

Domain	AUTOMOTIVE MECHANICS	Unit ID: 204
Title:	Perform minor service on a vehicle	
Level: 3		Credits: 3

Purpose

This unit standard specifies the competencies required to perform a minor service on a vehicle. It includes servicing lighting and signalling devices and inspecting and servicing vehicle components according to manufacturers' service plan. This unit standard is intended for those who work as automotive mechanics.

Special Notes

1. Entry information:
 - Prerequisite
 - Unit 65 - *Apply safety rules and regulations in an automotive mechanics workshop* or demonstrated equivalent knowledge and skills.
2. To demonstrate competence, at a minimum, evidence is required of:
 - servicing vehicle's lighting system and signalling devices to include aiming and adjusting of two (2) headlamps
 - inspecting three (3) vehicle components as outlined in the vehicle service plan
 - servicing three (3) vehicle components or assemblies, including one (1) adjustment procedure, as outlined in the vehicle service plan.
3. Assessment evidence may be collected from a real workplace or a simulated real workplace or an appropriate simulated realistic environment in which automotive mechanics operations are carried out.
4. Performance of all elements in this unit standard must comply with manufacturers' specifications, workplace specification requirement and reasonable flat rate time.
5. Glossary of terms:
 - '*specifications*' refers to any, or all of the following: manufacturers' specifications and recommendations, workplace specific requirements
 - '*service operations*' refers to 'on-vehicle service' where operations can be directly performed on the vehicle and 'component repair' where the operations are done on the workbench after removing the component from the vehicle.
6. Regulations and legislation relevant to this unit standard include the following:
 - Labour Act, No. 6, 1992
 - Occupational Health and Safety Regulations No. 18, 1997
 - Road Traffic and Transport Regulations No. 266, 2000
 and all subsequent amendments.
7. This unit standard applies to passenger and light commercial vehicles with a Gross Vehicle Mass \leq 5 500 kg (Petrol & Diesel).

Quality Assurance Requirements

This unit standard and others within this subfield may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority and the Namibia Training Authority. All approved unit standards, qualifications and national assessment arrangements are available on the Namibia Training Authority website www.nta.com.na.

Elements and Performance Criteria

Element 1: Plan and prepare for work

Range

Planning and preparation may include but is not limited to workplace inspection, equipment defect identification, assessment of conditions and hazards and determination of work requirements.

Tools and equipment may include but are not limited to standard tool set including torque wrench and maintenance equipment including lift (hoist) or inspection pit.

Materials and lubricants are to include but are not limited to grease, lubricating oil, hydraulic brake fluid and standard service parts as outlined in the manufacturers' service plan.

Performance Criteria

- 1.1 Work instructions, including repair order forms, specifications and operational details are obtained, confirmed and applied.
- 1.2 Safety requirements are followed in accordance with safety plans and policies.
- 1.3 Tools and equipment selected to carry out tasks are consistent with the requirements of the job, checked for serviceability and any faults rectified or reported prior to commencement.
- 1.4 Material requirements are identified and obtained in accordance with repair order form and/or specifications.
- 1.5 Materials are safely handled and located ready for use in line with workplace requirements.
- 1.6 Technical and/or calibration requirements for tools and equipment are sourced and implemented in line with workplace procedures.
- 1.7 Environmental protection requirements are identified and applied in line with environmental plans and regulatory obligations.

Element 2: Service lighting system and signalling devices

Range

Service operations may include but are not limited to isolation of faults, removing and installing, disassembling and assembling, inspection and evaluation, adjustments, operational testing, repair, replacement and visual inspections in line with manufacturers' specifications.

Lighting system and signalling devices must include but are not limited to headlamps (emitting a main beam and a dipped beam), rear lamps, stop lamps, number plate lamp(s), flashing type direction indicator lamps, hazard lamps.

Performance Criteria

- 2.1 Lighting system and signalling devices are identified and checked for compatibility with manufacturers' and legal requirements.
- 2.2 Lighting system and signalling devices are checked for operation according to manufacturers' service plan and legal requirements.
- 2.3 Defective unit is replaced without causing damage to it and/or other components in line with workplace and manufacturers' requirements.
- 2.4 Headlamps and other auxiliary lights are aimed and adjusted taking into account load and tyre pressure according to manufacturers' and legal requirements.

Element 3: Inspect vehicle components

Range

Inspection methods are to include but are not limited to functional testing, measurements, visual, aural and functional assessment (including damage, corrosion, leakage, wear) in line with manufacturers' specifications.

Performance Criteria

- 3.1 Safety procedures in relation to working with rotating devices are observed in line with workplace requirements.
- 3.2 Inspection methods of vehicle components are implemented in line with workplace procedures and manufacturers' specifications.
- 3.3 Inspection results are checked for compliance with manufacturers' specifications in line with workplace procedures.
- 3.4 Inspection results, along with evidence, supporting information and recommendations are documented in line with workplace procedures.
- 3.5 Report is forwarded to supervisor or appropriate person for action in line with workplace procedures.

Element 4: Service vehicle components

Range

Service operations may include but are not limited to isolation of faults, removing and installing, disassembling and assembling, inspection and evaluation, adjustments, operational testing, repair, replacement and visual inspections in line with manufacturers' specifications.

Performance Criteria

- 4.1 Service is implemented in accordance with workplace procedures and manufacturers' specifications.
- 4.2 Adjustments are made during the service as required and in line with manufacturers' specifications.

Element 5: Complete work and clean up

Range

Work completion details may include but are not limited to repair order form, sign-out form for equipment, service record book and service plan form.

Performance Criteria

- 5.1 Inspection work is completed, vehicle presented to workplace expectations and appropriate personnel notified in accordance with workplace procedures.
- 5.2 Work area is cleared of waste, cleaned, restored and secured in accordance with workplace procedures.
- 5.3 Reusable material is collected and stored in accordance with workplace procedures.
- 5.4 Equipment used is cleaned, checked, maintained and stored in accordance with workplace procedures.
- 5.5 Work completion details are finalised in accordance with workplace procedures.

Registration Data

Subfield:	Automotive Engineering
Date first registered:	29 March 2007
Date this version registered:	29 March 2007
Anticipated review:	2010
Body responsible for review:	Namibia Training Authority