



Two Wheeler Service Technician

QP Code: ASC/Q1411

Version: 2.0

NSQF Level: 4

Automotive Skills Development Council || 153, Gr Floor, Okhla Industrial Area, Phase - III, Leela Building
New Delhi - 110020

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ASC/Q1411: Two Wheeler Service Technician

Brief Job Description

A Two Wheeler Service Technician is responsible for the repair, routine servicing and maintenance (including electrical and mechanical aggregates) of two wheeler vehicles

Personal Attributes

An individual in this job must have good communication and interpersonal skills. The person should be patient, organised, team-oriented, customer centric and have the ability to work for long hours in adverse conditions. The individual should be a keen observer and have an eye for detail and quality.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

1. [ASC/N9801: Organize work and resources \(Service\)](#)
2. [ASC/N9802: Interact effectively with colleagues, customers and others](#)
3. [ASC/N1420: Perform routine servicing and minor repairs](#)

Qualification Pack (QP) Parameters

Sector	Automotive
Sub-Sector	Automotive Vehicle Service
Occupation	Technical Service & Repair
Country	India
NSQF Level	4
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7231.0501
Minimum Educational Qualification & Experience	10th Class + 1 year ITI OR 10th Class pass with 2 years relevant experience OR 11th Class Pass OR Certificate-NSQF (Two Wheeler Service Assistant Level 3) with 2 Years of experience

Minimum Level of Education for Training in School	10th Class
Pre-Requisite License or Training	Driving License and Basic Computer Skills

Minimum Job Entry Age	18 Years
Last Reviewed On	22/09/2020
Next Review Date	22/09/2025
NSQC Approval Date	22/09/2020
Version	2.0

ASC/N9801: Organize work and resources (Service)

Description

This NOS unit is about implementing safety, planning work, adopting sustainable practices for optimising use of resources

Scope

The scope covers the following :

- Maintain safe and secure working environment
- Perform work as per quality standards
- Health and hygiene
- Material/energy conservation practices
- Effective waste management practices

Elements and Performance Criteria

Maintain safe and secure working environment

To be competent, the user/individual on the job must be able to:

- PC1. organise work as per organisation's current health, safety and security policies and procedures
- PC2. report any identified breaches in health, safety, and security policies and procedures to the designated person
- PC3. identify the risks and hazards associated with work activities, their causes and prevention

Perform work as per quality standards

To be competent, the user/individual on the job must be able to:

- PC4. ensure work area is clean and tidy
- PC5. ensure that work is accomplished as per the requirements within the specified timeline
- PC6. ensure team goals are given preference over individual goals

Health and hygiene

To be competent, the user/individual on the job must be able to:

- PC7. sanitize workstation and equipment regularly
- PC8. clean hands with soap, alcohol-based sanitizer regularly
- PC9. avoid contact with ill people and self-isolate in a similar situation
- PC10. wear and dispose PPEs regularly and appropriately
- PC11. report advanced hygiene and sanitation issues to appropriate authority
- PC12. follow stress and anxiety management techniques

Material/energy conservation practices

To be competent, the user/individual on the job must be able to:

- PC13. identify ways to optimise usage of material in various tasks/activities/processes
- PC14. use resources, including water, in a responsible manner
- PC15. check for spills/leakages in various tasks/activities/processes

- PC16. plug spills/leakages and escalate to appropriate authority if unable to rectify
- PC17. carry out routine cleaning of tools, machines and equipment
- PC18. check if the equipment/machine is functioning normally before commencing work and rectify wherever required
- PC19. report malfunctioning (fumes/sparks/emission/vibration/noise) and lapse in maintenance of equipment
- PC20. ensure electrical equipment and appliances are properly connected and turned off when not in use

Effective waste management practices

To be competent, the user/individual on the job must be able to:

- PC21. identify recyclable and non-recyclable, and hazardous waste generated
- PC22. segregate waste into different categories
- PC23. dispose non-recyclable waste appropriately
- PC24. deposit recyclable and reusable material at identified location
- PC25. follow processes specified for disposal of hazardous waste

