



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **TDTB397B Carry out vehicle servicing and maintenance**

**Release: 1**

## **TDTB397B Carry out vehicle servicing and maintenance**

### **Modification History**

Not applicable.

### **Unit Descriptor**

Field B Equipment checking and maintenance

This unit involves the skills and knowledge required to carry out basic servicing and maintenance of a commercial vehicle, including action to implement the vehicle manufacturer's specifications for routine checks and maintenance and to ensure that all specified safety requirements are met and that the vehicle is operational to the requirements of both the workplace and the relevant State/Territory roads and traffic authority.

Field B Equipment checking and maintenance

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### **Application of the Unit**

Not applicable.

### **Licensing/Regulatory Information**

Not applicable.

### **Pre-Requisites**

Not applicable.

### **Employability Skills Information**

Not applicable.

### **Elements and Performance Criteria Pre-Content**

Not applicable.

## Elements and Performance Criteria

### Elements and Performance Criteria

<b>Element</b>	<b>Performance Criteria</b>
1 Maintain and service the vehicle systems	1.1 Fluid levels are checked and adjusted following manufacturer's specifications and workplace procedures 1.2 Air levels are checked and adjusted following manufacturer's specifications and workplace procedures 1.3 Routine checks are made of vehicle systems and appropriate action is initiated for maintenance where required in accordance with workplace procedures 1.4 Appropriate precautions and procedures are followed when servicing/maintaining a vehicle to ensure adequate protection of the environment 1.5 OHS procedures are followed when carrying out routine servicing and maintenance of a vehicle
2 Carry out minor repairs to a vehicle	2.1 Vehicle components are removed, repaired or replaced and refitted to the vehicle using the correct tools and following manufacturer's instructions and workplace procedures 2.2 Tyres on vehicle are repaired or replaced following workplace procedures and manufacturer's instructions 2.3 Worn brakes are identified and action taken in accordance with workplace procedures and manufacturer's specifications 2.4 The need for more complex maintenance procedures is identified and the problem correctly referred following workplace procedures
3 Diagnose minor vehicle faults and undertake repairs for the safe operation of a vehicle	3.1 Minor faults in the vehicle systems are identified, diagnosed and repaired following manufacturer's specifications and workplace procedures 3.2 Identified faults which create a safety hazard are reported and appropriate action is taken to remove

the vehicle from operation pending repair

- 4 Complete documentation
  - 4.1 Records of routine servicing, maintenance and repairs are kept in accordance with workplace procedures

## **Required Skills and Knowledge**

Not applicable.

## Evidence Guide

### Critical aspects of evidence to be considered

- a. Assessment must confirm appropriate knowledge and skills to:
  - a.1. diagnose basic vehicle faults and undertake repairs for the safe operation of a vehicle
  - a.2. carry out routine servicing and maintenance of vehicle systems
  - a.3. carry out minor repairs to a vehicle
  - a.4. identify typical basic servicing and maintenance problems and take appropriate action in conjunction with other staff as required
  - a.5. exercise all required safety, environmental and hazard control precautions and procedures during routine maintenance operations
  - a.6. communicate effectively with others when carrying out routine maintenance of a vehicle
  - a.7. complete required documentation

### Interdependent assessment of units

- a. This unit of competency may be assessed in conjunction with other units that are part of a worker's job function

### Required knowledge and skills

- a. Relevant 'duty of care' requirements for the routine servicing and maintenance of vehicles
- b. Relevant OHS and pollution control procedures
- c. Procedures for the checking and routine service and maintenance of a commercial vehicle in accordance with workplace and manufacturer's requirements and established safety rules and regulations
- d. Problems that may occur during the routine servicing and maintenance of a vehicle and appropriate action and solutions
- e. Recognition and diagnosis of faults and vehicle irregularities
- f. Basic principles of operation of systems on commercial vehicles, including:
  - f.1. electrical systems
  - f.2. fuel systems
  - f.3. cooling systems
  - f.4. steering systems
  - f.5. exhaust systems
  - f.6. tyres
  - f.7. brakes
- g. Basic fault finding procedures required during routine servicing and maintenance of vehicles
- h. Procedures required to minimise waste during routine servicing and maintenance
- i. Housekeeping standards required for routine servicing and maintenance
- j. Procedures for the use and maintenance of the materials, tools and parts required for routine servicing and maintenance
- k. Reporting and documentation requirements
- l. Reading and comprehension of simple statements in English
- m. Writing of simple reports
- n. Ability to perform work under the required level of supervision

### Resource implications

- a. Access is required to opportunities to:
  - a.1. participate in a range of exercises, case studies and other simulated practical and knowledge assessments that demonstrate the skills and knowledge to carry out routine servicing and maintenance on a commercial vehicle, and/or

a.2. carry out routine servicing and maintenance on a commercial vehicle in an appropriate range of operational situations

