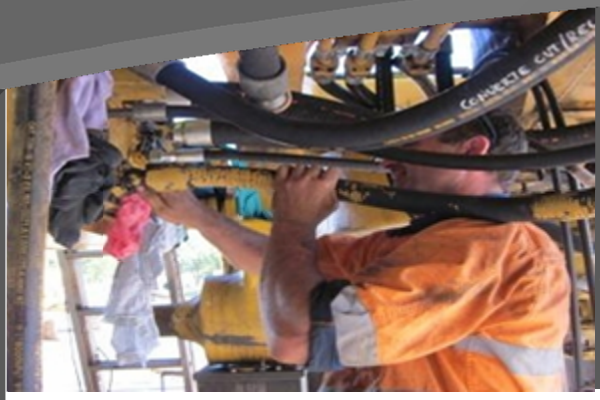

Contents

What are Occupational Standards(OS)?

OS describe what individuals need to do, know and understand in order to carry out a particular job role or function

- OS are performance standards that individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding

Introduction

Qualifications Pack – Mechanic / Fitter

SECTOR: MINING

SUB-SECTOR: Engineering Services

OCCUPATION: Mechanical Services

REFERENCE ID: MIN/Q 0304

ALIGNED TO: NCO-2004/7231

Brief Job Description: A Fitter is responsible for repair, maintenance and overhaul of crushers, heavy earth moving machinery, medium and light vehicles, pumps and compressors and other mechanical equipment and assemblies used in a mine. A fitter most often works with / assists technicians who are more qualified and experienced. The individual must be trained to work safely and assure that he/she can protect himself and others working around him from getting injured.

Personal Attributes: This job requires the individual to diagnose and analyze the cause of the breakdown so analytical thinking and ability to apply theory to practical situations is a desired attribute. The individual will frequently need to perform repair work in inclement weather hence must possess sound health and fitness level. He/she must be meticulous in his/her work to ensure all preventive maintenance schedules are tracked and adhered to.

Qualifications Pack Code	MIN /Q 0304		
Job Role	**Mechanic / Fitter** **This job role is applicable in both national and international scenarios**		
Credits(NSQF)	**Level 3**	**Version number**	**1.0**
Sector	**Mining**	**Drafted on**	**27/01/2014**
Sub-sector	**Engineering Services**	**Last reviewed on**	**24/03/2014**
Occupation	**Field Services - Mechanical**	**Next review date**	**24/03/2017**
NSQC Clearance on	**18/06/2015**		

Job Role	**Mechanics / Fitter**
Role Description	Maintenance and repair of mechanical systems in HEMM and other vehicles /machine assemblies.
NSQF Level	3
Minimum Educational Qualifications	Preferable Class X, ITI
Maximum Educational Qualifications	Not Applicable
Training (suggested but not mandatory)	Mandatory 1. Technical and gallery training as per first schedule, Mining Vocational Training Rules (MVTR) 1966. 2. Heavy vehicle driving license required. 3. NCVT certified mechanical fitter
Minimum Job Entry Age	18 Years
Experience	N.A.
Applicable National Occupational Standards (NOS)	**Compulsory:** 1. MIN/N 0309 (Perform preventive maintenance) 2. MIN/N 0310 (Perform troubleshooting and repair) 3. MIN/N 0204 (Health and Safety) **Optional:** Not applicable
Performance Criteria	As described in the relevant OS units

Definitions

Keywords /Terms	Description
Sector	Sector is a conglomeration of different business operations having similar businesses and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests.
Sub-sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Function	Function is an activity necessary for achieving the key purpose of the sector, occupation, or area of work, which can be carried out by a person or a group of persons. Functions are identified through functional analysis and form the basis of OS.
Job Role	Job role defines a unique set of functions that together form a unique employment opportunity in an organization.
OS	OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the knowledge and understanding they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
NOS	NOS are Occupational Standards which apply uniquely in the Indian context.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Qualifications Pack	Qualifications Pack comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Unit Code	Unit Code is a unique identifier for an Occupational Standard , which is denoted by an 'N'.
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Description	Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organizational specific knowledge that an individual needs in order to perform to the required standard.
Organizational Context	Organizational Context includes the way the organization is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills or Generic Skills	Core Skills or Generic Skills are a group of skills that are key to learning and working in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles.