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- KU1. organisation procedures for health, safety and security, and individual role and responsibilities in this context
- KU2. the organisations emergency procedures for different emergency situations and the importance of following the same
- KU3. evacuation procedures for workers and visitors
- KU4. how and when to report hazards as well as the limits of responsibility for dealing with hazards
- KU5. potential hazards, risks and threats based on the nature of work
- KU6. the implications of own work on the schedule and work of others
- KU7. efficient utilisation of material and water
- KU8. basics of electricity and prevalent energy efficient devices
- KU9. ways to recognise common electrical problems
- KU10. common practices of conserving electricity
- KU11. common sources of pollution and ways to minimize it
- KU12. categorisation of waste into dry, wet, recyclable, non-recyclable and items of single-use plastics
- KU13. usage of different colours of dustbins
- KU14. waste management and methods of waste disposal
- KU15. significance of greening
- KU16. organisation's policies to maintain personal health and hygiene at workplace

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1. read instructions/guidelines/standard operating procedures
- GS2. complete statutory documents relevant to safety and hygiene
- GS3. modify work practices to improve them
- GS4. ask for clarifications from superior about the job requirement
- GS5. work with supervisors/team members to carry out work related tasks
- GS6. complete tasks efficiently and accurately within stipulated time
- GS7. inform/report to concerned person in case of any problem
- GS8. make timely decisions for efficient utilization of resources
- GS9. write in at least one language and complete written work with attention to detail
- GS10. record data on waste disposal at workplace
- GS11. be punctual, utilize time and manage workload efficiently
- GS12. evaluate strategies to maintain, enhance or reduce the intensity of heightened emotional response

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Maintain safe and secure working environment</i>	8	4	-	3
PC1. organise work as per organisation's current health, safety and security policies and procedures	-	2	-	1
PC2. report any identified breaches in health, safety, and security policies and procedures to the designated person	3	1	-	-
PC3. identify the risks and hazards associated with work activities, their causes and prevention	5	1	-	2
<i>Perform work as per quality standards</i>	12	8	-	6
PC4. ensure work area is clean and tidy	4	2	-	-
PC5. ensure that work is accomplished as per the requirements within the specified timeline	6	4	-	2
PC6. ensure team goals are given preference over individual goals	2	2	-	4
<i>Health and hygiene</i>	12	8	-	5
PC7. sanitize workstation and equipment regularly	2	2	-	2
PC8. clean hands with soap, alcohol-based sanitizer regularly	2	1	-	-
PC9. avoid contact with ill people and self-isolate in a similar situation	2	1	-	-
PC10. wear and dispose PPEs regularly and appropriately	2	2	-	1
PC11. report advanced hygiene and sanitation issues to appropriate authority	2	2	-	2
PC12. follow stress and anxiety management techniques	2	-	-	-
<i>Material/energy conservation practices</i>	10	4	-	3
PC13. identify ways to optimise usage of material in various tasks/activities/processes	2	-	-	1

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC14. use resources, including water, in a responsible manner	2	-	-	-
PC15. check for spills/leakages in various tasks/activities/processes	-	1	-	-
PC16. plug spills/leakages and escalate to appropriate authority if unable to rectify	-	1	-	1
PC17. carry out routine cleaning of tools, machines and equipment	2	-	-	-
PC18. check if the equipment/machine is functioning normally before commencing work and rectify wherever required	-	1	-	1
PC19. report malfunctioning (fumes/sparks/emission/vibration/noise) and lapse in maintenance of equipment	2	1	-	-
PC20. ensure electrical equipment and appliances are properly connected and turned off when not in use	2	-	-	-
<i>Effective waste management practices</i>	8	6	-	3
PC21. identify recyclable and non-recyclable, and hazardous waste generated	2	-	-	1
PC22. segregate waste into different categories	-	2	-	-
PC23. dispose non-recyclable waste appropriately	2	2	-	1
PC24. deposit recyclable and reusable material at identified location	2	1	-	-
PC25. follow processes specified for disposal of hazardous waste	2	1	-	1
NOS Total	50	30	-	20

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N9801
NOS Name	Organize work and resources (Service)
Sector	Automotive
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	22/09/2020
Next Review Date	22/09/2025
NSQC Clearance Date	22/09/2020

ASC/N9802: Interact effectively with colleagues, customers and others

Description

This NOS unit is about communicating with customers and colleagues/superiors, either in own work group or in other work groups within organisation.

