

QUALIFICATIONS PACK - OCCUPATIONAL STANDARDS FOR AUTOMOTIVE INDUSTRY

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

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Introduction

Qualifications Pack-Maintenance Technician-Service Workshop

SECTOR: AUTOMOTIVE

SUB-SECTOR: AUTOMOTIVE VEHICLE SERVICE

OCCUPATION: WORKSHOP OPERATIONS

JOB ROLE: MAINTENANCE TECHNICIAN- Service Workshop

REFERENCE ID: ASC/Q 1601

ALIGNED TO : NCO-2004/Nil

Maintenance Technician is also known as Maintenance In-charge, Maintenance Mechanic, Tool Room Executive and Tool Room Technician.

Brief Job Description:A **Maintenance Technician** maintains and manages tools and equipment used in the workshop.

Personal Attributes: An individual on this job should primarily be methodological and systematic in his way of working to manage and maintain the various tools and equipment's in the workshop. The individual should be systems and process oriented person to ensure adherence to proper usage of the special tools and other sophisticated equipment's along with making sure that the correct calibration is done in a timely manner. The individual should be a quick decision maker to immediately identify the correct tool to perform the required maintenance & repair.

Job Details	Qualifications Pack Code	ASC/Q 1601		
	Job Role	Maintenance Technician- Service Workshop		
	Credits(NSQF)	TBD	Version number	1.0
	Industry	Automotive	Drafted on	10/06/13
	Sub-sector	Automotive Vehicle Service	Last reviewed on	10/06/13
	Occupation	Workshop Operations	Next review date	Under revision expectd date of revised version 31-Dec-15
	NSQC Clearance on	20/07/15		

Job Role	Maintenance Technician- Service Workshop
Role Description	Maintain and manage tools and equipment used in the workshop
NSQF level	4
Minimum Educational Qualifications	Class X
Maximum Educational Qualifications	Diploma in relevant field
Training (Suggested but not mandatory)	On the job training
Minimum Job Entry Age	1 ASDC recommends that candidates should seek full employment not before attaining an age of 18 years. 2 However, as per Factories Act 1948 and Shops & Establishment Act 1953: - No one can be employed before attaining the age of 14 3 Please note that under the Factories Act 1948, and Shops & Establishment Act 1953 different States may have slightly varying provision which need to be adhered to.
Experience	Not Applicable
Occupational Standards (OS)	Compulsory: <ol style="list-style-type: none"> ASC/N 1601:Maintain tools and equipment ASC/N 0001:Plan and organise work to meet expected outcomes ASC/N 0002:Work effectively in a team ASC/N 0003:Maintain a healthy, safe and secure working environment
Performance Criteria	As described in the relevant OS Units

Definitions

Sub-Sector	Sub-sector is derived from a further breakdown based on the characteristics and interests of its components.
Keywords /Terms	Description
Core Skills/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 NOS, these include communication related skills that are applicable to most job roles.
Dealership	A business established or operated under an authorisation to sell or distribute an automotive company's goods and services
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 NOS they are looking for.
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 NOS.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Knowledge and Understanding	Knowledge and Understanding are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard.
National Occupational Standards (NOS)	NOS are Occupational Standards which apply uniquely in the Indian context.
Occupation	Occupation is a set of job roles, which perform similar/related set of functions in an industry.
Organisational Context	Organisational Context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility.
Performance Criteria	Performance Criteria are statements that together specify the standard of performance required when carrying out a task.
Qualifications Pack(QP)	Qualifications Pack comprises the set of NOS, together with the educational, training and other criteria required to perform a job role. A Qualifications Pack is assigned a unique qualification pack code.
Qualifications Pack Code	Qualifications Pack Code is a unique reference code that identifies a qualifications pack.
Scope	Scope is the set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on the quality of performance required.
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.

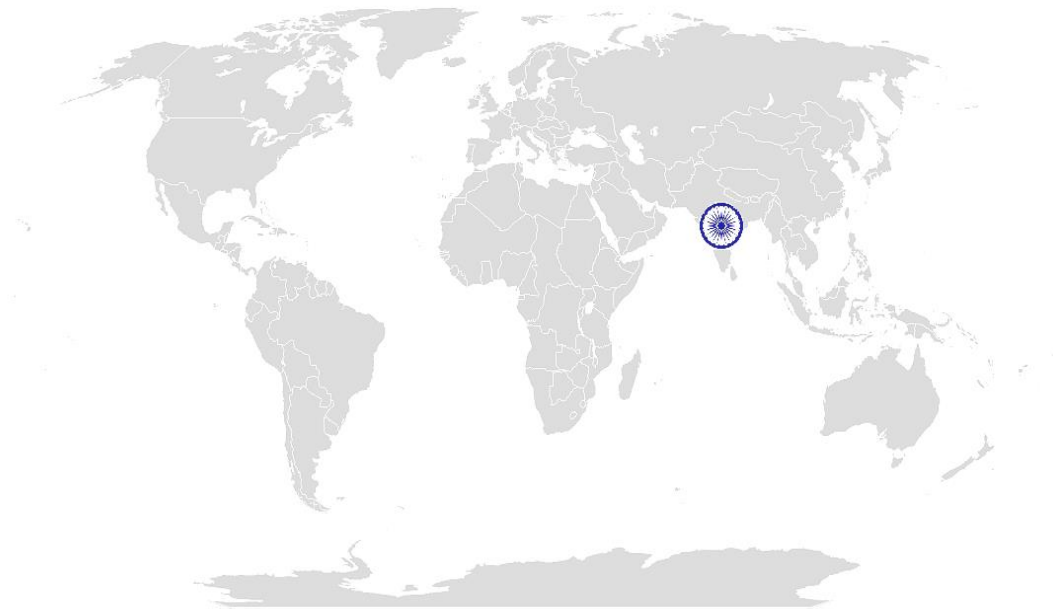
Sub-functions	Sub-functions are sub-activities essential to fulfill the achieving the objectives of the function.
Technical Knowledge	Technical Knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Unit Code	Unit Code is a unique identifier for an NOS unit, which can be denoted with an 'N'.
Unit Title	Unit Title gives a clear overall statement about what the incumbent should be able to do.
Vertical	Vertical may exist within a sub-sector representing different domain areas or the client industries served by the industry.
Keywords /Terms	Description
NOS	National Occupational Standard(s)
NSQF	National Standards Qualifications Framework
OEM	Original Equipment Manufacturer
OS	Occupational Standard(s)
QP	Qualifications Pack