National Occupational Standard

Overview

This unit is about installation and preventive maintenance activities for HEMM, light vehicles and other machine assemblies.

Perform Preventive Maintenance

National Occupational Standard

Unit Code	**MIN/N 0309**
Unit Title (Task)	**Assembly, Installation and preventive maintenance**
Description	This unit is about installation and preventive maintenance activities for HEMM, light vehicles and other machine assemblies.
Scope	This OS unit/task covers the following: 1. Installing machines, mechanical components and equipment. 2. Conducting preventive maintenance of machine components in HEMM and other vehicles. 3. Tracking and logging preventive maintenance activities.

Performance Criteria (PC) w.r.t. the Scope

Element	Performance Criteria
Installing machines, mechanical components and equipment.	To be competent, the user/individual on the job must be able to: PC1. Use ropes, slings, towing and lifting devices while assembling equipment. PC2. Safely operate various types of hand and power-tools PC3. Follow drawings and blue-prints given in the installation manual. PC4. Follow the manufacturer's instructions which apply to the care and safe handling of the machine / automobile PC5. Test assembled machine for proper performance before handing over for operations
Conducting preventive maintenance of machine components in HEMM and other vehicles.	PC6. Adhere to maintenance schedule recommended by the equipment manufacturer. PC7. Lubricate sufficiently and neatly all pivot points in a machine. PC8. Open and re-assemble various types of bearings in machines. PC9. Adjust valves and hydraulic systems for smooth operation. PC10. Work responsibly and as safe and careful as possible so as not to put the health and safety of self or others at risk.
Tracking and Logging preventive maintenance activities.	PC11. Track hours-in-operation and adhere to preventive maintenance schedules of various vehicles assigned to him. PC12. Maintain a checking/maintenance logbook to record all activities performed. PC13. Inform supervisor of problems that are beyond scope of his role PC14. Maintain inventory and order fuel and other supplies.

Perform Preventive Maintenance

Knowledge and Understanding (K)	
A. **Organizational Context** (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Job specific documents e.g. daily maintenance checklist and its significance. KA2. Safety policy of the company KA3. Locally prepared emergency response/ disaster management plan KA4. Escalation matrix for reporting identified problems KA5. Cost of equipment and loss for the company that results from un-operational equipment KA6. Cost (direct/ indirect) of accidents for the company KA7. Implications of delays in process to the company Safety guidelines specified by Directorate General of Mine Safety (DGMS)) KA8. Different types of mines and detail of the mine he is working in KA9. Mine Organisation, time keeping, need for discipline and punctuality KA10. Benching in quarries, Dressing of overhangs, undercuts, Fencing, First aid and Hygiene KA11. Code of traffic in specific areas of mine. Significance of fences KA12. Standing orders in force at the mine. Safety in the vicinity of machinery KA13. Shot-firing and Safety regulations. How and where to take shelter KA14. Tramways and siding, Haulage rooms, Winding rooms, Boilers, Electrical Gears KA15. Duties of workmen under Mines act KA16. Provision of compensation and working hours as per Mines act KA17. Knowledge of mining safety procedures KA18. Outcome of violation of safely procedures KA19. Refresher training as per fourth schedule MVTR (1966) within one month of joining duties following absence from duties for a period exceeding one year. KA20. Precautions to be taken when handling heavy equipment.
B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Different types of heavy earth moving machines (H.E.M.M) used in open cast mines and their specific functions KB2. Various types of tools(spanners, jacks etc.) and their use. KB3. Various types of lubricants and their importance. Storage and handling of lubricants. KB4. Various types of fasteners , nuts and bolts, threads ,seals and couplings

