



Model Curriculum

QP Name: Automotive Body Repair Assistant

QP Code: ASC/Q1410

QP Version: 2.0

NSQF Level: 3

Model Curriculum Version: 1.0

Automotive Skill Development Council
Leela Building, 153 GF, Okhla Phase III, Okhla Industrial Area, New Delhi, Delhi 110020

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Training Parameters

Sector	Automotive
Sub-Sector	Automotive Vehicle Service
Occupation	Technical Service & Repair
Country	India
NSQF Level	3
Aligned to NCO/ISCO/ISIC Code	NCO-2015/7213.0301
Minimum Educational Qualification & Experience	8th Class OR Certificate-NSQF (Automotive Washer L2) with 2 years of relevant experience
Pre-Requisite License or Training	NA
Minimum Job Entry Age	18 years
Last Reviewed On	31/08/2021
Next Review Date	31/08/2024
NSQC Approval Date	31/08/2021
Version	2.0
Model Curriculum Creation Date	31/08/2021
Model Curriculum Valid Up to Date	31/08/2024
Model Curriculum Version	1.0
Minimum Duration of the Course	300 Hours, 0 Minutes
Maximum Duration of the Course	300 Hours, 0 Minutes

Program Overview

This section summarizes the end objectives of the program along with its duration.

Training Outcomes

At the end of the program, the learner should have acquired the listed knowledge and skills.

- Identify the role, responsibilities and scope of work of an automotive body repair assistant.
- Perform repair on vehicle body.
- Perform replacement of vehicle body components.
- Identify the repair requirements in vehicle due to external impact/collision.
- Manage work and resources according to safety and conservation standards.
- Communicate and develop interpersonal skills and also develop sensitization towards gender and person with disability.

Compulsory Modules

The table lists the modules and their duration corresponding to the Compulsory NOS of the QP.

NOS and Module Details	Theory Duration	Practical Duration	On-the-Job Training Duration (Mandatory)	On-the-Job Training Duration (Recommended)	Total Duration
Bridge Module	05:00	00:00	-	-	05:00
Module 1: Introduction to the role of Automotive Body Repair Assistant	05:00	00:00	-	-	05:00
ASC/N9801: Organize Work and Resources (Service) NOS Version No. 1.0 NSQF Level 4	15:00	30:00	-	-	45:00
Module 2: Work effectively and efficiently	09:00	15:00	-	-	24:00
Module 3: Optimize resource utilization	06:00	15:00	-	-	21:00
ASC/N9802: Interact Effectively with Colleagues, Customers and Others NOS Version No. 1.0 NSQF Level 4	15:00	25:00	-	-	40:00
Module 4: Communicate effectively and efficiently	15:00	25:00	-	-	40:00

ASC/N1419: Assist in automotive body repair service of a vehicle NOS Version No. 2.0 NSQF Level 3	60:00	150:00	-	-	210:00
Module 4 : Perform the repair on damaged vehicle	60:00	150:00	-	-	210:00
Total Duration	95:00	205:00	-	-	300:00

Module Details

Module 1- Introduction to the Role of Automotive Body Repair Assistant

Bridge Module

Terminal Outcomes:

- Identify the role, responsibilities and scope of work of an automotive body repair assistant.
- Identify the importance of following process, policies, and procedures.

Duration: 05:00	Duration: 0:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none">• Describe the role and responsibilities of an automotive body repair assistant.• Identify the errands and activities needed to assist senior technicians such as fetching parts, tools, gauges, etc.• List the basics of assisting in moving and parking a 4-wheeler vehicle.• Identify the various parts / components (in and out) of vehicle chassis/body.• Identify the different locations of the workshops w.r.t platforms for service, repair, maintenance, washing, etc.• List the activities to be performed for maintaining / managing the workshop, including tools and equipment.• List the standard operating procedures (SOP) to be followed for service and minor repairs.• Identify the documentation involved in the process from service to delivery such as job sheet, status report, etc.	
Classroom Aids:	
Laptop, white board, marker, projector	
Tools, Equipment and Other Requirements	
PPE kit, job card, protective covers of vehicle, hand tools, dent pullers and dent pulling equipment, sanding tools, new body panel, spare parts, hammer and dolly, etc.	

Module 2 - Work Effectively and Efficiently

Mapped to NOS ASC/N9801 v1.0

Terminal Outcomes:

- Employ appropriate ways to maintain a safe and secure working environment.
- Perform work as per the quality standards.

