

National Occupational Standards: Roadside Assistance

NOS G1 – Contribute to Housekeeping in Motor Vehicle Environments

NOS OVERVIEW

This NOS is about the routine maintenance of the workplace, carrying out basic, non-specialist checks of work tools and equipment, cleaning the work area and using resources economically.

SCOPE OF THIS NOS:

1. **Equipment maintenance** covers
 - a. routine checks on work tools and equipment
 - b. cleaning work tools and equipment
 - c. replacing minor parts
 - d. visual inspection of electrical equipment
2. **Housekeeping activities** cover
 - a. day to day work area cleaning
 - b. clearing away
 - c. dealing with spillages
 - d. disposal of waste, used materials and debris
3. **Work tools and equipment** are
 - a. hand
 - b. electrical
 - c. mechanical
 - d. pneumatic
 - e. hydraulic

ESSENTIAL KNOWLEDGE

You need to understand:

Legislative and organisational requirements and procedures

1. the scope of your job responsibilities for the use and maintenance of hand tools, equipment and your work area.
2. workplace policies and schedules for **housekeeping activities** and **equipment maintenance**.
3. the manufacturer's requirements for the cleaning and general, non-specialist maintenance of the tools and equipment for which you are responsible.
4. the regulations and information sources applicable to workshop cleaning and maintenance activities for which you are responsible.
5. the importance of reporting faults quickly to the relevant person.
6. the importance of reporting anticipated delays to the relevant person(s) promptly.

Equipment maintenance

7. how to select and use equipment used for basic hand tool maintenance activities.
8. how to store hand tools safely and accessibly.
9. how to report faulty or damaged **work tools and equipment**.
10. how to work safely when cleaning and maintaining **work tools and equipment**.

General work area housekeeping

11. how to select and use cleaning equipment
12. how to use resources economically.
13. how to use work area cleaning materials and agents.
14. how to clean and maintain the **work tools and equipment** and work areas for which you are responsible.
15. how to dispose of unused cleaning agents, materials and debris.
16. the properties and hazards associated with the use of cleaning agents and materials.
17. the importance of wearing personal protective equipment.
18. the importance of using resources economically and for their intended purpose only.

PERFORMANCE OBJECTIVES

To be competent you must:

- a. wear suitable personal protective equipment throughout all **housekeeping and equipment maintenance activities**.
- b. select and use cleaning equipment which is:
 - of the right type
 - suitable for the task.
- c. use resources economically and for their intended purpose only, following manufacturers' instructions and workplace procedures.
- d. follow workplace policies, schedules and manufacturers' instructions when cleaning and maintaining hand tools and equipment.
- e. clean the work area(s), for which you are responsible, at the specified time and frequency.
- f. carry out **housekeeping activities** safely and in a way which minimises inconvenience to customers and staff.
- g. follow the manufacturer's instructions when using cleaning and sanitising agents.
- h. ensure your **housekeeping activities** keep your work area clean and free from debris and waste materials.
- i. ensure your **equipment maintenance** activities keep your **work tools and equipment** fit for purpose.
- j. dispose of used cleaning agents, materials and debris to comply with legal and workplace requirements.
- k. store your **work tools and equipment** in a safe manner which permits ease of access and identification for use.
- l. report any faulty or damaged tools and equipment to the relevant person(s) clearly and promptly.
- m. report any anticipated delays in completion to the relevant person(s) promptly.

NOS G2 – Reduce Risks to Health and Safety in the Motor Vehicle Environment

NOS OVERVIEW

This NOS covers the basic, legally required health and safety duties of everyone in the workplace. It describes the competence required to ensure that:

- our own actions do not create any health and safety risks
- you do not ignore significant risks in your workplace, and
- you take sensible action to put things right, including reporting situations which pose a danger to people in the workplace, and seeking advice from others

This NOS does **not** require you to undertake a full Risk Assessment. It is about having an appreciation of significant risks in the workplace and knowing how to identify them and deal with them.

When you have completed this NOS, you will have proved you can:

1. Identify hazards and evaluate risks in your workplace
2. Reduce the risks to health and safety in your workplace

SCOPE OF THIS NOS:

1. Risks resulting from

- a. the use and maintenance of machinery or equipment
- b. the use of materials or substances
- c. working practices which do not conform to laid down policies
- d. unsafe behaviour
- e. accidental breakages and spillages
- f. environmental factors
- g. working at height
- h. lifting operations and manual handling
- i. incorrect use of personal protective equipment

2. Workplace policies covering

- a. the use of safe working methods and equipment
- b. the safe use of hazardous substances
- c. smoking, eating, drinking and drugs
- d. what to do in the event of an emergency
- e. personal presentation
- f. personal protective equipment
- g. lifting operations and manual handling
- h. working at height
- i. mobile phones and personal stereo equipment

ESSENTIAL KNOWLEDGE

You need to understand:

Health and Safety Legislation and Workplace Policies

1. your legal duties for health and safety in the workplace as required by the Health and Safety at Work Act 1974, and any other policies or procedures that govern your working practices.
2. your duties for health and safety as defined by any specific legislation covering your job role.
3. **agreed workplace policies relating to controlling risks to health and safety.**
4. responsibilities for health and safety in your job description.
5. the responsible persons to whom you report health and safety matters.

Risks to Health and Safety

6. what hazards may exist in your workplace, (eg. Slips, trips and falls).
7. health and safety risks which may be present in your own job role and the precautions you must take.
8. the importance of remaining alert to the presence of hazards in the whole workplace.
9. how to deal with and report risks.
10. the importance of dealing with or promptly reporting risks.
11. the requirements and guidance on the precautions.
12. the specific workplace policies covering your job role.
13. suppliers' and manufacturers' instructions for the safe use of equipment, materials and products.
14. safe working practices for your own job role.
15. the importance of personal presentation in maintaining health and safety in the workplace.
16. the importance of personal conduct in maintaining the health and safety of yourself and others.
17. the importance of personal protective equipment, when and where it should be used and the importance of maintaining it correctly.
18. your scope and responsibility for rectifying risks.
19. workplace procedures for handling risks which you are unable to deal with.