Perform Preventive Maintenance

	KB5. Various types of bearings used in machines and their assembly techniques KB6. Air systems, compressors and their use. Pneumatic controls KB7. Hydraulic systems. Various types of pumps and control valves. KB8. Crawlers - construction and operation KB9. Steering systems and various linkages KB10. Safety rules while using tools and tackling machine parts. KB11. different type of tyres of heavy earth moving machines and wheels KB12. Hot & Cold tyre pressure as per size of tyre, KB13. Repair and overhauling Electronic and mechanical engines, manual and power shift transmissions KB14. Monitor the condition and performance of equipment using condition monitoring tools.
Skills	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. note down observations (if any) SA2. write information documents or enter the information in online ERP systems under guidance of the supervisor
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA3. read and interpret symbols and measurements SA4. read information documents SA5. understand and analyse the available data about the site
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to: SA6. discuss task lists, schedules and activities SA7. effectively communicate SA8. attentively listen with full attention and comprehend the information given by various sources about the site
B. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. Make decisions pertaining to the concerned area of work.
	Plan and Organize
	The user/individual on the job needs to know and understand how to: SB2. plan and organize the work order and jobs SB3. organize all process manuals so that sorting/ accessing information is easy
	Customer Centricity
	NA

Perform Preventive Maintenance

	Problem Solving
	The user/individual on the job needs to know and understand how to: SB4. detect problems in day to day tasks SB5. discuss possible solution with the supervisor for problem solving SB6. make decisions in emergency conditions
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB7. follow instructions and work on areas of improvement identified SB8. complete the assigned tasks with minimum supervision SB9. complete the job within timelines and quality norms

NOS Version Control

NOS Code	MIN/N 0309		
Credits(NSQF)	TBD	Version number	1.0
Sector	Mining	Drafted on	01/02/2014
Sub-sector	Engineering Services	Last reviewed on	24/03/2014
Occupation	Field Services - Mechanical	Next review date	24/03/2017

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National Occupational Standard

Overview

This unit is about performing troubleshooting and repair of mechanical components in HEMM, light vehicles and other machines.

Perform Troubleshooting and Repair

National Occupational Standard

Unit Code	**MIN/N 0310**
Unit Title (Task)	**Perform troubleshooting and repair activities of mechanical systems in HEMM**
Description	This unit is about performing troubleshooting and repair activities of mechanical systems in HEMM, light vehicles and other machines.
Scope	This OS unit/task covers the following: • Perform Diagnostics, Troubleshooting and repair of mechanical components in HEMM • Perform systematic recording and reporting of repair activities conducted.

Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Troubleshooting	To be a competent Fitter, the individual on the job must also be able to: PC1. Use various measuring and testing instruments and record readings PC2. Compare measured readings to optimal readings to pin-point faults PC3. Service, diagnose and repair faults in mechanical systems such as gears, steering systems, hydraulic pumps, transmission, crawlers, conveyor belts etc. PC4. Ensure the machine is on firm and level ground before attempting to carry out any maintenance activity. PC5. Ensure the locking bar is in position to prevent the front and rear chassis moving and creating a crushing zone (articulated machines only) PC6. Ensure that no maintenance task on the engine is performed when running or still hot PC7. Repair or replace faulty parts PC8. Use various kinds of hand held and power-tools to lift, dismantle or assemble machine components. PC9. Fine tune and adjust valves, belt tensions for optimal operation. PC10. Test repaired equipment to ensure everything is working correctly and safely (this may include road testing the vehicle)
Recording and Logging	PC11. Complete timely and legibly daily/weekly maintenance/defect sheets as provided by the company. PC12. Assess when the problem is beyond his competence and report the problem to suitably qualified and competent personnel. PC13. Inventory and order spares and consumables as required.