Acronyms

ASC/ N 1601

Maintain tools and equipment

National Occupational Standards



Overview

This Occupational Standard describes the knowledge, understanding and skills required of an individual to maintain tools and equipment required for efficient running of the workshop.

ASC/ N 1601

Maintain tools and equipment

National Occupational Standard

Unit Code	ASC/ N 1601
Unit Title (Task)	Maintain tools and equipment
Description	This OS unit is about an individual maintaining tools and equipment required for efficient running of the workshop.
Scope	This unit/task covers the following: <ul style="list-style-type: none"> prepare a comprehensive list of tools and equipment's regularly used in the workshop and maintain them manage records & documentations related to all the tools and equipment
Performance Criteria (PC) w.r.t. the Scope	
Element	Performance Criteria
Maintain tools & equipments used in the workshop	<p>To be competent, the user/individual on the job must be able to:</p> <p>PC1. manage record of tools and equipment</p> <p>PC2. prepare a list of tools that needs to be purchased or repaired as per the OEM guidelines basis the technician workload and vehicular population</p> <p>PC3. ensure there is no gap as per the OEM requirements basis the technician workload and vehicular population in the workshop</p> <p>PC4. maintain the tools and equipment to be used in workshop on a daily basis</p> <p>PC5. inspect tools and equipment to detect losses, defects, wear or breakage</p> <p>PC6. document the required timelines within which the tools/ equipment's need calibration</p> <p>PC7. calibrate the tools and equipment as per the requirement</p> <p>PC8. document the timelines when the tools needs to be recalibrated and</p> <p>PC9. perform minor repair including lubricating parts and equipment, replacing bulbs and fuses, tightening screws and welding</p> <p>PC10. request for replacement, order or repair of major parts, tools, and equipment</p> <p>PC11. maintain proper inventory, time, budget and expenditure records of parts</p> <p>PC12. clean, wash, wax, paint and varnish (wherever required) on various equipment, and tools</p> <p>PC13. keep equipment in a safe, clean and orderly condition</p> <p>PC14. keep time and budget records within the prescribed limit sanctioned for themaintenance ofvarious tools and equipment</p> <p>PC15. clean, lubricate, adjust, service and maintain stationary and moving parts in power tools and equipment</p> <p>PC16. replace worn out or defective tools and equipment to maintain proper inventory</p> <p>PC17. repair or modify training aids, hand tools and equipment</p> <p>PC18. perform a regular check and scheduled maintenance for tools and</p>

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Maintain tools and equipment

	<p>equipment</p> <p>PC19. ensure that trainings organized by the OEM from time-to-time are attended and knowledge levels are upgraded (esp. in case of maintenance of the various tools including special tools)</p>
Knowledge and Understanding (K) w.r.t. the scope	
Element	Knowledge and Understanding
<p>A. Organisational Context (Knowledge of the Company/ Organisation and its processes)</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KA1. standard operating procedures of the organisation/ dealership for inspection, servicing and repair of vehicles</p> <p>KA2. standard operating procedures of the tool or equipment manufacturer/ dealership for maintenance of tools and equipment</p> <p>KA3. documentation requirements for each procedure carried out as part of roles and responsibilities</p> <p>KA4. specific timelines for recalibration of various tools and service schedules of the various equipment</p> <p>KA5. organisational and professional code of ethics and standards of practice</p> <p>KA6. safety and health policies and regulations for the workplaces as well as for automotive trade in general (e.g. safe practices while working in pits/ under vehicles)</p>
<p>B. Technical Knowledge</p>	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. the operating procedure and usage of equipment and tools at appropriate place</p> <p>KB2. the procedure and workshop protocols to be followed to order any tools and equipment or to carry out schedule maintenance</p> <p>KB3. the proper methods and procedures to be followed for maintaining and cleaning the equipment as per the guidelines of the equipment manufacturer</p> <p>KB4. the instructions given by manufacturing company for maintaining tools and equipment through preventive cleaning or any other way as mentioned by the manufacturer</p> <p>KB5. the maintenance of following tools and equipment :</p> <ul style="list-style-type: none"> • hand and power tooling • specialist tool for removal/adjustment • storage racks • protective covers • measuring devices • plastics repair equipment • sealing equipment • adhesive equipment • heating equipment

