

Competency Standard

UNIT TITLE: CARRY OUT VEHICLE MAINTENANCE OR MINOR REPAIRS		NOMINAL HOURS: 80
UNIT NUMBER: D2.TTO.CL4.02		
UNIT DESCRIPTOR: This unit deals with skills and knowledge required to provide the scheduled service and basic repairs to vehicles.		
ELEMENTS AND PERFORMANCE CRITERIA	UNIT VARIABLE AND ASSESSMENT GUIDE	
<p>Element 1: Provide scheduled service to vehicles</p> <p>1.1 <i>Identify necessary minor servicing requirements for specific vehicles</i></p> <p>1.2 <i>Determine situations in which maintenance may need to be carried out</i></p> <p>1.3 <i>Undertake visual inspections of the vehicle</i></p> <p>1.4 <i>Check and adjust vehicle structure</i></p> <p>1.5 <i>Check and adjust lighting</i></p> <p>1.6 <i>Check and adjust vision-related items</i></p> <p>1.7 <i>Check and adjust entrances and exits</i></p> <p>1.8 <i>Check and adjust vehicle interior</i></p> <p>1.9 <i>Check and adjust brakes</i></p> <p>1.10 <i>Check and adjust steering</i></p> <p>1.11 <i>Check and adjust exhaust</i></p> <p>1.12 <i>Check and adjust towing connections</i></p>	<p>Unit Variables</p> <p>The Unit Variables provide advice to interpret the scope and context of this unit of competence, allowing for differences between enterprises and workplaces. It relates to the unit as a whole and facilitates holistic assessment.</p> <p>This unit applies to organisations that are involved in producing brochures and marketing materials within the labour divisions of the hotel and travel industries and may include:</p> <ol style="list-style-type: none"> 1. Travel Agencies 2. Tour Operation <p><i>Identify necessary minor servicing requirements</i> may include:</p> <ul style="list-style-type: none"> • Researching manufacturer requirements in relation to routine servicing periods and items to be checked and serviced • Reading owner manual • Identifying internal vehicle service periods and requirements that may override stated manufacturer's requirements 	

<p>1.13 <i>Check and adjust miscellaneous items</i></p> <p>1.14 <i>Check and adjust load restraints</i></p> <p>1.15 <i>Check and replenish on-board emergency equipment and supplies, where necessary</i></p> <p>1.16 <i>Make arrangements for external service provision where requirements cannot be accommodated internally</i></p> <p>1.17 <i>Comply with mandated safety requirements while undertaking service</i></p> <p>Element 2: Diagnose minor vehicle faults</p> <p>2.1 <i>Identify minor faults</i></p> <p>2.2 <i>Determine cause of faults</i></p> <p>Element 3: Undertake minor repairs to vehicles</p> <p>3.1 <i>Remove, repair and/or refit vehicle components</i></p> <p>3.2 <i>Use correct tools and follow manufacturer's instructions</i></p> <p>3.3 <i>Make arrangements for external repair provision where requirements cannot be accommodated internally</i></p> <p>3.4 <i>Comply with mandated safety requirements while undertaking repairs</i></p> <p>Element 4: Complete documentation</p> <p>4.1 <i>Ensure vehicle inspection checklists are completed, dated, signed and filed</i></p>	<ul style="list-style-type: none"> • Referring to documentation relating to previous servicing that has taken place • Talking with vehicle operators to identify items requiring attention • Identifying host country legislation that applies to the maintenance of commercial vehicles used for passenger transport. <p><i>Vehicles</i> will include any commercial vehicle, petrol or diesel, used by the employer to support the delivery of tours and/or transfers and may include:</p> <ul style="list-style-type: none"> • Cars • Four-wheel drives • Utilities • Light and heavy commercial vehicles • Combination vehicles. <p><i>Situations in which maintenance may need to be carried out</i> may include:</p> <ul style="list-style-type: none"> • Operations conducted at day or night • Typical weather conditions • In tight or confined spaces, exposed conditions and controlled or open environments • While in the depot, base or warehouse • While in the vehicle on the road/on tour • While at the client workplace. <p><i>Undertake visual inspections</i> may relate to:</p> <ul style="list-style-type: none"> • Looking for signs of damage • Checking for missing parts • Identifying leaking fluids • Identifying projections from the vehicle
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- 4.2** Complete internal documents to record provision of service and repairs
- 4.3** Adhere to requirements in relation to the completion and maintenance of vehicle service and repair documentation

- Noting defects and matters requiring attention
- Taking immediate action to rectify problems
- Checking condition of operator pedals, switches, knobs and other items required to operate or control the vehicle.

