Curriculum Document		
Curriculum Code	**Curriculum Title**	
734201	**Occupational Certificate: Construction Plant Operator (General)**	

	Name	Email	Phone	Logo
Development Quality Partner	**Construction Education and Training Authority**	**AnnikieP@ceta.co.za**	**011 265 5903**	

QDF Signature

10/05/2019
Date

DQP Representative Signature

Date

Table of contents

SECTION 1: CURRICULUM SUMMARY

1. Occupational Information

1.1 Associated Occupation

2017-734201-001-00-00: Construction Plant Operator (General)

1.2 Occupation or Specialisation Addressed by this Curriculum

2017-734201-001-00-00: Construction Pant Operator (General)

1.3 Alternative Titles used by Industry

- None

2. Curriculum Information

2.1 Curriculum Structure

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

Knowledge Modules:

- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-02, Operations and machines, NQF Level 2, Credits 15
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 10

Total number of credits for Knowledge Modules: 40

Practical Skill Modules:

- 734201000-PM-01, Establish and prepare the work area, NQF Level 2, Credits 3
- 734201000-PM-02, Operate a diesel bowser, NQF Level 2, Credits 10
- 734201000-PM-03, Operate a grader, NQF Level 2, Credits 10
- 734201000-PM-04, Operate a hot mix asphalt paving machine, NQF Level 2, Credits 8
- 734201000-PM-05, Operate a surface soil stabiliser and milling machine, NQF Level 2, Credits 5
- 734201000-PM-06, Operate a surface paving machine, NQF Level 2, Credits 5
- 734201000-PM-07, Operate a surface roller, NQF Level 2, Credits 5
- 734201000-PM-08, Operate a surface sideboom, NQF Level 2, Credits 5
- 734201000-PM-09. Operate a surface tracked dozer, NQF level 2, Cr 5
- 734201000-PM-10. Operate a tractor, NQF level 2, Cr 5
- 734201000-PM-11. Operate bitumen spray equipment, NQF level 2, Cr 7
- 734201000-PM-12. Operate continuous bucket trencher, NQF level 2, Cr 5
- 734201000-PM-13. Operate a surface face shovel, NQF level 2, Cr 5
- 734201000-PM-14. Operate water cart, NQF level 2, Cr 5
- 734201000-PM-15. Operate wheeled dozer, NQF level 2, Cr 5

Total number of credits for Practical Skill Modules: 88

This qualification also requires the following Work Experience Modules:

- 734201000-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201000 -WM-02, Identification and hazards removal (HIRA) processes from construction worksite, NQF Level 2, Cr 5

- 734201000 -WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201000 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10
- 734201000-WM-05, Equipment performance reporting procedures, NQF Level 2, Cr 5

Total number of credits for Work Experience Modules: 28

2.2 Entry Requirements

NQF level 1 with mathematical and English literacy

3. Assessment Quality Partner Information

Name of body: Construction Education and Training Authority (CETA)
Address of body: 183 Kerk St, Halfway House, Midrand, 1685
Contact person name: Annikie Phuti
Contact person work telephone number: 011 628 7000

4. Part Qualification Curriculum Structure

4.1 Part Qualification 1:

Title: A diesel bowser operator
SAQA Qual ID XXXX, A diesel bowser operator, NQF Level 2, Credits 46

Purpose:
Operate an equipment to transport fuel safely to support other equipment on the construction site

Applicable Modules (Rules of Combination)
Knowledge Modules:

- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

Total number of credits for Knowledge Modules: 20

Practical Skill Modules:

- 734201-000-PM-01. Establish and prepare the work area, NQF level 2, Cr 3
- 734201-000-PM-02. Operate a diesel bowser, NQF level 2, Cr 5

Total number of credits for Practical Skill Modules: 8

This qualification also requires the following Work Experience Modules:

- 734201-000-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201-000-WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201-000-WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10

Total number of credits for Work Experience Modules: 18

ENTRY REQUIREMENTS

- NQF Level 1 with mathematics and English literacy

EXIT LEVEL OUTCOMES 1
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria

- The main functions of a diesel bowser are explained in terms of manufacturer`s specifications
- The operation of all major components is explained in terms of their functions
- The applications of a diesel bowser are described in terms of construction plant activities
- All safety features and warning devices on the diesel bowser are identified, and their purposes explained in accordance with manufacturer`s specifications
- The maximum operating capacities are explained in terms of the designed diesel bowser capabilities
- Warnings from diesel bowser indicators and gauges are explained according to manufacturer`s specifications

- Pre-operational checks are carried out according to appropriate checklist.
- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A diesel bowser is parked according to manufacturer's and worksite requirements
- A diesel bowser's hours are documented in accordance with company requirements
- A diesel bowser's maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A diesel bowser's performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- A diesel bowser is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a diesel bowser for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a diesel bowser for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving a diesel bowser on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator (734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator (734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate: Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**

  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

4.2 Part Qualification 2:

Title: Continuous Bucket Trencher Operator
SAQA Qual ID XXXX, Continuous Bucket Trencher Operator, NQF Level 2, Credits 43

Purpose:
Operate equipment to dig trenches for pipes and cabling

Applicable Modules (Rules of Combination)
Knowledge Modules:
734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5
Total number of credits for Knowledge Modules: 20

Practical Skill Modules:
734201-000-00-00-PM-12. Operate continuous bucket trencher, NQF level 2, Cr 5
Total number of credits for Practical Skill Modules: 5

This qualification also requires the following Work Experience Modules:
734201-000-00-00-WM-01, Participate in the daily operational planning meeting, NQF Level 2, Cr 3
734201-000-00-00 -WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
734201-000-00-00 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10
Total number of credits for Work Experience Modules: 18

ENTRY REQUIREMENTS
- NQF Level 1 with mathematics literacy

EXIT LEVEL OUTCOMES 1
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria
- The main functions of a Continuous Bucket Trencher operator are explained in terms of manufacturer`s specifications
- The operation of all major components is explained in terms of their functions
- The applications of a Continuous Bucket Trencher operator are described in terms of construction plant activities
- All safety features and warning devices on a Continuous Bucket Trencher operator are identified, and their purposes explained in accordance with manufacturer`s specifications
- The maximum operating capacities are explained in terms of the designed Continuous Bucket Trencher operator capabilities
- Warnings from a Continuous Bucket Trencher operator indicators and gauges are explained according to manufacturer`s specifications
- Pre-operational checks are carried out according to appropriate checklist.

- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A Continuous Bucket Trencher operator is parked according to manufacturer's and worksite requirements
- A Continuous Bucket Trencher operator's hour are documented in accordance with company requirements
- A Continuous Bucket Trencher operator's maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A Continuous Bucket Trencher operator's performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- A Continuous Bucket Trencher operator is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a Continuous Bucket Trencher for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a Continuous Bucket Trencher for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving a Continuous Bucket Trencher on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator (734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator (734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate: Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**

  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

4.3. Part Qualification 3:

Title: Sideboom Operator
SAQA Qual ID XXXX, Sideboom Operator, NQF Level 2, Credits 43

Purpose:
Operate equipment to lay and lift pipes in trenches

Applicable Modules (Rules of Combination)
Knowledge Modules:

- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

Total number of credits for Knowledge Modules: 20

Practical Skill Modules:

- 734201-000-00-00-PM-08. Operate a surface sideboom, NQF level 2, Cr 5

Total number of credits for Practical Skill Modules: 5

This qualification also requires the following Work Experience Modules:

- 734201-000-00-00-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201-000-00-00 -WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201-000-00-00 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10

Total number of credits for Work Experience Modules: 18

ENTRY REQUIREMENTS

- NQF Level 1 with mathematics and English literacy

EXIT LEVEL OUTCOMES 1
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria

- The main functions of a Sideboom Operator are explained in terms of manufacturer`s specifications
- The operation of all major components is explained in terms of their functions
- The applications of a Sideboom Operator are described in terms of construction plant activities
- All safety features and warning devices on a Sideboom Operator r are identified, and their purposes explained in accordance with manufacturer`s specifications
- The maximum operating capacities are explained in terms of the designed Sideboom Operator capabilities
- Warnings from a Sideboom Operator indicators and gauges are explained according to manufacturer`s specifications
- Pre-operational checks are carried out according to appropriate checklist.

- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A Sideboom Operator is parked according to manufacturer's and worksite requirements
- A Sideboom Operator’s hour are documented in accordance with company requirements
- A Sideboom Operator’s maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A Sideboom Operator’s performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- A Sideboom Operator is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a Sideboom for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a Sideboom for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving a Sideboom on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator (734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator (734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate: Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**

  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

4.4 Part Qualification 4:

Title: Water Cart Operator
SAQA Qual ID XXXX, Service truck operator, NQF Level 2, Credits 46

Purpose:
Operate equipment dispensing water on to the road surface to suppress water to suppress dust

Applicable Modules (Rules of Combination)
Knowledge Modules:

- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

Total number of credits for Knowledge Modules: 20

Practical Skill Modules:

- 734201-000-00-00PM-01. Establish and prepare the work area, NQF level 2, Cr 3
- 734201-000-00-00-PM-14. Operate water cart, NQF level 2, Cr 5

Total number of credits for Practical Skill Modules: 8

This qualification also requires the following Work Experience Modules:

- 734201-000-00-00-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201-000-00-00 -WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201-000-00-00 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10

Total number of credits for Work Experience Modules: 18

ENTRY REQUIREMENTS

- NQF Level 1 with mathematics and English literacy

EXIT LEVEL OUTCOMES 1
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria

- The main functions of a Water Cart Operator are explained in terms of manufacturer`s specifications
- The operation of all major components is explained in terms of their functions
- The applications of a Water Cart Operator are described in terms of construction plant activities
- All safety features and warning devices on a Water Cart Operator are identified, and their purposes explained in accordance with manufacturer`s specifications
- The maximum operating capacities are explained in terms of the designed Water Cart Operator capabilities
- Warnings from a Water Cart Operator indicators and gauges are explained according to manufacturer`s specifications

- Pre-operational checks are carried out according to appropriate checklist.
- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A Water Cart Operator is parked according to manufacturer's and worksite requirements
- A Water Cart Operator's hour are documented in accordance with company requirements
- A Water Cart Operator's maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A Water Cart Operator's performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- A Water Cart Operator is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a Water Cart Operator for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a Water Cart Operator for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving a Water Cart Operator on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator (734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator (734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate: Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**

  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

4.5. Part Qualification 5:

Title: A hot mix asphalt paving machine operator
SAQA Qual ID XXXX, A hot mix asphalt paving machine operator, NQF Level 2, Credits 46

Purpose:
Operate equipment to lay bitumen mix to cover and seal road surface

Applicable Modules (Rules of Combination)
Knowledge Modules:

- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

Total number of credits for Knowledge Modules: 20

Practical Skill Modules:

- 734201-000-00-00-PM-04. Operate a hot mix asphalt paving machine, NQF level 2, Cr 8

Total number of credits for Practical Skill Modules: 8

This qualification also requires the following Work Experience Modules:

- 734201-000-00-00-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201-000-00-00 -WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201-000-00-00 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10

Total number of credits for Work Experience Modules: 18

ENTRY REQUIREMENTS

- NQF Level 1 with mathematics and English literacy

EXIT LEVEL OUTCOMES 1
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria

- The main functions of a hot mix asphalt paving machine operator explained in terms of manufacturer`s specifications
- The operation of all major components is explained in terms of their functions
- The applications of a hot mix asphalt paving machine operator are described in terms of construction plant activities
- All safety features and warning devices on a hot mix asphalt paving machine operator are identified, and their purposes explained in accordance with manufacturer`s specifications
- The maximum operating capacities are explained in terms of the designed hot mix asphalt paving machine operator capabilities
- Warnings from a hot mix asphalt paving machine operator indicators and gauges are explained according to manufacturer`s specifications

- Pre-operational checks are carried out according to appropriate checklist.
- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A hot mix asphalt paving machine operator is parked according to manufacturer's and worksite requirements
- A hot mix asphalt paving machine operator's hour are documented in accordance with company requirements
- A hot mix asphalt paving machine operator's maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A hot mix asphalt paving machine operator performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- hot mix asphalt paving machine operator is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a hot mix asphalt paving machine operator for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a hot mix asphalt paving machine operator for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving a hot mix asphalt paving machine operator on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator (734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator (734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate: Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**
  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

4.6 Part Qualification 6:

Title: Face shovel Operator
SAQA Qual ID XXXX, Face shovel Operator, NQF Level 2, Credits 43

Purpose:
Operate equipment to excavate side wall for mining purposes

Applicable Modules (Rules of Combination)
Knowledge Modules:
- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

Total number of credits for Knowledge Modules: 20

Practical Skill Modules:
- 734201-000-PM-13. Operate a surface face shovel, NQF level 2, Cr 5

Total number of credits for Practical Skill Modules: 5

This qualification also requires the following Work Experience Modules:
- 734201-000-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201-000-WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201-000-WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10

Total number of credits for Work Experience Modules: 18

ENTRY REQUIREMENTS
- NQF Level 1 with mathematics and English literacy

EXIT LEVEL OUTCOMES 1
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria
- The main functions of a Face shovel Operator explained in terms of manufacturer`s specifications
- The operation of all major components is explained in terms of their functions
- The applications of a Face Shovel Operator are described in terms of construction plant activities
- All safety features and warning devices on a Face Shovel Operator are identified, and their purposes explained in accordance with manufacturer`s specifications
- The maximum operating capacities are explained in terms of the designed Face shovel Operator capabilities

- Warnings from a Face shovel Operator indicators and gauges are explained according to manufacturer`s specifications
- Pre-operational checks are carried out according to appropriate checklist.
- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A Face shovel Operator is parked according to manufacturer's and worksite requirements
- A Face shovel Operator hour are documented in accordance with company requirements
- A Face shovel Operator's maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A Face shovel Operator performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- Face shovel Operator is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a Face shovel Operator for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a Face shovel Operator for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving a Face shovel Operator on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator (734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator (734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate: Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**
  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

4.7 Part Qualification 7:

Title: Surface Grader Operator
SAQA Qual ID XXXX, Surface Grader Operator, NQF Level 2, Credits 46

Purpose:
Operate the grading equipment to grade, level, cutting slopes and rip and mix materials processing environment

Applicable Modules (Rules of Combination)
Knowledge Modules:
- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

Total number of credits for Knowledge Modules: 20

Practical Skill Modules:
- 734201-000-00-00PM-01. Establish and prepare the work area, NQF level 2, Cr 3
- 734201-000-00-00-PM-03. Operate a grader, NQF level 2, Cr 10

Total number of credits for Practical Skill Modules: 13

This qualification also requires the following Work Experience Modules
- 734201-000-00-00-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201-000-00-00 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10

Total number of credits for Work Experience Modules: 13

ENTRY REQUIREMENTS
- NQF Level 1 with mathematics and English literacy

EXIT LEVEL OUTCOMES 1
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria
- The main functions of a Surface Grader
- Operator is explained in terms of manufacturer`s specifications
- The operation of all major components is explained in terms of their functions
- The applications of a Surface Grader Operator are described in terms of construction plant activities
- All safety features and warning devices on a Surface Grader Operator are identified, and their purposes explained in accordance with manufacturer`s specifications

- The maximum operating capacities are explained in terms of the designed Surface Grader Operator capabilities
- Warnings from a Surface Grader Operator indicators and gauges are explained according to manufacturer`s specifications
- Pre-operational checks are carried out according to appropriate checklist.
- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A Surface Grader Operator is parked according to manufacturer's and worksite requirements
- A Surface Grader Operator's hour are documented in accordance with company requirements
- A Surface Grader Operator's maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A Surface Grader Operator's performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- A Surface Grader Operator is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a Surface Grader Operator for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a Surface Grader Operator for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving a Surface Grader Operator on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator (734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator (734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate: Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**
  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

4.8. Part Qualification 8:

Title: Tractor Operator
SAQA Qual ID XXXX, Tractor Operator, NQF Level 2, Credits 43

Purpose:
Operate a tractor to move dirt, debris or other items, as well as tow heavy equipment or transport storage containers

Applicable Modules (Rules of Combination)
Knowledge Modules:
- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

Total number of credits for Knowledge Modules: 20

Practical Skill Modules:
- 734201-000-00-00-PM-10. Operate a tractor, NQF level 2, Cr 5

Total number of credits for Practical Skill Modules: 5

This qualification also requires the following Work Experience Modules:
- 734201-000-00-00-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201-000-00-00 -WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201-000-00-00 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10

Total number of credits for Work Experience Modules: 18

ENTRY REQUIREMENTS
- NQF Level 1 with mathematics and English literacy

EXIT LEVEL OUTCOMES 1
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria
- The main functions of a Surface Grader Operator are explained in terms of manufacturer`s specifications
- The operation of all major components is explained in terms of their functions
- The applications of a Tractor Operator are described in terms of construction plant activities

- All safety features and warning devices on a Tractor Operator are identified, and their purposes explained in accordance with manufacturer`s specifications
- The maximum operating capacities are explained in terms of the designed Tractor Operator capabilities
- Warnings from a Tractor Operator indicators and gauges are explained according to manufacturer`s specifications
- Pre-operational checks are carried out according to appropriate checklist.
- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A Tractor Operator is parked according to manufacturer's and worksite requirements
- A Tractor Operator hour are documented in accordance with company requirements
- A Tractor Operator maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A Tractor Operator performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- A Tractor Operator is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a Tractor Operator for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a Tractor Operator for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving a Tractor Operator on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator (734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator (734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate:

Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**
  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

4.9 Part Qualification 9:

Title: Bitumen Spray Equipment Operator
SAQA Qual ID XXXX, Bitumen Spray Equipment Operator, NQF Level 2, Credits 45

Purpose:
Drive the equipment to support the laying of bitumen mix to cover and seal road surface

Applicable Modules (Rules of Combination)
Knowledge Modules:
- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

Total number of credits for Knowledge Modules: 20

Practical Skill Modules:
- 734201-000-00-00-PM-11. Operate bitumen spray equipment, NQF level 2, Cr 7

Total number of credits for Practical Skill Modules: 7

This qualification also requires the following Work Experience Modules:
- 734201-000-00-00-WM-01, Participate in the daily start-up planning meeting, NQF Level 2, Cr 3
- 734201-000-00-00 -WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201-000-00-00 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10

Total number of credits for Work Experience Modules: 18

ENTRY REQUIREMENTS
- NQF Level 1 with mathematics and English literacy

EX**IT LEVEL OUTCOMES 1**
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria
- The main functions of a Surface Grader Operator are explained in terms of manufacturer`s specifications
- The operation of all major components is explained in terms of their functions

- The applications of a Bitumen Spray Equipment Operator are described in terms of construction plant activities
- All safety features and warning devices on a Bitumen Spray Equipment Operator are identified, and their purposes explained in accordance with manufacturer`s specifications
- The maximum operating capacities are explained in terms of the designed Bitumen Spray Equipment Operator capabilities
- Warnings from a Bitumen Spray Equipment Operator indicators and gauges are explained according to manufacturer`s specifications
- Pre-operational checks are carried out according to appropriate checklist.
- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A Bitumen Spray Equipment Operator is parked according to manufacturer's and worksite requirements
- A Bitumen Spray Equipment Operator hour are documented in accordance with company requirements
- A Bitumen Spray Equipment Operator maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A Bitumen Spray Equipment Operator performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- A Bitumen Spray Equipment Operator is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a Bitumen Spray Equipment Operator for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a Bitumen Spray Equipment Operator for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving a Bitumen Spray Equipment Operator on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator

(734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator (734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate: Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**
  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

4.10 Part Qualification 10:

Title: Paving Screed Operator
SAQA Qual ID XXXX, Paving Screed Operator, NQF Level 2, Credits 43

Purpose:
Operate equipment to spread material onto the surface for road construction

Applicable Modules (Rules of Combination)
Knowledge Modules:

- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

Total number of credits for Knowledge Modules: 20

Practical Skill Modules:

- 734201-000-00-00-PM-06. Operate a surface paving machine, NQF level 2, Cr 5

Total number of credits for Practical Skill Modules: 5

This qualification also requires the following Work Experience Modules:

- 734201-000-00-00-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201-000-00-00 -WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201-000-00-00 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10

Total number of credits for Work Experience Modules: 18

ENTRY REQUIREMENTS

- NQF Level 1 with mathematics and English literacy

EXIT LEVEL OUTCOMES 1
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria

- The main functions of a Surface Grader Operator are explained in terms of manufacturer`s specifications
- The operation of all major components is explained in terms of their functions

- The applications of a Paving Screed Operator are described in terms of construction plant activities
- All safety features and warning devices on a Paving Screed Operator are identified, and their purposes explained in accordance with manufacturer`s specifications
- The maximum operating capacities are explained in terms of the designed Paving Screed Operator capabilities
- Warnings from a Paving Screed Operator indicators and gauges are explained according to manufacturer`s specifications
- Pre-operational checks are carried out according to appropriate checklist.
- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A Paving Screed Operator is parked according to manufacturer's and worksite requirements
- A Paving Screed Operator hour are documented in accordance with company requirements
- A Paving Screed Operator maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A Paving Screed Operator performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- A Paving Screed Operator is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a Paving Screed Operator for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a Paving Screed Operator for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving Paving Screed Operator on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator

(734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator (734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate: Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**
  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

4.11 Part Qualification 11:

Title: Surface Roller Operator
SAQA Qual ID XXXX, Surface Roller Operator, NQF Level 2, Credits 43

Purpose:
Operate the equipment to spread and compact surfaces

Applicable Modules (Rules of Combination)
Knowledge Modules:
- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

Total number of credits for Knowledge Modules: 20

Practical Skill Modules:
- 734201-000-00-00-PM-07. Operate a surface roller, NQF level 2, Cr 5

Total number of credits for Practical Skill Modules: 5

This qualification also requires the following Work Experience Modules:
- 734201-000-00-00-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201-000-00-00 -WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201-000-00-00 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10

Total number of credits for Work Experience Modules: 18

ENTRY REQUIREMENTS
- NQF Level 1 with mathematics and English literacy

`` **EXIT LEVEL OUTCOMES 1**
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria
- The main functions of a Surface Grader Operator are explained in terms of manufacturer`s specifications
- The operation of all major components is explained in terms of their functions

- The applications of a Surface Roller Operator are described in terms of construction plant activities
- All safety features and warning devices on a Surface Roller Operator are identified, and their purposes explained in accordance with manufacturer`s specifications
- The maximum operating capacities are explained in terms of the designed Surface Roller Operator capabilities
- Warnings from a Surface Roller Operator indicators and gauges are explained according to manufacturer`s specifications
- Pre-operational checks are carried out according to appropriate checklist.
- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A Surface Roller Operator is parked according to manufacturer's and worksite requirements
- A Surface Roller Operator hour are documented in accordance with company requirements
- A Surface Roller Operator maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A Surface Roller Operator performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- A Surface Roller Operator is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a Surface Roller Operator for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a Surface Roller Operator for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving Surface Roller Operator on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator

(734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator (734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate: Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**
  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

4.12 Part Qualification 12:

Title: Dozer Operator
SAQA Qual ID XXXX, Dozer Operator, NQF Level 2, Credits 43

Purpose:
Operate the equipment to doze and spread, level, backfill and rip material to specified areas. The Operator also push the scraper for additional equipment power

Applicable Modules (Rules of Combination)
Knowledge Modules:

- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

Total number of credits for Knowledge Modules: 20

Practical Skill Modules:

- 734201-000-00-00-PM-15. Operate wheeled dozer, NQF level 2, Cr 5

Total number of credits for Practical Skill Modules: 5

This qualification also requires the following Work Experience Modules:

- 734201-000-00-00-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201-000-00-00 -WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201-000-00-00 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10

Total number of credits for Work Experience Modules: 18

ENTRY REQUIREMENTS

- NQF Level 1 with mathematics and English literacy

EXIT LEVEL OUTCOMES 1
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria

- The main functions of a Surface Grader Operator are explained in terms of manufacturer`s specifications

- The operation of all major components is explained in terms of their functions
- The applications of a Dozer Operator are described in terms of construction plant activities
- All safety features and warning devices on a Dozer Operator are identified, and their purposes explained in accordance with manufacturer`s specifications
- The maximum operating capacities are explained in terms of the designed Dozer Operator capabilities
- Warnings from a Dozer Operator indicators and gauges are explained according to manufacturer`s specifications
- Pre-operational checks are carried out according to appropriate checklist.
- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A Dozer Operator is parked according to manufacturer's and worksite requirements
- A Dozer Operator hour are documented in accordance with company requirements
- A Dozer Operator maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A Dozer Operator performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- A Dozer Operator is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a Dozer Operator for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a Dozer Operator for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving Dozer Operator on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator (734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator

(734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate: Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**
  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

4.13 Part Qualification 13:

Title: Service Truck Operator
SAQA Qual ID XXXX, Service truck operator, NQF Level 2, Credits 43

Purpose:
Operate equipment to service other equipment within the construction environment

Applicable Modules (Rules of Combination)
Knowledge Modules:
- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

Total number of credits for Knowledge Modules: 20

Practical Skill Modules:
- 734201-000-00-00-PM-09. Operate a surface tracked dozer, NQF level 2, Cr 5

Total number of credits for Practical Skill Modules: 5

This qualification also requires the following Work Experience Modules:
- 734201-000-00-00-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201-000-00-00 -WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201-000-00-00 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10

Total number of credits for Work Experience Modules: 18

ENTRY REQUIREMENTS
- NQF Level 1 with mathematics and English literacy

EXIT LEVEL OUTCOMES 1
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria
- The main functions of a Surface Grader Operator are explained in terms of manufacturer`s specifications
- The operation of all major components is explained in terms of their functions

- The applications of a Service truck operator are described in terms of construction plant activities
- All safety features and warning devices on a Service truck operator are identified, and their purposes explained in accordance with manufacturer`s specifications
- The maximum operating capacities are explained in terms of the designed Service truck operator capabilities
- Warnings from a Service truck operator indicators and gauges are explained according to manufacturer`s specifications
- Pre-operational checks are carried out according to appropriate checklist.
- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A Service truck operator is parked according to manufacturer's and worksite requirements
- A Service truck operator hour are documented in accordance with company requirements
- Service truck operator maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A Service truck operator performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- A Service truck operator is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a Service truck operator for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a Service truck operator for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving Service truck operator on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator (734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator

(734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate: Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**
  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

4.14 Part Qualification 14:

Title: Surface tracked dozer
SAQA Qual ID XXXX, Surface tracked dozer, NQF Level 2, Credits 43

Purpose:
Operate the equipment to doze and spread, level, backfill and rip material to specified areas. The Operator also push the scraper for additional equipment power

Applicable Modules (Rules of Combination)
Knowledge Modules:

- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

Total number of credits for Knowledge Modules: 20

Practical Skill Modules:

- 734201-000-00-00-PM-09. Operate a surface tracked dozer, NQF level 2, Cr 5

Total number of credits for Practical Skill Modules: 5

This qualification also requires the following Work Experience Modules:

- 734201-000-00-00-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201-000-00-00 -WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201-000-00-00 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10

Total number of credits for Work Experience Modules: 18

ENTRY REQUIREMENTS

- NQF Level 1 with mathematics and English literacy

EXIT LEVEL OUTCOMES 1
Prepare the equipment for safe operation to assignment specifications (30%)

Associated Assessment Criteria

- The main functions of a Surface Grader Operator are explained in terms of manufacturer`s specifications
- The operation of all major components is explained in terms of their functions

- The applications of a Surface tracked dozer are described in terms of construction plant activities
- All safety features and warning devices on a Surface tracked dozer are identified, and their purposes explained in accordance with manufacturer`s specifications
- The maximum operating capacities are explained in terms of the designed Surface tracked dozer capabilities
- Warnings from a Surface tracked dozer indicators and gauges are explained according to manufacturer`s specifications
- Pre-operational checks are carried out according to appropriate checklist.
- Start-up and shutdown procedures are followed according to manufacturer`s specifications.
- A Surface tracked dozer is parked according to manufacturer's and worksite requirements
- A Surface tracked dozer hour are documented in accordance with company requirements
- A Surface tracked dozer maintenance and faults are reported in accordance with company requirements

EXIT LEVEL OUTCOMES 2

Operate and monitor equipment for effective, safe and efficient execution of construction project. (70%)

Associated Assessment Criteria

- Plan for work activities and prepare work area
- Sequence of operations is determined according to site operational requirement
- Required equipment to perform the work activity is selected according to site operational requirement
- The purpose of the various controls is explained in accordance with their designed use
- Functions of the various controls are demonstrated in accordance with the manufacturer`s specification
- Temporary safety signs are explained in relation to their use and placement
- A Surface tracked dozer performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer`s specification
- A Surface tracked dozer is operated according to safe working procedures, manufacturer's specifications and construction plant activity
- Methods of loading a Surface tracked dozer for transport are explained according to safety requirements, manufacturer's instructions and transport configuration
- Methods of securing a Surface tracked dozer for transport are explained and demonstrated in relation to lashing points and safety requirements.
- Driving Surface tracked dozer on a public road according to the provisions of the current National Road Traffic Act.

ARTICULATION

- **Horizontal**

  Diesel Bowser Operator, Sideboom Operator, Water Cart Operator, A Hot Mix Asphalt Paving Machine Operator, Face Shovel Operator, Surface Grader Operator, A Tractor Operator, A Bitumen Equipment Operator, Paving Screed Operator, Surface Roller Operator, Dozer Operator, Service Truck Operator, Surface Tracked Dozer, Civil Structures Construction Contractor, Occupational Certificate: Dump Truck Operator (734214), Occupational Certificate: Dragline Operator (734211), Excavator Operator (734204), Hydraulic Rock Breaker Operator (734204001) Occupational Certificate: Loader Operator (734206), Occupational Certificate: Loader Operator (Skid Steer Loader Operator)(734206001)

- **Vertical**

  Construction Plant Supervisor (L 3), Earthwork and Layer Works Hand (L3) Surfacing Hand (3), Road Drainage Hand (L3), Road Maintenance Hand (L 3), Road Marking Hand (L 3), Road Signage Hand (L 3), Kerb Layer (L 3)

SECTION 2: OCCUPATIONAL PROFILE

1. Occupational Purpose

Operate specific surface construction plant equipment/ plant within various industries.

2. Occupational Tasks

- Prepare equipment for operation
- Operate the equipment safely and efficiently according to original equipment manufacturer (OEM) specifications
- Communicate and report operational performance

3. Occupational Task Details

3.1. Prepare equipment for operation (NQF Level 2)

Unique Product or Service:

- Equipment compliant to operational requirements

Occupational Responsibilities:

- Start up and shutdown equipment (inspection)
- Establish and prepare the work area

Occupational Contexts:

- Participate in the daily start up planning meeting
- Identification and hazards removal (HIRA) processes from construction worksite
- Conduct plant operational inspection

3.2. Operate the equipment safely and efficiently according to OEM specifications (NQF Level 2)

Unique Product or Service:

- Safely operated equipment

Occupational Responsibilities:

- Operate a diesel bowser
- Operate a grader
- Operate a hot mix asphalt paving machine
- Operate a surface soil stabiliser and milling machine
- Operate a surface paving machine
- Operate a surface roller
- Operate a surface sideboom
- Operate a surface tracked dozer
- Operate a surface tractor
- Operate bitumen spray equipment
- Operate continuous bucket trencher
- Operate a surface face shovel
- Operate water cart
- Operate wheeled dozer

- Operate a surface drilling equipment

Occupational Contexts:

- Procedures for operating earth moving equipment

3.3. Communicate and report operational performance (NQF Level 2)

Unique Product or Service:

- Operator Performance reports

Occupational Responsibilities:

- Complete and submit machine checklist
- Operate two-way communication devices

Occupational Contexts:

- Equipment performance reporting procedures

SECTION 3: CURRICULUM COMPONENT SPECIFICATIONS

SECTION 3A: KNOWLEDGE MODULE SPECIFICATIONS

List of Knowledge Modules for which Specifications are included

- 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10
- 734201000-KM-02, Operations and machines, NQF Level 2, Credits 7
- 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5
- 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

1. 734201000-KM-01, Workplace fundamentals, NQF Level 2, Credits 10

1.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of the basics concepts which underlie the workplace context, the regulatory environment and the explicit and tacit rules which govern the workplace. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 12.5 days.