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Maintain tools and equipment

	<ul style="list-style-type: none"> • welding equipment, including oxy, arc, MIG and TIG • vehicle cleaning equipment • service workshop manuals • product manuals • hydraulic breaker tooling, line oilers, filters and gauges, alternator • starting motor bench testers • paint mixers • key cutters • multi-meters • load testers • brake and drum lathes • fuel injector cleaners • ignition module test instruments <p>KB6. the maintenance methods such as:</p> <ol style="list-style-type: none"> a. routine maintenance to tooling and equipment as per schedules b. labelling faulty tooling and equipment c. minor repairs to tooling and equipment d. the chocking, jacking and supporting of machines on level and incline planes <p>KB7. the type of personal protective equipment required to carry out the maintenance safely</p> <p>KB8. how to recalibrate various tools either in the workshop or from external vendors as per the manufacturer guidelines</p> <p>KB9. how to operate the various equipment within the specified tolerance levels as per the guidelines and includes</p> <p>KB10. the methods of gauging and assessing faults in tools and equipment</p> <p>KB11. the areas for safe storage of tools and equipment</p> <p>KB12. how to store the hand tools especially, sharp parts should be placed with face downward or be placed in a sheath to avoid danger</p>
Skills (S) w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Writing skills
	The user/ individual on the job needs to know and understand how to:
	SA1. maintain records pertaining to work schedule/ plans/ specification related to the use and maintenance of workplace tools and equipment
	SA2. write in at least one language
	Reading skills
	The user/individual on the job needs to know and understand how to:

ASC/ N 1601

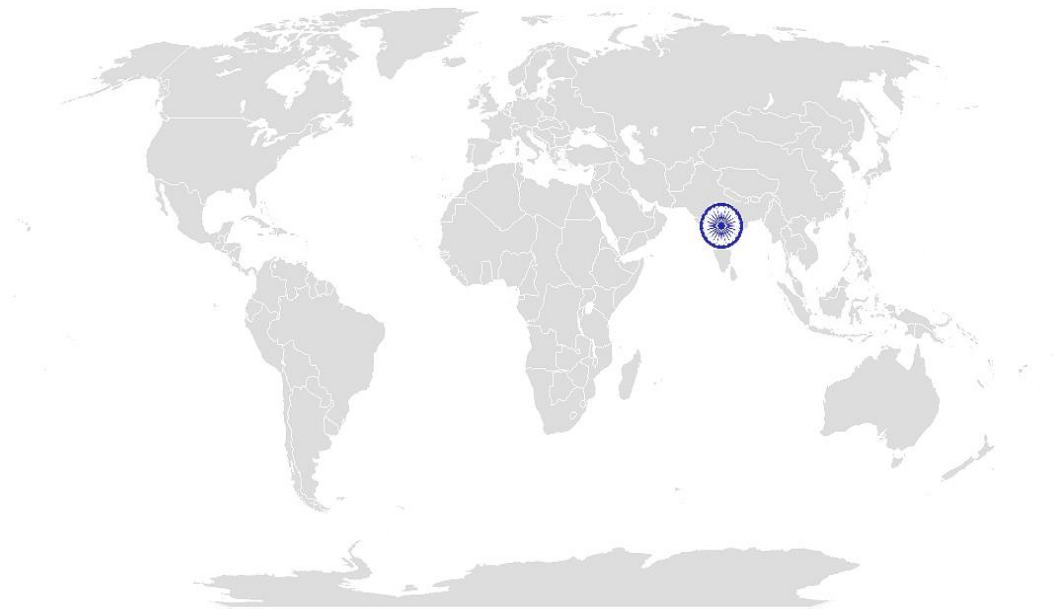
Maintain tools and equipment

	<p>SA3. read instructions regarding work schedule/ plans/ specification related to maintenance of workplace tools and equipment</p> <p>SA4. read the detailed method of using a particular tool/ equipment through the information in the catalogue</p>
	<p>Oral Communication (Listening and Speaking skills)</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SA5. interact with the service advisor and other technicians</p> <p>SA6. communicate the damage caused to tools and equipment to the manufacture and understand the way ti can be repaired/ replaced</p> <p>SA7. specify the corrective measures required to repair/maintain the tools and equipment</p> <p>SA8. communicate the usage of special tools or new equipment to the technicians and others using it in the workshop</p> <p>SA9. interact with team members to work efficiently</p>
B. Professional Skills	<p>Decision making</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB1. decide which tool to be issued to the technician for the specific work requirements</p> <p>SB2. decide which tool or equipment needs maintenance</p> <p>SB3. decide which vendor to contact for the recalibration of the tools and servicing of the equipment</p>
	<p>Plan and Organise</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB4. plan work assigned on a daily basis and provide estimates of time required for each piece of work</p> <p>SB5. schedule recalibration to be done according to the documented timelines</p>
	<p>Customer centricity</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB6. ensure that customer needs are assessed and service or maintance of the vehicle is done using the appropriate tools/ equipment</p>
	<p>Problem solving</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB7. inspect damaged tools and equipment and decide repairs and corrective action to be undertaken</p> <p>SB8. inspect equipment to ensure proper working order and take any corrective actions</p>
	<p>Analytical thinking</p>
	<p>The user/individual on the job needs to know and understand how to:</p> <p>SB9. evaluate the complexity of tasks to determine if any special tool is</p>