Duration: <09:00>	Duration: <15:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Outline the organizational structure to be followed to report about health, safety and security breaches to the concerned authorities. • List the potential workplace related risks and hazards, their causes and preventions. • State the methods to keep the work area clean and tidy. • Discuss how to complete the given work within the stipulated time period. • Explain how to maintain a proper balance between team and individual goals. • Discuss epidemics and pandemics and their impact on society at large. • Discuss the significance of conforming to basic hygiene practices such as washing hands, using alcohol-based hand sanitizers. • Discuss the use of proper PPE for maintaining health and hygiene at workplace and the process of wearing/discarding them. • Define self-quarantine or self-isolation. • Discuss the importance of identifying and reporting symptoms to the concerned authorities. • Explain the significance of following prescribed rules and guidelines during an epidemic or a pandemic. • Discuss organizational hygiene and sanitation guidelines and ways of reporting breaches/gaps if any. • Discuss the ways of dealing with stress and anxiety during an epidemic or a pandemic. 	<ul style="list-style-type: none"> • Perform routine cleaning of tools, equipment and machines. • Employ various techniques for checking malfunctions in the equipment as per Standard Operating Procedure (SOP). • Apply basic housekeeping practices to ensure that the work area is clean, such as mopping spills and leaks, cleaning grease stains etc. • Demonstrate how to evacuate the workplace in case of an emergency. • Show how to sanitize and disinfect one's work area regularly. • Demonstrate the correct way of washing hands using soap and water. • Demonstrate the correct way of sanitizing hands using alcohol-based hand rubs. • Display the correct way of wearing and removing PPE such as face masks, hand gloves, face shields, PPE suits, etc. • Demonstrate appropriate social and behavioural etiquette (greeting and meeting people, spitting/coughing/sneezing, etc.). • Prepare a list of relevant hotline/emergency numbers.
Classroom Aids:	
White board/black board marker/chalk, duster, computer or Laptop attached to LCD projector	
Tools, Equipment and Other Requirements	

Personal Protection Equipment: safety glasses, head protection, rubber gloves, safety footwear, warning signs and tapes, fire extinguisher and first aid kit
Sanitization kit, disinfectants, alcohol-based sanitizers, different types of face masks, shields, suits, etc.

Module 3 - Optimize Resource Utilization

Mapped to NOS ASC/N9801 v1.0

Terminal Outcomes:

- Use the resources efficiently.
- Apply conservation practices at the workplace.

Duration: <06:00>	Duration: <15:00>
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> ● Explain the ways to optimize usage of re-sources. ● Discuss various methods of waste management and its disposal. ● List the different categories of waste for the purpose of segregation ● Differentiate between recyclable and non-recyclable waste ● State the importance of using appropriate colour dustbins for different types of waste. ● Discuss the common sources of pollution and ways to minimize it. 	<ul style="list-style-type: none"> ● Perform basic checks to identify any spills and leaks and that need to be plugged /stopped. ● Demonstrate different disposal techniques depending upon different types of waste. ● Employ different ways to check if equipment/machines are functioning as per requirements and report malfunctioning, if observed. ● Employ ways for efficient utilization of material and water ● Use energy efficient electrical appliances and devices to ensure energy conservation
Classroom Aids:	
White board/black board marker/chalk, duster, computer or Laptop attached to LCD projector	
Tools, Equipment and Other Requirements	
Different type of waste bins to collect and segregate waste for disposal	

Module 3 - Communicate Effectively and Efficiently

Mapped to NOS ASC/N9802 v1.0

Terminal Outcomes:

- Use effective communication and interpersonal skills.
- Apply sensitivity while interacting with different genders and people with disabilities.

Duration: 15:00	Duration: 25:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Explain the importance of complying with organizational requirements to share information with team members. • Discuss the ways to adjust the communication styles to reflect sensitivity towards gender and persons with disability (PwD). • Explain the importance of respecting personal space of colleagues and customers. • Describe the ways to manage and coordinate with team members for work integration. • State the importance of team goals over individual goals, keeping commitment made to team members, and informing them in case of delays. • Discuss the importance of following the organisation's policies and procedures • Describe the importance of rectifying errors as per feedback and minimizing mistakes. • Discuss gender based concepts, issues and legislation as well organization standards, guidelines, rights and duties w.r.t. PwD. • Discuss the importance of PwD and gender sensitization to ensure that team shows sensitivity towards them. • Discuss organisation standards and guidelines for PwD. • Recall the rights and duties at workplace with respect to PwD. • Outline organisation policies and procedures pertaining to written and verbal communication. 	<ul style="list-style-type: none"> • Employ different means and methods of communication depending upon the requirement to interact with the team members. • Employ appropriate ways to maintain good relationships with team members and superiors. • Apply appropriate techniques to resolve conflicts and manage team members for smooth workflow. • Illustrate steps to train the team members to report completed work and receive feedback. • Employ suitable ways to escalate problems to superiors as and when required. • Prepare a sample report on the progress and team performance. • Demonstrate how to help different genders and persons with disability (PwD) overcome challenges
Classroom Aids:	
White board/black board marker/chalk, duster, computer or Laptop attached to LCD projector	
Tools, Equipment and Other Requirements	

Module 4 - Perform the repair on damaged vehicle

Mapped to NOS ASC/N1419, v2.0

Terminal Outcomes:

- Assist the senior technician in auto body repair service of a vehicle.
- Assist in identifying the damage and replacement of the damaged vehicle components.

