAC0201 Identify and explain risks involved in rigging and slinging

IAC0202 Discuss the various types of slinging techniques

IAC0203 Identify and explain defective slinging and rigging equipment

(Weight 50%)

3.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Classroom
- Classroom furniture (chairs and tables, audio equipment and all other equipment conducive to a learning environment)
- Stationery (electronic consumables, pencils/paper)
- Lifting Machinery learning material and related hand-outs

Human Resource Requirements:

- Facilitator/learner ratio 1 to 12
- Relevant qualifications/experience
- Criteria for registration of ETD Practitioners with relevant bodies where applicable

Legal Requirements:

- Registration with DoEL
- Compliance to SHERQ
- Compliance with ISO standards where applicable

3.4 Exemptions

The relevant QCTO Recognition of Prior Learning (RPL) Policy applies.

4. 900047-000-00-KM-04, Principles of Communication, NQF Level 3, Credits 1

4.1 Purpose of the Knowledge Module

The main focus of the learning in this knowledge module is to build an understanding of the various techniques of communicating within the industry. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 1.25 days.

The learning will enable learners to demonstrate an understanding of:

KM-04-KT01: Effective communication (50%)

KM-04-KT02: Methods and principles of communication (50%)

4.2 Guidelines for Topics

4.2.1 KM-04-KT01: Effective communication (50%)

Topic elements to be covered include:

KT0101 Elements of good and poor performance

KT0102 Principles and concepts of effective communication flows to improve and sustain performance

Internal Assessment Criteria and Weight

IAC0101 Discuss the relationship between good and poor communication in all organisational levels and project structures and its effectiveness in the material handling environment

IAC0102 Evaluate the role of communication in a Lifting Machines environment

(Weight 50%)

4.2.2 KM-04-KT02: Methods and principles of communication (50%)

Topic elements to be covered include:

KT0201 Methods and techniques used to manage and maintain effective communications between task participants / role-players

KT0202 Forms of communication and reporting that could be utilised to ensure effective participation of all parties in a task

Internal Assessment Criteria and Weight

IAC0201 Discuss the relationship between good and poor communication in all organisational levels and project structures and its effectiveness in the material handling environment

IAC0202 Discuss relevant communication principles, channels, mediums to be utilised for different scenarios

(Weight 50%)

4.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Classroom

- Classroom furniture (chairs and tables, audio equipment and all other equipment conducive to a learning environment)
- Stationery (electronic consumables, pencils/paper)
- Lifting Machinery learning material and related hand-outs

Human Resource Requirements:

- Facilitator/learner ratio 1 to 12
- Relevant qualifications/experience
- Criteria for registration of ETD Practitioners with relevant bodies where applicable

Legal Requirements:

- Registration with DoEL
- Compliance to SHERQ
- Compliance with ISO standards where applicable

4.4 Exemptions

The relevant QCTO Recognition of Prior Learning (RPL) Policy applies.

5. 900047-000-00-KM-05, Principles of Lifting Machines operations, NQF Level 3, Credits 4

5.1 Purpose of the Knowledge Module

The main focus of the learning in this knowledge module is to build an understanding of the principles and theories that pertain to the operation and effective use of a Lifting Machines in a working environment. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 5 days.

The learning will enable learners to demonstrate an understanding of:

KM-05-KT01: Concepts, dynamics and theories of the Lifting Machines environment (15%)

KM-05-KT02: Theories, principles, reading and interpretation of operating procedures of Lifting Machines (15%)

KM-05-KT03: Types, classification and purposes of Lifting Machines and attachments (20%)

KM-05-KT04: Theories, concepts and principles of Lifting Machines operations (40%)

KM-05-KT05: Principles, concepts and techniques of identifying and reporting defects (10%)

5.2 Guidelines for Topics

5.2.1 KM-05-KT01: Concepts, dynamics and theories of the Lifting Machines environment (15%)

Topic elements to be covered include:

KT0101 Principles and functions of the various Lifting Machines environments

KT0102 Principles and theories of Lifting Machines equipment

KT0103 Principles of housekeeping in the Lifting Machines environment

KT0104 Principles of safe usage and storage of Lifting Machines attachments

Internal Assessment Criteria and Weight

IAC0101 Identify and describe the various Lifting Machines environments such as ports, warehouses, wharves, vessels, shipyards, petrochemical plants, sawmills, factories, mines, railway sites and building sites but not limited to