Scope

The scope covers the following :

- Communicate effectively with colleagues, customers and others
- Interact with supervisor or superior

Elements and Performance Criteria

Communicate effectively with colleagues, customers and others

To be competent, the user/individual on the job must be able to:

PC1. maintain clear communication with colleagues, customers and others, wherever needed, through all means i.e. face-to-face, telephonic or written

PC2. adjust communication styles to reflect gender and persons with disability (PWD) sensitivity

PC3. work in a way that shows respect for colleagues and others

PC4. follow the organisation's policies and procedures while working in a team

PC5. respect personal space of colleagues and customers

Interact with supervisor or superior

To be competent, the user/individual on the job must be able to:

PC6. identify work requirements by receiving instructions from reporting supervisor

PC7. escalate problems to supervisors that cannot be handled including repairs and maintenance of machine

PC8. report the completed work

PC9. rectify errors as per feedback

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. the importance of effective communication and establishing good working relationships with colleagues and supervisor

KU2. different methods of communication as per the circumstances

KU3. gender based concepts, issues and legislation

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1. read instructions/guidelines/procedures
- GS2. listen effectively and orally communicate information
- GS3. ask for clarification and advice from the concerned person
- GS4. maintain positive and effective relationships with colleagues and customers
- GS5. evaluate the possible solution(s) to the problem
- GS6. deliver consistent and reliable service to customers
- GS7. complete written work with attention to detail
- GS8. check that the work meets customer requirements

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Communicate effectively with colleagues, customers and others</i>	36	11	-	14
PC1. maintain clear communication with colleagues, customers and others, wherever needed, through all means i.e. face-to-face, telephonic or written	8	-	-	4
PC2. adjust communication styles to reflect gender and persons with disability (PwD) sensitivity	8	-	-	-
PC3. work in a way that shows respect for colleagues and others	7	4	-	3
PC4. follow the organisation's policies and procedures while working in a team	7	4	-	3
PC5. respect personal space of colleagues and customers	6	3	-	4
<i>Interact with supervisor or superior</i>	14	19	-	6
PC6. identify work requirements by receiving instructions from reporting supervisor	7	4	-	-
PC7. escalate problems to supervisors that cannot be handled including repairs and maintenance of machine	-	5	-	3
PC8. report the completed work	7	5	-	-
PC9. rectify errors as per feedback	-	5	-	3
NOS Total	50	30	-	20

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N9802
NOS Name	Interact effectively with colleagues, customers and others
Sector	Automotive
Sub-Sector	Generic
Occupation	Generic
NSQF Level	4
Credits	TBD
Version	1.0
Last Reviewed Date	22/09/2020
Next Review Date	22/09/2025
NSQC Clearance Date	22/09/2020

ASC/N1420: Perform routine servicing and minor repairs

Description

This NOS unit is about a two wheeler service technician carrying out routine service, repair and maintenance activities of various aggregates, including electrical and mechanical

Scope

The scope covers the following :

- Prepare for routine service, maintenance and minor repairs
- Perform routine service, maintenance and minor repairs
- Perform post service/repair activities

Elements and Performance Criteria

Prepare for routine service, maintenance and minor repairs

To be competent, the user/individual on the job must be able to:

- PC1. review the job card and understand the work to be carried out
- PC2. identify the auto component manufacturer specifications related to various components/aggregates in the vehicle
- PC3. inspect the components requiring replacement due to continuous wear and tear such as chain and chain sprocket, clutch cable, brake linings and pads etc.
- PC4. inspect the machining/repair done by outside source/local machining garages
- PC5. test ride the two wheeler vehicle to assess the requirement of calibration, other adjustments and repairs if any, in the electrical/mechanical aggregates
- PC6. use checklist for confirming routine servicing tasks and coordinate with superior for non-routine service or repair, if any
- PC7. collect workshop tools/equipment, spare parts and appropriate grade of lubricants, oils and grease required for the job
- PC8. report the malfunctions if any, in the tools/equipment to the person concerned for rectification

Perform routine service, maintenance and minor repairs

To be competent, the user/individual on the job must be able to:

- PC9. take precautions to avoid damage to the vehicle and its components while working on various aggregates
- PC10. check lubricants/fluids level and refill/top-up if required,
- PC11. use relevant computer based applications to find faults in the electronic system of engine, brake and other aggregates
- PC12. check for any repair requirements observed in the components/aggregates and systems (such as engine, gearbox etc.) while repairing/overhauling of braking or suspension systems and report the same to supervisor/service advisor for further inspection by other specialists
- PC13. remove, replace, and repair relevant parts in various aggregate of the vehicle as per OEM Standard Operating Procedure
- PC14. clean and condition dismantled parts/components, prior to reassembly

PC15. ensure completeness of tasks assigned before releasing the vehicle for the next procedure

PC16. maintain the documentation related to inspection, servicing, maintenance and repair of the vehicle

Perform post service/repair activities

To be competent, the user/individual on the job must be able to:

PC17. check the performance of vehicle/aggregate post repair and report to supervisor/service advisor if further inspection is required by another specialist

PC18. dispose off materials such as waste oil, scrap of failed parts/aggregates, as per organization's policies

PC19. return leftover consumable/parts, tools/equipment, and report if any malfunctions are observed to the person concerned

PC20. perform scheduled checks, calibration and timely repairs for workshop tools, equipment and workstations

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

KU1. about the Automotive Industry in India (particularly for two wheelers), workshop structure and role and responsibilities of different people in the workshop

KU2. SOPs regarding receiving vehicles, opening job card, allocation of work, invoicing, vehicle delivery, handling complaints etc.

KU3. different components/aggregates as well as auto component manufacturer specifications

KU4. various sources of information available for assessing service and repair requirements of the vehicle including diagnostic displays, visual inspections, test drives, vehicle/equipment manufacturer specifications, standard operating procedures etc.

KU5. standard schedules and checklists recommended by the OEM/auto component manufacturer for servicing of vehicles

KU6. Standard Operating Procedures recommended by OEM for using tools and equipment related to aggregates/components repair including use of pressure indicators: oil pressure gauges, tyre pressure gauges etc

KU7. safety precautions for equipment and components prescribed by the OEM such as preventing/dealing with oil spillage and inflammable materials

KU8. Standard Operating Procedures for servicing and minor repairing of vehicles as prescribed by the OEM

KU9. basic technology used in and functioning of various systems and components of the vehicle including engine and sub-assemblies such as carburetor and ignition coil

KU10. materials used for carrying out the job such as seals, sealants, fittings, gaskets, joints, fasteners etc

KU11. type and quality of consumables and components (e.g. filters, brake lining, brake pads etc.) specified by the OEM for use such as grade of lubricants

KU12. type of errors or defects in the tools/equipment

KU13. about computer based tools/equipment

KU14. faults and failures in engine, components/aggregates (including electrical and mechanical aggregates) and other units

- KU15.** importance of proper disposal of failed components and changed oil, lubricant, grease etc. in accordance with safety, health and environmental policies and regulations
- KU16.** symptoms that necessitate replacement of parts/aggregates.
- KU17.** safety, health and environmental policies and regulations for the work place as well as for automotive trade in general
- KU18.** documentation required on the job (including job cards, work sheets, etc.) regarding the basic details of repair, maintenance and service performed

Generic Skills (GS)

User/individual on the job needs to know how to:

- GS1.** read and interpret workplace related documentation
- GS2.** read various sources of information available for assessing service and repair requirements
- GS3.** analyse and apply the information gathered from observation, experience, reasoning or communication to act efficiently
- GS4.** plan and organise work according to the principles of 5S
- GS5.** write any work related information in English/regional language
- GS6.** communicate effectively using terms, names, grades and other nomenclature pertaining to the automotive trade, tools, specific workshop equipment etc. at the work place
- GS7.** identify potential workplace problem and take suitable action

Assessment Criteria

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
<i>Prepare for routine service, maintenance and minor repairs</i>	12	20	-	7
PC1. review the job card and understand the work to be carried out	2	2	-	-
PC2. identify the auto component manufacturer specifications related to various components/aggregates in the vehicle	2	3	-	1
PC3. inspect the components requiring replacement due to continuous wear and tear such as chain and chain sprocket, clutch cable, brake linings and pads etc.	-	5	-	1
PC4. inspect the machining/repair done by outside source/local machining garages	-	2	-	1
PC5. test ride the two wheeler vehicle to assess the requirement of calibration, other adjustments and repairs if any, in the electrical/mechanical aggregates	2	2	-	-
PC6. use checklist for confirming routine servicing tasks and coordinate with superior for non-routine service or repair, if any	2	2	-	2
PC7. collect workshop tools/equipment, spare parts and appropriate grade of lubricants, oils and grease required for the job	2	2	-	2
PC8. report the malfunctions if any, in the tools/equipment to the person concerned for rectification	2	2	-	-
<i>Perform routine service, maintenance and minor repairs</i>	10	21	-	9
PC9. take precautions to avoid damage to the vehicle and its components while working on various aggregates	2	2	-	-
PC10. check lubricants/fluids level and refill/top-up if required,	2	2	-	1