Perform Troubleshooting and Repair

Knowledge and Understanding (K)	
A. Organizational Context (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Job specific documents e.g. maintenance log and its significance. KA2. Escalation matrix for reporting identified problems KA3. Cost of equipment and loss for the company that results from un-operational equipment KA4. Cost (direct/indirect) of accidents for the company KA5. Locally prepared emergency response / disaster management plan. Knowledge of safety guidelines specified by Directorate General of Mine Safety (DGMS)) KA6. Different types of mines and detail of the mine he is working in KA7. Mine Organisation, time keeping, need for discipline and punctuality KA8. Benching in quarries, Dressing of overhangs, undercuts, Fencing, First aid and Hygiene KA9. Code of traffic in specific areas of mine. Significance of fences KA10. Standing orders in force at the mine. Safety in the vicinity of machinery KA11. Shot-firing and Safety regulations. How and where to take shelter KA12. Tramways and siding, Haulage rooms, Winding rooms, Boilers, Electrical Gears KA13. Duties of workmen under Mines act KA14. Provision of compensation and working hours as per Mines act KA15. Knowledge of mining safety procedures KA16. Outcome of violation of safely procedures KA17. Environmental impact of mining KA18. Sources of dust, noise and vibration and measures to minimize KA19. Refresher training as per fourth schedule MVTR (1966) within one month of joining duties following absence from duties for a period exceeding one year. KA20. Precautions to be taken when handling heavy equipment.

Perform Troubleshooting and Repair

B. Technical Knowledge	The user/individual on the job needs to know and understand: KB1. Different types of heavy earth moving machines (H.E.M.M) used in open cast mines and their specific functions KB2. Various types of tools and their use. KB3. Basic calculations of volume, temperature, pressure, torque, unit conversions. Various types of lubricants and their importance. Storage and handling of lubricants.
C. Technical Knowledge	KB4. Various types of fasteners , nuts and bolts, threads ,seals and couplings KB5. Various types of bearings used in machines and their assembly techniques KB6. Air systems, compressors and their use. Pneumatic controls KB7. Hydraulic systems. Various types of pumps and control valves. KB8. Crawlers - construction and operation KB9. Steering systems and various linkages KB10. Safety rules while using tools and tackling machine parts. KB11. Repair and overhauling Electronic and mechanical engines, manual and power shift transmissions KB12. Monitor the condition and performance of equipment using condition monitoring tools. KB13. Should be able to understand SOP for performing preventive maintenance jobs.
Skills (S)	
A. Core Skills/ Generic Skills	**Writing Skills**
	The user/ individual on the job needs to know and understand how to: SA1. note down observations (if any) SA2. write information documents or enter the information in online ERP systems under guidance of the supervisor
	Reading Skills
	The user/individual on the job needs to know and understand how to: SA3. read and interpret symbols and measurements SA4. read information documents SA5. understand and analyse the available data about the site
	Oral Communication (Listening and Speaking skills)

	The user/individual on the job needs to know and understand how to: SA6. discuss task lists, schedules and activities SA7. effectively communicate SA8. attentively listen with full attention and comprehend the information given by various sources about the site
B. Professional Skills	**Decision Making**
	The user/individual on the job needs to know and understand how to: SB1. make decisions pertaining to the concerned area of work.
	Plan and Organize
	The user/individual on the job needs to know and understand how to: SB2. plan and organize the work order and jobs SB3. organize all process manuals so that sorting/ accessing information is easy
	Customer Centricity
	NA
	Problem Solving
	The user/individual on the job needs to know and understand how to: SB4. detect problems in day to day tasks SB5. discuss possible solution with the supervisor for problem solving SB6. make decisions in emergency conditions
	Analytical Thinking
	The user/individual on the job needs to know and understand how to: SB7. follow instructions and work on areas of improvement identified SB8. complete the assigned tasks with minimum supervision SB9. complete the job within timelines and quality norms
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB10. use common sense and make judgments during day to day basis SB11. use reasoning skills to identify and resolve basic problems SB12. use intuition to detect any potential problems which could arise

Perform Troubleshooting and Repair

NOS Version Control

NOS Code	MIN/N 0310		
Credits(NSQF)	TBD	Version number	1.0
Sector	Mining	Drafted on	01/02/2014
Sub-sector	Engineering Services	Last reviewed on	24/03/2014
Occupation	Field Services - Mechanical	Next review date	24/03/2017

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National Occupational Standards