The learning will enable learners to demonstrate an understanding of:

- KM-01-KT01 Employment (15%)
- KM-01-KT02 Organisation of work (15%)
- KM-01-KT03 Employer-Employee relationships (10%)
- KM-01-KT04 Concepts related to the performance of work (5%)
- KM-01-KT05 Ethics at work (5%)
- KM-01-KT06 Current trends influencing work (10%)
- KM-01-KT07 Basics of construction and environmental conservation (5%)
- KM-01-KT08 Interpersonal relations, team work and conflict management (5%)
- KM-01-KT09 Basic communications (5%)
- KM-01-KT10 Occupational health, safety and environment (25%)

1.2 Guidelines for Topics

1.2.1. KM-01-KT01: Employment (15%)

Topic elements to be covered include:

- KT0101 An employee's legal rights
- KT0102 Legislation which governs employers, employees, construction and mining, as applicable
- KT0103 Employer roles and responsibilities
- KT0104 Employee role and responsibilities
- KT0105 Role of organised labour in business, structures and processes

Internal Assessment Criteria and Weight

- IAC0101 Define and describe the concepts which underpin employment, employment related legislation and systems
- IAC0102 Discuss the impact of these concepts on an employer and employee
- IAC0103 Describe process which govern employment, disputes and other labour relations issues
  (Weight 15%)

1.2.2. KM-01-KT02: Organisation of work (15%)

Topic elements to be covered include:

- KT0201 What is work, including products and services, paid and unpaid
- KT0202 Work as sets of value-adding processes
- KT0203 The value chain in the construction and mining sectors, as applicable
- KT0204 Work as collaboration - the role of teams in work processes
- KT0205 How teams function
- KT0206 Team organisation, team roles, meetings and information flow

- KT0207 Meeting protocols for a variety of meeting types, including formal meetings and informal "stand-up" meetings

Internal Assessment Criteria and Weight

- IAC0201 Define and describe the concepts which underpin work, working and working relationships
- IAC0202 Discuss the impact of these concepts on an employee and co-workers
- IAC0203 Describe process which govern work in the workplace

(Weight 15%)

1.2.3. KM-01-KT03: Employer-Employee relationships (15%)

Topic elements to be covered include:

- KT0301: Employment contracts including learning contracts such as learnerships, learning programmes, apprenticeships and internships
- KT0302: Mandates, vision, mission, policies and procedures
- KT0303: Rules, codes of conduct and ethics
- KT0304: Organisation values, common and specific
- KT0305: Labour relations, processes including, discipline, grievance, strikes, lock outs, negotiation, conciliation, mediation and arbitration

Internal Assessment Criteria and Weight

- IAC0301: Define and describe the concepts which define employer and employee relationships
- IAC0302: Discuss the impact of these concepts on an employer and employee
- IAC0303: Describe process which govern employer-employee relationships

(Weight 15%)

1.2.4. KM-01-KT04: Concepts related to the performance of work (15%)

Topic elements to be covered include:

- KT0401: Planning, organising and control
- KT0402: Work flow and construction cycle
- KT0403: Cost, waste
- KT0404: Productivity, efficiency
- KT0404: Target setting
- KT0405: Housekeeping
- KT0406: Hazard Identification and Risk Assessment (HIRA) procedures
- KT0407: Quality and quality systems
- KT0408: Continual improvement

Internal Assessment Criteria and Weight

- IAC0401: Define and describe the concepts related to the performance of work
- IAC0402: Discuss the impact of these concepts on the individual employee
- IAC0403: Describe processes which govern performance of work

(Weight 15%)

1.2.5. KM-01-KT05: Ethics at work (15%)

Topic elements to be covered include:

- KT0501: Definition of ethical behaviour
- KT0502: Components of ethical behaviour, including integrity, honesty, fair dealing, respecting diversity
- KT0503: Unwritten but expected behaviours including, reliability, accountability, time keeping, respect for others
- KT0504: Lapses in ethical behaviour, including sexual harassment, racism, bullying, theft, abuse of company property, rules, time and sick leave
- KT0505: Conflicts of interest, including primary and secondary interests the impact on individuals and organisations and the link to corruption
- KT0506: The need for ethical behaviour and the impact on consequences of lapses in unethical behaviour

Internal Assessment Criteria and Weight

- IAC0501: Define and describe the concepts, issues and examples of ethical and unethical conduct
- IAC0502: Discuss the impact of these factors on an employer and employee
- IAC0503: Describe the impact of lapses in ethical behaviour on the organisation and individuals in the organisations
- IAC0504: Describe the processes which employer organisations use to support ethical conduct in the workplace

(Weight 15%)

1.2.6. KM-01-KT06: Basics of construction and environmental conservation (5%)

Topic elements to be covered include:

- KT0601: Types of pollution in the construction environment
- KT0602: Weather and ground conditions
- KT0602: Industry conservation practices

Internal Assessment Criteria and Weight

- IAC0601: Describe different types of pollution found at the construction site
- Discuss industry standard for preventing and reducing pollution
- IAC0602: Explain how weather affect construction environment

(Weight 5%)

1.2.7. KM-01-KT07: Current trends influencing work (15%)

Topic elements to be covered include:

- KT0701: Employment equity
- KT0702: Broad-Based Black Economic Empowerment
- KT0703: Sustainability
- KT0704: Diversity
- KT0705: Work-life balance
- KT0706: Working smart

Internal Assessment Criteria and Weight

- IAC0701: Describe and explain the current trends affecting organisations and employees
- IAC0702: Discuss the impact of these factors on an employer and employee

(Weight 15%)

1.2.8. KM-01-KT08: Interpersonal relations and conflict management (10%)

Topic elements to be covered include:

- KT0801 Cultural diversity and social pressures
- KT0802 Managing interpersonal relations
- KT0803 Types of conflict
- KT0804 Conflict resolution and management
- KT0805 Goal setting, role clarification and problem solving in teams

Internal Assessment Criteria and Weight

- IAC0801 Demonstrate an understanding of the cultural diversity and social pressures
- IAC0802 Explain interpersonal relationship management
- IAC0803 Differentiate between the various types of conflict
- IAC0804 Explain the theories and principles of conflict resolution and management
- IAC0805 Discuss the effect of shaming and blaming versus shared responsibility

(Weight 10%)

1.2.9. KM-01-KT09: Basic Communication (10%)

Topic elements to be covered include:

- KT0901 Fundamentals of communication and individual communication
- KT0902 Fundamentals of listening
- KT0903 Barriers and methods to overcome barriers to effective communication
- KT0904 Forms reporting
- KT0905 Basic presentation

Internal Assessment Criteria and Weight

- IAC0901 Explain the implications and theories of communication and listening to workplace environment
- IAC0902 Define the concept of barriers to effective communication and techniques used to overcome these barriers
- IAC0903 Discuss uses and forms of workplace communication and reporting
- IAC0904 Discuss approaches to presentations

(Weight 10%)

1.2.10. KM-01-KT10: Occupational health, safety and environment (10%)

Topic elements to be covered include:

- KT1001 Legislation and regulations for workplace health and safety
- KT1002 Preventable diseases (HIV, Aids and Tuberculosis)
- KT1003 Safe working practices
- KT1004 Incident reporting
- KT1005 Evacuation procedures
- KT1006 Types and uses of Personal Protective equipment
- KT1007 Interaction between man and machine, machine and machine in close proximity, including proximity safety devices
- KT1008 Role and purpose self-rescuers
- KT1009 Fires and fire- fighting procedures
- KT1010 Heat, including heat exhaustion and heat stroke
- KT1011 Fatigue, including causes and effects
- KT1012 Concepts and principles of hazard identification and risk assessment (HIRA)

- KT1013 Towing of machines.
- KT1014 Lightning, where applicable
- KT1015 Natural hazards in construction environment
- KT1016 Substance abuse, including impact on work
- KT1017 Ergonomic Principles
- KT1018 Basic ventilation principles
- KT1019 Gases, including carbon monoxide, methane, nitrous fumes and oxygen
- KT1020 Basic principles of flame proofing, where applicable
- KT1021 Noise, including hazards of excessive noise over 85 decibels
- KT1022 Impact of low visibility
- KT1023 Illumination, including cap lamps, machine lighting, legal requirements (strictly underground pre-requisite)
- KT1024 Working in confined spaces and confined areas
- KT1025 Working in steeply inclined areas
- KT1026 Vibration - causes, impact and effects
- KT1027 Underfoot conditions - slip and fall
- KT1028 Working at heights

Internal Assessment Criteria and Weight

- IAC1001 Describe and explain the application of health and safety legislation and regulations in the workplace
- IAC1002 Discuss basic safety, health and environmental, quality and risk inspections and compliance
- IAC1003 Explain HIV, Aids and tuberculosis and describe their impact in the workplace and describe how to interact with people with HIV, Aids and tuberculosis
- IAC1004 Describe best practice concerning incident reporting
- IAC1005 Explain the implications of workplace injuries, their causes and effects
- IAC1006 Describe the principles underpinning health programmes
- IAC1007 Describe the principles underpinning health programmes
- IAC1008 Describe the impact of substance abuse
- IAC1009 Describe the various environmental elements, hazards, risk assessment and explain methods of elimination and mitigation
- IAC1010 First aid principles

(Weight 10%)

1.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Standard facilities for theoretical training of learner for this specific module
- Relevant training materials

Human Resource Requirements:

- Facilitator qualified as Construction Plant Operator with three (3) years relevant industry experience
- Registered assessor
- Qualified as an ETDP
- Facilitator/learner ratio 1 to maximum of 12 learners

Legal Requirements:

- Compliant with relevant health and safety requirements

1.4 Exemptions

- None

2. 734201000-KM-02, Operations and machines, NQF Level 2, Credits 7

2.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of the basic fundamentals of construction and mining operations, as applicable. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 8 days.

The learning will enable learners to demonstrate an understanding of:

- KM-02-KT01: Operational methods (10%)
- KM-02-KT02: Machine operations (20%)
- KM-02-KT03: Types and Functions construction plant (20%)
- KM-02-KT04: Construction material (5%)
- KM-02-KT05: Transportation and storage hazardous construction material (5%)
- KM-02-KT06: Equipment components (20%)
- KM-02-KT07: Machine controls (15%)
- KM-02-KT08: Consumables (5%)

2.2 Guidelines for Topics

2.2.1. KM-02-KT01: Operational methods (20%)

Topic elements to be covered include:

- KT0101: Purpose, processes and applications of machines in construction
- KT0102: Methods and processes of construction (buildings; industrial construction; heavy civil construction; and the impact of construction on the environment).
- KT0103: The basic construction cycle

Internal Assessment Criteria and Weight

- IAC0101: Describe various processes, applications and methods and their impact on the environment
- IAC0102: Explain the construction cycle

(Weight 20%)

2.2.2. KM-02-KT02: Machine operations (20%)

Topic elements to be covered include:

- KT0201: Role of the operator
- KT0202: Designated travelling and haul ways and associated signage, routes, speeds and roadway conditions
- KT0203: Precautions when travelling on inclines and declines and associated control systems
- KT0204: Use of signals, alarms and symbols

Internal Assessment Criteria and Weight

- IAC0201 Describe and explain various machine operations in the applicable operating cycle
- IAC0202 Describe and explain various machine operations in the applicable operating cycle

(Weight 20%)

2.2.3. KM-02-KT03: Types and functions of construction plant (20%)

Topic elements to be covered include:

- KT0301: Common types of excavating machines
- KT0302: Common types of compacting machines
- KT0303: Common types of hauling machines
- KT0304: Common types of dozing and ripping machines
- KT0305: Common types of wheel loading machines
- KT0306 Common types of surface road repair machines
- KT0307 Common types of grading and ripping machines
- KT0308 Common types of water suppression machines
- KT0309 Common types of soil stabilizing machines
- KT0310 Common types of crusher machines
- KT0311 Common types of pipelines and trenching machines
- KT0312 Common types of drilling machines
- KT0313 Common types of scraping and spreading machines
- KT0314 Common types of services machines, process and procedures
- KT0315 Common types of cement hauling machines
- KT0316 Common types of concrete pump machines
- KT0317 Common types of batchplant machines
- KT0318 Equipment care and maintenance principles

Internal Assessment Criteria and Weight

- IAC0301 Describe and explain the construction, functions and operational limitations of different types of construction plant equipment for surface construction site
- IAC0302 Describe the safety precautions related to the operational limitations
- IAC0303 Describe the basic reporting requirements for equipment maintenance

(Weight 50%)

2.2.4. KM-02-KT04: Forms and types of construction material t (5%)

Topic elements to be covered include:

- KT0401: Types and functions of explosives used for construction work
- KT0402: Characteristics and properties of liquid material on construction site
- KT0403: Types and functions of gaseous material on construction site
- KT0404: Properties and uses of tar
- KT0405: Properties and uses of cement
- KT0406: Hazards related to all forms of material on construction site
- KT0407: Forms of defects in construction material
- KT0408: Identification and reporting requirements relating to all material on construction site

Internal Assessment Criteria and Weight

- IAC0401 Identify the basic types of explosive and what the reporting requirements are if found or encountered
- IAC0402 Discuss properties and uses of different construction material

(Weight 5%)

2.2.5. KM-02-KT05: Transportation and storage of hazardous construction material (5%)

Topic elements to be covered include:

- KT0501 Types of storage facilities for hazardous material
- KT0502 Equipment for transporting hazardous material

- KT0503 Uses of Protective clothing and equipment

Internal Assessment Criteria and Weight

- IAC0501 Describe the type of transport suitable for the various types of hazardous materials
- IAC0502 Explain the specific precautionary measures useful for the safety of workers and the public during the transportation process
- IAC0503 Describe suitable storage facilities for the storage of hazardous materials
- IAC0504 Discuss elements that impact on the hazardous material at the construction site

(Weight 5%)

2.2.6. KM-02-KT06: Equipment components (20%)

Topic elements to be covered include:

- KT0601 Basics of hydraulic components
- KT0602 Basics of electrical components
- KT0603 Basic computer components
- KT0604 Basic mechanical components
- KT0605 Safety systems, including lock-out, brakes, machine cut-out systems
- KT0606 Maintenance requirements

Internal Assessment Criteria and Weight

- IAC0601: Discuss the application and functions of the mechanical and hydraulic components
- IAC0602: Discuss the application and functions of the electrical and computer components

(Weight 20%)

2.2.7. KM-02-KT07: Machine controls (40%)

Topic elements to be covered include:

- KT0701: Basic on-board or remote, controls, including stop-start and emergency switches, movement, steering, tramming, positioning, feeding and braking controls, as applicable
- KT0702: Operating controls, including joysticks for moving, tramming, lifting, lowering, tilting, slewing, roll-over, extension and retraction, as applicable
- KT0703: On-board safety systems including automatic fuel cut-off, gas detection, mechanical lock-out and fire extinguishing systems
- KT0704: Equipment monitoring and control systems
- KT0705: Instrumentation and panels, including, lights, gauges and flameproof panels, where applicable
- KT0706: Maintenance requirements, including daily checks

Internal Assessment Criteria and Weight

- IAC0701: Describe application and functions of the equipment control components
- IAC0702: Discuss on-board safety systems
- IAC0703: Discuss on-board instrumentation and panels

(Weight 40%)

2.2.8. KM-02-KT08: Consumables (20%)

Topic elements to be covered include:

- KT0801: Fluids, including diesel fuel, lubricants and coolants
- KT0802: Tyres, trailing cables, hoses
- KT0803: Hand and power tools

Internal Assessment Criteria and Weight

- IAC0801: Describe application and functions of the consumables
- IAC0802: Discuss procedures to care for hand and power tools

(Weight 20%)

2.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Standard facilities for theoretical training of learner for this specific module
- Relevant training materials

Human Resource Requirements:

- Facilitator qualified as Construction Plant Operator with three (3) years relevant industry experience
- Registered assessor
- Qualified as an ETDP
- Facilitator/learner ratio 1 to maximum of 12 learners

Legal Requirements:

- Compliant with relevant health and safety requirements

2.4 Exemptions

- None

3. 734201000-KM-03, Information Technology for Construction Environment, NQF Level 2, Credits 5

3.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of uses of information technology within the construction environment. The knowledge acquired will enable the learner to demonstrate an understanding of using basic personal computers, types of information technology, to operate word and spreadsheets and manage information systems in the glass manufacturing industry. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6 days.

The learning will enable learners to demonstrate an understanding of:

- KM-03-KT01: Basic introduction to personal computers (20%)
- KM-03-KT02: Fundamentals of information technology interface instrument (30%)
- KM-03-KT03: Main Computer Application (50%)

3.2 Guidelines for Topics

3.2.1. KM-03-KT01: Basic introduction to personal computers (20%)

Topic elements to be covered include:

- KT0101 Functions of main components of Personal Computer
- KT0102 Uses of Personal Computer

Internal Assessment Criteria and Weight

- IAC0101 Discuss how the Personal Computer work
- IAC0102 Explain the uses of different components of the Personal Computer
- IAC0103 Identify and discuss computer system that controls automated processes

(Weight 20%)

3.2.2. KM-03-KT02: Fundamentals of information technology interface instrument (30%)

Topic elements to be covered include:

- KT0201 Laptop
- KT0202 Tablets
- KT0203 Cell phone

Internal Assessment Criteria and Weight

- IAC0201 Explain the differences between different technology interface instruments
- IAC0202 Describe the main uses of each instrument
- IAC0203 Explain the similarities between the different instruments

(Weight 30%)

3.2.3. KM-03-KT03: Main Computer Application (50%)

Topic elements to be covered include:

- KT0301 Open and safe a file in word processor and spreadsheet
- KT0302 Introduction to Graphical User Interface (GUI)-based Word Processing Application
- KT0303 Introduction to Graphical User Interface (GUI)-based Presentation Application
- KT0304 Introduction to GUI-based Spreadsheet Application
- KT0305 Introduction to GUI-based Electronic Mail Application

- KT0306 Introduction to GUI-based Web Browser Application

Internal Assessment Criteria and Weight

- IAC0301 Explain and describe the uses of Graphical User Interface (GUI)-based Word Processing Application
- IAC0302 Explain and describe the uses of Graphical User Interface (GUI)-based Presentation Application
- IAC0303 Explain and describe the uses of GUI-based Spreadsheet Application
- IAC0304 Explain and describe the uses of GUI-based Electronic Mail Application
- IAC0305 Explain and describe the uses of GUI-based Web Browser Application

(Weight 50%)

3.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Standard facilities for theoretical training of learner for this specific module
- Relevant training materials

Human Resource Requirements:

- Facilitator qualified as Construction Plant Operator with three (3) years relevant industry experience
- Registered assessor
- Qualified as an ETDP
- Facilitator/learner ratio 1 to maximum of 12 learners

Legal Requirements:

- Compliant with relevant health and safety requirements

3.4 Exemptions

- None

4. 734201000-KM-04, Principles of Construction and Construction Environment, NQF Level 2, Credits 5

4.1 Purpose of the Knowledge Modules

The main focus of the learning in this knowledge module is to build an understanding of the principles of construction and construction environment. The knowledge acquired will enable the learner to demonstrate an understanding of using basic construction industry, quality principles, earthworks, regulations for plant operations, civil construction and record management on site. The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 12 days.