IAC0102 Identify and explain the various components found in the Lifting Machines

IAC0103 Discuss and explain the role of proper housekeeping in relation to the various Lifting Machines environments

IAC0104 Explain the consequences of poor housekeeping and unsafe storage of lifting attachments of Lifting Machines

(Weight 15%)

5.2.2 KM-05-KT02: Theories, principles, reading and interpretation of operating procedures of Lifting Machines (15%)

Topic elements to be covered include:

KT0201 Theories, purpose and functions of manufacturer's' instructions

KT0202 Purpose and functions of firm-specific standard operating procedures

Internal Assessment Criteria and Weight

IAC0201 Discuss the principles in understanding manufacturer's instructions where applicable

IAC0202 Identify and discuss the various topics within the manufacturer's manual where applicable

IAC0203 Identify and explain the functions of standard operating procedures

IAC0204 Explain the importance of the documentation relevant to Lifting Machines according to the DMR 18

(Weight 15%)

5.2.3 KM-05-KT03: Types, classification and purposes of Lifting Machines and attachments (20%)

Topic elements to be covered include:

KT0301 Types of lifting attachments for Lifting Machines

KT0302 Features and characteristics of the main types of lifting attachments for Lifting Machines

KT0303 Purposes and safe uses of the main types of lifting attachments for Lifting Machines

KT0304 Principles of lifting attachments of Lifting Machines in relation to load capacity

KT0305 Principles of storage and handling of lifting attachments for Lifting Machines

KT0306 Principles of maintenance of lifting attachments for Lifting Machines

KT0307 Principles of identification and selection of lifting attachments for the safe handling of materials

Internal Assessment Criteria and Weight

IAC0301 List the various types of lifting attachments for Lifting Machines

IAC0302 Identify and explain the characteristics of the most commonly used lifting attachments for Lifting Machines

IAC0303 Discuss the critical issues related to the identification and safe use of lifting attachments for Lifting Machines

IAC0304 Discuss the effect of adding and removing attachments to the Lifting Machines

IAC0305 Explain the importance of maintenance of lifting attachments for Lifting Machines

IAC0306 Discuss the safe storage of lifting attachments for Lifting Machines

IAC0307 Explain the importance of lifting attachment in relation to loads and material handling

(Weight 20%)

5.2.4 KM-05-KT04: Theories, concepts and principles of Lifting Machines operations (40%)

Topic elements to be covered include:

KT0401 Principles and procedures for planning a load

KT0402 Procedures and principles for maintaining centre of gravity

KT0403 Concepts and principles of maintaining stability of the load

KT0404 Principles and procedures for safe positioning of the load

Internal Assessment Criteria and Weight

IAC0401 Explain the role of route planning Lifting Machines operation
IAC0402 Describe securing methods to meet load stability
IAC0403 Explain the purpose of maintaining centre of gravity to meet safety requirements
IAC0404 Discuss the importance of maintaining the safe positioning of the load
(Weight 40%)

5.2.5 KM-05-KT05: Principles, concepts and techniques of identifying and reporting defects (10%)

Topic elements to be covered include:

KT0501 Principles, methods and techniques of identifying defects
KT0502 Methods and techniques of recording and reporting defects

Internal Assessment Criteria and Weight

IAC0501 Identify and discuss possible defects
IAC0502 Discuss the consequences of using incorrect equipment
IAC0503 Describe and explain the procedures when maintaining equipment
(Weight 10%)

5.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Classroom
- Classroom furniture (chairs and tables, audio equipment and all other equipment conducive to a learning environment)
- Stationery (electronic consumables, pencils/paper)
- Lifting Machinery learning material and related hand-outs

Human Resource Requirements:

- Facilitator/learner ratio 1 to 12
- Relevant qualifications/experience
- Criteria for registration of ETD Practitioners with relevant bodies where applicable

Legal Requirements:

- Registration with DoEL
- Compliance to SHERQ
- Compliance with ISO standards where applicable

5.4 Exemptions

The relevant QCTO Recognition of Prior Learning (RPL) Policy applies.