PERFORMANCE OBJECTIVES

To be competent you must:

- a carry out your working practices in accordance with legal requirements.
- b identify the correct personal and vehicle protective equipment required to correctly carry out your workplace practices.
- c carry out your workplace practices using the correct personal protective equipment.
- d follow the most recent **workplace policies** for your job role.
- e rectify health and safety **risks** that are within your capability and scope of your job responsibilities.
- f pass on any suggestions for reducing **risks** to health and safety within your job role to the responsible persons.

- g ensure your personal conduct in the workplace does not endanger the health and safety of yourself or other persons.
- h follow the **workplace policies** and suppliers' or manufacturers' instructions for the safe use of equipment, materials and products.
- i report any differences between **workplace policies** and suppliers' or manufacturers' instructions as appropriate.
- j ensure your personal presentation at work:
 - ensures the health and safety of yourself and others,
 - meets any legal duties, and
 - is in accordance with workplace policies

NOS G3 – Maintain Working Relationships in the Motor Vehicle Environment

NOS OVERVIEW

This NOS is about maintaining good working relationships with all colleagues in the working environment by using effective communication and support skills.

SCOPE OF THIS NOS:

1. **Colleagues** are
 - a. immediate work colleagues
 - b. supervisors and managers
2. **Requests for assistance** covering
 - a. technical assistance
 - b. personal assistance

ESSENTIAL KNOWLEDGE

You need to understand:

Your responsibilities and constraints

1. your own and your colleague's job role and limits of responsibility for giving advice and support.
2. the operational constraints which may affect interaction with colleagues.
3. lines of communication within your workplace.

Communication skills and working relationships

4. how to use suitable and effective spoken communication skills when responding to and interacting with others.
5. how to adapt written and spoken communication methods to satisfy the needs of colleagues.
6. how to report problems using written and spoken methods of communication.
7. the importance of developing positive working relationships with colleagues – the effect on morale, productivity, and company image.
8. the importance of accepting other peoples' views and opinions.
9. the importance of making and honouring realistic commitments to colleagues.

PERFORMANCE OBJECTIVES

To be competent you must:

- a. contribute actively to team working by initiating ideas and co-operating with colleagues.
- b. respond promptly and willingly to requests for assistance from **colleagues** which fall within the limits of your own job responsibilities and capabilities.
- c. where requests fall outside your responsibility and capability, refer colleagues to the relevant person(s).
- d. give colleagues sufficient, accurate information and support to meet their work needs.
- e. make **requests for assistance** to **colleagues** clearly and courteously.
- f. use methods of communication which meet the needs of colleagues.
- g. treat colleagues in a way which shows respect for their views and opinions and promotes goodwill.
- h. make and keep achievable commitments to **colleagues**
- i.. inform colleagues promptly of any problems or information likely to affect their own work.

NOS G4 – Use of hand tools and equipment in Motor Vehicle Engineering

NOS OVERVIEW

This NOS is about the basic use of tools, materials and fabrications relevant to the Automotive Sector.

This NOS is about:

- interpreting information
- adopting safe and healthy working practices
- selecting materials and equipment

This NOS is those working in technical support roles. It is also appropriate for workshop planners.

ESSENTIAL KNOWLEDGE

You must know and understand:

1. The organisational procedures developed to report and rectify inappropriate information and unsuitable resources, and how they are implemented.
2. The types of information, their source and how they are interpreted.
3. The organisational procedures to solve problems with the information and why it is important they are followed.
4. The level of understanding operatives must have of information for relevant, current legislation and official guidance and how it is applied.
5. What the accident reporting procedures are and who is responsible for making the reports.
6. Why and when personal protective equipment (PPE) should be used.
7. Why disposal of waste should be carried out safely and how it is achieved
8. Demonstrate an understanding of material properties
9. Investigate the use of materials and fabrication
10. how to file, fit, tap, thread, cut and drill plastics and metals
11. how to select and use gaskets, sealants, seals, fittings and fasteners

PERFORMANCE OBJECTIVES

You must be able to:

- a. Interpret the given information relating to the work and resources to confirm its relevance
- b. Carry out pre-start preparation inspections on power tools and equipment in accordance with approved procedures
- c. Carry out operations using power tools and equipment in accordance with safe working practices to achieve the work outcome
- d. Identify problems associated with power tools and equipment which need to be referred to authorised personnel
- e. Demonstrate work skills to:
 - measure, mark out, file, fit, tap, thread, cut, drill, finish, position and secure.

- f. Use and maintain:
 - hand tools
 - ancillary equipment
 - safety aids
- g. Disposal of waste in accordance with legislation to maintain a clean work space
- h. Checks carried out in accordance with manufacturer's/operator's guidance, legislation and official guidance and
- i. organisational requirements
- j. Demonstrate work skills to select correct materials and fabrication for project

NOS G11 - Supervisory Skills

(Imported MSC unit)

NOS OVERVIEW

This NOS is about ensuring that the work required in your area of responsibility is effectively planned and fairly allocated to individuals and/or teams. It also involves monitoring the progress and quality of the work of individuals and/or teams to ensure that the required level or standard of performance is being met and reviewing and updating plans of work in the light of developments.

The 'area of responsibility' may be, for example, a branch or department or functional area or an operating site within an organisation.

The NOS is recommended for first line managers and middle managers.

Skills

Listed below are the main generic 'skills' which need to be applied in allocating and monitoring the progress and quality of work in your area of responsibility. These skills are explicit/implicit in the detailed content of the NOS and are listed here as additional information.