The learning will enable learners to demonstrate an understanding of:

- KM-04-KT01: Basics of construction industry (15%)
- KM-04-KT02: Quality Principles on a construction site (15%)
- KM-04-KT03: Fundamentals of earthworks (20%)
- KM-04-KT04: Regulations for Plant Operation (15%)
- KM-04-KT05: Fundamentals of civil construction (20%)
- KM-04-KT06: Construction site record management principles (15%)

4.2 Guidelines for Topics

4.2.1. KM-04-KT01: Basics of construction industry (15%)

Topic elements to be covered include:

- KT0101 Industry organisations and roles
- KT0102 Standard role-players within construction site environment

Internal Assessment Criteria and Weight

- IAC0101 Describe the role of different role-players within a construction site
- IAC0102 Explain the role of different organisations in construction
- IAC0103 Explain the different agencies from which construction plant and equipment can be procured

(Weight 15%)

4.2.2. KM-04-KT02: Quality Principles on a construction site (15%)

Topic elements to be covered include:

- KT0201 Quality improvement processes
- KT0202 Quality Control Systems
- KT0203 Inspection procedures
- KT0204 Testing and sampling procedures
- KT0205 Process control testing procedures
- KT0206 Resource procurement

Internal Assessment Criteria and Weight

- IAC0201 Discuss areas covered in specifications document
- IAC0202 Explain acceptance and process control testing procedures
- IAC0203 Discuss inspection procedures for different equipment
- IAC0204 Explain quality control systems for construction environment

(Weight 15%)

4.2.3. KM-04-KT03: Fundamentals of earthworks (20%)

Topic elements to be covered include:

- KT0301 Types of soil
- KT0302 Bulk excavation and cutting operations
- KT0303 Spreading and dumping operations
- KT0304 Erosion control and earth work
- KT0305 Compaction of earthworks
- KT0306 Strata control

Internal Assessment Criteria and Weight

- IAC0301 Explain the procedures for ceasing operations to avoid erosion
- IAC0302 Explain means to avoid soil erosion on earthworks
- IAC0303 Discuss procedures for borrow areas

(Weight 20%)

4.2.4 KM-04-KT04: Regulations for Plant Operation (15%)

Topic elements to be covered include:

- KT0401 SABS 1228 Code “The identification and classification of dangerous substances and goods"
- KT0402 National Road Traffic Act (Act No. 93 of 1996)
- KT0403 SABS Codes (1398, SABS 1518 and SABS 0231)
- KT0404 Occupational Health and Safety Act (and associated regulations)
- KT0405 Mine Health and Safety Act (and associated regulations)
- KT0406 National Code of Practice
- KT0407 Relevant Provincial Ordinances

Internal Assessment Criteria and Weight

- IAC0401 Explain the provisions of the SABS Codes in relation to transportation of hazardous material
- IAC0402 Discuss legal provisions for occupational health and safety in construction and mining.
- IAC0403 Discuss provincial regulations

(Weight 15%)

4.2.5 KM-04-KT05: Fundamentals of civil construction (20%)

Topic elements to be covered include:

- KT0501 Planning principles for civil construction work
- KT0502 Civil Construction processes and sequence
- KT0503 Civil construction plant and equipment
- KT0504 Civil construction machinery and impact on environment

Internal Assessment Criteria and Weight

- IAC0501 Explains effect of adverse weather on construction materials, work area and surfaces

- IAC0502 Explain the effects of operating construction machinery on the environment
- IAC0503 Describe types of noise pollution from the civil construction site
  (Weight 20 %)

4.2.6 KM-03-KT06: Construction site record management principles (15%)

Topic elements to be covered include:

- KT0601 Uses of time and log sheet
- KT0602 Labour and plant sheet
- KT0603 Material log sheet
- KT0604 Storage of reports for construction site

Internal Assessment Criteria and Weight

- IAC0601 Explain the uses of different log sheet
- IAC0602 Discuss the procedures for storage of records on the construction site

(Weight 15%)

4.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Standard facilities for theoretical training of learner for this specific module
- Relevant training materials

Human Resource Requirements:

- Facilitator qualified as Construction Plant Operator with three (3) years relevant industry experience
- Registered assessor
- Qualified as an ETDP
- Facilitator/learner ratio 1 to maximum of 12 learners

Legal Requirements:

- Compliant with relevant health and safety requirements

4.4 Exemptions

- None

SECTION 3B: PRACTICAL SKILL MODULE SPECIFICATIONS

List of Practical Skill Module Specifications

- 734201000PM-01 Establish and prepare the work area, NQF level 2, Cr 4
- 734201000-PM-02 Operate a diesel bowser, NQF level 2, Cr 5
- 734201000-PM-03 Operate a grader, NQF level 2, Cr 10
- 734201000-PM-04 Operate a hot mix asphalt paving machine, NQF level 2, Cr 8
- 734201000-PM-05 Operate a surface soil stabiliser and milling machine, NQF level 2, Cr 5
- 734201000-PM-06 Operate a surface paving machine, NQF level 2, Cr 5
- 734201000-PM-07 Operate a surface roller, NQF level 2, Cr 5
- 734201000-PM-08 Operate a surface side boom, NQF level 2, Cr 5
- 734201000-PM-09 Operate a surface tracked dozer, NQF level 2, Cr 5
- 734201000-PM-10 Operate a tractor, NQF level 2, Cr 5
- 734201000-PM-11 Operate bitumen spray equipment, NQF level 2, Cr 7
- 734201000-PM-12 Operate continuous bucket trencher, NQF level 2, Cr 5
- 734201000-PM-13 Operate a surface face shovel, NQF level 2, Cr 5
- 734201000-PM-14 Operate water cart, NQF level 2, Cr 5
- 734201000-PM-15 Operate wheeled dozer, NQF level 2, Cr 5

1. 734201000-PM-01, Establish and prepare the work area, NQF Level 2, Credits 4

1.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to prepare a construction work area within a simulated operational environment. Learners will also be practising skills related interpreting and work specifications and determining the resource needs
The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 5 days.

The learner will be required to:

- PM-01-PS01 Read and interpret specifications and drawings
- PM-01-PS02 Determine infrastructure and resource requirements
- PM-01-PS03 Prepare the work area

1.2 Guidelines for Practical Skills

1.2.1. PM-01-PS01: *Read and interpret the specifications and drawings*

Scope of Practical Skill

Given work instructions, assignment, standard operating procedures, drawings, job specifications, manufacturer`s specifications, material specifications, and expert source specifications, the learner should be able to;

- PA0101 Identify and interpret the symbols and scale
- PA0102 Draw the work area

Applied Knowledge

- AK0101 Worksite working procedures
- AK0102 Health and safety standards
- AK0103 Measurements and calculations
- AK0104 Interpreting drawings
- AK0105 Housekeeping procedures
- AK0106 Standard industry procedures

Internal Assessment Criteria

- IAC0101 The scale and symbols used in a specification drawing are accurately interpreted
- IAC0102 The work area is drawn, planned and identified correctly using a scale and symbols

1.2.2. PM-01-PS02: Determine infrastructure and resource requirements

Scope of Practical Skill

Given relevant assignment, workshop environment, tools and equipment, transportation Given work instructions, assignment, standard operating procedures, drawings, job specifications, manufacturer`s specifications, material specifications, and expert source specifications, the learner should be able to;

- PA0201 Assess infrastructure requirements for the assignment
- PA0202 Determine the temporary building requirements
- PA0203 Establish the physical resource requirements

Applied Knowledge

- AK0201 Worksite working procedures
- AK0202 Health and safety standards
- AK0203 Measurements and calculations

- AK0204 Interpreting drawings
- AK0205 Housekeeping procedures
- AK0206 Standard industry procedures

Internal Assessment Criteria

- IAC0201 Equipment infrastructure requirements are accurately assessed
- IAC0202 Site buildings/temporary structures are accurately determined
- IAC0203 Physical resource requirements are accurately determined

1.2.3 PM-01-PS03: Prepare the work area

Scope of Practical Skill

Given work instructions, assignment, standard operating procedures, drawings, job specifications, manufacturer`s specifications, material specifications, and expert source specifications, the learner should be able to;

- PA0301 Identify and remove hazards from the work areas
- PA0302 Determine and cover structures that need temporary protection

Applied Knowledge

- AK0301 Worksite working procedures
- AK0302 Health and safety standards
- AK0303 Measurements and calculations
- AK0304 Interpreting drawings
- AK0305 Housekeeping procedures
- AK0306 Standard industry procedures

Internal Assessment Criteria

- IAC0301 Any existing fittings are removed or covered before and replaced after activities
- IAC0302 Other works or structures are identified and temporarily protected before commencing activities

1.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

1.4 Exemptions

- None

2. 734201000-PM-02, Operate diesel bowser, NQF Level 2, Credits 5

2.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to operate a diesel bowser within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the diesel bower as well as conducting lockout operations.
The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6,25 days.

- PM-02-PS01 Conduct pre-use inspections
- PM-02-PS02 Transport diesel to defined location
- PM-02-PS03 Conduct Lockout procedures

2.2 Guidelines for Practical Skills

2.2.1. PM-02-PS01: Conduct pre-use inspection

Scope of Practical Skill

Given

- PA0101 Identify all components of the diesel bowser
- PA0102 Inspect the equipment and work area for hazards
- PA0103 Examine operating parameters and control methods
- PA0104 Examine pumps and hosepipes for defects
- PA0105 Report and or report damages to the equipment

Applied Knowledge

- AK0101 Uses of two-way communication devices
- AK0102 Uses of PPE
- AK0103 Compliance to health and Safety requirements
- AK0104 Compliance to SABS 1228 Code
- AK0105 Reporting Skills

Internal Assessment Criteria

- IAC0101 Diesel bowser is parked according to manufacturer's and company requirements
- IAC0102 Start-up and shutdown procedures are followed according to manufacturer's specifications
- IAC0103 Pre-operational checks are carried out according to appropriate checklist
- IAC0104 Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist

2.2.2. PM-02-PS02: Transport diesel to defined location

Scope of Practical Skill

Given assignment, job instructions, tools, glass, cutting tools and equipment, specifications, Given Overhang., large rocks, bench edges, Power lines. moving machinery, poor underfoot conditions, automatic on-board or manual fire extinguisher, emergency stop, pre-start alarm., reverse alarm if applicable, rotating flashing light if applicable, learner must be able to:

- PA0201 Read and interpret work instructions
- PA0202 Transport diesel to defined locations
- PA0203 Identify and collect tools and equipment needed for the job
- PA0204 Fill-up equipment with diesel

- PA0205 Communicate and report on completion of work

Applied Knowledge

- AK0201 Uses of two-way communication devices
- AK0202 Uses of PPE
- AK0203 Compliance to health and Safety requirements
- AK0204 Compliance to SABS 1228 Code
- AK0205 Reporting Skills
- AK0206 Applied earthwork practices
- AK0207 Types and properties of different soil
- AK0208 Applied civil construction practices
- AK0209 Basic application and operation of a diesel bowser
- AK0210 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Job instructions are interpreted correctly and the sequence of operations is determined according to specified requirements.
- IAC0202 Personal protective and safety equipment is verified, examined and used in accordance with specified requirements.
- IAC0203 Tools and equipment are verified, examined and used in accordance with specified requirements.
- IAC0204 Hazard identification and hazard control are conducted to comply with risk assessment requirements to eliminate, minimise or control risk of ill health and injuries.
- IAC0205 The operation is conducted, and vehicle defects are reported or repaired in accordance with specified requirements.
- IAC0206 The machine operations are coordinated in such a manner as to enhance teamwork and avoid conflict within complementary operations.
- IAC0207 Completed diesel bowser operations demonstrate ability to operate the bowser to functional specifications
- IAC0208 The machines performance and condition are monitored, and hazards and defects are addressed in accordance with specified requirements.

2.2.3 PM-02-PS03: Conduct Lockout procedures

Scope of Practical Skill

Given Overhang., large rocks, bench edges, power lines. moving machinery, poor underfoot conditions, automatic on-board or manual fire extinguisher, emergency stop, pre-start alarm., reverse alarm if applicable, rotating flashing light if applicable, learner must be able to:

- PA0301 Inspect the equipment and collect tools and consumables
- PA0302 Conduct lockout procedures
- PA0303 Handle and clean tools and equipment on completion of inspection
- PA0304 Collect data and submit equipment performance report

Applied Knowledge

- AK0301Uses of two-way communication devices
- AK0302 Uses of PPE
- AK0303 Compliance to health and Safety requirements
- AK0304 Compliance to SABS 1228 Code

- AK0305 Reporting Skills

Internal Assessment Criteria

- IAC0301 Clearance of the machine identified the correct foreign objects for removal
- IAC0302 Identified PPE selected for use is correct for the specific assignment

2.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

2.4 Exemptions

- None

3. 734201000-PM-03, Operate a grader, NQF Level 2, Credits 10

3.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to operate a grader within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the grader as well as conducting lockout operations.
The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 12,5 days.

The learner will be required to:

- PM-03-PS01 Start and shut down grader
- PM-03-PS02 Operate and monitor a grader
- PM-03-PS03 Document grader use and performance

3.2 Guidelines for Practical Skills

.2.1. PM-03-PS01: Start and shut down grader

Scope of Practical Skill

- Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, grader in good working conditions, the learner should be able to;
- PA0101 Conduct pre-operational checks
- PA0102 Correct malfunction of safety features or warning devices (indicators and gauges)
- PA0103 Start and shutdown grader
- PA0104 Complete and report on operational checklist

Applied Knowledge

- AK0101 Functions and uses of grader
- AK0102 Local and provincial authority requirements
- AK0103 Health and safety procedures
- AK0104 Use of appropriate PPE
- AK0105 Functions of different components of grader
- AK0105 Uses of different attachment to a grader
- AK0105 Uses and functions of different controls

Internal Assessment Criteria

- IAC0101 Grader is parked according to manufacturer's and company requirements
- IAC0102 Start-up and shutdown procedures are followed according to manufacturer's specifications
- IAC0103 Pre-operational checks are carried out according to appropriate checklist
- IAC0104 Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist

3.2.2. PM-03-PS02: Operate and monitor a grader

Scope of Practical Skill

Given standard worksite procedures, work assignment, manufacturer's procedures, operators manuals and site operational requirements, assignment, defined site with various functions for grader, tools, consumables, checklists, grader in good working conditions, the learner should be able to:

- PA0201 Use controls to operate grader
- PA0202 Perform grader functions to assignment specifications
- PA0203 Follow safe working procedures
- PA0204 Monitor and record the performance of the grader

Applied Knowledge

- AK0201 Functions and uses of grader
- AK0202 Local and provincial authority requirements
- AK0203 Health and safety procedures
- AK0204 Use of appropriate PPE
- AK0205 Functions of different components of grader
- AK0206 Uses of different attachment to a grader
- AK0207 Uses and functions of different controls
- AK0208 Reporting procedures
- AK0209 Applied earthwork practices
- AK0210 Types and properties of different soil
- AK0211 Applied civil construction practices
- AK0212 Basic application and operation of a grader
- AK0213 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Grader performance is monitored and corrective action is taken when necessary, in accordance with manufacturer's specifications
- IAC0202 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements.
- IAC0203 Grader operations completed demonstrate ability to operate the grader to functional specifications
- IAC0204 Controls are used to effectively manoeuvre the grader within manufacturer's specifications
- IAC0205 Grader is operated without risk of damage or loss to machine or property, or injury to people

3.2.3 PM-03-PS03: Document grader use and performance

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, grader in good working conditions, the learner should be able to;

- PA0301 Document grader hours
- PA0302 Report grader maintenance and faults

Applied Knowledge

- AK0301 Functions and uses of grader
- AK0302 Local and provincial authority requirements
- AK0303 Health and safety procedures
- AK0304 Use of appropriate PPE
- AK0305 Functions of different components of grader
- AK0306 Uses of different attachment to a grader

- AK0307 Uses and functions of different controls
- AK0308 Reporting procedures

Internal Assessment Criteria

- IAC0301 Grader hours are documented in accordance with company requirements
- IAC0302 Grader maintenance and faults are reported in accordance with company requirements

3.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

3.4 Exemptions

- None

4. 734201000-PM-04, Operate a hot mix asphalt paving machine, NQF Level 2, Credits 5

4.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to Set the focus of the learning in this module is on providing the learner an opportunity to operate a grader within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the grader as well as conducting lockout operations.