ASC/ N 1601

Maintain tools and equipment

	required for the repair or maintenance
	Critical thinking
	The user/individual on the job needs to know and understand how to: SB10. evaluate the information gathered from the workshop to assess the need for any additional tools and equipment to carry out repairs



ASC/ N 1601

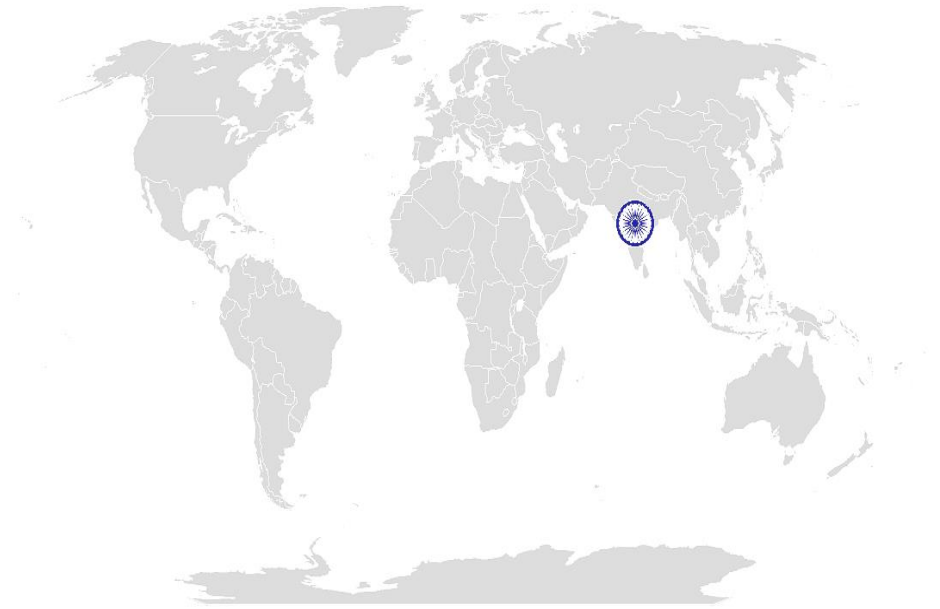
Maintain tools and equipment

NOS Version Control

NOS Code	ASC/ N 1601		
Credits(NSQF)	TBD	Version number	1.0
Industry	Automotive	Drafted on	24/06/13
Industry Sub-sector	Automotive Vehicle Service	Last reviewed on	24/06/13
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National Occupational Standards



Overview

This unit is about planning and organising an individual's work in order to complete it to the required standards, on time and within budget in terms of cost and material.

ASC/ N 0001

Plan and organise work to meet expected outcomes

National Occupational Standard	Unit Code	ASC/ N 0001
	Unit Title (Task)	Plan and organise work to meet expected outcomes
	Description	This NOS unit is about planning and organising an individual's work in order to complete it to the required standards on time.
	Scope	This unit/task covers the following: <ul style="list-style-type: none"> work requirements including various activities, deliverables or work output required in the given time, maintain set quality standards appropriate use of resources (both material / equipment's and manpower)
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Work requirements including various activities within the given time and set quality standards	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> PC1. keep immediate work area clean and tidy PC2. treat confidential information as per the organisation's guidelines PC3. work in line with organisation's policies and procedures PC4. work within the limits of job role PC5. obtain guidance from appropriate people, where necessary PC6. ensure work meets the agreed requirements
	Appropriate use of resources	<ul style="list-style-type: none"> PC7. establish and agree on work requirements with appropriate people PC8. manage time, materials and cost effectively PC9. use resources in a responsible manner
	Knowledge and Understanding (K) w.r.t. the scope	
	Element	Knowledge and Understanding
A. Organisational Context (Knowledge of the Company/Organisation and its processes)	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> KA1. the organisation's policies, procedures and priorities for area of work, role and responsibilities in carrying out that work KA2. the limits of responsibilities and when to involve others KA3. specific work requirements and who these must be agreed with KA4. the importance of having a tidy work area and how to do this KA5. how to prioritize workload according to urgency and importance and the benefits of this KA6. the organisation's policies and procedures for dealing with confidential information and the importance of complying with these KA7. the purpose of keeping others updated with the progress of work KA8. who to obtain guidance from and the typical circumstances when this may be required KA9. the purpose and value of being flexible and adapting work plans 	