-
- Communicating
- Consulting
- Decision making
- Delegating
- Information management
- Leadership
- Managing conflict
- Monitoring
- Motivating
- Planning
- Problem solving
- Providing feedback
- Prioritising
- Reviewing
- Setting objectives
- Stress management
- Valuing and supporting others.

ESSENTIAL KNOWLEDGE

You need to know and understand the following:

1. How to select and successfully apply different methods for communicating with people across an area of responsibility.
2. The importance of confirming/clarifying the work required in your area of responsibility with your manager and how to do this effectively.

3. How to identify and take due account of health and safety issues in the planning, allocation and monitoring of work.
4. How to produce a plan of work for your area of responsibility, including how to identify any priorities or critical activities and the available resources.
5. How to identify sustainable resources and ensure their effective use when planning the work for your area of responsibility.
6. The importance of seeking views from people working in your area and how to take account of their views in producing the plan of work.
7. The values, ethics, beliefs, faith, cultural conventions, perceptions and expectations of any team members from a different country or culture and how your own values, ethics, beliefs, faith, cultural conventions, perceptions, expectations, use of language, tone of voice and body language may appear to them.
8. Why it is important to allocate work to individuals and/or teams on a fair basis and how to do so effectively.
9. Why it is important that individuals and/or teams are briefed on allocated work and the standard or level of expected performance and how to do so effectively.
10. The importance of showing individuals and/or teams how their work fits with the vision and objectives of the area and those of the organisation.
11. Ways of encouraging individuals and/or teams to ask questions and/or seek clarification in relation to the work which they have been allocated.
12. Effective ways of regularly and fairly monitoring the progress and quality of work of individuals and/or teams against the standards or level of expected performance.
13. How to provide prompt and constructive feedback to individuals and/or teams.
14. Why it is important to monitor your area for conflict and how to identify the cause(s) of conflict when it occurs and deal with it promptly and effectively How to take account of diversity and inclusion issues when supporting and encouraging individuals and/or teams to complete the work they have been allocated.
15. Why it is important to identify unacceptable or poor performance by individuals and/or teams and how to discuss the cause(s) and agree ways of improving performance with them.
16. The type of problems and unforeseen events that may occur and how to support individuals and/or teams in dealing with them.
17. The additional support and/or resources which individuals and/or teams might require to help them complete their work and how to assist in providing this.
18. How to select and successfully apply different methods for encouraging, motivating and supporting individuals and/or teams to complete the work they have been allocated, improve their performance and for recognising their achievements .
19. How to log information on the ongoing performance of individuals and/or teams and use this information for formal performance appraisal purposes

Industry/sector specific knowledge and understanding

20. Industry/sector requirements for the development or maintenance of knowledge, understanding and skills.
21. Industry/sector specific legislation, regulations, guidelines, codes of practice relating to carrying out work.

PERFORMANCE OBJECTIVES

You must be able to do the following:

- a. Confirm the work required in your area of responsibility with your manager and seek clarification, where necessary, on any outstanding points and issues.
- b. Plan how the work will be undertaken, seeking views from people in your area of responsibility, identifying any priorities or critical activities and making best use of the available resources.
- c. Ensure that work is allocated to individuals and/or teams on a fair basis taking account of skills, knowledge and understanding, experience and workloads and the opportunities for development.
- d. Ensure that individuals and/or teams are briefed on allocated work, showing how it fits with the vision and objectives for the area and the overall organisation, and the standard or level of expected performance.
- e. Recognise and seek to find out about differences in expectations and working methods of any team members from a different country or culture and promote ways of working that take account of their expectations and maximise productivity.
- f. Encourage individuals and/or team members to ask questions, make suggestions and seek clarification in relation to allocated work.
- g. Monitor the progress and quality of the work of individuals and/or teams on a regular and fair basis against the standard or level of expected performance and provide prompt and constructive feedback.
- h. Support individuals and/or teams in identifying and dealing with problems and unforeseen events.
- i. Motivate individual and/or teams to complete the work they have been allocated and provide, where requested and where possible, any additional support and/or resources to help completion.
- j. Monitor your area for conflict, identifying the cause(s) when it occurs and dealing with it promptly and effectively.
- k. Identify unacceptable or poor performance, discuss the cause(s) and agree ways of improving performance with individuals and/or teams.
- l. Recognise successful completion of significant pieces of work or work activities by individuals and/or teams.
- m. Use information collected on the performance of individuals and/or teams in any formal appraisals of performance.
- n. Review and update plans of work for your area, clearly communicating any changes to those affected.

NOS G12 – Developing Staff

(Imported MSC unit D8)

NOS OVERVIEW

This NOS is about helping members of your team address problems affecting their performance. These may be work-related problems or problems arising from their personal circumstances.

The NOS involves identifying problems affecting people's performance and discussing these in a timely way with the team members concerned to help them find a suitable solution to their problem. Sometimes you may need to refer the team member to specialist support services.

The NOS is recommended particularly for first line managers and middle managers.

Skills

Listed below are the main generic 'skills' which need to be applied in helping team members address problems affecting their performance. These skills are explicit/implicit in the detailed content of the NOS and are listed here as additional information.

- Acting assertively
- Communicating
- Consulting
- Decision-making
- Empathising
- Information management
- Managing conflict
- Monitoring
- Problem solving
- Providing feedback
- Reviewing
- Setting objectives
- Team building
- Valuing and supporting others.

ESSENTIAL KNOWLEDGE

You need to know and understand the following:

1. The importance in giving team members opportunities to approach you with problems affecting their performance.
2. How to encourage team members to approach you with problems affecting their performance.
3. The importance of identifying performance issues and bringing these promptly to the attention of the team members concerned.
4. The importance of discussing problems with team members at a time and place appropriate to the type, seriousness and complexity of the problem.
5. How to gather and check the information you need to identify the problem and its cause.
6. The importance of identifying the problem accurately.
7. The range of alternative courses of action to deal with the problem.
8. The importance of discussing and agreeing with the team member a timely and effective way of dealing with the problem.
9. When to refer the team member to support services or specialists.
10. The importance of keeping a confidential record of your discussions with team members about problems affecting their performance, and how to do so.
11. The importance of ensuring your actions are in line with your organisation's policies for managing people and their performance.