Duration: 60:00	Duration: 150:00
Theory – Key Learning Outcomes	Practical – Key Learning Outcomes
<ul style="list-style-type: none"> • Identify the job card and the scope of work. • Describe about the Automotive Industry in India, workshop structure and role and responsibilities of different people in the workshop. • Explain the SOPs regarding receiving vehicles, opening job card, allocation of work, invoicing, vehicle delivery, handling complaints etc. • Describe the various body parts and panels of the vehicle. • Identify various consumable/material like seam sealers, abrasives, hand tools, manual and electric dent pullers, etc., and body panels. • Describe the type of sheet metal damage/defects their cause, prevention and rectification. • Describe the maintenance of required documentation. • Identify the different types of tools like hand tools, sandpaper, dent pullers and dent pulling equipment, sanding tools, etc. and its functions. • Describe the importance of inspection of surface finish post repair and report to supervisor/service advisor in case of any discrepancy. • Identify the requirement of different types of panels, spare parts and consumables to check and fix the vehicle. • Describe how to make reports of malfunctioning or repair beyond own scope to the concerned person for rectification. • Describe the importance of organized equipment and clean environment. • Explain the importance of safe and secure preventive measures like wearing PPE. • Describe the precautions to work on body panels to avoid damage to vehicle and its components. 	<ul style="list-style-type: none"> • Illustrate the inspection to assess any damage to the vehicle. • Demonstrate how to position the vehicle on a platform. • Perform the positioning of protective covers over seat, steering and gear knob. • Demonstrate how to assess damage from different viewing angles by using different methods like touch and feel method. • Demonstrate how to use the tools. • Demonstrate the replacement of panels and other spare parts. • Demonstrate how to work on others parts to avoid damage to vehicle and its components. • Demonstrate the removal of upholstery, accessories, electrical window-and-seat-operating mechanism, trims, etc. to access body panels and place them securely. • Demonstrate the usage of suitable abrasive and sanding tools to remove paint beyond the damaged area by 1 – 2 inch. • Demonstrate the different types of technique to use equipment to fix dents, dimples and bulge in body metal. • Demonstrate the mixing procedure of body fillers/ putty as per recommended ratio. • Demonstrate the application of body fillers using spatula within feather edged area, cure and sand as specified by OEM. • Illustrate the application of various body seam sealers as specified by OEM.

- Describe the code of ethics and standards of practice.
- Describe different types of technique and methods like rust prevention techniques, feather edging techniques, shrinking method, washer welding etc.to fix damage smoothly.
- Identify the activities to be performed to protect the surface surrounding the damaged area prior to repair procedure.
- Describe the importance of rechecking and ensuring the completeness of tasks before releasing the vehicle for the next procedure.
- Explain the procedure of disposing of the waste material such as old abrasive paper, empty cans/tube etc., scrap of damage parts/panels as per organization's policies.
- Perform the return leftover consumable/parts, tools/equipment to the person concerned and report if any malfunction observed.

Classroom Aids:

Laptop, white board, marker, projector

Tools, Equipment and Other Requirements

PPE kit, job card, protective covers of vehicle, hand tools, dent pullers and dent pulling equipment, sanding tools, new body panel, spare parts, hammer and dolly,etc.

Annexure

Trainer Requirements

Trainer Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
ITI	Mechanic Motor Vehicle	3	Four Wheeler Service	1	Four Wheeler Service	NA
ITI	Mechanic Motor Vehicle	4	Four Wheeler Service	0	Four Wheeler Service	NA
Diploma	Automobile Engineering/ Mechanical Engineering	2	Four Wheeler Service	1	Four Wheeler Service	NA
Diploma	Automobile Engineering/ Mechanical Engineering	3	Four Wheeler Service	0	Four Wheeler Service	NA
Certificate- NSQF Level 5	Two/Four Wheeler Lead Technician	3	Four Wheeler Service	1	Four Wheeler Service	NA

Trainer Certification	
Domain Certification	Platform Certification
Certified for Job Role: “Automotive Body Repair Assistant” mapped to QP: “ASC/Q1410”, minimum accepted score is 80%.	Recommended that the Trainer is certified for the Job Role: “Trainer”, mapped to the Qualification Pack: “MEP/Q2601”, minimum accepted score is 80%.