The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6,25 days

The learner will be required to:

- PM-04-PS01 Start and shut down hot mix asphalt paving machine
- PM-04-PS02 Operate and monitor hot mix asphalt paving machine
- PM-04-PS03 Document hot mix asphalt paving machine use and performance

4.2 Guidelines for Practical Skills

4.2.1. PM-04-PS01: *Start and shut down hot mix asphalt paving machine*

Scope of Practical Skill

Given standard worksite procedures include manufacturer's procedures, operator manuals and site operational requirements, all checklists, functional hot mix asphalt paving machine, assignments, learner must be able to:

- PA0101 Conduct pre-operational checks
- PA0102 Perform operator maintenance functions
- PA0103 Complete checklist on corrective actions
- PA0104 Startup and shutdown the hot mix asphalt paving machine

Applied Knowledge

- AK0101: Procedures to complete the checklist
- AK0102 Industry standard operating procedures
- AK0103 Health and Safety requirements
- AK0104 Quality management requirements
- AK0105 Manufactures' s specifications
- AK0106 Use of different PPE
- AK0107 Applied knowledge of functions of a hot mix asphalt paving machine
- AK0108 Safety features and warning devices on a hot mix asphalt paving machine
- AK0109 Functions of components of a hot mix asphalt paving machine
- AK0110 hot mix asphalt paving machine indicators and gauges
- AK0111 Functions of different controls for hot mix asphalt paving machine
- AK0112 Housekeeping procedures
- AK0113 Applied earthwork practices
- AK0114 Types and properties of different soil
- AK0115 Applied civil construction practices
- AK0116 Basic application and operation of a hot mix asphalt paving machine
- AK0117 Uses of different attachments

Internal Assessment Criteria

- IAC0101 Pre-operational checks are carried out according to appropriate checklist
- IAC0102 Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist.
- IAC0103 Checklist is completed according to worksite procedures and corrective action taken if required, to ensure compliance with manufacturer's specifications.
- IAC0104 Hot mix asphalt paving machine is parked according to manufacturer's and company requirements
- IAC0105 Start-up and shutdown procedures are followed according to manufacturer's specifications
- IAC0106 Hot mix asphalt paving machine operations completed demonstrate ability to operate the machine to functional specifications

4.2.2. PM-04-PS02: *Operate and monitor hot mix asphalt paving machine*

Scope of Practical Skill

Given standard worksite procedures include manufacturer's procedures, operator manuals and site operational requirements, all checklists, functional hot mix asphalt paving machine, assignments, learner must be able to:

- PA0201 Identify and use different controls of hot mix asphalt paving machine
- PA0202 Use controls effectively to maneuver hot mix asphalt paving machine
- PA0203 Monitor performance of hot mix asphalt paving machine
- PA0204 Operate the equipment to minimize hazard

Applied Knowledge

- AK0201: Procedures to complete the checklist
- AK0202 Industry standard operating procedures
- AK0203 Health and Safety requirements
- AK0204 Quality management requirements
- AK0205 Manufactures' s specifications
- AK0206 Use of different PPE
- AK0207 Applied knowledge of functions of a hot mix asphalt paving machine
- AK0208 Safety features and warning devices on a hot mix asphalt paving machine
- AK0209 Functions of components of a hot mix asphalt paving machine
- AK0210 hot mix asphalt paving machine indicators and gauges
- AK0211 Functions of different controls for hot mix asphalt paving machine
- AK0212 Housekeeping procedures
- AK0213 Applied earthwork practices
- AK0214 Types and properties of different soil
- AK0215 Applied civil construction practices
- AK0216 Basic application and operation of a hot mix asphalt paving machine
- AK0217 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Functions of the various controls are demonstrated in accordance with the manufacturer's specification

- IAC0202 Controls are used to effectively manoeuvre the hot mix asphalt paving machine within manufacturer's specifications
- IAC0203 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements
- IAC0204 Hot mix asphalt paving machine performance is monitored, and corrective/ reporting action is taken when necessary, in accordance with manufacturer's specifications.
- IAC0205 Hot mix asphalt paving machine is operated without risk of damage or loss to hot mix asphalt paving machine or property, or injury to people
- IAC0206 Hazards specific to operating hot mix asphalt paving machine's and ways to minimise these are explained in terms of potential damage to hot mix asphalt paving machine and property, and injury to people
- IAC0207 Hot mix asphalt paving machine operations completed demonstrate ability to operate the machine to functional specifications

2.2.2 PM-04-PS03: Document hot mix asphalt paving machine use and performance

Scope of Practical Skill

Given standard worksite procedures include manufacturer's procedures, operators' manuals, reporting procedures and site operational requirements, all checklists, functional hot mix asphalt paving machine, assignments, learner must be able to:

- PA0301 Document performance hours of the hot mix asphalt paving machine
- PA0302 Report hot mix asphalt paving machine maintenance and faults

Applied Knowledge

- AK0301: Procedures to complete the checklist
- AK0302 Industry standard operating procedures
- AK0303 Health and Safety requirements
- AK0304 Quality management requirements
- AK0305 Manufactures' s specifications
- AK0306 Use of different PPE
- AK0307 Applied knowledge of functions of a hot mix asphalt paving machine
- AK0308 Safety features and warning devices on a hot mix asphalt paving machine
- AK0309 Functions of components of a hot mix asphalt paving machine
- AK0310 hot mix asphalt paving machine indicators and gauges
- AK0311 Functions of different controls for hot mix asphalt paving machine
- AK0312 Housekeeping procedures

Internal Assessment Criteria

- IAC0301 Hot mix asphalt paving machine hours are documented in accordance with company requirements.
- IAC0302 Hot mix asphalt paving machine maintenance and faults are reported in accordance with company requirements.

4.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

4.4 Exemptions

- None

5. 734201000-PM-05, Operate a surface soil stabiliser and milling machine, NQF Level 2, Credits 5

5.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to operate a soil stabiliser and milling machine within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the soil stabiliser and milling machine as well as conducting lockout operations.

The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6,25 days

The learner will be required to:

- PM-05-PS01 Start and shut down soil stabiliser and milling machine
- PM-05-PS02 Operate and monitor soil stabiliser and milling machine.
- PM-05-PS03 Document soil stabiliser and milling machine use

5.2 Guidelines for Practical Skills

5.2.1. PM-05-PS01: Prepare equipment for operation

Scope of Practical Skill

Given bulk handling equipment, conveying equipment, weighing equipment, storage equipment, transport equipment and packaging equipment the learner must be able to:

- PA0101 Conduct pre-operational checks
- PA0102 Perform operator maintenance functions
- PA0103 Complete checklist on corrective actions
- PA0104 Start-up and shutdown the soil stabiliser and milling machine

Applied Knowledge

- AK0101: Procedures to complete the checklist
- AK0102 Industry standard operating procedures
- AK0103 Health and Safety requirements
- AK0104 Quality management requirements
- AK0105 Manufactures' s specifications
- AK0106 Use of different PPE
- AK0107 Applied knowledge of functions of a soil stabiliser and milling machine
- AK0108 Safety features and warning devices on a soil stabiliser and milling machine
- AK0109 Functions of components of a soil stabiliser and milling machine
- AK0110 Soil stabiliser and milling machine indicators and gauges
- AK0111 Functions of different controls for soil stabiliser and milling machine
- AK0112 Housekeeping procedures

Internal Assessment Criteria

- IAC0101 Pre-operational checks are carried out according to appropriate checklists
- IAC0102 Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist.
- IAC0103 Checklist is completed according to worksite procedures and corrective action taken if required, to ensure compliance with manufacturer's specifications.

- IAC0104 Soil stabiliser and milling machine is parked according to manufacturer's and standard requirements
- IAC0105 Start-up and shutdown procedures are followed according to manufacturer's specifications

5.2.2. PM-05-PS02: *Operate and monitor soil stabiliser and milling machine*

Scope of Practical Skill

Given standard worksite procedures include manufacturer's procedures, operators' manuals and site operational requirements, all checklists, functional hot mix asphalt paving machine, assignments, learner must be able to:

- PA0201 Identify and use different controls of hot mix asphalt paving machine
- PA0202 Use controls effectively to manoeuvre hot mix asphalt paving machine
- PA0203 Monitor performance of hot mix asphalt paving machine
- PA0204 Operate the equipment to minimize hazard

Applied Knowledge

- AK0201: Procedures to complete the checklist
- AK0202 Industry standard operating procedures
- AK0203 Health and Safety requirements
- AK0204 Quality management requirements
- AK0205 Manufactures' s specifications
- AK0206 Use of different PPE
- AK0207 Applied knowledge of functions of a soil stabiliser and milling machine
- AK0208 Safety features and warning devices on soil stabiliser and milling machine
- AK0209 Functions of components of soil stabiliser and milling machine
- AK0210 hot mix asphalt paving machine indicators and gauges
- AK0211 Functions of different controls for soil stabiliser and milling machine
- AK0212 Housekeeping procedures
- AK0213 Applied earthwork practices
- AK0214 Types and properties of different soil
- AK0215 Applied civil construction practices
- AK0216 Basic application and operation of a hot mix asphalt paving machine
- AK0217 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Functions of the various controls are demonstrated in accordance with the manufacturer's specification
- IAC0202 Controls are used to effectively manoeuvre the soil stabiliser and milling machine within manufacturer's specifications
- IAC0203 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements
- IAC0204 Soil stabiliser and milling machine performance is monitored and corrective action is taken when necessary, in accordance with manufacturer's specifications.
- IAC0205 Soil stabiliser and milling machine are operated without risk of damage or loss to hot mix asphalt paving machine or property, or injury to people

- IAC0206 Hazards specific to operating soil stabiliser and milling machine and ways to minimise these are explained in terms of potential damage to soil stabiliser and milling machine and property, and injury to people
- IAC0207 Surface Stabiliser and milling machine operations completed demonstrate ability to operate the machine to functional specifications

5.2.3. PM-05-PS03: *Document soil stabiliser and milling machine use and performance*

Scope of Practical Skill

Given standard worksite procedures include manufacturer's procedures, operators' manuals, reporting procedures and site operational requirements, all checklists, functional hot mix asphalt paving machine, assignments, learner must be able to:

- PA0301 Document performance hours of the hot mix asphalt paving machine
- PA0302 Report hot mix asphalt paving machine maintenance and faults

Applied Knowledge

- AK0301: Procedures to complete the checklist
- AK0302 Industry standard operating procedures
- AK0303 Health and Safety requirements
- AK0304 Quality management requirements
- AK0305 Manufactures' s specifications
- AK0306 Use of different PPE
- AK0307 Applied knowledge of functions of a hot mix asphalt paving machine
- AK0308 Safety features and warning devices on a hot mix asphalt paving machine
- AK0309 Functions of components of a hot mix asphalt paving machine
- AK0310 Hot mix asphalt paving machine indicators and gauges
- AK0311 Functions of different controls for hot mix asphalt paving machine
- AK0312 Housekeeping procedures

Internal Assessment Criteria

- IAC0301 Soil stabiliser and milling machine hours are documented in accordance with company requirements.
- IAC0302 Soil stabiliser and milling machine maintenance and faults are reported in accordance with company requirements.

5.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

5.4 Exemptions

- None

6. 734201000-PM-06, Operate a surface paving machine, NQF Level 2, Credits 15

6.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to dismantle, the focus of the learning in this module is on providing the learner an opportunity to operate a surface paving machine within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the surface paving machine as well as conducting lockout operations.

The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6,25 days.
The learner will be required to:

- PM-06-PS01 Start and shut down surface paving machine
- PM-06-PS02 Operate and monitor surface paving machine
- PM-06-PS03 Document surface paving machine use and performance

6.2 Guidelines for Practical Skills

6.2.1. PM-06-PS01: Dismantle basic equipment components

Scope of Practical Skill

Given standard worksite procedures include manufacturer's procedures, operators' manuals and site operational requirements, all checklists, functional surface paving machine, assignments, learner must be able to:

- PA0101 Conduct pre-operational checks
- PA0102 Perform operator maintenance functions
- PA0103 Complete checklist on corrective actions
- PA0104 Startup and shutdown the hot mix asphalt paving machine

Applied Knowledge

- AK0101: Procedures to complete the checklist
- AK0102 Industry standard operating procedures
- AK0103 Health and Safety requirements
- AK0104 Quality management requirements
- AK0105 Manufactures' s specifications
- AK0106 Use of different PPE
- AK0107 Applied knowledge of functions of a surface paving machine
- AK0108 Safety features and warning devices on surface paving machine
- AK0109 Functions of components of a surface paving machine
- AK0110 Surface paving machine indicators and gauges
- AK0111 Functions of different controls surface paving machine
- AK0112 Housekeeping procedures

Internal Assessment Criteria

- IAC0101 Pre-operational checks are carried out according to appropriate checklist
- IAC0102 Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist.
- IAC0103 Checklist is completed according to worksite procedures and corrective action taken if required, ensuring compliance with manufacturer's specifications.

- IAC0104 surface paving machine is parked according to manufacturer's and company requirements
- IAC0105 Start-up and shutdown procedures are followed according to manufacturer's specifications

6.2.2. PM-06-PS02: *Operate and monitor surface paving machine*

Scope of Practical Skill

Given standard worksite procedures include manufacturer's procedures, operators' manuals and site operational requirements, all checklists, functional surface paving machine, assignments, learner must be able to:

- PA0201 Identify and use different controls surface paving machine
- PA0202 Use controls effectively to manoeuvre surface paving machine
- PA0203 Monitor performance of surface paving machine
- PA0204 Operate the equipment to minimize hazard

Applied Knowledge

- AK0201: Procedures to complete the checklist
- AK0202 Industry standard operating procedures
- AK0203 Health and Safety requirements
- AK0204 Quality management requirements
- AK0205 Manufactures' s specifications
- AK0206 Use of different PPE
- AK0207 Applied knowledge of functions of a surface paving machine
- AK0208 Safety features and warning devices on a surface paving machine
- AK0209 Functions of components of a surface paving machine
- AK0210 Surface paving machine indicators and gauges
- AK0211 Functions of different controls for surface paving machine
- AK0212 Housekeeping procedures
- AK0213 Applied earthwork practices
- AK0214 Types and properties of different soil
- AK0215 Applied civil construction practices
- AK0216 Basic application and operation of a surface paving machine
- AK0217 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Functions of the various controls are demonstrated in accordance with the manufacturer's specification
- IAC0202 Controls are used to effectively manoeuvre the surface paving machine within manufacturer's specifications
- IAC0203 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements
- IAC0204 surface paving machine performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer's specifications.
- IAC0205 Surface paving machine is operated without risk of damage or loss to hot mix asphalt paving machine or property, or injury to people
- IAC0206 Hazards specific to operating hot mix asphalt paving machine's and ways to minimise these are explained in terms of potential damage to hot mix asphalt paving machine and property, and injury to people

- IAC0207 Surface paving machine operations completed demonstrate ability to operate the machine to functional specifications

6.2.2 PM-06-PS03: Document surface paving machine use and performance

Scope of Practical Skill

Given standard worksite procedures include manufacturer's procedures, operators' manuals, reporting procedures and site operational requirements, all checklists, functional surface paving machine, assignments, learner must be able to:

- PA0301 Document performance hours of the surface paving machine
- PA0302 Report surface paving machine maintenance and faults

Applied Knowledge

- AK0301: Procedures to complete the checklist
- AK0302 Industry standard operating procedures
- AK0303 Health and Safety requirements
- AK0304 Quality management requirements
- AK0305 Manufactures' s specifications
- AK0306 Use of different PPE
- AK0307 Applied knowledge of functions of a surface paving machine
- AK0308 Safety features and warning devices on a surface paving machine
- AK0309 Functions of components of a surface paving machine
- AK0310 Surface paving machine indicators and gauges
- AK0311 Functions of different controls for surface paving machine
- AK0312 Housekeeping procedures

Internal Assessment Criteria

- IAC0301 Surface paving machine hours are documented in accordance with company requirements.
- IAC0302 Surface paving machine maintenance and faults are reported in accordance with company requirements.

6.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

6.4 Exemptions

- None

7. 734201000-PM-07, Operate a surface roller, NQF Level 2, Credits 5

7.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to operate a surface roller within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the surface roller as well as conducting lockout operations.

The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6,25 days
The learner will be required to:

- PM-07-PS01: Start and shut down surface roller
- PM-07-PS02: Operate and monitor a surface roller
- PM-07-PS03: Document surface roller use

7.2 Guidelines for Practical Skills

7.2.1. PM-07-PS01: *Start and shut down roller*

Scope of Practical Skill

Given assignment, work instructions, standard operating procedures, checklist, learner must be able to:

- PA0101: Conduct pre-operational checks
- PA0102: Start the roller
- PA0103: Perform and report maintenance requirements
- PA0104: Complete inspection checklist
- PA0105: Park the roller
- PA0106: Conduct shutdown procedures

Applied Knowledge

- AK0101: Procedures to complete the checklist
- AK0102 Industry standard operating procedures
- AK0103 Health and Safety requirements
- AK0104 Quality management requirements
- AK0105 Manufactures' s specifications
- AK0106 Use of different PPE
- AK0107 Applied knowledge of functions of a roller
- AK0108 Safety features and warning devices on a roller
- AK0109 Functions of components of a roller
- AK0110 Roller indicators and gauges
- AK0111 Functions of different controls
- AK0112 Housekeeping procedures

Internal Assessment Criteria

- IAC0101 Pre-operational checks are carried out according to appropriate checklist.