ASC/ N 0001

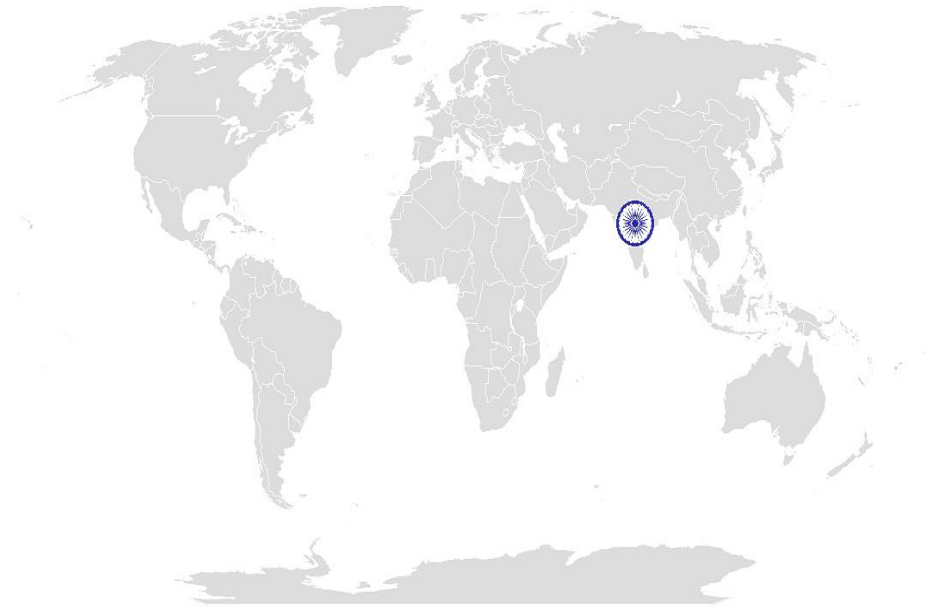
Plan and organise work to meet expected outcomes

	to reflect change
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. how to complete tasks accurately by following standard procedures</p> <p>KB2. technical resources needed for work and how to obtain and use these</p>
Skills (S) w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Writing Skills
	The user/individual on the job needs to know and understand how to:
	SA1. write in at least one language
	Reading Skills
	The user/individual on the job needs to know and understand how to:
SA2.read instructions, guidelines/procedures	
Oral Communication (Listening and Speaking skills)	
The user/individual on the job needs to know and understand how to:	
SA3.ask for clarification and advice from appropriate persons	
SA4.communicate orally with colleagues	
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to:
	SB1. make a decision on a suitable course of action appropriate for accurately completing the task within resources
	Plan and Organise
	The user/individual on the job needs to know and understand how to:
	SB2. agree objectives and work requirements
	SB3. plan and organise work to achieve targets and deadlines
	CustomerCentricity
	The user/individual on the job needs to know and understand how to:
	SB4. deliver consistent and reliable service to customers
SB5. check own work and ensure it meets customer requirements	
Problem Solving	
The user/individual on the job needs to know and understand how to:	
SB6. refer anomalies to the concerned persons	
Analytical Thinking	
The user/individual on the job needs to know and understand how to:	

ASC/ N 0001

Plan and organise work to meet expected outcomes

	SB7. analyse problems and identify work -arounds taking help from concerned persons where required
	Critical Thinking
	The user/individual on the job needs to know and understand how to: SB8. apply own judgement to identify solutions in different situations



ASC/ N 0001

Plan and organise work to meet expected outcomes

NOS Version Control

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National Occupational Standards



Overview

This unit is about working effectively with colleagues, either in own work group or in other work groups within organisation.

ASC/ N 002

Work effectively in a team

National Occupational Standard	Unit Code	ASC/ N 002
	Unit Title (Task)	Work effectively in a team
	Description	This NOS unit is about working effectively within a team, either in individual's own work group or in other work groups outside the organisation.
	Scope	This unit/task covers the following: Colleagues: <ul style="list-style-type: none"> Interact & communicate effectively with colleagues including member in the own group as well as other groups
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Interact & communicate effectively with colleagues including member in the own group as well as other groups	To be competent, the user/individual on the job must be able to: <ul style="list-style-type: none"> PC1. maintain clear communication with colleagues (by all means including face-to-face, telephonic as well as written) PC2. work with colleagues to integrate work PC3. pass on information to colleagues in line with organisational requirements both through verbal as well as non-verbal means PC4. work in ways that show respect for colleagues PC5. carry out commitments made to colleagues PC6. let colleagues know in good time if cannot carry out commitments, explaining the reasons PC7. identify problems in working with colleagues and take the initiative to solve these problems PC8. follow the organisation's policies and procedures for working with colleagues
	Knowledge and Understanding (K) w.r.t. the scope	
	Element	Knowledge and Understanding
	A. Organisational Context (Knowledge of the Company/Organisation and its processes)	The user/individual on the job needs to know and understand: <ul style="list-style-type: none"> KA1. the organisation's policies and procedures for working with colleagues, role and responsibilities in relation to this KA2. the importance of effective communication and establishing good working relationships with colleagues KA3. different methods of communication and the circumstances in which it is appropriate to use these KA4. the importance of creating an environment of trust and mutual respect KA5. the implications of own work on the work and schedule of others

ASC/ N 0002

Work effectively in a team

B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. different types of information that colleagues might need and the importance of providing this information when it is required</p> <p>KB2. the importance of helping colleagues with problems, in order to meet quality and time standards as a team</p>
Skills (S)w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Writing Skills
	The user/individual on the job needs to know and understand how to:
	SA1. complete written work with attention to detail
	Reading Skills
	The user/individual on the job needs to know and understand how to:
	SA2. read instructions, guidelines/procedures
	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to:
	SA3. listen effectively and orally communicate information
	SA4. ask for clarification and advice from the concerned person
B. Professional Skills	Decision Making
	The user/individual on the job needs to know and understand how to:
	SB1. make decisions on a suitable course of action or response keeping in view resource utilization while meeting commitments
	Plan and Organise
	The user/individual on the job needs to know and understand how to:
	SB2. plan and organise work to achieve targets and deadlines
	CustomerCentricity
	The user/individual on the job needs to know and understand how to:
	SB3. check that the work meets customer requirements
	SB4. deliver consistent and reliable service to customers
Problem Solving	
The user/individual on the job needs to know and understand how to:	
SB5. apply problem solving approaches in different situations	
Critical Thinking	
The user/individual on the job needs to know and understand how to:	
SB6. apply balanced judgements to different situations	