Assessment Criteria for Outcomes	Theory Marks	Practical Marks	Project Marks	Viva Marks
PC11. use relevant computer based applications to find faults in the electronic system of engine, brake and other aggregates	2	2	-	1
PC12. check for any repair requirements observed in the components/aggregates and systems (such as engine, gearbox etc.) while repairing/overhauling of braking or suspension systems and report the same to supervisor/service advisor for further inspection by other specialists	-	3	-	2
PC13. remove, replace, and repair relevant parts in various aggregate of the vehicle as per OEM Standard Operating Procedure	2	5	-	3
PC14. clean and condition dismantled parts/components, prior to reassembly	-	3	-	1
PC15. ensure completeness of tasks assigned before releasing the vehicle for the next procedure	-	2	-	-
PC16. maintain the documentation related to inspection, servicing, maintenance and repair of the vehicle	2	2	-	1
<i>Perform post service/repair activities</i>	8	9	-	4
PC17. check the performance of vehicle/aggregate post repair and report to supervisor/service advisor if further inspection is required by another specialist	2	2	-	-
PC18. dispose off materials such as waste oil, scrap of failed parts/aggregates, as per organization's policies	2	3	-	2
PC19. return leftover consumable/parts, tools/equipment, and report if any malfunctions are observed to the person concerned	2	2	-	-
PC20. perform scheduled checks, calibration and timely repairs for workshop tools, equipment and workstations	2	2	-	2
NOS Total	30	50	-	20

National Occupational Standards (NOS) Parameters

NOS Code	ASC/N1420
NOS Name	Perform routine servicing and minor repairs
Sector	Automotive
Sub-Sector	Automotive Vehicle Service
Occupation	Technical Service & Repair
NSQF Level	4
Credits	TBD
Version	2.0
Last Reviewed Date	22/09/2020
Next Review Date	22/09/2025
NSQC Clearance Date	22/09/2020

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council. Each Performance Criteria (PC) (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 centre (as per assessment criteria below).
4. Individual assessment agencies will create unique evaluations for skill practical for every student at each examination/ training centre based on these criteria.
5. In case of successfully passing only certain number of NOSs, the trainee is eligible to take subsequent assessment on the balance NOS's to pass the Qualification Pack.
6. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack

Recommended Pass % : 70

Assessment Weightage

Compulsory NOS

National Occupational Standards	Theory Marks	Practical Marks	Project Marks	Viva Marks	Total Marks	Weightage
ASC/N9801.Organize work and resources (Service)	50	30	-	20	100	15
ASC/N9802.Interact effectively with colleagues, customers and others	50	30	-	20	100	10
ASC/N1420.Perform routine servicing and minor repairs	30	50	0	20	100	75
Total	130	110	-	60	300	100

Acronyms

NOS	National Occupational Standard(s)
NSQF	National Skills Qualifications Framework
QP	Qualifications Pack
TVET	Technical and Vocational Education and Training
PwD	Person With Disability
OEM	Original Equipment Manufacturer

Glossary

Sector	Sector is a conglomeration of different business operations having similar business 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.
Job role	Job role defines a unique set of functions that together form a unique employment opportunity in an organisation.
Occupational Standards (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 (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts.
Performance Criteria (PC)	Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task.
National Occupational Standards (NOS)	NOS are occupational standards which apply uniquely in the Indian context.
Qualifications Pack (QP)	QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications 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.
Scope	Scope is a 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 quality of performance required.
Knowledge and Understanding (KU)	Knowledge and Understanding (KU) 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.

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.
Technical Knowledge	Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities.
Core Skills/Generic Skills (GS)	Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment 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.
Electives	Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives.
Options	Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options.