SECTION 3B: APPLICATION COMPONENT SPECIFICATIONS

LIST OF APPLICATION COMPONENT SPECIFICATIONS

900050-000-00-PM-01, Conduct pre-start, start-up and operational checks of a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2

900050-000-00-PM-02, Conduct set-up checks of a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2

900050-000-00-PM-03, Plan and prepare for lifting with a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2

900050-000-00-PM-04, Prepare Hydraulic Crane Pick Up and Carry C34 for legal compliance to travel, NQF Level 3, Credits 2

900050-000-00-PM-05, Operate Hydraulic Crane Pick Up and Carry C34 by lifting, moving and positioning loads, NQF Level 3, Credits 20

900050-000-00-PM-06, Park, secure, refuelling and shutdown a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2

1. 900050-000-00-PM-01, Conduct pre-start, start-up and operational checks of a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2

1.1 Purpose of the Practical Skill Module

The focus of the learning in this module is on providing the learner an opportunity to conduct pre-start, start-up and operational checks within a simulated or working environment for NCoP Code C34. Learners will also be practising skills related to inspecting work area, Hydraulic Crane Pick Up and Carry C34 and complete pre-start checks, start-up checks and operational checks. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 2.5 days.

The learner will be required to:

PM-01-PS01: Inspect work area

PM-01-PS02: Inspect Hydraulic Crane Pick Up and Carry C34

PM-01-PS03: Complete pre-start checks, start-up checks and operational checks

1.2 Guidelines for Applications

1.2.1 PM-01-PS01: Inspect work area

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedures the learner must be able to:

AA0101 Inspect work area, make work area safe and secure from physical hazards

AA0102 Identify risks and hazards associated with the work environment

AA0103 Assess the risks, hazards and document findings

AA0104 Use applicable PPE and SOPs as per site specific procedures

Applied Knowledge

AK0101 Standard hazards and risk management practices

AK0102 Safety standard operating procedures

AK0103 Practices for personal protective equipment

Internal Assessment Criteria

IAC0101 Warning signs and symbols identified and adhered to as per work environment (ground conditions/overhead) (Job observation)

IAC0102 Hazards and risks are identified and responded to in a responsible manner in accordance with accepted hazard identification and risk assessment practices

IAC0103 Personal protective equipment such as conti-suits, safety boots, gloves, goggles/safety glasses, reflective vests, hard-hats, ear plugs and dusk masks are identified and utilised as per relevant legislation

1.2.2 PM-01-PS02: Inspect Hydraulic Crane Pick Up and Carry C34

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedures the learner must be able to:

AA0201 Identify specific components

AA0202 Explain functions and purpose of components

AA0203 Perform maintenance tasks

Applied Knowledge

AK0201 Components of Hydraulic Crane Pick Up and Carry C34 and their purpose

AK0202 Differences between the different Hydraulic Crane Pick Up and Carry cranes in the NCoP code classifications C33, C34, 35, 36, C43 and C46

AK0203 Standard hazards and risk management practices

AK0204 Safety standard operating procedures

AK0205 Practices for personal protective equipment

Internal Assessment Criteria

IAC0201 Components are identified according to Crane Pick Up and Carry C34 type

IAC0202 Components are checked in accordance with a checklist and manufacturer's specifications

IAC0203 Functions and purpose of components are explained according to Hydraulic Crane Pick Up and Carry C34 type

IAC0204 Maintenance tasks are performed as specified per specifications procedures

1.2.3 PM-01-PS03: Complete pre-start checks, start-up checks and operational checks

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements and standard operating procedure the learner must be able to:

AA0301 Identify Hydraulic Crane Pick Up and Carry C34 components and structures

AA0302 Check oil, tyres, boom, outriggers, control levers, visual hoist rope, Hydraulic Crane Pick Up and Carry C34 hook, block and tackle, brakes, gauges, sirens and slew

AA0303 Complete checklist

AA0304 Conduct set-up checks of Hydraulic Crane Pick Up and Carry C34

AA0305 Check and ensure risk assessment is in place

Applied Knowledge

AK0301 Hydraulic Crane Pick Up and Carry C34 components, structures and mechanisms

AK0302 Standard checklist for components

Internal Assessment Criteria

IAC0301 Relevant Hydraulic Crane Pick Up and Carry C34 components, structures and mechanisms are identified and checked in accordance with standard operating procedures and manufacturer's specifications

IAC0302 Checklist completed of visual and operational checks in line with standard operating procedures.