Industry/sector specific knowledge and understanding

12. Industry/sector requirements for helping team members address problems affecting their performance.

Context specific knowledge and understanding

13. The types of problems that your team members may encounter which can affect their performance.
14. Your role, responsibilities and limits of authority when dealing with team members' problems.
15. The range of support services or specialists that exist inside and outside your organisation.
16. Your organisation's policies for managing people and their performance.

PERFORMANCE OBJECTIVES

You must be able to do the following:

- a. Give team members opportunities to approach you with problems affecting their performance.
- b. Identify performance issues and bring these promptly to the attention of the team members concerned.
- c. Discuss problems with team members at a time and place appropriate to the type, seriousness and complexity of the problem.
- d. Gather and check information to accurately identify the problem and its cause.
- e. Discuss the range of alternative courses of action and agree with the team member a timely and effective way of dealing with the problem.
- f. Refer the team member to support services or specialists, where necessary.

- g. Keep a confidential record of your discussions with team members about problems affecting their performance.
- h. Ensure your actions are in line with your organisation's policies for managing people.

NOS G13 – Business Management

(Imported MSC unit F3)

NOS OVERVIEW

This NOS is about managing business processes to make sure the organisation delivers outputs that meet customers' needs and stakeholders' needs, and organisational and legal requirements.

The NOS is recommended for middle managers.

Skills

Listed below are the main generic 'skills' which need to be applied in managing business processes. These skills are explicit/implicit in the detailed content of the NOS and are listed here as additional information.

- Communicating
- Information management
- Analysing
- Assessing
- Presenting information
- Influencing
- Persuading
- Negotiating
- Problem solving
- Prioritising
- Thinking systematically
- Thinking creatively
- Reviewing

ESSENTIAL KNOWLEDGE

You need to know and understand the following:

1. Principles and models of effective process management.
2. How to define business processes.
3. Types of business process measures and how to assess their suitability.
4. How to ensure processes and resources are sustainable and effective in their use and the importance of doing so.
5. The difference between process outputs and outcomes.
6. How to assess process changes for risk and reward against their potential investment cost.
7. How to carry out cost and benefit analysis.
8. Types of analytical and problem-solving tools that you can use when developing business processes.
9. How to measure the effect of changes in the business process.

Industry/sector specific knowledge and understanding

10. The sector and market in which your organisation works.
11. Relevant sector trends, developments and competitor performance that affect your business processes.

Context specific knowledge and understanding

12. Your organisation's aims and goals.
13. Your organisation's structure, values and culture.
14. How your organisation adds value through delivering its products, services and processes
15. The needs of your actual and potential customers and other key stakeholders.
16. Your organisation's products, services and processes and the interdependencies between them.
17. Measures of process performance that is relevant to your organisation.

PERFORMANCE OBJECTIVES

You must be able to do the following:

- a. Design processes that deliver outcomes based on organisational goals and aims.
- b. Ensure processes and resources are sustainable and effective in their use.
- c. Identify and provide the resources you need.
- d. Take account of influences that may affect and shape how processes work.
- e. Link processes so that they interact across the organisation to form a complete system.
- f. Provide information and support for staff and other stakeholders involved.
- g. Define process responsibilities.
- h. Develop process measures that are affordable and provide enough information for people to decide how to manage the process.
- i. Establish and use effective methods to review and improve the process.

NOS RR01 - Carry out Roadside Diagnostic Activities on Motor Vehicles

UNIT OVERVIEW

This unit is about carrying out a series of roadside mechanical, electrical and electronic diagnostic tests on a variety of vehicle systems, and making suitable recommendations for cost effective rectification work.

ESSENTIAL KNOWLEDGE

You need to understand:

Legislative and organisational requirements and procedures

1. the health and safety legislation, current industry Code of Practice for Safe Roadside Working and workplace procedures relevant to roadside working practices and personal and vehicle protection when diagnosing faults.
2. legal requirements relating to the vehicle (including road safety requirements).
3. your workplace procedures for:
 - recording diagnostic activities and recommendations
 - the referral of problems
 - reporting delays to the completion of work
- o the importance of, documenting diagnostic and rectification information.
- o the importance of keeping others informed of progress.
- o the relationship between time, costs and profitability.
- o the importance of reporting anticipated delays to the relevant person(s) promptly.

Electrical and electronic principles

8. electrical and electronic principles associated with vehicle systems, including types of sensors and actuators, their application and operation; digital and fibre optics principles.
9. how electrical and electronic vehicle systems operate, including electrical component function, electrical inputs, outputs, voltages and oscilloscope patterns.
10. the interaction between electrical, electronic and mechanical components within vehicle systems
11. electrical symbols, units and terms.
12. electrical safety procedures.

Use of diagnostic equipment

13. how to prepare and test the accuracy of diagnostic equipment used at the roadside
14. how to use the diagnostic equipment used at the roadside.

Vehicle system faults and their diagnosis

15. how to find, interpret and use sources of information on technical data, diagnostic test procedures and statutory requirements.

16. how the vehicle systems within each of the vehicle areas operate (i.e engine area, transmission area, chassis or frame area and electrical area).
17. the possible causes of faults in vehicle systems within the engine area, transmission area, chassis or frame area and electrical area.
18. the vehicle operating specifications for limits, fit and tolerances.
19. how to carry out systematic diagnostic testing of faults in vehicle systems within the engine area, transmission area, chassis or frame area and electrical area for the classification of vehicle worked upon using the diagnostic methods listed in the Scoping Statement for this unit.
20. the relationship between diagnostic methods and the symptoms presented by the vehicle.
21. how to select the most appropriate diagnostic testing method for the symptoms presented.
22. how to interpret test results and vehicle data in order to identify the location and cause of system faults accurately.
23. how to make cost effective recommendations for rectification.