ASC/ N 0002

Work effectively in a team

NOS Version Control

NOS Code	ASC/ N 0002		
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National Occupational Standards

Overview

This unit is about monitoring work place practices and making sure they meet requirements for health, safety, security and environmental concerns.

Qualification Pack for Maintenance Technician – Service Workshop

National Occupational Standard	Unit Code	ASC/ N 0003
	Unit Title (Task)	Maintain a healthy, safe and secure working environment
	Description	This NOS unit is about monitoring the working environment and making sure it meets requirements for health, safety and security.
	Scope	This unit/task covers the following: <ul style="list-style-type: none"> Resources (both material & manpower) needed to maintain a safe working environment as per the prevalent norms & government policies including emergency procedures for illness, accidents, fires or any other reason which may involve evacuation of the premises
	Performance Criteria (PC) w.r.t. the Scope	
	Element	Performance Criteria
	Resources needed to maintain a safe, secure working environment	To be competent, the user/individual on the job must be able to: <p>PC1. comply with organisation’s current health, safety and security policies and procedures</p> <p>PC2. report any identified breaches in health, safety, and security policies and procedures to the designated person</p> <p>PC3. Coordinate with other resources at the workplace to achieve the healthy, safe and secure environment for all incorporating all government norms esp. for emergency situations like fires, earthquakes etc.</p> <p>PC4. identify and correct any hazards like illness, accidents, fires or any other natural calamity safely and within the limits of individual’s authority</p> <p>PC5. report any hazards outside the individual’s authority to the relevant person in line with organisational procedures and warn other people who may be affected</p> <p>PC6. follow organisation’s emergency procedures for accidents, fires or any other natural calamity</p> <p>PC7. identify and recommend opportunities for improving health, safety, and security to the designated person</p> <p>PC8. complete all health and safety records are updates and procedures well defined</p>
	Knowledge and Understanding (K) w.r.t. the scope	
	Element	Knowledge and Understanding
	A. Organisational Context (Knowledge of the Company/Organisation and its processes)	The user/individual on the job needs to know and understand: <p>KA1. legislative requirements and organisation’s procedures for health, safety and security and individual’s role and responsibilities in relation to this</p> <p>KA2. what is meant by a hazard, including the different types of health and safety hazards that can be found in the workplace</p> <p>KA3. how and when to report hazards</p> <p>KA4. the limits of responsibility for dealing with hazards</p>

Qualification Pack for Maintenance Technician – Service Workshop

	<p>KA5. the organisation’s emergency procedures for different emergency situations and the importance of following these</p> <p>KA6. the importance of maintaining high standards of health, safety and security</p> <p>KA7. implications that any non-compliance with health, safety and security may have on individuals and the organisation</p>
B. Technical Knowledge	<p>The user/individual on the job needs to know and understand:</p> <p>KB1. different types of breaches in health, safety and security and how and when to report these</p> <p>KB2. evacuation procedures for workers and visitors</p> <p>KB3. how to summon medical assistance and the emergency services, where necessary</p> <p>KB4. how to use the health, safety and accident reporting Procedures and the importance of these</p>
Skills (S) w.r.t. the scope	
Element	Skills
A. Core Skills/ Generic Skills	Writing Skills
	The user/individual on the job needs to know and understand how to:
	SA1. complete accurate, well written work with attention to detail
	Reading Skills
	The user/individual on the job needs to know and understand how to:
	SA2. read instructions, guidelines/procedures/rules
B. Professional Skills	Oral Communication (Listening and Speaking skills)
	The user/individual on the job needs to know and understand how to:
	SA3. listen to and orally communicate information with all concerned
	Decision Making
	The user/individual on the job needs to know and understand how to:
	SB1. make decisions on a suitable course of action or response
B. Professional Skills	Plan and Organise
	The user/individual on the job needs to know and understand how to:
	SB2. plan and organise work to achieve targets and deadlines
	CustomerCentricity
	The user/individual on the job needs to know and understand how to:
	SB3. build and maintain positive and effective relationships with colleagues and customers
B. Professional Skills	Problem Solving
	The user/individual on the job needs to know and understand how to:
	SB4. apply problem solving approaches in different situations

Qualification Pack for Maintenance Technician – Service Workshop

	Analytical Thinking
	The user/individual on the job needs to know and understand how to:
	SB5.analyse data and activities
	Critical Thinking
	The user/individual on the job needs to know and understand how to:
	SB6.apply balanced judgements to different situations