- IAC0102 Checklist is completed according to worksite procedures and corrective action taken if required, to ensure compliance with manufacturer's specifications
- IAC0103 Roller is parked according to manufacturer's and industry standards

7.2.2. PM-07-PS02: *Operate and monitor a surface roller*

Scope of Practical Skill

Given assignment, working instructions, construction related hazard, roller, manufacturers' specifications, standard operating procedures, the learner must be able to:

- PA0201 Use the controls to manoeuvre the roller
- PA0202 Manoeuvre a roller through hazard
- PA0203 Monitor roller performance

Applied Knowledge

- AK0201: Procedures to complete the checklist
- AK0202 Industry standard operating procedures
- AK0203 Health and Safety requirements
- AK0204 Quality management requirement s
- AK0205 Manufactures' s specifications
- AK0206 Use of different PPE
- AK0207 Applied knowledge of functions of a roller
- AK0208 Safety features and warning devices on a roller
- AK0209 Functions of components of a roller
- AK0210 Roller indicators and gauges
- AK0211 Functions of different controls
- AK0212 Housekeeping procedures
- AK0213 Applied earthwork practices
- AK0214 Types and properties of different soil
- AK0215 Applied civil construction practices
- AK0216 Basic application and operation of a surface roller
- AK0217 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Functions of the various controls are demonstrated in accordance with the manufacturer's specification
- IAC0202 Controls are used to effectively manoeuvre the Roller within manufacturer's specifications
- AC0203Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements.
- IAC0204 Hazards specific to operating Roller's and ways to minimise these are identified in terms of potential damage to machine and property, and injury to people.
- IAC0205 Surface roller operations completed demonstrate ability to operate the machine to functional specifications

7.2.3 PM-07-PS03: Document surface roller use

Scope of Practical Skill

Given assignment, working instructions, construction related hazard, roller, manufacturers' specifications, standard operating procedures, learner must be able to:

- PA0301 Document hours of use for surface roller
- PA0302 Identify and report maintenance and faults

Applied Knowledge

- AK0301: Procedures to complete the checklist
- AK0302 Industry standard operating procedures
- AK0303 Health and Safety requirements
- AK0304 Quality management requirement s
- AK0305 Manufactures' s specifications
- AK0306 Use of different PPE
- AK0307 Applied knowledge of functions of a roller
- AK0308 Safety features and warning devices on a roller
- AK0309 Functions of components of a roller
- AK0310 Roller indicators and gauges
- AK0311 Functions of different controls
- AK0312 Housekeeping procedures

Internal Assessment Criteria

- IAC0301 Roller hours are documented in accordance with company requirements.
- IAC0302 Roller maintenance and faults are reported in accordance with company requirement

7.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

7.4 Exemptions

- None

8. 734201000-PM-08, Operate a surface sideboom, NQF Level 2, Credits 5

8.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to operate a surface sideboom within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the surface sideboom as well as conducting lockout operations.

The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6,25 days.

The learner will be required to:

- PM-08-PS01: Start and shut down surface sideboom
- PM-08-PS02: Operate and monitor surface sideboom
- PM-08-PS03: Document surface sideboom use and performance

8.2 Guidelines for Practical Skills

8.2.1. PM-08-PS01: Start and shut down surface sideboom

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, surface sideboom in good working conditions, the learner should be able to:

- PA0101 Conduct pre-operational checks
- PA0102 Correct malfunction of safety features or warning devices (indicators and gauges)
- PA0103 Start and shutdown surface sideboom
- PA0104 Complete and report on operational checklist

Applied Knowledge

- AK0101 Functions and uses of surface sideboom
- AK0102 Local and provincial authority requirements
- AK0103 Health and safety procedures
- AK0104 Use of appropriate PPE
- AK0105 Functions of different components of surface sideboom
- AK0106 Uses of different attachment to a surface sideboom
- AK0107 Uses and functions of different controls
- AK0108 Code of Practice

Internal Assessment Criteria

- IAC0101 Surface sideboom is parked according to manufacturer's and standard operational requirements
- IAC0102 Start-up and shutdown procedures are followed according to manufacturer's specifications
- IAC0103 Pre-operational checks are carried out according to appropriate standard checklist
- IAC0104 Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist

8.2.2. PM-08-PS02: Operate and monitor surface sideboom

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, surface sideboom in good working conditions, the learner should be able to:

- PA0201 Use controls to manoeuvre surface sideboom
- PA0202 Follow safe working procedures
- PA0203 Monitor and record the performance of the surface sideboom

Applied Knowledge

- AK0201 Functions and uses of surface sideboom
- AK0202 Local and provincial authority requirements
- AK0203 Health and safety procedures
- AK0204 Use of appropriate PPE
- AK0205 Functions of different components of surface sideboom
- AK0206 Uses of different attachment to a surface sideboom
- AK0207 Uses and functions of different controls
- AK0208 Code of Practice
- AK0209 Applied earthwork practices
- AK0210 Types and properties of different soil
- AK0211 Applied civil construction practices
- AK0212 Basic application and operation of a surface sideboom
- AK0213 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Surface sideboom performance is monitored and corrective action is taken when necessary, in accordance with manufacturer's specifications
- IAC0202 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements
- IAC0203 Controls are used to effectively manoeuvre the surface sideboom within manufacturer's specifications
- IAC0204 Surface sideboom is operated without risk of damage or loss to machine or property, or injury to people
- IAC0205 Surface sideboom operations completed demonstrate ability to operate the machine to functional specifications

8.2.2 PM-08-PS03: Document surface sideboom use and performance

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, surface sideboom in good working conditions, the learner should be able to;

- PA0301 Document surface sideboom hours
- PA0302 Report surface sideboom maintenance and faults

Applied Knowledge

- AK0301 Functions and uses of surface sideboom
- AK0302 Local and provincial authority requirements
- AK0303 Health and safety procedures
- AK0304 Use of appropriate PPE
- AK0305 Functions of different components of surface sideboom

- AK0306 Uses of different attachment to a surface sideboom
- AK0307 Uses and functions of different controls
- AK0308 Code of Practice

Internal Assessment Criteria

- IAC0301 Surface sideboom hours are documented in accordance with standard operating requirements
- IAC0302 Surface sideboom maintenance and faults are reported in accordance with standard requirements

8.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

8.4 Exemptions

- None

9. 734201000-PM-09, Operate a surface tracked dozer, NQF Level 2, Credits 5

9.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to operate a surface tracked dozer within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the surface tracked dozer as well as conducting lockout operations.
The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6,25 days.

The learner will be required to:

- PM-09-PS01: Start and shut down surface tracked dozer
- PM-09-PS02: Operate and monitor surface tracked doze
- PM-09-PS03: Document surface tracked dozer use and performance

9.2 Guidelines for Practical Skills

9.2.1. PM-09-PS01: Start and shut down surface tracked dozer

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, surface tracked dozer in good working conditions, the learner should be able to:

- PA0101 Conduct pre-operational checks
- PA0102 Correct malfunction of safety features or warning devices (indicators and gauges)
- PA0103 Start and shutdown surface tracked dozer
- PA0104 Complete and report on operational checklist

Applied Knowledge

- AK0101 Functions and uses of surface tracked dozer
- AK0102 Local and provincial authority requirements
- AK0103 Health and safety procedures
- AK0104 Use of appropriate PPE
- AK0105 Functions of different components of surface tracked dozer
- AK0106 Uses of different attachment to a surface tracked dozer
- AK0107 Uses and functions of different controls
- AK0108 Code of Practice

Internal Assessment Criteria

- IAC0101 Surface tracked dozer is parked according to manufacturer's and standard operational requirements
- IAC0102 Start-up and shutdown procedures are followed according to manufacturer's specifications
- IAC0103 Pre-operational checks are carried out according to appropriate standard checklist
- IAC0104 Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist

9.2.2. PM-09-PS02: Operate and monitor surface tracked dozer

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, surface tracked dozer in good working conditions, the learner should be able to:

- PA0201 Use controls to manoeuvre surface tracked dozer
- PA0202 Follow safe working procedures
- PA0203 Monitor and record the performance of the surface tracked dozer

Applied Knowledge

- AK0201 Functions and uses of surface tracked dozer
- AK0202 Local and provincial authority requirements
- AK0203 Health and safety procedures
- AK0204 Use of appropriate PPE
- AK0205 Functions of different components of surface tracked dozer
- AK0206 Uses of different attachment to a surface tracked dozer
- AK0207 Uses and functions of different controls
- AK0208 Code of Practice
- AK0209 Applied earthwork practices
- AK0210 Types and properties of different soil
- AK0211 Applied civil construction practices
- AK0212 Basic application and operation of a surface tracked dozer
- AK0213 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Surface tracked dozer performance is monitored and corrective action is taken when necessary, in accordance with manufacturer's specifications
- IAC0202 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements
- IAC0203 Controls are used to effectively manoeuvre the surface tracked dozer within manufacturer's specifications
- IAC0204 Surface tracked dozer is operated without risk of damage or loss to machine or property, or injury to people
- IAC0205 Surface tracked dozer operations completed demonstrate ability to operate the machine to functional specifications

9.2.2 PM-09-PS03: Document surface tracked dozer use and performance

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, surface tracked dozer in good working conditions, the learner should be able to;

- PA0301 Document surface tracked dozer hours
- PA0302 Report surface tracked dozer maintenance and faults

Applied Knowledge

- AK0301 Functions and uses of surface tracked dozer
- AK0302 Local and provincial authority requirements
- AK0303 Health and safety procedures

- AK0304 Use of appropriate PPE
- AK0305 Functions of different components of surface tracked dozer
- AK0306 Uses of different attachment to a surface tracked dozer
- AK0307 Uses and functions of different controls
- AK0308 Code of Practice

Internal Assessment Criteria

- IAC0301 Surface tracked dozer hours are documented in accordance with standard operating requirements
- IAC0302 Surface tracked dozer maintenance and faults are reported in accordance with standard requirements

9.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

9.4 Exemptions

- None

10. 734201000-PM-010, Operate a tractor, NQF Level 2, Credits 5

10.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to operate a tractor within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the tractor as well as conducting lockout operations.
The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6,25 days.

The learner will be required to:

- PM-10-PS01: Start and shut down tractor
- PM-10-PS02: Operate and monitor a tractor
- PM-10-PS03: Document tractor use and performance

10.2 Guidelines for Practical Skills

10.2.1. PM-10-PS01: Start and shut down tractor

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, tractor in good working conditions, the learner should be able to:

- PA0101 Conduct pre-operational checks
- PA0102 Correct malfunction of safety features or warning devices (indicators and gauges)
- PA0103 Start and shutdown tractor
- PA0104 Complete and report on operational checklist

Applied Knowledge

- AK0101 Functions and uses of tractor
- AK0102 Local and provincial authority requirements
- AK0103 Health and safety procedures
- AK0104 Use of appropriate PPE
- AK0105 Functions of different components of tractor
- AK0106 Uses of different attachment to tractor
- AK0107 Uses and functions of different controls
- AK0108 Code of Practice

Internal Assessment Criteria

- IAC0101 Tractor is parked according to manufacturer's and standard operational requirements
- IAC0102 Start-up and shutdown procedures are followed according to manufacturer's specifications
- IAC0103 Pre-operational checks are carried out according to appropriate standard checklist
- IAC0104 Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist

10.2.2. PM-10-PS02: Operate and monitor a tractor

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, tractor in good working conditions, the learner should be able to:

- PA0201 Use controls to manoeuvre tractor
- PA0202 Follow safe working procedures
- PA0203 Monitor and record the performance of the tractor

Applied Knowledge

- AK0201 Functions and uses of tractor
- AK0202 Local and provincial authority requirements
- AK0203 Health and safety procedures
- AK0204 Use of appropriate PPE
- AK0205 Functions of different components of tractor
- AK0206Uses of different attachment to a tractor
- AK0207 Uses and functions of different controls
- AK0208Code of Practice
- AK0209 Applied earthwork practices
- AK0210 Types and properties of different soil
- AK0211 Applied civil construction practices
- AK0212 Basic application and operation of a tractor
- AK0213 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Tractor performance is monitored and corrective action is taken when necessary, in accordance with manufacturer's specifications
- IAC0202 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements
- IAC0203 Controls are used to effectively manoeuvre the tractor within manufacturer's specifications
- IAC0204 Tractor is operated without risk of damage or loss to machine or property, or injury to people
- IAC0205 Tractor operations completed demonstrate ability to operate the machine to functional specifications

10.2.2 PM-10-PS03: Document tractor use and performance

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, tractor in good working conditions, the learner should be able to;

- PA0301 Document tractor hours
- PA0302 Report tractor maintenance and faults

Applied Knowledge

- AK0301 Functions and uses of tractor
- AK0302 Local and provincial authority requirements
- AK0303 Health and safety procedures

- AK0304 Use of appropriate PPE
- AK0305 Functions of different components of tractor
- AK0306 Uses of different attachment to tractor
- AK0307 Uses and functions of different controls
- AK0308 Code of Practice

Internal Assessment Criteria

- IAC0301 Tractor hours are documented in accordance with standard operating requirements
- IAC0302 Tractor maintenance and faults are reported in accordance with standard requirements

10.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

10.4 Exemptions

- None

11. 734201000-PM-011, Operate bitumen spray equipment, NQF Level 2, Credits 5

11.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to operate a surface bitumen spray equipment within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the bitumen spray equipment as well as conducting lockout operations.
The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6,25 days.

The learner will be required to:

- PM-11-PS01: Start and shut down bitumen spray equipment
- PM-11-PS02: Operate and monitor a surface bitumen spray equipment
- PM-11-PS03: Document bitumen spray equipment use and performance

11.2 Guidelines for Practical Skills

11.2.1. PM-11-PS01: Start and shut down surface tracked dozer

Scope of Practical Skill

Given standard worksite procedures, fire extinguishers, thermometers, dipstick, tank hatch, tank overflow pipe, internal tank baffles, assistants platform, spraybar sideways shift, handlance hose pressure ratings, spraylance, First aid Bitumen Spray Equipment, valves, gangbar, nozzles, filter, heating systems and controls, vehicle speed, and bitumen pump controls, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, bitumen spray equipment in good working conditions, the learner should be able to:

- PA0101 Conduct pre-operational checks
- PA0102 Correct malfunction of safety features or warning devices (indicators and gauges)
- PA0103 Start and shutdown bitumen spray equipment
- PA0104 Complete and report on operational checklist

Applied Knowledge

- AK0101 Functions and uses of bitumen spray equipment
- AK0102 Local and provincial authority requirements
- AK0103 Health and safety procedures
- AK0104 Use of appropriate PPE
- AK0105 Functions of different components of bitumen spray equipment
- AK0106 Uses of different attachment to a bitumen spray equipment
- AK0107 Uses and functions of different controls
- AK0108 Code of Practice

Internal Assessment Criteria

- IAC0101 Bitumen spray equipment is parked according to manufacturer's and standard operational requirements
- IAC0102 Start-up and shutdown procedures are followed according to manufacturer's specifications
- IAC0103 Pre-operational checks are carried out according to appropriate standard checklist
- IAC0104 Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist

11.2.2. PM-11-PS02: Operate and monitor a tractor

Scope of Practical Skill

Given standard worksite procedures, fire extinguishers, thermometers, dipstick, tank hatch, tank overflow pipe, internal tank baffles, assistants platform, spraybar sideways shift, handlance hose pressure ratings, spraylance, First aid Bitumen Spray Equipment, valves, gangbar, nozzles, filter, heating systems and controls, vehicle speed, and bitumen pump controls, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, bitumen spray equipment in good working conditions, the learner should be able to:

- PA0201 Use controls to manoeuvre bitumen spray equipment
- PA0202 Follow safe working procedures
- PA0203 Monitor and record the performance of the bitumen spray equipment

Applied Knowledge

- AK0201 Functions and uses of bitumen spray equipment
- AK0202 Local and provincial authority requirements
- AK0203 Health and safety procedures
- AK0204 Use of appropriate PPE
- AK0205 Functions of different components of bitumen spray equipment
- AK0206 Uses of different attachment to a tractor
- AK0207 Uses and functions of different controls
- AK0208 Code of Practice
- AK0209 Applied earthwork practices
- AK0210 Types and properties of different soil
- AK0211 Applied civil construction practices
- AK0212 Basic application and operation of a bitumen spray equipment
- AK0213 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Bitumen spray equipment performance is monitored and corrective action is taken when necessary, in accordance with manufacturer's specifications
- IAC0202 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements
- IAC0203 Controls are used to effectively manoeuvre the bitumen spray equipment within manufacturer's specifications
- IAC0204 Bitumen spray equipment is operated without risk of damage or loss to machine or property, or injury to people
- IAC0205 Bitumen spray equipment operations completed demonstrate ability to operate the machine to functional specifications

11.2.2 PM-11-PS03: Document bitumen spray equipment use and performance

Scope of Practical Skill

Given standard worksite procedures, fire extinguishers, thermometers, dipstick, tank hatch, tank overflow pipe, internal tank baffles, assistants platform, spraybar sideways shift, handlance hose pressure ratings, spraylance, First aid Bitumen Spray Equipment, valves, gangbar, nozzles, filter, heating systems and controls, vehicle speed, and bitumen pump controls, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, bitumen spray equipment tractor in good working conditions, the learner should be able to;

- PA0301 Document bitumen spray equipment hours

- PA0302 Report bitumen spray equipment maintenance and faults

Applied Knowledge

- AK0301 Functions and uses of bitumen spray equipment
- AK0302 Local and provincial authority requirements
- AK0303 Health and safety procedures
- AK0304 Use of appropriate PPE
- AK0305 Functions of different components of bitumen spray equipment
- AK0306 Uses of different attachment to bitumen spray equipment
- AK0307Uses and functions of different controls
- AK0308 Code of Practice

Internal Assessment Criteria

- IAC0301 Bitumen spray equipment hours are documented in accordance with standard operating requirements
- IAC0302 Bitumen spray equipment maintenance and faults are reported in accordance with standard requirements

11.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

11.4 Exemptions

- None

12. 734201000-PM-012, Operate continuous bucket trencher, NQF Level 2, Credits 5

12.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to operate a continuous bucket trencher within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the surface continuous bucket trencher as well as conducting lockout operations.

