

ELEMENT	PERFORMANCE CRITERIA <i>(Bold and italicized terms are elaborated in the Range)</i>
	4.4 Protective measures on lubricants and fluids are applied as per OSHA 2007 and the workplace rules 4.5 Lubricants and fluids are replenished as prescribed by vehicle manufacturers' specifications. 4.6 Waste oil and fluids are disposed in compliance with OSHA 2007 and workplace policy/rules
5. Replace/service vehicle serviceable parts	5.1 Tools and equipment for use are selected, obtained and assembled based on service manual 5.2 <i>Vehicle service parts</i> are identified, verified, replaced and adjusted as per manufacturer's part numbers. 5.3 Worn out/damage parts are disposed as per the workplace policy and OSHA 2007 5.4 Replace/service activities are completed within agreed time frame as per organization policy
6. Carry out vehicle component and system adjustments	6.1 Operating specification and tolerance are identify as per Manufacturers technical information 6.2 Tools and equipment foe checking and carrying out adjustments are identified as per activities 6.3 Components and systems are identified as per job task
7 Service Vehicle Wheels and Tyres	7.1 Identify and repair tyre punctures according to vehicles fault 7.2 Perform wheel balancing according to standard operating procedures 7.3 Perform tyre fitting on the rim according to SOP 7.4 Straighten bent wheel rims according to SOP 7.5 Replace tyre pressure nozzles according to SOP 7.6 Maintain tyre pressure according to manufacturer's specifications.
8. Finalize service and repair procedures.	7.1 Vehicle interior and exterior is cleaned and made presentable in compliance with company policy 7.2 Vehicle service and repair job card is prepared and shared as per the organizations requirement 7.3Service and repair records are maintained as per organization policy.

#### RANGE

This section provides work environments and conditions to which the performance criteria apply. It allows for different work environments and situations that will affect performance.

<b>Variable</b>	<b>Range</b>
1. Technical information may include but is not limited to:	<ul style="list-style-type: none"> <li>• Vehicle technical data;</li> <li>• Manufacturers' online information;</li> <li>• Schedules of inspection;</li> <li>• Legal regulations</li> <li>• On-board diagnostics (OBD) displays.</li> </ul>
2. Assessment methods may include but is not limited to:	<ul style="list-style-type: none"> <li>• Aural (noise);</li> <li>• Visual</li> <li>• Vibration</li> <li>• Digital diagnostic equipment</li> <li>• Functional</li> <li>• Measurement</li> </ul>
3. Periodic maintenance may include but is not limited to:	<ul style="list-style-type: none"> <li>• Brake pads/linings</li> <li>• fluid leaks</li> <li>• noise and vibration</li> <li>• air-conditioning</li> <li>• gas leaks</li> <li>• Tire wear</li> <li>• 3.7 fan belt</li> </ul>
4. Vehicle systems may include but is not limited to:	<ul style="list-style-type: none"> <li>• Engine management (fuel, ignition, emission control)</li> <li>• Battery, charging and starter</li> <li>• Engine cooling</li> <li>• Steering and suspension</li> <li>• Air conditioning;</li> <li>• Lighting</li> </ul>
5. Adjustments may include but is not limited to:	<ul style="list-style-type: none"> <li>• Valve clearances</li> <li>• Spark plug gaps</li> <li>• Exhaust emission settings</li> <li>• Wheel, steering and suspension alignment</li> <li>• Headlight alignment;</li> <li>• Drive belt tension;</li> <li>• Engine idling speed;</li> <li>• Lubricant and fluid levels;</li> <li>• Fuel pressure;</li> <li>• Brake clearances;</li> <li>• Tyre pressure.</li> <li>• Wheel balancing</li> <li>• Fluid level</li> </ul>
6. Assessments may include but is not limited to:	<ul style="list-style-type: none"> <li>• Damage;</li> <li>• Fluid leaks;</li> <li>• Air conditioning gas leaks;</li> </ul>