1.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to Hydraulic Crane Pick Up and Carry C34 and environment/work area
- Categories of tools, equipment, attachments, safe operating procedures, manufacturer's specifications and processes in order for learners to apply correct and safe operating methods, principles and techniques of Hydraulic Crane Pick Up and Carry C34 operations

Human Resource Requirements:

- Facilitator: Should be a licensed and experienced Hydraulic Crane Pick Up and Carry C34 Operator with at least 3 years relevant experience working within a Hydraulic Crane Pick Up and Carry C34 environment as an operator and qualified as a Facilitator.
- Assessor: Should be a licensed and experienced Hydraulic Crane Pick Up and Carry C34 Operator with at least 3 years relevant experience working within a Hydraulic Crane Pick Up and Carry C34 environment as an operator and qualified as an Assessor.
- Practical coach/learner ratio 1 to 1 dependant on the cab's capacity.

Legal Requirements:

- Registered with DoEL
- Compliant with Compliance to SHERQ
- Compliant with the Road Traffic Act, as applicable
- Compliant with National Code of Practice in line with the Driven Machinery Regulations Act

1.4 Exemptions

The relevant QCTO Recognition of Prior Learning (RPL) Policy applies.

2. 900050-000-00-PM-02, Conduct set-up checks of a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2

2.1 Purpose of the Practical Skill Module

The focus of the learning in this module is on providing the learner an opportunity to conduct set-up checks of Hydraulic Crane Pick Up and Carry C34 within a simulated or working environment for NCoP Code C34. The learners will be practicing skills related to conducting set-up checks of Hydraulic Crane Pick Up and Carry C34 and check and ensure risk assessment is in place. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 2.5 days.

The learner will be required to:

PM-02-PS01: Conduct set-up checks of Hydraulic Crane Pick Up and Carry C34

PM-02-PS02: Check and ensure risk assessment is in place

2.2 Guidelines for Applications

2.2.1 PM-02-PS01: Conduct set-up checks of Hydraulic Crane Pick Up and Carry C34

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedures the learner must be able to:

AA0101 Check ground conditions

AA0102 Check obstructions

AA0103 Stabilise a Hydraulic Crane Pick Up and Carry C34

Applied Knowledge

AK0101 Specifications for directing and operating the Hydraulic Crane Pick Up and Carry C34

AK0102 Manufacturer's specifications

AK0103 Use of spirit levels

Internal Assessment Criteria

IAC0101 Ground conditions are physically checked according to job requirements

IAC0102 Obstruction (not limited to electrical, manholes, drainage, power lines etc.) are identified and isolated according to operating procedures

IAC0103 Set-up out riggers, levelling of Hydraulic Crane Pick Up and Carry C34, shoring etc. are stabilised according to job requirements

2.2.2 PM-02-PS02: Check and ensure risk assessment is in place

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedure the learner must be able to:

AA0201 Ensure all risks are identified and addressed

AA0202 Check ground conditions for risk assessment
AA0203 Identify all obstructions
AA0204 Set-up Hydraulic Crane Pick Up and Carry C34

Applied Knowledge

AK0201 Specifications for directing and operating the Hydraulic Crane Pick Up and Carry C34
AK0202 Types of hazards
AK0203 Knowledge of work area

Internal Assessment Criteria

IAC0201 Risk such as proximity to power lines, excavations or embankments, environmental assessment etc. are identified and avoided according to operating manuals and manufacturer's specifications
IAC0202 Hydraulic Crane Pick Up and Carry C34 are set-up in accordance to manufacturer's instructions

2.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to Hydraulic Crane Pick Up and Carry C34 and environment/work area
- Categories of tools, equipment, attachments, safe operating procedures, manufacturer's specifications and processes in order for learners to apply correct and safe operating methods, principles and techniques of Hydraulic Crane Pick Up and Carry C34 operations

Human Resource Requirements:

- Facilitator: Should be a licensed and experienced Hydraulic Crane Pick Up and Carry C34 Operator with at least 3 years relevant experience working within a Hydraulic Crane Pick Up and Carry C34 environment as an operator and qualified as a Facilitator.
- Assessor: Should be a licensed and experienced Hydraulic Crane Pick Up and Carry C34 Operator with at least 3 years relevant experience working within a Hydraulic Crane Pick Up and Carry C34 environment as an operator and qualified as an Assessor.
- Practical coach/learner ratio 1 to 1 dependant on the cab's capacity.