Assessor Requirements

Assessor Prerequisites						
Minimum Educational Qualification	Specialization	Relevant Industry Experience		Training Experience		Remarks
		Years	Specialization	Years	Specialization	
ITI	Mechanic Motor Vehicle	4	Four Wheeler Service	1	Four Wheeler Service	NA
ITI	Mechanic Motor Vehicle	5	Four Wheeler Service	0	Four Wheeler Service	NA
Diploma	Automobile Engineering/ Mechanical Engineering	3	Four Wheeler Service	1	Four Wheeler Service	NA
Diploma	Automobile Engineering/ Mechanical Engineering	4	Four Wheeler Service	0	Four Wheeler Service	NA
Certificate- NSQF Level 5	Two/Four Wheeler Master Technician	4	Four Wheeler Service	1	Four Wheeler Service	NA

Assessor Certification	
Domain Certification	Platform Certification
Certified for Job Role: "Automotive Body Repair Assistant" mapped to QP: "ASC/Q1410", minimum accepted score is 80%.	Recommended that the Assessor is certified for the Job Role: "Assessor", mapped to the Qualification Pack: "MEP/Q2701".

1. Assessment System Overview:

- Batches assigned to the assessment agencies for conducting the assessment on SDSM/SIP or email
- Assessment agencies send the assessment confirmation to VTP/TC looping SSC
- Assessment agency deploys the ToA certified Assessor for executing the assessment
- SSC monitors the assessment process & records

2. Testing Environment:

- Confirm that the centre is available at the same address as mentioned on SDMS or SIP
- Check the duration of the training.
- Check the Assessment Start and End time to be as 10 a.m. and 5 p.m.
- If the batch size is more than 30, then there should be 2 Assessors.
- Check that the allotted time to the candidates to complete Theory & Practical Assessment is correct.
- Check the mode of assessment—Online (TAB/Computer) or Offline (OMR/PP).
- Confirm the number of TABs on the ground are correct to execute the Assessment smoothly.
- Check the availability of the Lab Equipment for the particular Job Role.

3. Assessment Quality Assurance levels / Framework:

- Question papers created by the Subject Matter Experts (SME)
- Question papers created by the SME verified by the other subject Matter Experts
- Questions are mapped with NOS and PC
- Question papers are prepared considering that level 1 to 3 are for the unskilled & semi-skilled individuals, and level 4 and above are for the skilled, supervisor & higher management
- Assessor must be ToA certified & trainer must be ToT Certified
- Assessment agency must follow the assessment guidelines to conduct the assessment

4. Types of evidence or evidence-gathering protocol:

- Time-stamped & geotagged reporting of the assessor from assessment location
- Centre photographs with signboards and scheme specific branding
- Biometric or manual attendance sheet (stamped by TP) of the trainees during the training period
- Time-stamped & geotagged assessment (Theory + Viva + Practical) photographs & videos

5. Method of verification or validation:

- Surprise visit to the assessment location

- Random audit of the batch
- Random audit of any candidate

6. Method for assessment documentation, archiving, and access

- Hard copies of the documents are stored
- Soft copies of the documents & photographs of the assessment are uploaded / accessed from Cloud Storage
- Soft copies of the documents & photographs of the assessment are stored in the Hard Drives

References

Glossary

Term	Description
Declarative Knowledge	Declarative knowledge refers to facts, concepts and principles that need to be known and/or understood in order to accomplish a task or to solve a problem.
Key Learning Outcome	Key learning outcome is the statement of what a learner needs to know, understand and be able to do in order to achieve the terminal outcomes. A set of key learning outcomes will make up the training outcomes. Training outcome is specified in terms of knowledge, understanding (theory) and skills (practical application).
OJT (M)	On-the-job training (Mandatory); trainees are mandated to complete specified hours of training on site
OJT (R)	On-the-job training (Recommended); trainees are recommended the specified hours of training on site
Procedural Knowledge	Procedural knowledge addresses how to do something, or how to perform a task. It is the ability to work, or produce a tangible work output by applying cognitive, affective or psychomotor skills.
Training Outcome	Training outcome is a statement of what a learner will know, understand and be able to do upon the completion of the training .
Terminal Outcome	Terminal outcome is a statement of what a learner will know, understand and be able to do upon the completion of a module . A set of terminal outcomes help to achieve the training outcome.

Acronyms and Abbreviations

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