PERFORMANCE OBJECTIVES

To be competent you must:

- a. wear suitable personal protective equipment throughout all diagnostic activities.
- b. support the identification of faults by reviewing vehicle:
 - technical data
 - diagnostic test procedures
- o prepare, connect and test all the equipment required prior to use, following manufacturers' instructions.
- o use diagnostic methods which are relevant to the symptoms presented.
- o collect diagnostic information in a systematic way relevant to the diagnostic methods used
- o collect sufficient diagnostic information to enable an accurate diagnosis of faults.
- o identify and record the system deviation from acceptable limits accurately.
- o make suitable recommendations for rectification based upon your analysis of the diagnostic information gained.
- o ensure you records are accurate, complete and passed to the relevant person(s) promptly, in the format required.
- o report any anticipated delays in completion to the relevant person(s) promptly.
- o ensure your working practices are safe and conform to legal, current industry code of practice for safe roadside working and workplace requirements.

NOS RR02 - Carry out Roadside Rectification Activities on Motor Vehicles

UNIT OVERVIEW

This unit is about rectifying vehicle faults at the roadside. This may involve repair and or recovery.

ESSENTIAL KNOWLEDGE

You need to understand:

Legislative and organisational requirements and procedures

1. the health and safety legislation, current industry Code of Practice for Safe Roadside Working and workplace procedures relevant to roadside working practices and personal and vehicle protection when rectifying faults.
2. legal requirements relating to the vehicle (including road safety and refrigerant handling requirements).
3. your workplace procedures for:
 - recording rectification activities
 - the referral of problems
 - reporting delays to the completion of work
- o the importance of, documenting rectification information.
- o the importance of working to agreed timescales and keeping others informed of progress.
- o the relationship between time, costs and profitability.
- o the importance of reporting anticipated delays to the relevant person(s) promptly.

Electrical and electronic principles

8. electrical and electronic principles associated with vehicle systems, including types of sensors and actuators, their application and operation; digital and fibre optics principles.
9. how electrical and electronic vehicle systems operate, including electrical component function, electrical inputs, outputs, voltages and oscilloscope patterns.
10. the interaction between electrical, electronic and mechanical components within vehicle systems.
11. electrical symbols, units and terms.
12. electrical safety procedures.

Use of diagnostic equipment

13. how to prepare and test the accuracy and functioning of rectification equipment required
14. how to use the rectification and testing equipment used at the roadside.

Vehicle system faults and their rectification

15. how to find, interpret and use sources of information on repair procedures and statutory requirements.
16. the vehicle operating specifications for limits, fit and tolerances for the type and classification of vehicle worked upon.

17. how the mechanical, electrical and electronic systems within all vehicle areas operate (i.e. engine area, transmission area, chassis or frame area, electrical area) for the classification of vehicle repaired.
18. how mechanical, electrical and electronic vehicle systems are constructed, dismantled and reassembled for the classification of vehicles repaired.
19. the possible causes of faults in mechanical, electrical and electronic systems for the classification of vehicles repaired.
20. the cost-benefit relationship between the repair and replacement of components and units.
21. the safety considerations affecting the decision to repair on site or recover the vehicle to a place of safety.
22. the appropriate performance testing methods to be used.
23. how to interpret test results
24. how to work safely avoiding damage to other vehicle systems, components and contact with leakage and hazardous substances.
25. how to identify the types and causes of faults and failures of systems, components and units.
26. how to assess the condition evidence within sub-assemblies, components and units.
27. how to carry out roadside repair activities for all systems within the engine area, transmission area, chassis or frame area and electrical area for the classification of vehicle worked upon, including temporary work.
28. how to make suitable adjustment to components and units.
29. how to test and evaluate the performance of repaired or replaced components and units against operating requirements.
30. what constitutes temporary work.
31. the importance of informing the customer where temporary work has been carried out.

PERFORMANCE OBJECTIVES

To be competent you must:

- a. wear suitable personal protective equipment throughout all rectification activities.
- b. use suitable sources of technical information to support your repair activities.
- c. assess and prepare all the equipment required prior to use, following manufacturers' instructions.
- d. use the equipment required correctly and safely throughout all rectification activities.
- e. carry out all rectification activities following:
 - manufacturers' instructions
 - your workplace procedures
 - health and safety requirements
 - the industry's current Code of Practice for Safe Roadside Working
- f. work in a way which minimises the risk of:
 - damage to other vehicle systems
 - damage to other components and units
 - contact with leakages
 - contact with hazardous substances
- g. ensure your assessment of dismantled sub-assemblies, components and units identifies accurately their condition and suitability for repair or replacement.
- h. inform the relevant person(s) promptly to arrange for recovery where repairs are uneconomic or unsatisfactory to perform at the roadside.
- i. ensure all repaired and replaced components and unit conform to the vehicle operating specification and any legal requirements.

- j. adjust components and units correctly, when necessary, to ensure they operate to meet system requirements.
- k. record details of any additional faults you notice during the course of your work accurately, and report them to the relevant person(s) promptly.
- l. use testing methods which are suitable for assessing the performance of the system repair completed.
- m. ensure the permanently repaired system performs to the vehicle operating specification and any legal requirements prior to return to the customer.
- n. ensure any temporary work is safe, meets legal requirements and is sufficient to allow completion of the current journey or to a place for permanent repair or safety.
- o. ensure your repair records are accurate, complete and passed promptly to the relevant person(s) in the format required.
- p. report any anticipated delays in completion to the relevant person(s) promptly.