Check and adjust vehicle structure may relate to:

- Panels and chassis
- Vehicle stability and suspension
- Roof racks, pack racks and other similar fittings.

Check and adjust lighting may relate to:

- Headlights, front and rear fog lights and driving lights
- Turning indicators
- Side marker lights
- Brake lights
- Reversing lights, including reversing warning device
- Spotlights
- Rear reflectors
- Internal lights, including roof and individual passenger lights, map-reading lights, boot and cargo compartment lights
- Dashboard and instrument illumination
- Warning lights.

Check and adjust vision-related items may relate to:

- Glazing
- Sun visors
- Windscreen wipers and washing system
- Internal and external rear-view mirrors
- Condition of windscreen
- Demisters.

Check and adjust entrances and exits may relate to:

- Doors, including hinged, sliding and pneumatic
- Bonnet, boot, cargo holds and side/drop doors
- Entry steps, ramps and hoists
- Pneumatic supports used to keep doors open
- Emergency exits.

Check and adjust vehicle interior may relate to:

- Seats and seat anchorage
- Head restraints
- Aisles
- Seatbelts, restraints and anchor points
- Airbags
- Heating and ventilation
- Fire protection
- On-board signs and instructions

- Emergency passenger signals
- Audible warning devices.

Check and adjust brakes may relate to:

- Travel of brake pedal
- Condition of braking system and components, including fluid level
- Parking brake and on-board secondary braking systems.

Check and adjust steering may relate to:

- Steering wheel, steering column, linkages and joints
- Power steering systems, including fluid levels
- Steering box or rack
- Steering arms and kingpins
- Suspension
- Mounting points.

Check and adjust exhaust may relate to:

- Internal fumes
- External smoke
- Noise.

Check and adjust towing connections may relate to:

- Tow bar and chains
- Fixed/jockey wheel
- Draw beam
- Electrical connections.

Check and adjust miscellaneous items may relate to:

- Engine, including topping up and changing engine oil
- Transmission, including automatic transmission fluid level and gearbox oil level
- Fuel system, including dual fuel systems and changing of filters
- Electrical wiring
- Water, including levels in radiator, secondary supply reservoirs, windscreen washers, flushing cooling system and adding cooling system additives, where required
- Tires, including condition, pressures, on-road tires, spare tires and checking on-board compressors and pumps and other items used to deflate and inflate tires
- On-board personal service facilities, including toilets, sinks, radio, television, tape systems and other items specific to individual types of vehicles
- On-board communication systems, including public address systems, global positioning system, two-way radios and Emergency Position Indicating Radio Beacon (EPIRB)
- Equipment for driving vehicle in specific conditions, including wheel chains, studs and rails.

Check and adjust load restraints may relate to:

- Load anchorage
- Retention devices
- Cab guards, headboards, sideboards and tailboards
- Curtain systems
- Baggage and cargo restraints.

Make arrangements for external service provision may include:

- Contacting the authorised or preferred service provider
- Advising service provider of the nature of the fault or repairs required

	<ul style="list-style-type: none">• Making a booking for vehicle to be serviced• Ensuring vehicle is not used until the required service has been completed, where safety is a concern. <p><i>Mandated safety requirements</i> will include:</p> <ul style="list-style-type: none">• Compliance with legislated requirements in relation to occupational health, safety and welfare• Compliance with external inspection requirements by authorised officers and inspectors. <p><i>Identify minor faults</i> may include:</p> <ul style="list-style-type: none">• Talking with vehicle operators to identify type and nature of fault, including symptoms and indicators, frequency and conditions under which fault occurs/presents• Test driving vehicle to induce fault• Running stationary vehicle to induce fault. <p><i>Determine cause of faults</i> may include:</p> <ul style="list-style-type: none">• Referring to service and operator manuals• Seeking advice from manufacturer, including on-line advice, over the phone assistance and in-person help• Eliminating factors from the scenario that are causing the fault on a sequential and structured basis while continuing ongoing testing• Referring to personal experience• Loading vehicle onto jacks or hydraulic lift• Using applicable sensory appraisal, including sight, feel, smell and hearing• Monitoring on-board gauges and instruments• Monitoring externally attached diagnostic equipment.
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Vehicle components may include:

- Globes, reflectors and lenses
- Fan belt and other belts
- Fuses
- Spark plugs and glow plugs
- Mirrors
- Tires and tubes
- Coolant hoses.