Overview

This unit is about health and safety measures critical in open-cast mines

Health and Safety

National Occupational Standard

Unit Code	MIN/N 0204
Unit Title (Task)	**Health and Safety**
Description	This unit is about health and safety measures critical in open-cast mines
Scope	This OS unit/task covers the following: • Health and safety measures critical for personnel in open-cast mines
Performance Criteria (PC) w.r.t. the Scope	
Element	**Performance Criteria**
Health and Safety measures critical for personnel In open-cast mines.	To be competent, the user/individual on the job must be able to: PC1. Comply with occupational health and safety regulations adopted by the employer. PC2. Follow mining operations procedures with respect to materials handling and accidents PC3. Ensure use of protective gear while working with mechanical systems. PC4. Comply with safety regulations and procedures in case of fire hazard. PC5. Operate various grades of fire extinguishers. PC6. Follow correct safety steps in case of major accident, major failure PC7. Work responsibly and as safe and careful as possible so as not to put the health and safety of self or others at risk, including members of the public PC8. Identify characteristics of post-blast fumes and take necessary precautions. PC9. Wears safety gear such as hard hat, respiratory protection, eye protection, ear protection

Health and Safety

Knowledge and Understanding (K)	
A. **Organizational Context** (Knowledge of the company / organization and its processes)	The user/individual on the job needs to know and understand: KA1. Different types of mines and detail of the mine he is working in KA2. Mine Organisation, time keeping, need for discipline and punctuality KA3. Benching in quarries, Dressing of overhangs, undercuts, Fencing, First aid and Hygiene KA4. Code of traffic in specific areas of mine. Significance of fences KA5. Standing orders in force at the mine. Safety in the vicinity of machinery KA6. Shot-firing and Safety regulations. How and where to take shelter KA7. Tramways and siding, Haulage rooms, Winding rooms, Electrical Gears KA8. Duties of workmen under Mines act KA9. Provision of compensation and working hours as per Mines act KA10. Knowledge of mining safety procedures KA11. Outcome of violation of safely procedures KA12. Environmental impact of mining KA13. Sources of dust, noise and vibration and measures to minimize KA14. Refresher training as per fourth schedule MVTR (1966) within one month of joining duties following absence from duties for a period exceeding one year.

Health and Safety

NOS Version Control

NOS Code	**MIN / N 09204**		
Credits(NSQF)	**TBD**	**Version number**	**1.0**
Sector	**Mining**	**Drafted on**	**01/02/2014**
Sub-sector	**Engineering Services**	**Last reviewed on**	**24/03/2014**
Occupation	**Field Services - Mechanical**	**Next review date**	**24/03/2017**

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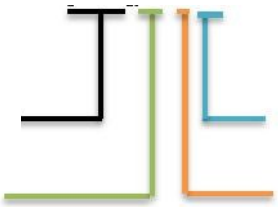
Qualifications Pack

9 characters
[ABC]/ Q 0101



[Insert 3 letter code for SSC]

Q denoting Qualifications Pack

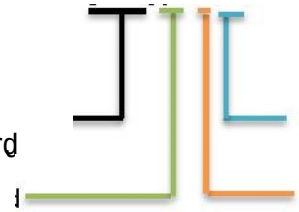
QP number (2 numbers)

Occupation (2 numbers)

Occupational Standard

An example of NOS with 'N'

9 characters
[ABC] / N 0101



[Insert 3 letter code for SSC]

N denoting National Occupational Standard

OS number (2 numbers)

Occupation (2 numbers)