NOS RR03 - Assess and Secure the Roadside Situation

UNIT OVERVIEW

This unit is about securing and making an initial assessment of the site and vehicle in order to make decisions for further action. Providing information to, and seeking guidance from, relevant specialist authorities where hazardous substances or situations may be involved.

ESSENTIAL KNOWLEDGE

You need to understand:

Legal and organisational requirements and procedures

1. the legal requirements and industry codes of practice governing site protection and recovery operations.
2. the range of services and resources available within your organization.
3. your organisation's operating, reporting and recording procedures.
4. how to complete records and the importance of doing so.

Assessing and securing the site

5. the difference in requirements for securing and protecting a breakdown site and an accident site.
6. the sources of specialist advice and guidance.
7. how weather conditions affect the assessment and security of the roadside situation.
8. how to assess the immediate roadside situation surrounding an incident.
9. the circumstances in which to call for specialist assistance.
10. how to secure and protect incident sites in line with current industry codes of practice.
11. how to take steps to secure the safety of yourself and others.
12. how to use electronic and radio communication methods.
13. how to communicate with customers and relevant authorities
14. how to make an initial assessment of the extent of vehicle damage and or faults.
15. how to identify vehicles carrying hazardous substances.
16. how to interpret the results of your initial assessment and make justifiable decisions for a course of action.
17. the possible consequences of inaccurate roadside assessment.
18. the importance of wearing personal protective equipment.

PERFORMANCE OBJECTIVES

To be competent you must:

- a. wear suitable personal protective equipment throughout all roadside assessment and security activities.
- b. secure and protect the incident site to comply with legal requirements, current industry codes of practice, prevailing weather conditions and the roadside situation.
- c. secure the immediate safety of the driver and passengers effectively.
- d. ensure your initial assessment of the incident identifies accurately:

- the existence of any hazardous and potentially hazardous substances
- any real and potential fire risks
- the need for any specialist assistance
- e. provide accurate information promptly and clearly to all relevant authorities and your control centre covering:
 - the existence of any injured persons
 - the prevailing weather conditions
 - the location and roadside situation
 - the nature of the incident
 - real and potential hazards
- f. seek assistance and guidance promptly from the relevant authorities when you believe that hazardous substances are present.
- g. ensure your initial assessment of the vehicle establishes:
 - the nature and extent of any vehicle damage and or breakdown
 - the feasibility of roadside repair
- h. make justifiable decisions for a course of action based upon the information gained from your initial assessment of the situation.
- i. ensure your records are accurate and complete and passed to the relevant person(s) promptly.

NOS RR04 - Remove and Transport Light Vehicles

UNIT OVERVIEW

This unit is about removing and transporting upright vehicles from the roadside or similar hard, level standing.

ESSENTIAL KNOWLEDGE

You need to understand:

Legal and organisational requirements and procedures

1. the legal requirements and industry codes of practice governing site protection and recovery operations.
2. your organisation's operating, reporting and recording procedures.
3. the limits of your authority for dealing with hazardous substances.
4. the importance of wearing the specified personal protective equipment.
5. how to complete recovery records and the importance of doing so.

Vehicle Recovery Equipment

6. the types, purpose and use of the vehicle recovery equipment in the Scoping Statement for this unit.
7. the safe working loads for recovery equipment, axle weights and stability.

Vehicle Recovery

8. how to assess the most suitable recovery method for the type of incident and the condition of the vehicle involved.
9. how to assess the weight of a vehicle, including a load where appropriate.
10. the effect of weather conditions on the feasibility of recovery operations and how they are conducted.
11. how to use suitable site to base communication methods.
12. how to give clear instructions to customers.
13. the circumstances in which to call for specialist advice and assistance.
14. the operation of braking and transmission systems.
15. the principles of loading and load containment.
16. on site recovery planning and control techniques.
17. how to prepare and secure vehicles for transportation.
18. how to check for and deal with any vehicle system and load leakage.
19. the dangers associated with roadside recovery operations and how to lessen the risks to yourself, customers and other road users.
20. how to identify vehicles carrying hazardous substances.
21. the importance of informing the authorities where roadside operations are likely to affect other traffic.
22. how to position and rig recovery vehicles.
23. how to fit towing, loading and transportation equipment for the types of vehicle you deal with.
24. how to work safely at the roadside following industry codes of practice.

25. how to perform safety checks on vehicles relevant to the types of vehicle you deal with.
26. how to clear the site prior to moving off.
27. how to use suitable warning lights.
28. how to avoid damage to vehicles during transportation.

PERFORMANCE OBJECTIVES

To be competent you must:

- a. wear suitable personal protective equipment throughout all vehicle removal activities.
- b. secure the immediate safety of the driver and passengers effectively, if present.
- c. use a recovery vehicle and recovery equipment which:
 - is suitable for the type, condition and weight of vehicle to be transported
 - is suitable for the nature of the incident
 - complies with legal requirements.
- d. use warning lights in a way which complies with legal requirements and current industry codes of practice.
- e. report viable options to your recovery controller for action promptly where the recovery vehicle and equipment prove unsuitable.
- f. make the vehicle safe for transportation.
- g. inform the relevant authorities promptly where the condition of the vehicle and its removal presents a hazard.
- h. position and rig the recovery vehicle and recovery equipment to:
 - comply with industry codes of practice
 - minimise the need to re-rig
 - secure the best recovery advantage
- i. fit all necessary loading and securing equipment to comply with:
 - legal requirements
 - industry codes of practice
 - manufacturers' operating instructions
 - your organisation's requirements
- j. ensure your roadside working practices and procedures during all removal and loading activities comply with legal requirements and industry codes of practice for the type of road involved, the roadside situation and prevailing weather conditions.
- k. contact the relevant authority promptly where the loading manoeuvre is likely to obstruct the flow of traffic.
- l. ensure the recovery site is left free from debris, waste, tools, equipment and cones prior to moving off.
- m. transport the vehicle to the relevant destination without further damage.
- n. transport and unload the recovered vehicle to comply with:
 - legal requirements
 - industry codes of practice
 - manufacturer's operating instructions
 - your organisation's requirements
- o. ensure your records are accurate and complete and passed to the relevant person(s) promptly.