NOS Version Control

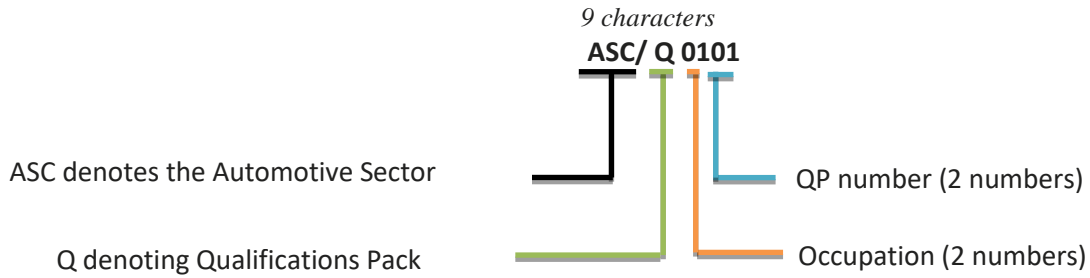
Qualification Pack for Maintenance Technician – Service Workshop

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Occupation	Workshop Operations	Next review date	Under revision expectd date of revised version 31-Dec-15

Qualification Pack for Maintenance Technician – Service Workshop
Annexure

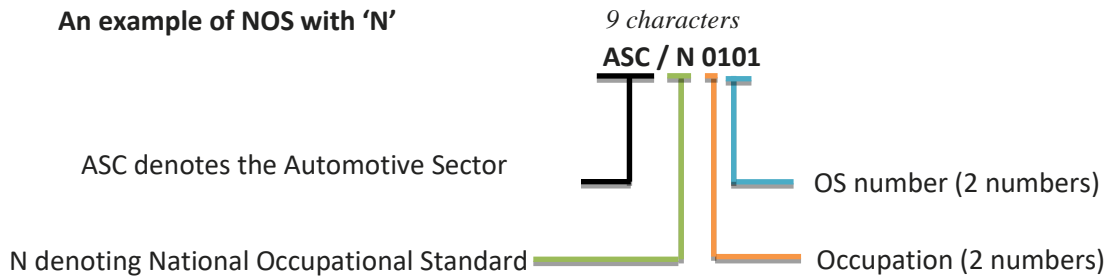
Nomenclature for QP and NOS

Qualifications Pack



Occupational Standard

An example of NOS with 'N'



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

Sub-sector	Range of Occupation numbers
Manufacturing	31 - 45 & 61 - 68
Research & Development	81 - 84
Sales & Service	01 - 21
Road Transportation	96 - 97

Sequence	Description	Example
Three letters	Automotive	ASC
Slash	/	/
Next letter	Whether QP or NOS	N
Next two numbers	Occupation code	10
Next two numbers	OS number	12

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Criteria for assessment of Trainees	
JOB ROLE	Maintenance Technician- L4
Qualification Pack	ASC/Q 1601
No. Of NOS	1 Role specific ,3 generic

ASDC assessor would be conducting Practical and Viva as per the criteria provided in the NOS/QP.

Guidelines for Assessment:
1. Assessment to be conducted by ASDC as per competency output defined in the NOS/QP and the assessment criteria provided in the NOS/QP.
2. Assessment to be carried out by a third-party Assessment Body duly affiliated to the SSC.
3. ASDC assessments will be comprehensive and cover all aspects of acquired knowledge, practical skills and also basic ability to communicate. Accordingly, evaluation process would include: i. Theory/Knowledge test ii. Practical demonstration test iii. Face to Face
4. Theory/Knowledge assessment will be carried out on line through a link provided for each assessment that generates a random paper from a bank of questions available at the back end. •On line test would be conducted in the presence of an ASDC assessor till web enabled proctoring is deployed.
5. ASDC assessor would be conducting Practical and Viva as per the criteria provided in the NOS/QP.
6. Cut off criteria for certification (Marks obtained in %):70%

Assessment Outcomes	Assessment Criteria for Outcomes	Total Marks	Out Of	Theory	Skills Practical
ASC/N1418 Carry out repairs of engine and other related mechanical aggregates	PC1. Understand the auto component manufacturer specifications related to the various engine components/ aggregates in the vehicle (including turbocharger)	200	6	2	4
	PC2. Follow standard operating procedures for using workshop tools and equipment for service and repairs of engine and its aggregates		6	2	4
	PC3. Conduct test drives to assess need for repairs, calibration or any other adjustments in the engine and its related		6	2	4

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	mechanical aggregates			
	PC4. Review the job card and understand work to be carried out in the engine and related aggregates	7	2	5
	PC5. In case of non-routine service or repair, confirm tasks to be carried out with superior	7	2	5
	PC6. Ensure that the correct spare parts, lubricants, tools and other materials required have been obtained	7	2	5
	PC7. Calibrate, align and adjust settings, alignment and other tolerance levels relevant to the following engine and allied aggregates: <ul style="list-style-type: none"> • engine and aggregates (including flywheel) • allied engine aggregates (like radiator etc.) • air intake and exhaust systems like (like turbocharger, intercooler etc.) • cooling & lubrication system • fuel ignition system (like injectors, fuel injection high pressure lines etc.) • transmission system (including gearbox, differential, propeller shaft and axles) • steering system • clutch and brake assembly • electrical and electronic components (related to engine including alternator, wire harness etc.) 	18	5	13
	PC8. Repair and replace: <ul style="list-style-type: none"> • cylinder block • cylinder head • piston liner • piston (including piston rings) • crankshaft (including main and BE journal) • camshaft • connecting rod • air compressor 	18	5	13