### **Consistency in performance**

a. Applies underpinning knowledge and skills when:

a.1. diagnosing basic vehicle faults and undertaking repairs for the safe operation of a vehicle

a.2. carrying out routine servicing and maintenance of vehicle systems

a.3. carrying out minor repairs to a vehicle

a.4. identifying basic servicing and maintenance problems and taking appropriate action in conjunction with other staff as required

a.5. exercising all required safety, environmental and hazard control precautions and procedures during routine servicing and maintenance

a.6. communicating effectively with others when carrying out routine maintenance of a vehicle

a.7. completing required documentation

b. Shows evidence of application of relevant workplace procedures including:

b.1. vehicle maintenance requirements of the relevant State/Territory road traffic authority

b.2. OHS regulations and hazard prevention policies and procedures

b.3. job procedures and work instructions

b.4. relevant vehicle manufacturer's guidelines relating to the routine servicing and maintenance of the vehicle

b.5. environmental protection procedures when carrying out routine servicing and maintenance

c. Action is taken promptly to report and/or rectify any identified vehicle faults or malfunctions in accordance with manufacturer's instructions, road traffic authority requirements and workplace procedures

d. Performance is demonstrated consistently over a period of time and in a suitable range of contexts

e. Work is completed systematically with required attention to detail

### **Context for assessment**

a. Assessment of this unit must be undertaken by a Registered Training Organisation:

a.1. As a minimum, assessment of knowledge must be conducted through appropriate oral and/or written questioning

a.2. Appropriate practical assessment must occur:

a.2.1. at the Registered Training Organisation, and/or

a.2.2. in an appropriate work situation

### **Critical aspects of evidence to be considered**

a. Assessment must confirm appropriate knowledge and skills to:

a.1. diagnose basic vehicle faults and undertake repairs for the safe operation of a vehicle

a.2. carry out routine servicing and maintenance of vehicle systems

a.3. carry out minor repairs to a vehicle

a.4. identify typical basic servicing and maintenance problems and take appropriate action in conjunction with other staff as required

a.5. exercise all required safety, environmental and hazard control precautions and procedures during routine maintenance operations

a.6. communicate effectively with others when carrying out routine maintenance of a vehicle

a.7. complete required documentation

### **Interdependent assessment of units**

a. This unit of competency may be assessed in conjunction with other units that are part of a worker's job function

**Required knowledge and skills**

a. Relevant 'duty of care' requirements for the routine servicing and maintenance of vehicles

b. Relevant OHS and pollution control procedures

c. Procedures for the checking and routine service and maintenance of a commercial vehicle in accordance with workplace and manufacturer's requirements and established safety rules and regulations

d. Problems that may occur during the routine servicing and maintenance of a vehicle and appropriate action and solutions

e. Recognition and diagnosis of faults and vehicle irregularities

f. Basic principles of operation of systems on commercial vehicles, including:

f.1. electrical systems

f.2. fuel systems

f.3. cooling systems

f.4. steering systems

f.5. exhaust systems

f.6. tyres

f.7. brakes

g. Basic fault finding procedures required during routine servicing and maintenance of vehicles

h. Procedures required to minimise waste during routine servicing and maintenance

i. Housekeeping standards required for routine servicing and maintenance

j. Procedures for the use and maintenance of the materials, tools and parts required for routine servicing and maintenance

k. Reporting and documentation requirements

l. Reading and comprehension of simple statements in English

m. Writing of simple reports

n. Ability to perform work under the required level of supervision

**Resource implications**

a. Access is required to opportunities to:

a.1. participate in a range of exercises, case studies and other simulated practical and knowledge assessments that demonstrate the skills and knowledge to carry out routine servicing and maintenance on a commercial vehicle, and/or

a.2. carry out routine servicing and maintenance on a commercial vehicle in an appropriate range of operational situations

**Consistency in performance**

a. Applies underpinning knowledge and skills when:

a.1. diagnosing basic vehicle faults and undertaking repairs for the safe operation of a vehicle

a.2. carrying out routine servicing and maintenance of vehicle systems

a.3. carrying out minor repairs to a vehicle

a.4. identifying basic servicing and maintenance problems and taking appropriate action in conjunction with other staff as required

a.5. exercising all required safety, environmental and hazard control precautions and procedures during routine servicing and maintenance

a.6. communicating effectively with others when carrying out routine maintenance of a vehicle

a.7. completing required documentation

- b. Shows evidence of application of relevant workplace procedures including:
  - b.1. vehicle maintenance requirements of the relevant State/Territory road traffic authority
  - b.2. OHS regulations and hazard prevention policies and procedures
  - b.3. job procedures and work instructions
  - b.4. relevant vehicle manufacturer's guidelines relating to the routine servicing and maintenance of the vehicle
  - b.5. environmental protection procedures when carrying out routine servicing and maintenance
- c. Action is taken promptly to report and/or rectify any identified vehicle faults or malfunctions in accordance with manufacturer's instructions, road traffic authority requirements and workplace procedures
- d. Performance is demonstrated consistently over a period of time and in a suitable range of contexts
- e. Work is completed systematically with required attention to detail

**Context for assessment**

- a. Assessment of this unit must be undertaken by a Registered Training Organisation:
  - a.1. As a minimum, assessment of knowledge must be conducted through appropriate oral and/or written questioning
  - a.2. Appropriate practical assessment must occur:
    - a.2.1. at the Registered Training Organisation, and/or
    - a.2.2. in an appropriate work situation