NOS RR08 - Recover, Remove and Transport Motorcycles

UNIT OVERVIEW

This unit is about recovering Motorcycles from on and off road positions to a suitable on road or hard standing ready for onward transportation.

ESSENTIAL KNOWLEDGE

You need to understand:

1. the relevant legal requirements and industry codes of practice governing site protection and recovery operations.
2. your organisation's operating, reporting and recording procedures for accident recovery.
3. the limitations of your authority for dealing with hazardous substances and hazardous situations.
4. the importance of wearing the specified personal protective equipment
5. how to complete records accurately and the importance of doing so.
6. the basic principles of winch operation including rolling resistance, gradient resistance and damage resistance forces.
7. the effect of weather and roadside conditions on recovery operations.
8. the effect of the design and contents of the casualty motorcycle on the recovery operation.
9. the effect of motorcycle condition and position on the recovery operation.
10. the importance of reporting and seeking guidance from others when hazardous substances are present at an accident site.
11. the operation of motorcycle braking and transmission systems.
12. the principles of loading and load containment.
13. the requirements for securing personal effects and loads
14. on site accident recovery planning and control techniques
15. the authorities who may have an interest in accident situations and the importance of liaising with them and following their instructions
16. the dangers associated with accident recovery operations and how to lessen the risks to yourself, customers and other road users.
17. how to work safely and effectively at the scene of a motorcycle accident
18. how to use site to base communication methods.
19. how to identify motorcycles carrying hazardous substances.
20. how to assess the most suitable method of recovery.
21. how to recover casualty motorcycles without inflicting unnecessary further damage.
22. how to prepare and secure motorcycles for recovery.
23. how to check for and suitably deal with any spillages and load loss.
24. how to clear and make safe accident sites prior to moving off.

PERFORMANCE OBJECTIVES

To be competent you must:

- a. wear suitable personal protective equipment which complies with legal and industry codes of practice throughout all motorcycle recovery activities.
- b. Use the most suitable recovery method based upon:

- your initial assessment of the incident and roadside conditions
- motorcycle condition and position
- the risks and hazards involved
- available resources.
- c. report viable options for action promptly to your recovery controller where the recovery motorcycle and recovery equipment to hand prove unsuitable.
- d. prior to commencing operations, inform the relevant person(s) promptly and clearly of:
 - the recovery method to be used
 - any implications affecting them or the motorcycle
 - gain their agreement to your plans
- e. store all personal effects and loads in a secure location
- f. seek guidance and assistance from the relevant person(s) promptly where loads require specialist handling and transfer procedures.
- g. make the casualty motorcycle safe prior to commencing any recovery operation.
- h. inform the relevant authorities promptly where the condition of the motorcycle and its removal
 - i. presents a hazard.
- j. when necessary, calculate accurately, the effort needed to right and winch motorcycles back onto
 - k. the road.
- l. operate all recovery equipment appropriately to comply with:
 - legal requirements
 - industry codes of practice for recovery operations
 - the manufacturer's instructions
 - your organisation's requirements
- m. where necessary ensure your accident recovery working practices and procedures comply with legal requirements and industry codes of practice for safe operation.
- n. ensure the casualty motorcycle is secured safely on a suitable hard surface ready for
 - o. transportation.
- p. ensure the recovery site is left free of all debris, waster, tools and equipment prior to
 - q. leaving.
- r. ensure all your records are accurate and complete and passed to the relevant person(s)
- s. promptly.

NOS RR11 – Customer Services for Emergency Motor Vehicle Operators

UNIT OVERVIEW

This unit is about providing assistance to customers in emergency situations including the ability to co-ordinate the post-emergency situation, including any necessary recording.

ESSENTIAL KNOWLEDGE

You need to understand:

1. the steps to contain the types of emergency situations .
2. possible courses of action available to handle the emergency situations .
3. how to assess emergency situations and factors that must be considered in order to arrive at the most suitable course of action .
4. factors affecting customer morale and goodwill in emergency situations .
5. the consequences of failure to take appropriate action in the emergency situations .
6. emergency contact numbers and the nature of the help available .
7. why prompt help and good communications with customers, colleagues and other affected parties is so important
8. the role taking the correct action plays in maintaining good customer relationships and its value to your organisation
9. the importance of giving on-going support to those closely affected by the emergency
10. why different approaches may have to be used when considering the local situation and organisational policy
11. the types of arrangements that can be made for customers unable to continue with their plans and how to instigate these

PERFORMANCE OBJECTIVES

To be competent you must:

- a. assess the situation accurately and promptly and develop a suitable plan of action, prioritising needs.
- b. take control in a calm, professional manner and in a way that prevents the situation escalating further.
- c. issue prompt, clear and relevant instructions to others assisting with the situation, if necessary
- d. call any relevant emergency services promptly.
- e. refer any situations outside of your personal authority or control promptly to the correct authorities.
- f. take suitable immediate action to minimise danger or distress to your customers who are in the immediate vicinity.
- g. ensure your response complies with organisational procedures and any local requirements.
- h. minimise any inconvenience to customers and maintaining customer morale and goodwill.
- i. brief and reassure customers affected by the emergency.

- j. make suitable arrangements for those customers unable to continue with their original plans.
- k. give sympathetic and on-going support to those directly affected.
- l. maintain and process full and accurate records in the required format to meet current local, legal and your organisation's requirements.

NOS RR12 - Basic Motor Vehicle Diagnostic Testing

UNIT OVERVIEW

This unit is about conducting, recording and evaluating results of comparative testing and interpreting results. This unit is about the skills and knowledge involved in the use of basic diagnostics.