Legal Requirements:

- Registered with DoEL
- Compliant with Compliance to SHERQ
- Compliant with the Road Traffic Act, as applicable
- Compliant with National Code of Practice in line with the Driven Machinery Regulations Act

2.4 Exemptions

The relevant QCTO Recognition of Prior Learning (RPL) Policy applies.

3. 900050-000-00-PM-03, Plan and prepare for lifting with a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2

3.1 Purpose of the Practical Module

The focus of the learning in this module is on providing the learner an opportunity to plan and prepare for lifting (Method statements) within a simulated or working environment for NCoP Code C34. The learners will be practicing skills related to establishing load dimensions and characteristics of the load, basic rigging and slinging and establishing load route/path. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 2.5 days.

The learner will be required to:

PM-03-PS01: Establish load dimensions and characteristics of the load

PM-03-PS02: Basic rigging and slinging

PM-03-PS03: Establish load route/path

3.2 Guidelines for Applications

3.2.1 PM-03-PS01: Establish load dimensions and characteristics of the load

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedures the learner must be able to:

AA0101 Check documentation for dimensions and characteristics of the load (waybills, invoice, tags, packaging, etc.)

AA0102 Verify weight of loads (known weights, converting, etc.)

AA0103 Establish centre of gravity of load

Applied Knowledge

AK0101 Types of loads

AK0102 Application of length, weight and shape of loads

AK0103 Practices of estimating loads

AK0104 Hydraulic Crane Pick Up and Carry C34 specifications

Internal Assessment Criteria

IAC0101 Load dimensions and characteristics comply to safe working practices and manufacturer's specifications

IAC0102 Centre of gravity identified and capacity of load rated in accordance with manufacturer's instructions and specifications (SWL or Safe working load)

3.2.2 PM-03-PS02: Basic rigging and slinging

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedures the learner must be able to:

AA0201 Identify and select the appropriate lifting tackle as per task requirements (identification tags and markings)

AA0202 Apply correct rigging, slinging methods and use of tag lines

Applied Knowledge

AK0201 Safe working load of the slings

AK0202 Load dimensions

AK0203 Safety certificate

AK0204 Correct use of lifting tackle

Internal Assessment Criteria

IAC0201 Lifting tackle is selected and inspected according to job requirement

IAC0202 Use of lifting tackle used according to manufacturer's specifications

3.2.3 PM-03-PS03: Establish load route/path

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedures the learner must be able to:

AA0301 Establish pick-up radius

AA0302 Safest route

AA0303 Establish put-down radius

AA0304 Establish landing height

Applied Knowledge

AK0301 Interpretation of load charts

AK0302 Work area

Internal Assessment Criteria

IAC0301 Handling of load according with standard operating procedures

IAC0302 Load charts are read and interpreted according with standard operating procedures

3.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to Hydraulic Crane Pick Up and Carry C34 and environment/work area
- Categories of tools, equipment, attachments, safe operating procedures, manufacturer's specifications and processes in order for learners to apply correct and safe operating methods, principles and techniques of Hydraulic Crane Pick Up and Carry C34 operations

Human Resource Requirements:

- Facilitator: Should be a licensed and experienced Hydraulic Crane Pick Up and Carry C34 Operator with at least 3 years relevant experience working within a Hydraulic Crane Pick Up and Carry C34 environment as an operator and qualified as a Facilitator.
- Assessor: Should be a licensed and experienced Hydraulic Crane Pick Up and Carry C34 Operator with at least 3 years relevant experience working within a Hydraulic Crane Pick Up and Carry C34 environment as an operator and qualified as an Assessor.
- Practical coach/learner ratio 1 to 1 dependant on the cab's capacity.

Legal Requirements:

- Registered with DoEL
- Compliant with Compliance to SHERQ
- Compliant with the Road Traffic Act, as applicable
- Compliant with National Code of Practice in line with the Driven Machinery Regulations Act

3.4 Exemptions

The relevant QCTO Recognition of Prior Learning (RPL) Policy applies.