## Range Statement

### General context

- a. Work must be carried out in compliance with the regulations of the relevant roads and traffic authority
- b. Work is performed with limited or minimum supervision, with limited accountability and responsibility for self and others in achieving the prescribed outcomes
- c. Work involves the application of routine vehicle checking and maintenance principles and procedures to service and maintain a commercial vehicle across a variety of operational contexts

### Worksite environment

- a. Maintenance may be carried out in typical road transport situations, including:
  - a.1. operations conducted at day or night
  - a.2. typical weather conditions
  - a.3. in tight or confined spaces, exposed conditions and controlled or open environments
  - a.4. while in a depot, base or warehouse
  - a.5. while in the vehicle on the road
  - a.6. while at a client's workplace
- b. Type of vehicle may include any commercial road transport vehicle including:
  - b.1. light vehicle
  - b.2. heavy vehicle
  - b.3. combination vehicle
- c. Maintenance checks may include:
  - c.1. routine inspections of vehicle systems
  - c.2. checks prior to operations
  - c.3. checks on completion of operations
  - c.4. checks on completion of maintenance activities
- d. Minor routine repairs may include:
  - d.1. replacement of blown globes in vehicle lights
  - d.2. replacement of broken fan belt
  - d.3. replacement of blown fuse
  - d.4. door mirrors
  - d.5. repairs to rear tail-light lens
  - d.6. changing of tyres
  - d.7. repair of tyre punctures
  - d.8. replacement of broken coolant hose
- e. Minor routine servicing may include:
  - e.1. topping-up of water levels
  - e.2. replacement of oils
  - e.3. replacement of air in tyres
- f. Environmental hazards may include:
  - f.1. leaking oil and fuel
  - f.2. defective or inappropriately adjusted exhaust systems
  - f.3. inappropriate disposal of vehicle fluids in drains or sewerage systems
- g. Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:
  - g.1. company procedures
  - g.2. enterprise procedures

g.3. organisational procedures

g.4. established procedures

#### **Sources of information/documents**

a. Information/records may include:

a.1. workplace routine servicing and maintenance procedures, checklists and instructions

a.2. relevant State/Territory roads and traffic authority vehicle maintenance regulations

a.3. maintenance checklists and records

a.4. vehicle manufacturer's instructions, specifications and recommended procedures

a.5. precautions and procedures to be adopted to protect the environment when servicing and maintaining vehicles

a.6. OHS procedures to be followed when servicing and maintaining vehicles

#### **Applicable regulations and legislation**

a. Applicable regulations and legislation may include:

a.1. relevant State/Territory roads and traffic authority vehicle maintenance regulations and requirements

a.2. relevant State/Territory OHS legislation

a.3. relevant State/Territory environmental protection legislation

#### **General context**

a. Work must be carried out in compliance with the regulations of the relevant roads and traffic authority

b. Work is performed with limited or minimum supervision, with limited accountability and responsibility for self and others in achieving the prescribed outcomes

c. Work involves the application of routine vehicle checking and maintenance principles and procedures to service and maintain a commercial vehicle across a variety of operational contexts

#### **Worksite environment**

a. Maintenance may be carried out in typical road transport situations, including:

a.1. operations conducted at day or night

a.2. typical weather conditions

a.3. in tight or confined spaces, exposed conditions and controlled or open environments

a.4. while in a depot, base or warehouse

a.5. while in the vehicle on the road

a.6. while at a client's workplace

b. Type of vehicle may include any commercial road transport vehicle including:

b.1. light vehicle

b.2. heavy vehicle

b.3. combination vehicle

c. Maintenance checks may include:

c.1. routine inspections of vehicle systems

c.2. checks prior to operations

c.3. checks on completion of operations

c.4. checks on completion of maintenance activities

d. Minor routine repairs may include:

d.1. replacement of blown globes in vehicle lights

d.2. replacement of broken fan belt

d.3. replacement of blown fuse

d.4. door mirrors

d.5 repairs to rear tail-light lens

- d.6 changing of tyres
- d.7 repair of tyre punctures
- d.8. replacement of broken coolant hose
- e. Minor routine servicing may include:
  - e.1. topping-up of water levels
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  - e.3. replacement of air in tyres
- f. Environmental hazards may include:
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#### **Sources of information/documents**

- a. Information/records may include:
  - a.1. workplace routine servicing and maintenance procedures, checklists and instructions
  - a.2. relevant State/Territory roads and traffic authority vehicle maintenance regulations
  - a.3. maintenance checklists and records
  - a.4. vehicle manufacturer's instructions, specifications and recommended procedures
  - a.5. precautions and procedures to be adopted to protect the environment when servicing and maintaining vehicles
  - a.6. OHS procedures to be followed when servicing and maintaining vehicles

#### **Applicable regulations and legislation**

- a. Applicable regulations and legislation may include:
  - a.1. relevant State/Territory roads and traffic authority vehicle maintenance regulations and requirements
  - a.2. relevant State/Territory OHS legislation
  - a.3. relevant State/Territory environmental protection legislation

### **Unit Sector(s)**

Not applicable.