The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6,25 days.

The learner will be required to:

- PM-12-PS01: Start and shut down continuous bucket trencher
- PM-12-PS02: Operate and monitor continuous bucket trencher
- PM-12-PS03: Document continuous bucket trencher use and performance

12.2 Guidelines for Practical Skills

12.2.1. PM-12-PS01: Start and shut down continuous bucket trencher

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, continuous bucket trencher in good working conditions, the learner should be able to:

- PA0101 Conduct pre-operational checks
- PA0102 Correct malfunction of safety features or warning devices (indicators and gauges)
- PA0103 Start and shutdown continuous bucket trencher
- PA0104 Complete and report on operational checklist

Applied Knowledge

- AK0101 Functions and uses of continuous bucket trencher
- AK0102 Local and provincial authority requirements
- AK0103 Health and safety procedures
- AK0104 Use of appropriate PPE
- AK0105 Functions of different components of continuous bucket trencher
- AK0106 Uses of different attachment to a continuous bucket trencher
- AK0107 Uses and functions of different controls
- AK0108 Code of Practice

Internal Assessment Criteria

- IAC0101 Continuous bucket trencher is parked according to manufacturer's and standard operational requirements
- IAC0102 Start-up and shutdown procedures are followed according to manufacturer's specifications
- IAC0103 Pre-operational checks are carried out according to appropriate standard checklist
- IAC0104 Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist

12.2.2. PM-12-PS02: Operate and monitor a continuous bucket trencher

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, continuous bucket trencher in good working conditions, the learner should be able to:

- PA0201 Use controls to manoeuvre continuous bucket trencher
- PA0202 Follow safe working procedures
- PA0203 Monitor and record the performance of the continuous bucket trencher

Applied Knowledge

- AK0201 Functions and uses of continuous bucket trencher
- AK0202 Local and provincial authority requirements
- AK0203 Health and safety procedures
- AK0204 Use of appropriate PPE
- AK0205 Functions of different components of continuous bucket trencher
- AK0206 Uses of different attachment to a continuous bucket trencher
- AK0207 Uses and functions of different controls
- AK0208 Code of Practice
- AK0209 Applied earthwork practices
- AK0210 Types and properties of different soil
- AK0211 Applied civil construction practices
- AK0212 Basic application and operation of a continuous bucket trencher
- AK0213 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Continuous bucket trencher performance is monitored and corrective action is taken when necessary, in accordance with manufacturer's specifications
- IAC0202 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements
- IAC0203 Controls are used to effectively manoeuvre the continuous bucket trencher within manufacturer's specifications
- IAC0204 Continuous bucket trencher is operated without risk of damage or loss to machine or property, or injury to people
- IAC0205 Continuous bucket trencher operations completed demonstrate ability to operate the machine to functional specifications

12.2.2 PM-12-PS03: Document continuous bucket trencher use and performance

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, continuous bucket trencher in good working conditions, the learner should be able to;

- PA0301 Document continuous bucket trencher hours
- PA0302 Report continuous bucket trencher maintenance and faults

Applied Knowledge

- AK0301 Functions and uses of continuous bucket trencher
- AK0302 Local and provincial authority requirements
- AK0303 Health and safety procedures

- AK0304 Use of appropriate PPE
- AK0305 Functions of different components of continuous bucket trencher
- AK0306 Uses of different attachment to continuous bucket trencher
- AK0307 Uses and functions of different controls
- AK0308 Code of Practice

Internal Assessment Criteria

- IAC0301 Continuous bucket trencher hours are documented in accordance with standard operating requirements
- IAC0302 Continuous bucket trencher maintenance and faults are reported in accordance with standard requirements

12.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

12.4 Exemptions

- None

13. 734201000-PM-013, Operate a surface face shovel, NQF Level 2, Credits 5

13.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to operate a surface face shovel within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the surface face shovel as well as conducting lockout operations.

The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6,25 days.

The learner will be required to:

- PM-13-PS01: Start and shut down surface face shovel
- PM-13-PS02: Operate and monitor surface face shovel
- PM-13-PS03: Document surface face shovel use and performance

13.2 Guidelines for Practical Skills

13.2.1. PM-13-PS01: Start and shut down surface face shovel

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, surface face shovel in good working conditions, the learner should be able to:

- PA0101 Conduct pre-operational checks
- PA0102 Correct malfunction of safety features or warning devices (indicators and gauges)
- PA0103 Start and shutdown surface face shovel
- PA0104 Complete and report on operational checklist

Applied Knowledge

- AK0101 Functions and uses of surface face shovel
- AK0102 Local and provincial authority requirements
- AK0103 Health and safety procedures
- AK0104 Use of appropriate PPE
- AK0105 Functions of different components of surface face shovel
- AK0106 Uses of different attachment to a surface face shovel
- AK0107 Uses and functions of different controls
- AK0108 Code of Practice

Internal Assessment Criteria

- IAC0101 Surface face shovel is parked according to manufacturer's and standard operational requirements
- IAC0102 Start-up and shutdown procedures are followed according to manufacturer's specifications
- IAC0103 Pre-operational checks are carried out according to appropriate standard checklist
- IAC0104 Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist

13.2.2. PM-13-PS02: Operate and monitor a surface face shovel

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, surface face shovel in good working conditions, the learner should be able to:

- PA0201 Use controls to manoeuvre surface face shovel
- PA0202 Follow safe working procedures
- PA0203 Monitor and record the performance of the surface face shovel

Applied Knowledge

- AK0201 Functions and uses of surface face shovel
- AK0202 Local and provincial authority requirements
- AK0203 Health and safety procedures
- AK0204 Use of appropriate PPE
- AK0205 Functions of different components of surface face shovel
- AK0206 Uses of different attachment to a surface face shovel
- AK0207 Uses and functions of different controls
- AK0208 Code of Practice
- AK0209 Applied earthwork practices
- AK0210 Types and properties of different soil
- AK0211 Applied civil construction practices
- AK0212 Basic application and operation of a surface face shovel
- AK0213 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Surface face shovel performance is monitored, and corrective action is taken when necessary, in accordance with manufacturer's specifications
- IAC0202 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements
- IAC0203 Controls are used to effectively maneuver the surface face shovel within manufacturer's specifications
- IAC0204 Surface face shovel is operated without risk of damage or loss to machine or property, or injury to people
- IAC0205 Surface face shovel operations completed demonstrate ability to operate the machine to functional specifications

13.2.2 PM-13-PS03: Document surface face shovel use and performance

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, surface face shovel tractor in good working conditions, the learner should be able to;

- PA0301 Document surface face shovel hours
- PA0302 Report surface face shovel maintenance and faults

Applied Knowledge

- AK0301 Functions and uses of surface face shovel
- AK0302 Local and provincial authority requirements
- AK0303 Health and safety procedures
- AK0304 Use of appropriate PPE
- AK0305 Functions of different components of surface face shovel

- AK0306 Uses of different attachment to surface face shovel
- AK0307 Uses and functions of different controls
- AK0308 Code of Practice

Internal Assessment Criteria

- IAC0301 Surface face shovel hours are documented in accordance with standard operating requirements
- IAC0302 Surface face shovel maintenance and faults are reported in accordance with standard requirements

13.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

13.4 Exemptions

- None

14. 734201000-PM-014, Operate water cart, NQF Level 2, Credits 5

14.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to operate a water cart within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the water cart as well as conducting lockout operations
.
The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6,25 days.

The learner will be required to:

- PM-14-PS01: Start and shut down water cart
- PM-14-PS02: Operate and monitor water cart
- PM-14-PS03: Document water cart use and performance

14.2 Guidelines for Practical Skills

14.2.1. PM-14-PS01: Start and shut down water cart

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, water cart in good working conditions, the learner should be able to:

- PA0101 Conduct pre-operational checks
- PA0102 Correct malfunction of safety features or warning devices (indicators and gauges)
- PA0103 Start and shutdown water cart
- PA0104 Complete and report on operational checklist

Applied Knowledge

- AK0101 Functions and uses of water cart
- AK0102 Local and provincial authority requirements
- AK0103 Health and safety procedures
- AK0104 Use of appropriate PPE
- AK0105 Functions of different components of water cart
- AK0106 Uses of different attachment to a water cart
- AK0107 Uses and functions of different controls
- AK0108 Code of Practice

Internal Assessment Criteria

- IAC0101 Water cart is parked according to manufacturer's and standard operational requirements
- IAC0102 Start-up and shutdown procedures are followed according to manufacturer's specifications
- IAC0103 Pre-operational checks are carried out according to appropriate standard checklist
- IAC0104 Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist

14.2.2. PM-14-PS02: Operate and monitor a water cart

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, water cart in good working conditions, the learner should be able to:

- PA0201 Use controls to manoeuvre water cart
- PA0202 Follow safe working procedures
- PA0203 Monitor and record the performance of the water cart

Applied Knowledge

- AK0201 Functions and uses of water cart
- AK0202 Local and provincial authority requirements
- AK0203 Health and safety procedures
- AK0204 Use of appropriate PPE
- AK0205 Functions of different components of water cart
- AK0206 Uses of different attachment to a water cart
- AK0207 Uses and functions of different controls
- AK0208 Code of Practice
- AK0209 Applied earthwork practices
- AK0210 Types and properties of different soil
- AK0211 Applied civil construction practices
- AK0212 Basic application and operation of a water cart
- AK0213 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Water cart performance is monitored and corrective action is taken when necessary, in accordance with manufacturer's specifications
- IAC0202 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements
- IAC0203 Controls are used to effectively manoeuvre the water cart within manufacturer's specifications
- IAC0204 Water cart is operated without risk of damage or loss to machine or property, or injury to people
- IAC0205 Water cart operations completed demonstrate ability to operate the machine to functional specifications

14.2.2 PM-14-PS03: Document water cart use and performance

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, water cart in good working conditions, the learner should be able to;

- PA0301 Document water cart hours
- PA0302 Report water cart maintenance and faults

Applied Knowledge

- AK0301 Functions and uses of water cart
- AK0302 Local and provincial authority requirements
- AK0303 Health and safety procedures
- AK0304 Use of appropriate PPE

- AK0305 Functions of different components of water cart
- AK0306 Uses of different attachment to water cart
- AK0307 Uses and functions of different controls
- AK0308 Code of Practice

Internal Assessment Criteria

- IAC0301 Water cart hours are documented in accordance with standard operating requirements
- IAC0302 Water cart maintenance and faults are reported in accordance with standard requirements

14.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

14.4 Exemptions

- None

15. 734201000-PM-015, Operate wheeled dozer, NQF Level 2, Credits 5

15.1 Purpose of the Practical Skill Modules

The focus of the learning in this module is on providing the learner an opportunity to operate a wheeled dozer within a simulated operational environment. Learners will also be practising skills related inspections, operating and monitoring the wheeled dozer as well as conducting lockout operations

.

The learning contract time, which is the time that reflects the required duration of enrolment for this module, is at least 6,25 days.

The learner will be required to:

- PM-15-PS01: Start and shut down wheel dozer
- PM-15-PS02: Operate and monitor wheel dozer
- PM-15-PS03: Document wheel dozer use and performance

15.2 Guidelines for Practical Skills

15.2.1. PM-15-PS01: Start and shut down wheel dozer

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, wheel dozer in good working conditions, the learner should be able to:

- PA0101 Conduct pre-operational checks
- PA0102 Correct malfunction of safety features or warning devices (indicators and gauges)
- PA0103 Start and shutdown wheel dozer
- PA0104 Complete and report on operational checklist

Applied Knowledge

- AK0101 Functions and uses of wheel dozer
- AK0102 Local and provincial authority requirements
- AK0103 Health and safety procedures
- AK0104 Use of appropriate PPE
- AK0105 Functions of different components of wheel dozer
- AK0106 Uses of different attachment to a wheel dozer
- AK0107 Uses and functions of different controls
- AK0108 Code of Practice

Internal Assessment Criteria

- IAC0101 Wheel dozer is parked according to manufacturer's and standard operational requirements
- IAC0102 Start-up and shutdown procedures are followed according to manufacturer's specifications
- IAC0103 Pre-operational checks are carried out according to appropriate standard checklist
- IAC0104 Daily and weekly operator maintenance is performed according to the appropriate post-operational checklist

15.2.2. PM-15-PS02: Operate and monitor a wheel dozer

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, wheel dozer in good working conditions, the learner should be able to:

- PA0201 Use controls to manoeuvre wheel dozer
- PA0202 Follow safe working procedures
- PA0203 Monitor and record the performance of the wheel dozer

Applied Knowledge

- AK0201 Functions and uses of wheel dozer
- AK0202 Local and provincial authority requirements
- AK0203 Health and safety procedures
- AK0204 Use of appropriate PPE
- AK0205 Functions of different components of wheel dozer
- AK0206 Uses of different attachment to a wheel dozer
- AK0207 Uses and functions of different controls
- AK0208 Code of Practice
- AK0209 Applied earthwork practices
- AK0210 Types and properties of different soil
- AK0211 Applied civil construction practices
- AK0212 Basic application and operation of a wheel dozer
- AK0213 Uses of different attachments

Internal Assessment Criteria

- IAC0201 Wheel dozer performance is monitored and corrective action is taken when necessary, in accordance with manufacturer's specifications
- IAC0202 Safe working procedures are followed according to manufacturer's specifications, site specific and statutory requirements
- IAC0203 Controls are used to effectively manoeuvre the wheel dozer within manufacturer's specifications
- IAC0204 Wheel dozer is operated without risk of damage or loss to machine or property, or injury to people
- IAC0205 Wheel dozer operations completed demonstrate ability to operate the machine to functional specifications

15.2.2 PM-15-PS03: Document wheel dozer use and performance

Scope of Practical Skill

Given standard worksite procedures, manufacturer's procedures, operators manuals and site operational requirements, assignment, tools, consumables, checklists, wheel dozer in good working conditions, the learner should be able to;

- PA0301 Document wheel dozer hours
- PA0302 Report wheel dozer maintenance and faults

Applied Knowledge

- AK0301 Functions and uses of wheel dozer
- AK0302 Local and provincial authority requirements
- AK0303 Health and safety procedures

- AK0304 Use of appropriate PPE
- AK0305 Functions of different components of wheel dozer
- AK0306 Uses of different attachment to wheel dozer
- AK0307 Uses and functions of different controls
- AK0308 Code of Practice

Internal Assessment Criteria

- IAC0301 Wheel dozer hours are documented in accordance with standard operating requirements
- IAC0302 Wheel dozer maintenance and faults are reported in accordance with standard requirements

15.3 Provider Programme Accreditation Criteria

Physical Requirements:

- Access to all the equipment and materials listed under each practical skill
- Access to training manuals and other relevant documentation, manual and specifications

Human Resource Requirements:

- A competent operator or trainer
- Trainer to learner operator ratio of 1:4

Legal Requirements:

- Training facility conforms to all operational, occupational health and safety requirements

15.4 Exemptions

- None

SECTION 3C: WORK EXPERIENCE MODULE SPECIFICATIONS

List of Work Experience Module Specifications

- 734201000-WM-01, Participate in the daily start up planning meeting, NQF Level 2, Cr 3
- 734201000 -WM-02, Identification and hazards removal (HIRA) processes from construction worksite, NQF Level 2, Cr 5
- 734201000 -WM-03, Conduct plant operational inspection, NQF Level 2, Cr 5
- 734201000 -WM-04, Procedures for operation of an earth moving equipment, NQF Level 2, Cr 10
- 734201000-WM-05, Equipment performance reporting procedures, NQF Level 2, Cr 5

1. 734201000-WM-01, Participate in the daily operational planning meetings, NQF Level 2, Credits 3

1.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:
gain exposure work in real construction environment to participate in start-up and shift planning meetings. The learner will be required to successfully complete each work experience under supervision and independently at least three times within a period of a week.

The learning contract time, which is the time that reflects the required duration of enrolment for this model, is at least 3.75 days.

The learner will be required to:

- WM-01-WE01: Participate in shift meetings
- WM-01-WE02: Attend and participate in daily start up site meeting

1.2 Guidelines for Work Experiences

1.2.1. WM-01-WE01: Participate in shift meetings

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Register attendance to the meeting
- WA0102 Collect the job card

Supporting Evidence

- SE0101 A learner's journal, reflecting the shift, the key points and activities noted by the learner in relation to this specific task, signed off by the assigned persons
- SE0102 Check lists
- SE0103 Operator's reports, Supervisors' or Miner's report or safe declaration, as applicable
- SE0104 Planned task observation reports
- SE0105 Administrative records

1.2.2. WM-01-WE02: Participate in a daily start up planning meeting

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Collect tools and equipment for job specifications
- WA0202 Collect PPE for the job card
- WA0203 Complete checklist for tools and equipment

Supporting Evidence

- SE0201 A learner's journal, reflecting the shift, the key points and activities noted by the learner in relation to this specific task, signed off by the assigned persons
- SE0202 Check lists
- SE0203 Operator's reports, Supervisors' or Miner's report or safe declaration, as applicable
- SE0204 Planned task observation reports
- SE0205 Administrative records

1.3 Contextualised Workplace Knowledge

1 Applicable work instructions, checklists, specifications, policies, standard operating procedures and codes of practice
2 Applicable manuals and specifications
3 Company-specific quality system requirements
4 Applicable production requirements

1.4 Criteria for Workplace Approval

Physical Requirements:

- Workplace facilities, machines and related PPE
- All ancillary equipment and tools

Human Resource Requirements:

- A competent, appointed operator
- Operator to learner operator ratio of 1:1

Legal Requirements:

- Compliance with relevant occupational health, safety and environmental regulations
- Company procedures conform to relevant legislation, including SANS standards where applicable

1.5 Additional Assignments to be Assessed Externally

- None

2. 734201000-WM-02, Identification and hazards removal/ reporting (HIRA) processes from worksite, NQF Level 2, Credits 5

2.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:
gain exposure working in real construction environment identifying and removing/reporting hazards within the construction site. The learner will be required to successfully complete each work experience under supervision and independently at least three times within a period of two weeks.