4. 900050-000-00-PM-04, Prepare a Hydraulic Crane Pick Up and Carry C34 for legal compliance to travel, NQF Level 3, Credits 2

4.1 Purpose of the Practical Module

The focus of the learning in this module is on providing the learner an opportunity to prepare Hydraulic Crane Pick Up and Carry C34 for legal compliance to travel within a simulated or working environment for NCoP Code C34. The learners will be practicing skills related to checking documentation and configuring Hydraulic Crane Pick Up and Carry C34 for travel. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 2.5 days.

The learner will be required to:

PM-04-PS01: Check documentation

PM-04-PS02: Configuring Hydraulic Crane Pick Up and Carry C34 for travel

4.2 Guidelines for Applications

4.2.1 PM-04-PS01: Check documentation

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedures the learner must be able to:

AA0101 Verify the legality of the permit

AA0102 Implications of signing off on permits

Applied Knowledge

AK0101 Road Traffic Act

AK0102 Standard operating procedures

AK0103 Types of Hydraulic Crane Pick Up and Carry C34 travel configurations

AK0104 Provincial policies and regulations

Internal Assessment Criteria

IAC0101 Documentation for Hydraulic Crane Pick Up and Carry C34 is checked and completed according with standard operating procedures

IAC0102 Travel mode checklist completed according with standard operating procedures

4.2.2 PM-04-PS02: Configuring Hydraulic Crane Pick Up and Carry C34 for travel

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedures the learner must be able to:

AA0201 Confirm if Hydraulic Crane Pick Up and Carry C34 is in correct travel mode

AA0202 Assess weight capabilities to ensure road compliance

AA0203 Counterweights are stowed correctly

Applied Knowledge

AK0201 Understanding Road Traffic Act

AK0202 Standard operating procedures

AK0203 Knowing and understanding the various types of Hydraulic Crane Pick Up and Carry C34 travel configurations

AK0204 Understanding and working knowledge of provincial policies and regulations

Internal Assessment Criteria

IAC0201 Hydraulic Crane Pick Up and Carry C34 is configured according to travel specifications

IAC0202 Travel mode checklist completed according with standard operating procedures

4.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to Hydraulic Crane Pick Up and Carry C34 and environment/work area
- Categories of tools, equipment, attachments, safe operating procedures, manufacturer's specifications and processes in order for learners to apply correct and safe operating methods, principles and techniques of Hydraulic Crane Pick Up and Carry C34 operations

Human Resource Requirements:

- Facilitator: Should be a licensed and experienced Hydraulic Crane Pick Up and Carry C34 Operator with at least 3 years relevant experience working within a Hydraulic Crane Pick Up and Carry C34 environment as an operator and qualified as a Facilitator.
- Assessor: Should be a licensed and experienced Hydraulic Crane Pick Up and Carry C34 Operator with at least 3 years relevant experience working within a Hydraulic Crane Pick Up and Carry C34 environment as an operator and qualified as an Assessor.
- Practical coach/learner ratio 1 to 1 dependant on the cab's capacity.

Legal Requirements:

- Registered with DoEL
- Compliant with Compliance to SHERQ
- Compliant with the Road Traffic Act, as applicable
- Compliant with National Code of Practice in line with the Driven Machinery Regulations Act

4.4 Exemptions

The relevant QCTO Recognition of Prior Learning (RPL) Policy applies.

5. 900050-000-00-PM-05, Operate Hydraulic Crane Pick Up and Carry C34 by lifting, moving and positioning loads, NQF Level 3, Credits 20

5.1 Purpose of the Practical Module

The focus of the learning in this module is on providing the learner an opportunity to operate Hydraulic Crane Pick Up and Carry C34 by lifting, moving and positioning loads within a simulated or working environment for NCoP Code C34. The learners will also be practicing skills related to hoisting, slewing, moving and lowering of loads as well as communicating with a competent rigger/signal person. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 25 days.