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	<ul style="list-style-type: none"> • flywheel (including ring gear and damper) • fuel systems (diesel, petrol, electrical, gas etc.) • radiator • emission and exhaust system • steering system • various lubrication systems connected to the engine 				
	<p>PC9. Carry out repair activities on the engine aggregates safely to ensure:</p> <ul style="list-style-type: none"> • no damage to the vehicle or other vehicles • no damage to vehicle components and systems • no contact with hazardous materials 		18	5	13
	<p>PC10. Dismantle, assess, repair, clean, replace, adjust and reassemble vehicle mechanical engine aggregates</p>		9	3	6
	<p>PC11. Identify and change engine components requiring change due to continuous wear and tear(including oil and air filters)</p>		9	3	6
	<p>PC12. Ensure all dismantled engine components are cleaned and conditioned prior to reassembly</p>		9	3	6
	<p>PC13. Ensure disposal of materials (including waste oil, scrap of failed parts/ aggregates) in accordance with the organisation's policies</p>		7	2	5
	<p>PC14. Refill correct grade of coolants, lubricants, engine oil and other fluids in the engine aggregates as per OEM guidelines</p>		7	2	5
	<p>PC15. Understand the various precautions to be taken to avoid damage to the vehicle and its components while working on the engine aggregates and subassemblies</p>		7	2	5
	<p>PC16. Record all service and repairs carried out on the engine and allied aggregates and ensure</p>		7	2	5

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	completeness of tasks assigned before releasing vehicle for the next repair or maintenance procedure				
	PC17. Ensure all workshop tools, equipment and workstations are adequately maintained by carrying out scheduled checks, calibration and timely repairs where necessary		7	2	5
	PC18. Ensure any malfunctions observed in tools and equipment are reported to the concerned persons		7	2	5
	PC19. Ensure any other repair requirements observed in the other components/ aggregates systems (like engine, gear box etc.) while repairing/ overhauling of braking systems are reported to Supervisor/ Service Advisor for further inspection by other specialists		7	2	5
	PC20. Use resources responsibly (e.g. use of grease and other consumables)		7	2	5
	PC21. Measure/ inspect the machining or any other repair done from an outside source/ local machining garages		6	2	4
	PC22. Recognise when to seek assistance from a senior technician in case of diagnosis of the engine related aggregates		6	2	4
	PC23. Ensure that trainings organized by the OEM from time-to-time are attended and knowledge levels are upgraded (esp. in case of newly launched products, product refreshes)		6	2	4
	PC24. Drive a relevant 2/3/4 wheeler vehicle which is an important part of the diagnosis of the type of vehicle that is dealt by the relevant OEM		6	2	4
		Total	200	60	140
ASC/N 0001	PC1. Keep immediate work area clean	100	9	2	7

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Plan & organize work to meet expected outcome	and tidy				
	PC2. Treat confidential information as per the organisation's guidelines		9	2	7
	PC3. Work in line with organisation's policies and procedures		12	4	8
	PC4. Work within the limits of job role		12	4	8
	PC5. Obtain guidance from appropriate people, where necessary		12	4	8
	PC6. Ensure work meets the agreed requirements		13	4	9
	PC7. Establish and agree on work requirements with appropriate people		13	4	9
	PC8. Manage time, materials and cost effectively		10	3	7
	PC9. Use resources in a responsible manner		10	3	7
		Total	100	30	70
ASC/N 0002 Work effectively in a team	PC1. Maintain clear communication with colleagues (by all means including face-to-face, telephonic as well as written)	100	10	3	7
	PC2. Work with colleagues to integrate work		13	4	9
	PC3. Pass on information to colleagues in line with organisational requirements both through verbal as well as non-verbal means		13	4	9
	PC4. Work in ways that show respect for colleagues		14	4	10
	PC5. Carry out commitments made to colleagues		14	4	10
	PC6. Let colleagues know in good time if cannot carry out commitments, explaining the reasons		13	4	9
	PC7. Identify problems in working with colleagues and take the initiative to solve these problems		13	4	9
	PC8. Follow the organisation's policies and procedures for working with colleagues		10	3	7
	Total	100	30	70	
ASC/N 0003 Maintain safe, healthy environment friendly workplace	PC1. Comply with organisation's current health, safety and security policies and procedures	100	10	3	7
	PC2. Report any identified breaches in health, safety, and security policies and procedures to the designated person		13	4	9
	PC3. Coordinate with other resources at the workplace to achieve the healthy, safe and secure environment for all incorporating all		13	4	9

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	government norms esp. for emergency situations like fires, earthquakes etc.				
	PC4. Identify and correct any hazards like illness, accidents, fires or any other natural calamity safely and within the limits of individual's authority		14	4	10
	PC5. Report any hazards outside the individual's authority to the relevant person in line with organisational procedures and warn other people who may be affected		14	4	10
	PC6. Follow organisation's emergency procedures for accidents, fires or any other natural calamity		13	4	9
	PC7. Identify and recommend opportunities for improving health, safety, and security to the designated person		13	4	9
	PC8. Complete all health and safety records are updates and procedures well defined		10	3	7
		Total	100	30	70
	Grand Total		500	150	350
	Percentage Weightage:			30%	70%
	Minimum Pass % to qualify (aggregate):			70%	