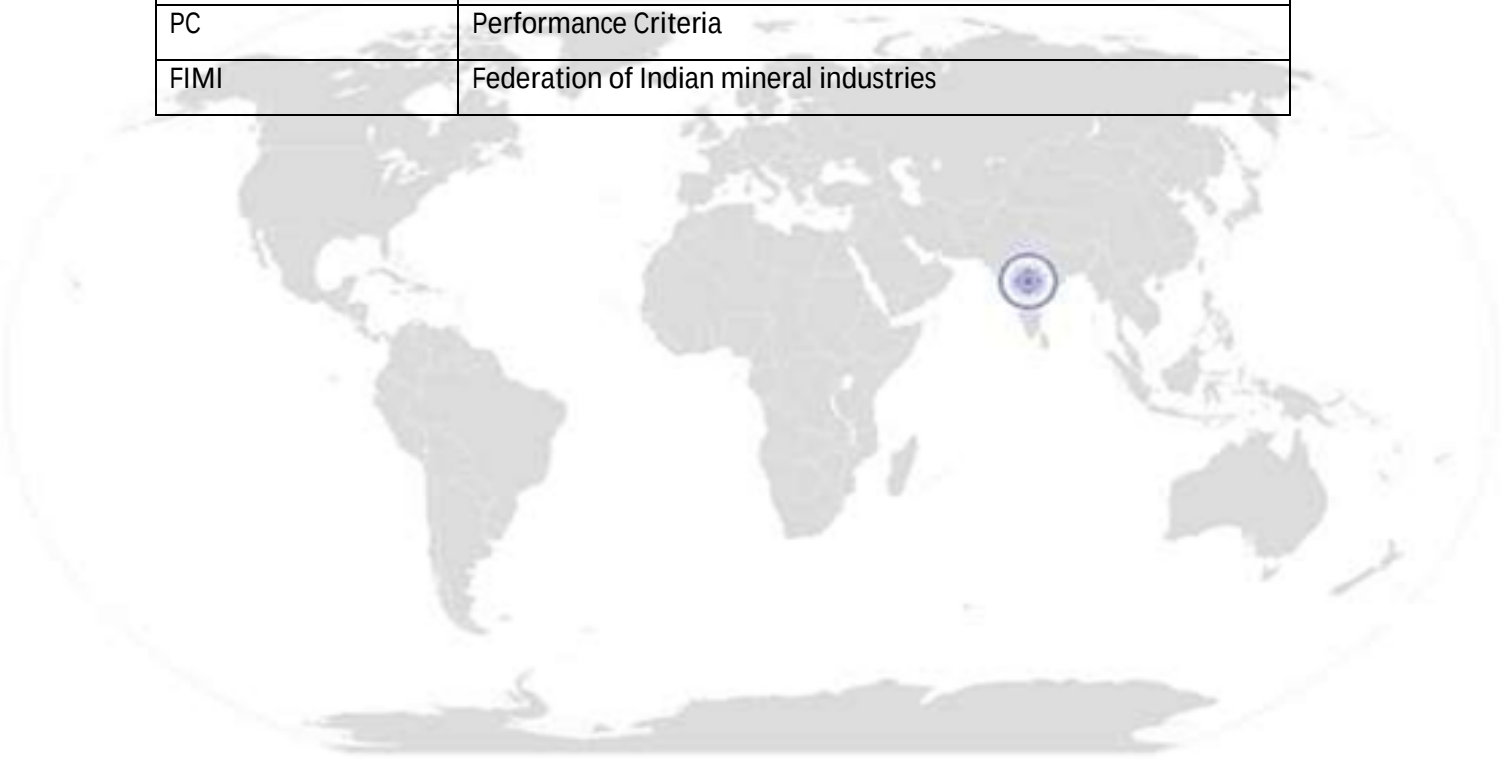
The following acronyms/codes have been used in the nomenclature above:

Sub-sector	Range of Occupation numbers
Exploration & Resource Management	**1 to 25**
Mining Operation	**26 to 65**
Engineering Services	**66 to 90**
Mineral Beneficiation	**91 to 99**

Sequence	Description	Example
Three letters	Industry name	MIN
Slash	/	/
Next letter	Whether **Q**P or **N**OS	N
Next two numbers	Occupation code	01
Next two numbers	OS number	01

List of Abbreviations

Term	Description
NOS	National occupation standards
QP	Qualification pack
NVEQF	National vocational education qualifications framework
NSQF	National skills qualifications framework
HEMM	Heavy earth moving machinery
NCVT	National council for vocational training
DGMS	Directorate general of mines safety
PC	Performance Criteria
FIMI	Federation of Indian mineral industries



CRITERIA FOR ASSESSMENT OF TRAINEES

Job Role Mechanic / Fitter

Qualification Pack MIN /Q 0304

Sector Skill Council Skill Council for Mining Sector

Guidelines for Assessment

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) will be assigned marks proportional to its importance in NOS. SSC will also lay down proportion of marks for Theory and Skills Practical for each PC
2. The assessment for the theory part will be based on knowledge bank of questions created by the SSC
3. Individual assessment agencies will create unique question papers for theory part for each candidate at each examination/training center (as per assessment criteria below)
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/training center based on this criteria
5. To pass the Qualification Pack , every trainee should score a minimum of 50% in every NOS
6. In case of successfully passing only certain number of NOS's, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack

				Marks Allocation	
Assessment outcome	**Assessment Criteria**	**Total Mark (100)**	**Out Of**	**Theory**	**Skills Practical**
1. MIN/N 0309 (Perform preventive maintenance)	PC1. Use ropes, slings, towing and lifting devices while assembling equipment.	**35**	3	1	2
	PC2. Safely operate various types of hand and power-tools		3	1	2
	PC3. Follow drawings and blue-prints given in the installation manual.		3	0	3
	PC4. Follow the manufacturer's instructions which apply to the care and safe handling of the machine / automobile		3	1	2
	PC5. Test assembled machine for proper performance before handing over for operations		3	0	3
	PC6. Adhere to maintenance schedule recommended by the equipment manufacturer.		2	1	1
	PC7. Lubricate sufficiently and neatly all pivot points in a machine.		3	0	3
	PC8. Open and re-assemble various types of bearings in machines.		3	1	2
	PC9. Adjust valves and hydraulic systems for smooth operation.		3	1	2

	PC10. Work responsibly and as safe and careful as possible so as not to put the health and safety of self or others at risk.		2	0	2
	PC11. Track hours-in-operation and adhere to preventive maintenance schedules of various vehicles assigned to him.		2	1	1
	PC12. Maintain a checking/maintenance logbook to record all activities performed.		2	1	1
	PC13. Inform supervisor of problems that are beyond scope of his role		2	1	1
	PC14. Maintain inventory and order fuel and other supplies.		1	0	1
		Total	**35**	**9**	**26**
2. MIN/N 0310 (Perform troubleshooting and repair)	PC1. Use various measuring and testing instruments and record readings	**35**	2	1	1
	PC2. Compare measured readings to optimal readings to pin-point faults		2	1	1
	PC3. Service, diagnose and repair faults in mechanical systems such as gears, steering systems, hydraulic pumps, transmission, crawlers, conveyor belts etc.		3	1	2
	PC4. Ensure the machine is on firm and level ground before attempting to carry out any maintenance activity.		3	1	2
	PC5. Ensure the locking bar is in position to prevent the front and rear chassis moving and creating a crushing zone (articulated machines only)		3	1	2
	PC6. Ensure that no maintenance task on the engine is performed when running or still hot		3	0	3
	PC7. Repair or replace faulty parts		3	1	2
	PC8. Use various kinds of hand held and power-tools to lift, dismantle or assemble machine components.		3	0	3
	PC9. Fine tune and adjust valves, belt tensions for optimal operation.		3	0	3
	PC10. Test repaired equipment to ensure everything is working correctly and safely (this may include road testing the vehicle)		3	2	1
	PC11. Complete timely and legibly daily/weekly maintenance/defect sheets as provided by the company.		2	1	1

	PC12. Assess when the problem is beyond his competence and report the problem to suitably qualified and competent personnel.		3	1	2
	PC13. Inventory and order spares and consumables as required.		2	1	1
		Total	**35**	**11**	**24**
3. MIN/ N0204 (Health and Safety)	PC1. Comply with occupational health and safety regulations adopted by the employer.	**30**	4	1	3
	PC2. Follow mining operations procedures with respect to materials handling and accidents		4	1	3
	PC3. Ensure use of protective gear while working with mechanical systems.		4	2	2
	PC4. Comply with safety regulations and procedures in case of fire hazard.		4	2	2
	PC5. Operate various grades of fire extinguishers.		4	1	3
	PC6. Follow correct safety steps in case of major accident, major failure		4	1	3
	PC7. Work responsibly and as safe and careful as possible so as not to put the health and safety of self or others at risk, including members of the public		3	0	3
	PC8. Wears safety gear such as hard hat, respiratory protection, eye protection		3	1	2
		Total	**30**	**9**	**21**