The learner will be required to:

PM-05-PS01: Hoisting, slewing, moving and lowering of loads

PM-05-PS02: Communicate with a competent rigger/ signal person

5.2 Guidelines for Applications

5.2.1 PM-05-PS01: Hoisting, slewing, moving and lowering of loads

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedures the learner must be able to:

AA0101 Establish centre of gravity of load

AA0102 Ensure that the slings are secure

AA0103 Slings securely attached to the load

AA0104 Correct methods of slinging loads is adhered to

AA0105 Load is lifted slightly to ensure the correct slinging methodology has been adhered to and confirm centre of gravity has been attained

AA0106 Verify load indicator with load charts

AA0107 Attach a tag line to control the load where applicable

AA0108 Smooth handling of controls

AA0109 Maintain stability of the load

AA0110 Manoeuvring the load safely

AA0111 Operate Hydraulic Crane Pick Up and Carry C34 utilising all movement functions (i.e. but not limited to slews, boom hoist/boom lower, long travel, traverse trolley, etc.)

Applied Knowledge

AK0101 Types of loads

AK0102 Application of length, weight and shape of loads

AK0103 Practices of estimating loads

AK0104 Hydraulic Crane Pick Up and Carry C34 specifications

AK0105 Specifications for operating the Hydraulic Crane Pick Up and Carry C34

AK0106 Hand signals

AK0107 Functions of operating controls

Internal Assessment Criteria

IAC0101 Dimensions and characteristics of the load comply to safe working practices to manufacturer's specifications

IAC0102 Centre of gravity identified and capacity of load rated in accordance with manufacturer's instructions and specifications (SWL or Safe working load)

IAC0103 Load is moved in a smooth manner according to the standard operating procedures

5.2.2 PM-05-PS02: Communicate with a competent rigger/ signal person

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, case study, activity documents, relevant templates, forms, safety requirements, and quality principles standard operating procedures, and information available the learner must be able to:

AA0201 Interpret and demonstrate hand signals

AA0202 Apply the correct procedure for radio communication

Applied Knowledge

AK0201 Hand signals

AK0202 Communication methods

Internal Assessment Criteria

IAC0201 Hand signals are interpreted according with standard operating procedures

IAC0202 Radio communication procedures are applied according with standard operating procedures

5.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to Hydraulic Crane Pick Up and Carry C34 and environment/work area
- Categories of tools, equipment, attachments, safe operating procedures, manufacturer's specifications and processes in order for learners to apply correct and safe operating methods, principles and techniques of Hydraulic Crane Pick Up and Carry C34 operations

Human Resource Requirements:

- Facilitator: Should be a licensed and experienced Hydraulic Crane Pick Up and Carry C34 Operator with at least 3 years relevant experience working within a Hydraulic Crane Pick Up and Carry C34 environment as an operator and qualified as a Facilitator.
- Assessor: Should be a licensed and experienced Hydraulic Crane Pick Up and Carry C34 Operator with at least 3 years relevant experience working within a Hydraulic Crane Pick Up and Carry C34 environment as an operator and qualified as an Assessor.
- Practical coach/learner ratio 1 to 1 dependant on the cab's capacity.

Legal Requirements:

- Registered with DoEL
- Compliant with Compliance to SHERQ
- Compliant with the Road Traffic Act, as applicable
- Compliant with National Code of Practice in line with the Driven Machinery Regulations Act

5.4 Exemptions

The relevant QCTO Recognition of Prior Learning (RPL) Policy applies.

6. 900050-000-00-PM-06, Secure, refuelling or energising and shutdown a Hydraulic Crane Pick Up and Carry C34, NQF Level 3, Credits 2

6.1 Purpose of the Practical Module

The focus of the learning in this module is on providing the learner an opportunity to park, secure, refuelling or energise and shutdown the Hydraulic Crane Pick Up and Carry C34 within a simulated or working environment for NCoP Code C34. The learners will also be practicing skills related to remove load and any attachments from the hook/block, park and stow Hydraulic Crane Pick Up and Carry C34 in designated area, ensure all controls in neutral and apply park brakes and/or secure levers and ensure safety when refuelling. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 2.5 days.