Make arrangements for external repair provision may include:

- Contacting the authorised or preferred service provider
- Advising service provider of the nature of the repairs required
- Making a booking for vehicle to be repaired
- Ensuring vehicle is not used until the required repairs have been completed, where safety is a concern.

Complete internal documents may include:

- Describing service and repairs provided
- Updating future scheduled service times/dates
- Noting matters that will/may require attention at next service
- Costing items and labour involved in service and/or repair provision.

Requirements in relation to the completion and maintenance of vehicle service and repair documentation may include:

- Host enterprise requirements
- Legislated requirements

- Requirements imposed on the business by clients such as tour operators, venues and site operators who contract the use of vehicles
- Requirements imposed on the business by third parties such as insurers and auditors.

Assessment Guide

The following skills and knowledge must be assessed as part of this unit:

- Enterprise policies and procedures in regard to vehicle maintenance and minor repairs, authorisation to engage the services of external service providers, staff and customer safety and record keeping
- Knowledge of host country legislated and other requirements in relation to the service and maintenance of commercial passenger vehicles
- Principles of diagnosing vehicle faults
- Ability to use basic repair and maintenance tools, equipment and techniques
- Ability to apply knowledge of standard and basic maintenance and repair procedures
- Knowledge of vehicle manufacturer's instructions, specifications and recommended procedures for maintenance, troubleshooting and repairs
- Knowledge of safety requirements that apply when servicing and/or repairing vehicles.

Linkages To Other Units

- Implement occupational health and safety procedures
- Drive various types of service vehicles
- Establish and maintain safe touring conditions
- Drive large tour buses or coaches
- Manage operational risk
- Maintain tourism vehicles in safe and clean operational condition

- Operate and maintain a 4-WD vehicle in safe working condition
- Manage legal requirements for business compliance.

Critical Aspects of Assessment

Evidence of the following is essential:

- Understanding of host enterprise policies and procedures in regard to vehicle maintenance and minor repairs, authorisation to engage the services of external service providers, staff and customer safety and record keeping
- Understanding of host country legislated obligations that apply to the maintenance, inspection and repair of commercial passenger vehicles
- Demonstrated ability to inspect and provide scheduled/routine service to a nominated vehicle type at a designated scheduled service interval
- Demonstrated ability to provide effective and compliant service to a nominated vehicle type following its operation under designated adverse conditions such as sand, mud, water or off-road
- Demonstrated ability to diagnose and provide effective and compliant repairs to at least three simulated, minor and unidentified faults on a nominated vehicle.

Context of Assessment

Assessment must ensure:

- Actual or simulated workplace application of vehicle maintenance and repair skills.

Resource Implications

Training and assessment must include the use of real vehicles, real tools and resources and a range of vehicles requiring a range of maintenance and repair provisions; and access to workplace standards, procedures, policies, guidelines, tools and equipment. Note: vehicle faults and problems may be simulated.

Assessment Methods

The following methods may be used to assess competency for this unit:

- Observation of practical candidate performance
- Test runs of vehicles that have been serviced and/or repaired
- Portfolio of documents providing evidence of vehicle inspections, servicing and repairs
- Oral and written questions
- Third party reports completed by a supervisor
- Project and assignment work.

Key Competencies in this Unit

Level 1 = competence to undertake tasks effectively

Level 2 = competence to manage tasks

Level 3 = competence to use concepts for evaluating

Key Competencies	Level	Examples
Collecting, organising and analysing information	2	Check vehicles for faults and damage
Communicating ideas and information	1	Notify specialists regarding service and repair requirements
Planning and organising activities	1	Schedule vehicle servicing
Working with others and in teams	1	Liaise with vehicle operators to assist in fault diagnosis and identification of service and repair needs

	Using mathematical ideas and techniques	1	Calculate quantities/volumes of fluids, air and other resources needed to service and repair vehicles
	Solving problems	2	Identify and diagnose faults
	Using technology	2	Use diagnostic equipment to determine faults