The learning contract time, which is the time that reflects the required duration of enrolment for this model, is at least 3,75 days.

The learner will be required to:

- WM-02-WE01: Identify and report/ remove equipment hazard
- WM-02-WE02: Identify and report/remove worksite hazards

2.2 Guidelines for Work Experiences

2.2.1. WM-02-WE01: Identify and report/ remove equipment hazard

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Identify different construction worksite hazards
- WA0102 Use PPE to remove worksite hazard
- WA0103 Records and report on the hazard cleaning activities

Supporting Evidence

- SE0101 Operator's reports, Supervisor's reports, Miner's reports or safe declarations, as applicable
- SE0102 Administrative records

2.2.2. WM-02-WE02: Identify and report/remove worksite hazards

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Identify different equipment hazards
- WA0202 Use PPE to remove equipment hazard
- WA0203 Clean equipment
- WA0204 Records and report on the hazard cleaning activities

Supporting Evidence

- SE0201 Operator's reports, Supervisor's reports, Miner's reports or safe declarations, as applicable
- SE0202 Administrative records

2.3 Contextualised Workplace Knowledge

1 Applicable work instructions, checklists, specifications, policies, standard operating procedures and codes of practice
2 Applicable manuals and specifications
3 Company-specific quality system requirements
4 Company HIRA policies
5 Company Environment Management policies

6 Company recycling practices
7 Worksite Reporting procedures

2.4 Criteria for Workplace Approval

Physical Requirements:

- Workplace facilities, machines and related PPE
- All ancillary equipment and tools

Human Resource Requirements:

- A competent, appointed operator
- Operator to learner operator ratio of 1:1

Legal Requirements:

- Compliance with relevant occupational health, safety and environmental regulations
- Compliant with Safety, Health, Environmental, Risk and Quality (SHERQ) requirements
- Company procedures conform to relevant legislation, including SANS standards where applicable

2.5 Additional Assignments to be Assessed Externally

- None

3. 734201000-WM-03, Conduct plant operational inspection, NQF Level 2, Credits 5

3.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:
gain exposure working in real construction environment conducting plant operational inspection. The learner will be required to successfully complete each work experience under supervision and independently at least three times within a period of a week.

The learning contract time, which is the time that reflects the required duration of enrolment for this model, is at least 6.25 days.

The learner will be required to:

- WM-03-WE01: Perform start-of-shift procedures
- WM-03-WE02: Carry out inspection procedures

3.2 Guidelines for Work Experiences

3.2.1. WM-03-WE01: Perform start-of-shift procedures

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Complete workplace registers
- WA0102 Participate in the inspection processes of the worksite
- WA0103 Carry out tests for gas, if required

Supporting Evidence

- SE0101 A learner's journal, reflecting the shift, the key points and activities noted by the learner, signed off by the assigned persons
- SE0102 Signed checklist and or registers

3.2.2. WM-03-WE02: Carry out inspection procedures

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Conduct pre-use inspection procedures of equipment
- WA0202 Identify and report equipment damages
- WA0203 Apply corrective action and report performed work

Supporting Evidence

- SE0201 Operator's reports, Supervisor's reports, Miner's reports or safe declarations, as applicable
- SE0202 Administrative records

3.3 Contextualised Workplace Knowledge

1 Applicable work instructions, checklists, specifications, policies, standard operating procedures and codes of practice
2 Applicable manuals and specifications
3 Company-specific quality system requirements
4 Applicable production requirements

3.4 Criteria for Workplace Approval

Physical Requirements:

- Workplace facilities, machines and related PPE
- All ancillary equipment and tools

Human Resource Requirements:

- A competent, appointed operator
- Operator to learner operator ratio of 1:1

Legal Requirements:

- Compliance with relevant occupational health, safety and environmental regulations
- Company procedures conform to relevant legislation, including SANS standards where applicable

3.5 Additional Assignments to be Assessed Externally

- None

4. 734201000-WM-04, Procedures for operation of a construction plant equipment, NQF Level 2, Credits 10

4.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:
gain exposure working in real construction operating construction plant equipment. The learner will be required to successfully complete each work experience under supervision and independently at least three times within a period of a 3 weeks.

The learning contract time, which is the time that reflects the required duration of enrolment for this model, is at least 12.5 days.

The learner will be required to:

- WM-04-WE01: Preparation for operation
- WM-04-WE02: Procedures for monitoring for operating construction plant to complete the job
- WM-04WE03: Procedures for monitoring the operations of an equipment

4.2 Guidelines for Work Experiences

4.2.1. WM-04-WE01: Preparation for operation

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Start and shutdown the equipment
- WA0102 Perform sampling activities
- WA0103 Check consumables
- WA0104 Identify and collect tools required to perform the job

Supporting Evidence

- SE0101 A learner's journal, reflecting the shift, the key points and activities noted by the learner in relation to this specific task, signed off by the assigned persons
- SE0102 Check lists
- SE0103 Operator's reports, Supervisors' or Miner's report or safe declaration, as applicable
- SE0104 Planned task observation reports
- SE0105 Administrative records

4.2.2. WM-04-WE02: Procedures for monitoring for operating construction plant to complete the job

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0201 Operate a construction plant equipment to complete a job card
- WA0202 Use controls to operate the equipment

Supporting Evidence

- SE0201 A learner's journal, reflecting the shift, the key points and activities noted by the learner in relation to this specific task, signed off by the assigned persons
- SE0202 Check lists
- SE0203 Operator's reports, Supervisors' or Miner's report or safe declaration, as applicable
- SE0204 Planned task observation reports

- SE0205 Administrative records

4.2.3. WM-04-WE03: Procedures for monitoring the operations of an equipment

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0301 Check consumables
- WA0302 Respond to emergencies
- WA0303 Complete reports as required
- WA0304 Monitor and control performance
- WA0305 Carry out end-of-shift procedures

Supporting Evidence

- SE0301 A learner's journal, reflecting the shift, the key points and activities noted by the learner in relation to this specific task, signed off by the assigned persons
- SE0302 Check lists
- SE0303 Operator's reports, Supervisors' or Miner's report or safe declaration, as applicable
- SE0304 Planned task observation reports
- SE0305 Administrative records

4.3 Contextualised Workplace Knowledge

1 Applicable work instructions, checklists, specifications, policies, standard operating procedures and codes of practice
2 Applicable manuals and specifications
3 Company-specific quality system requirements
4 Applicable production requirements

4.4 Criteria for Workplace Approval

Physical Requirements:

- Workplace facilities, machines and related PPE
- All ancillary equipment and tools

Human Resource Requirements:

- A competent, appointed operator
- Operator to learner operator ratio of 1:1

Legal Requirements:

- Compliance with relevant occupational health, safety and environmental regulations
- Company procedures conform to relevant legislation, including SANS standards where applicable

4.5 Additional Assignments to be Assessed Externally

- None

5. 734201000-WM-05, Equipment performance reporting procedures, NQF Level 2, Credits 5

5.1 Purpose of the Work Experience Modules

The focus of the work experience is on providing the learner an opportunity to:
gain exposure working in real construction conducting equipment performance reporting. The learner will be required to successfully complete each work experience under supervision and independently at least three times within a period of a 2 weeks.

The learning contract time, which is the time that reflects the required duration of enrolment for this model, is at least 6.25 days.

The learner will be required to:

- WM-05-WE01: Complete equipment performance report
- WM-050WE02: Compare the manual to system/ software data captured

5.2 Guidelines for Work Experiences

5.2.1. WM-05-WE01: Complete equipment performance report

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Collect and record data/ information on equipment and worksite
- WA0102 Complete equipment performance checklist
- WA0103 Present a report

Supporting Evidence

- SE0101 A learner's journal, reflecting the shift, the key points and activities noted by the learner, signed off by the assigned persons
- SE0102 Machine specific performance checklist

5.2.2. WM-05-WE02: Complete equipment performance report

Scope of Work Experience

The person will be expected to engage in the following work activities:

- WA0101 Download data from the machine to the USB
- WA0102 Compare the information sourced from manual and data systems/ software
- WA0103 Submit documentation and data

Supporting Evidence

- SE0101 A learner's journal, reflecting comparison between manual checklist and the system/ software data captured

5.3 Contextualised Workplace Knowledge

1 Applicable work instructions, checklists, specifications, policies, standard operating procedures and codes of practice
2 Applicable manuals and specifications
3 Company-specific quality system requirements
4 Company reporting procedures

5.4 Criteria for Workplace Approval

Physical Requirements:

- Workplace facilities, machines and related PPE Tools and equipment to conduct occupational tasks
- All ancillary equipment and tools

Human Resource Requirements:

- A competent, appointed operator
- Operator to learner operator ratio of 1:1

Legal Requirements:

- Compliance with relevant occupational health, safety and environmental regulations
- Company procedures conform to relevant legislation, including SANS standards where applicable

5.5 Additional Assignments to be Assessed Externally

- None

SECTION 4: STATEMENT OF WORK EXPERIENCE

Curriculum Number:	734201000
Curriculum Title:	Construction Plant Operator (General)

Learner Details	
Name:	
ID Number:	

Employer Details	
Company Name:	
Address:	
Supervisor Name:	
Work Telephone:	
E-Mail:	

734201000-WM-01, Participate in the daily operational planning meetings, NQF Level 2, Credits 3

WM-01-WE01	**Attend and participate in daily operational site meeting**		
	Scope Work Experience	Date	Signature
WA0101	Register attendance to the meeting		
WA0102	Collect the job card		
	Supporting Evidence	Date	Signature
SE0101	A learner's journal, reflecting the shift, the key points and activities noted by the learner in relation to this specific task, signed off by the assigned persons		
SE0102	Check lists		
SE0103	Operator's reports, Supervisors' or Miner's report or safe declaration, as applicable		
SE0104	Planned task observation reports		
SE0105	Administrative records		
WM-01-WE02	**Interpret job card and job specifications**		
	Scope Work Experience	Date	Signature
WA0201	Collect tools and equipment for job specifications		
WA0202	Collect PPE for the job card		
WA0203	Complete checklist for tools and equipment		
	Supporting Evidence	Date	Signature
SE0201	learner's journal, reflecting the shift, the key points and activities noted by the learner in relation to this specific task, signed off by the assigned persons		
SE0202	Check lists		
SE0203	Operator's reports, Supervisors' or Miner's report or safe declaration, as applicable		
SE0204	Planned task observation reports		

SE0205	Administrative records		

	Contextualised Workplace Knowledge	Date	Signature
1	Applicable work instructions, checklists, specifications, policies, standard operating		
2	Applicable manuals and specifications		
3	Company-specific quality system requirements		
4	Applicable production requirements		

	Additional Assignments to be Assessed Externally	Date	Signature

734201000-WM-02, Identification and hazards removal/ reporting (HIRA) processes from worksite, NQF Level 2, Credits 5

WM-02-WE01	**Identify and report/ remove equipment hazard**		
	Scope Work Experience	Date	Signature
WA0101	Identify different construction worksite hazards		
WA0102	Use PPE to remove worksite hazard		
WA0103	Records and report on the hazard cleaning activities		
	Supporting Evidence	Date	Signature
SE0101	Operator's reports, Supervisor's reports, Miner's reports or safe declarations, as applicable		
SE0102	Administrative records		

WM-02-WE02	**Identify and report/remove worksite hazards**		
	Scope Work Experience	Date	Signature
WA0201	Identify different equipment hazards		
WA0202	Use PPE to remove equipment hazard		
WA0203	Clean equipment		
WA0204	Records and report on the hazard cleaning activities		
	Supporting Evidence	Date	Signature
SE0201	Operator's reports, Supervisor's reports, Miner's reports or safe declarations, as applicable		
SE0202	Administrative records		

	Contextualised Workplace Knowledge	Date	Signature
1	Applicable work instructions, checklists, specifications, policies, standard operating procedures and codes of practice		
2	Applicable manuals and specifications		
3	Company-specific quality system policies		
4	Company HIRA policies		
5	Company Environment Management policies		
6	Company recycling practices		

7	Worksite Reporting procedures		

	Additional Assignments to be Assessed Externally	Date	Signature

734201000-WM-03, Conduct plant operational inspection, NQF Level 2, Credits 5

WM-02-WE01	**Perform start-of-shift procedures**		
	Scope Work Experience	Date	Signature
WA0101	Complete workplace registers		
WA0102	Participate in the inspection processes of the worksite		
WA0103	Carry out tests for gas, if required		
	Supporting Evidence	Date	Signature
SE0101	A learner's journal, reflecting the shift, the key points and activities noted by the learner, signed off by the assigned persons		
SE0102	Signed checklist and or registers		
WM-03-WE02	**Carry out inspection procedures**		
	Scope Work Experience	Date	Signature
WA0201	Conduct pre-use inspection procedures of equipment		
WA0202	Identify and report equipment damages		
WA0203	Apply corrective action and report performed work		
	Supporting Evidence	Date	Signature
SE0201	Operator's reports, Supervisor's reports, Miner's reports or safe declarations, as applicable		
SE0202	Administrative records		

	Contextualised Workplace Knowledge	Date	Signature
1	Applicable work instructions, checklists, specifications, policies, standard operating procedures and codes of practice		
2	Applicable manuals and specifications		
3	Company-specific quality system requirements		
4	Applicable production requirements		

	Additional Assignments to be Assessed Externally	Date	Signature

734201000-WM-04, Procedures for operation of a construction plant equipment, NQF Level 2, Credits 10

WM-04-WE01	**Preparation for operation**		
	Scope Work Experience	Date	Signature
WA0101	Start and shutdown the equipment		
WA0102	Perform sampling activities		
WA0103	Check consumables		
WA0104	Identify and collect tools required to perform the job		
	Supporting Evidence	Date	Signature
SE0101	A learner's journal, reflecting the shift, the key points and activities noted by the learner in relation to this specific task, signed off by the assigned persons		
SE0102	Check lists e role played by learn		
SE0103	Operator's reports, Supervisors' or Miner's report or safe declaration, as applicable		

SE0104	Planned task observation reports		
SE0105	Administrative records		
WM-04-WE02	**Procedures for monitoring for operating construction plant to complete the job**		
	Scope Work Experience	Date	Signature
WA0201	Operate a construction plant equipment to complete a job card		
WA0202	Use controls to operate the equipment		
	Supporting Evidence	Date	Signature
SE0201	A learner's journal, reflecting the shift, the key points and activities noted by the learner in relation to this specific task, signed off by the assigned persons		
SE0202	Check lists		
SE0203	Operator's reports, Supervisors' or Miner's report or safe declaration, as applicable		
SE0204	Planned task observation reports		
SE0205	Administrative records		
	Scope Work Experience	Date	Signature
WA0301	Check consumables		
WA0302	Respond to emergencies		
WA0303	Complete reports as required		
WA0304	Monitor and control performance		
WA0305	Carry out end-of-shift procedures		
	Supporting Evidence		
SE0301	A learner's journal reflecting the reflecting the shift, the key points and activities noted by the learner in relation to this specific task, signed off by the assigned persons		
SE0302	Check-lists		

SE0303	Operator's reports, Supervisor's reports, Miner's reports or safe declarations, as applicable		
SE0304	Planned task observation reports		
SE0305	Administrative records		

	Contextualised Workplace Knowledge	Date	Signature
1	Applicable work instructions, checklists, specifications, policies, standard operating procedures and codes of practice		
2	Applicable manuals and specifications		
3	Company-specific quality system requirements		
4	Applicable production requirements		

	Additional Assignments to be Assessed Externally	Date	Signature

734201000-WM-05, Equipment performance reporting procedures, NQF Level 2, Credits 5

WM-05-WE01	Complete equipment performance report		
	Scope Work Experience	Date	Signature
WA0101	Collect and record data/ information on equipment and worksite		
WA0102	Complete equipment performance checklist		
WA0103	Present a report		
	Supporting Evidence	Date	Signature
SE0101	A learner's journal, reflecting the shift, the key points and activities noted by the learner, signed off by the assigned persons		
SE0102	Machine specific performance checklist		

	Contextualised Workplace Knowledge	Date	Signature
1	Applicable work instructions, checklists, specifications, policies, standard operating procedures and codes of practice		
2	Applicable manuals and specifications		
3	Company reporting procedures		
4	Company-specific quality system requirements		

	Additional Assignments to be Assessed Externally	Date	Signature