The learner will be required to:

PM-06-PS01: Remove load and any attachments from the hook/block

PM-06-PS02: Park and stow Hydraulic Crane Pick Up and Carry C34 in designated area

PM-06-PS03: Ensure all controls in neutral and apply park brakes and/or secure levers

PM-06-PS04: Ensure safety when refuelling or energising a Hydraulic Crane Pick Up and Carry C34

6.2 Guidelines for Applications

6.2.1 PM-06-PS01: Remove load and any attachments from the hook/block

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedures the learner must be able to:

AA0101 Load and attachment removal

AA0102 Secure Hydraulic Crane Pick Up and Carry C34 hook/block

AA0103 Safe storage of Hydraulic Crane Pick Up and Carry C34 and attachment

Applied Knowledge

AK0101 Standard operating procedures

AK0102 Practices of safe storage of loads and attachments

Internal Assessment Criteria

IAC0101 Loads and attachments removed in accordance with safe working practices and manufacturer's specification

IAC0102 Hydraulic Crane Pick Up and Carry C34 and attachments stored in a safe and secure manner and in accordance with industry procedures and manufacturer's specifications

IAC0103 Hook/block is hoisted to maximum height in accordance with safe operating practices and manufacturer's specifications

6.2.2 PM-06-PS02: Park and stow Hydraulic Crane Pick Up and Carry C34 in designated area

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedures the learner must be able to:

AA0201 Identify parking area

AA0202 Park Hydraulic Crane Pick Up and Carry C34

Applied Knowledge

AK0201 Applied methods of parking Hydraulic Crane Pick Up and Carry C34

Internal Assessment Criteria

IAC0201 Designated parking area checked for obstructions in accordance with safe operating practices

IAC0202 Hydraulic Crane Pick Up and Carry C34 parked in designated area according to environment and standard operating procedures

6.2.3 PM-06-PS03: Ensure all controls in neutral and apply park brakes and/or secure levers

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedures the learner must be able to:

AA0301 Switch-off Ignition, lights, pendant control, joystick control and main isolator

AA0302 Secure Hydraulic Crane Pick Up and Carry C34

Applied Knowledge

AK0301 Specifications for applying park brakes and securing all controls and levers

AK0302 Applications of securing Hydraulic Crane Pick Up and Carry C34

AK0303 Specifications for park brakes

Internal Assessment Criteria

IAC0301 All levers and controls (such as ignition, lights, pendant control, joystick control and main isolator) secured and neutralised in accordance with industry procedures and manufacturer's specifications

IAC0302 Hydraulic Crane Pick Up and Carry C34 are tidy and all windows and doors are shut according to industry procedures

IAC0303 Park brakes are applied in accordance with industry procedures and manufacturer's specifications

6.2.4 PM-06-PS04: Ensure safety when refuelling or energising a Hydraulic Crane Pick Up and Carry C34

Scope of Application

Given a Hydraulic Crane Pick Up and Carry C34, task instructions, checklists, work area, relevant documents, safety requirements, and standard operating procedures the learner must be able to:

AA0401 Use applicable fire extinguishers

AA0402 Adhere to refuelling or energising procedures

Applied Knowledge

AK0401 Types of fires extinguishers and their use

AK0402 Classes of fire

AK0403 Causes of fire

AK0404 Understanding refuelling or energising precautions

Internal Assessment Criteria

IAC0401 Applicable procedures are adhered to for refuelling or energising a Hydraulic Crane Pick Up and Carry C34

IAC0402 Applicable fire extinguisher is used according to procedures

6.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to Hydraulic Crane Pick Up and Carry C34 and environment/work area
- Categories of tools, equipment, attachments, safe operating procedures, manufacturer's specifications and processes in order for learners to apply correct and safe operating methods, principles and techniques of Hydraulic Crane Pick Up and Carry C34 operations

Human Resource Requirements:

- Facilitator: Should be a licensed and experienced Hydraulic Crane Pick Up and Carry C34 Operator with at least 3 years relevant experience working within a Hydraulic Crane Pick Up and Carry C34 environment as an operator and qualified as a Facilitator.
- Assessor: Should be a licensed and experienced Hydraulic Crane Pick Up and Carry C34 Operator with at least 3 years relevant experience working within a Hydraulic Crane Pick Up and Carry C34 environment as an operator and qualified as an Assessor.
- Practical coach/learner ratio 1 to 1 dependant on the cab's capacity.

Legal Requirements:

- Registered with DoEL
- Compliant with Compliance to SHERQ
- Compliant with the Road Traffic Act, as applicable
- Compliant with National Code of Practice in line with the Driven Machinery Regulations Act

6.4 Exemptions

The relevant QCTO Recognition of Prior Learning (RPL) Policy applies.