Variable	Range
	<ul style="list-style-type: none"> <li>• Wear and tear;</li> <li>• Security of parts and components;</li> <li>• Condition and serviceability;</li> <li>• Necessity for adjustment.</li> </ul>
7. Vehicle service parts may include but is not limited to:	<ul style="list-style-type: none"> <li>• Oil, fuel, air and diesel exhaust filters;</li> <li>• Wiper blades;</li> <li>• Spark plugs;</li> <li>• Brake pads/linings;</li> <li>• Drive belts;</li> <li>• Seals and gaskets.</li> <li>• Tyre fitting and puncture repair</li> <li>• Lining/pad</li> <li>• Fan belts</li> </ul>
8. Tools and equipment may include but is not limited to:	<ul style="list-style-type: none"> <li>• Spanners</li> <li>• Screw drivers</li> <li>• Pliers</li> <li>• Oil can</li> <li>• Grease gun</li> <li>• Jacks</li> <li>• Axle stands</li> <li>• Car hoist</li> <li>• Hammers</li> </ul>
9. Approved format. may include but is not limited to:	<ul style="list-style-type: none"> <li>• Manufacturers' maintenance schedules;</li> <li>• Company's maintenance schedules.</li> </ul>
10. Agreed time frame may include but is not limited to:	<ul style="list-style-type: none"> <li>• Manufacturers' recommended work times;</li> <li>• Job times set by the company;</li> <li>• Job time agreed with a specific customer.</li> </ul>
11. Lubricants and fluids may include but is not limited to:	<ul style="list-style-type: none"> <li>• Engine oil</li> <li>• Gear box oil</li> <li>• Automatic transmission oil (ATF)</li> <li>• Brake fluids</li> <li>• Coolants</li> </ul>

#### REQUIRED SKILLS

- Communications (verbal and written);
- Trouble shooting
- Proficient in ICT;
- Time management;
- Problem solving;
- Decision making;

- Multitasking;
- First aid;
- Driving.
- Planning
- Writing

## REQUIRED KNOWLEDGE

*The individual needs to demonstrate knowledge of:*

- Organizational and legislative requirements
- Manufacturer's warranty requirements relating to routine maintenance activities for vehicle systems and components
- Job card preparation
- Technical information
- Customer relation
- Diagnostic tools and equipment
- Rectification system defects
- Vehicle fluids and lubricants
- Vehicle systems and components
- Vehicle basic inspection
- Legal requirements relating to the vehicle maintenance activities for vehicle systems and components
- Kenyan legislation and workplace procedures relevant to:
  - Recording vehicle maintenance work and any variations from the
  - Purpose of and how to use identification codes
  - Operation of vehicle systems
  - Engines, cooling systems, air supply and exhaust systems, fuel systems and ignition systems operate for different vehicles
  - How clutch assemblies, clutch operating systems, manual gear boxes, automatic gear boxes, drivelines and hubs and final drive assemblies operate for different vehicles
  - Suspension systems, steering systems, braking systems, wheels and tyres for motor vehicle operate
  - The purpose, operating principles and location of vehicle batteries, charging systems, starting systems, lighting systems and ancillary equipment for the different type of vehicle
  - The operating specifications and tolerances for the different type(s) of vehicles
  - The hazards associated with high energy electrical components
  - Routine maintenance requirements

## EVIDENCE GUIDE

This provides advice on assessment and must be in conjunction with the performance criteria, required skills and knowledge and range.

1. Critical Aspects of Competency.	<p><i>Assessment requires evidence that the candidate:</i></p> <ul style="list-style-type: none"> <li>1.1 Used manufacturers' technical information and prescribed procedures in vehicle maintenance activities</li> <li>1.2 Established and recorded accurate diagnosis of vehicle systems</li> <li>1.3 Serviced vehicle components as per the service manual and customer's specification</li> <li>1.4 Replenished fluids and carried out adjustments and replacement of serviceable part</li> <li>1.5 Prepared job cards</li> <li>1.6 Cleaned vehicle, tools, equipment and workshop/station</li> <li>1.7 Disposed fluid and solid wastes</li> </ul>
2. Resource Implications.	<p><i>The following resources must be provided:</i></p> <ul style="list-style-type: none"> <li>2.1 A workshop that is fully equipped for maintaining motor vehicles, including a vehicle lift, specialist tools and diagnostic equipment appropriate for the different makes of vehicles that are being maintained;</li> <li>2.2 Access to manufacturers' technical information;</li> <li>2.3 Consumables for maintaining vehicle, including lubricants, fluids and replacement parts;</li> <li>2.4 Facilities for the disposal of waste oil and replaced serviceable parts;</li> <li>2.6 Personal protection equipment and suitable coverings to protect vehicles.</li> </ul>
3. Methods of Assessment.	<p><i>Competency may be assessed through:</i></p> <ul style="list-style-type: none"> <li>3.1 Observation</li> <li>3.2 Oral questioning</li> <li>3.3 Written test</li> </ul>
4. Context of Assessment.	<ul style="list-style-type: none"> <li>4.1 Competency may be assessed individually in an actual workplace or in work-simulated conditions within accredited institutions or industrial attachment</li> </ul>
5. Guidance information for assessment.	<ul style="list-style-type: none"> <li>4.2 Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.</li> </ul>