ESSENTIAL KNOWLEDGE

You need to understand:

1. basic system features and operation including fundamentals of:
 - i) electrical systems & circuits
 - ii) engine
 - iii) transmission
 - iv) steering
 - v) fuel
 - vi) suspension
 - vii) brakes
 - viii) cooling systems
 - iv) exhaust
2. how to recognise symptoms to determine a cause
3. recognise basic vehicle system faults
4. the types and causes of errors that can arise during the use of diagnostic equipment
5. the correct use of test equipment
6. the procedures for reporting problems
7. the health and safety requirements relevant to diagnostic procedures

PERFORMANCE OBJECTIVES

To be competent you must:

- a. identify and demonstrate a working understanding of the following systems:
 - i) electrical systems & circuits
 - ii) engine
 - iii) transmission
 - iv) steering
 - v) fuel
 - vi) suspension
 - vii) brakes
 - viii) cooling systems
 - iv) exhaust
- b. identify symptoms in order to determine a system fault and cause.
- c. you use safe working practices when dealing with diagnostic equipment.
- d. you take prompt and effective corrective actions to resolve any errors occurring within the limits of your workplace responsibilities.
- e. demonstrate the correct use of basic test equipment including but not restricted to multi-meter, test lamp/light, inductive current clamp, cooling system pressure tester, compression tester, wheel alignment.

NOS RR13 - Diagnostic Testing on Motor Vehicles

UNIT OVERVIEW

This unit is about conducting, recording and evaluating results of comparative testing and interpreting results.

ESSENTIAL KNOWLEDGE

You need to understand:

1. factors which may be significant to the purpose and nature of the test(s).
2. how to analyse and assess how accurate, up to date and complete the existing information is.
3. what data to identify as being needed, how accurate the data as needs to be and what data outputs do you identify as being required.
4. how to make a preliminary investigation to identify access requirements and equipment methods to assess and summarise the implications of access and equipment requirements.
5. how to select relevant processes and methods.
6. how to schedule a plan for the test and analysis.
7. how to monitor tests.
8. how to choose suitable standards of quality assurance.
9. how to collect and verify the results from tests.
10. how to use the test results to produce an accurate report.
11. how to process the results using the most appropriate methods of analysis and record them in a format that will help people to interpret them.
12. how to produce a clear and accurate commentary and interpretation of the results.
13. how to present the report clearly.

PERFORMANCE OBJECTIVES

To be competent you must:

- a. identify factors which may be significant to the purpose and nature of the test
- b. analyse and assess how accurate, up to date and complete the existing information is
identify what data is needed, how accurate the data needs to be and what data outputs are required
- c. make a preliminary investigation to identify any access requirements and equipment which will be needed
- d. develop a clear and accurate specification, and criteria, a programme and assessment of resources for the testing programme
- e. select relevant processes and methods which are reliable, valid, consistent with the test purpose
- f. estimate and justify the resources which will be involved in conducting and reporting on the tests
- g. prepare a plan for the test and scheduling it to meet the requirements of the test
- h. manage and monitor tests and recommend modifications to maintain compliance with test requirements
- i. collect and verify the results from tests

- j. process the results using the most appropriate methods of analysis and record them in a format which will help people to interpret them
- k. produce a clear and accurate commentary and interpretation of the results
- l. use the test results, analysis and commentary findings to produce an accurate report
- m. present the report clearly and in a format which is suitable for those who need to use the findings

NOS RR14 – Technical Data – Understanding Wiring Diagrams & Manufacturers Data on Motor Vehicles

UNIT OVERVIEW

This unit is the use of technical data such as manufacturer's instructions and wiring diagrams

ESSENTIAL KNOWLEDGE

You need to understand:

1. basic working knowledge and understanding of the information and document systems that relate to the maintenance of vehicles.
2. basic working knowledge and understanding of the document care and control procedures in line with the company and manufactures procedures.
3. basic working knowledge and understanding of the specification
4. structure and content of wiring diagrams
5. basic working knowledge and understanding of the conventions, symbols and abbreviations as used within the automotive industries.
6. basic working knowledge and understanding of the standards and regulations that relate to the maintenance of electrical vehicles
7. the working knowledge and understanding of your responsibilities with regard to the reporting lines and procedures in your environment.

PERFORMANCE OBJECTIVES

To be competent you must:

- a. Use up-to-date, accurate and relevant information on technical requirements
- b. Ensure that the information contains all essential data
- c. Identify and interpret the required details
- d. Identify and deal promptly and effectively with any problems occurring with the
- e. requirements and their interpretation

NOS RR15 - Basic Motor Vehicle Repairs

UNIT OVERVIEW

This unit is about conducting basic repairs on vehicles.

ESSENTIAL KNOWLEDGE

You need to understand:

1. basic system features and operation including fundamentals of:
 - i) electrical systems & circuits
 - ii) engine
 - iii) transmission
 - iv) steering
 - v) fuel
 - vi) suspension
 - vii) brakes
 - viii) cooling systems
 - iv) exhaust
2. how to recognise the rectification procedure for the appropriate fault within the system
3. the vehicle repair manual or other media to determine the correct method
4. the correct use of test equipment
5. the correct use of workshop tools
6. the procedures for reporting problems
7. the health and safety requirements relevant to repair procedures

PERFORMANCE OBJECTIVES

To be competent you must:

- a. identify and demonstrate a working understanding of the following systems:
 - i) electrical systems & circuits
 - ii) engine
 - iii) transmission
 - iv) steering
 - v) fuel
 - vi) suspension
 - vii) brakes
 - viii) cooling systems
 - iv) exhaust
- b. demonstrate the ability to repair identified faults within the system
- c. select the correct method of repair from the appropriate manual or other media
- d. perform a re-test to ensure the repair is successful
- e. you use safe working practices when dealing with test equipment and tools
- f. you take prompt and effective corrective actions to resolve any errors within the limits of your workplace responsibilities