



Australian Government

DEFCA104 Operate and maintain an armoured vehicle

Release: 1

DEFCA104 Operate and maintain an armoured vehicle

Modification History

Release	TP version	Comments
1	DEF12 V2	First release. Equivalent to superseded unit DEFCA101B Operate and maintain an armoured fighting vehicle. Unit Descriptor updated. Application added. Language revised from armoured fighting vehicle to armoured vehicle. Required Skills and Knowledge updated. Minor Range Statement changes. PC in Element 2 removed.

Unit Descriptor

This unit covers the competency required to operate and perform operational level maintenance on an armoured vehicle.

This unit does not cover weapon systems, which is covered in DEFCA105 Operate and maintain armoured vehicle weapon systems.

People who undertake this work will be part of an armoured fighting vehicle crew.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication. In a Defence context, this means that there is no civilian need to hold this unit in order to meet licensing, legislative, regulatory or certification requirements.

Application of the Unit

This unit was developed for combat arms soldiers working within an operational zone in Defence. Typically these individuals must demonstrate the ability to work as individuals and as part of an armoured vehicle crew under direct and/or indirect supervision, use discretion and judgement, and take responsibility for the quality of their outputs.

All activities are carried out in accordance with relevant organisational policies and procedures.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a Unit of Competency.

Performance Criteria describe the required performance needed to demonstrate achievement of the element. Where *bold italicised* text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<p>1. Prepare armoured vehicle for operations</p>	<p>1.1 <i>Armoured vehicle</i> is <i>checked</i> for operation, documentation is completed and equipment is stowed in accordance with <i>standard procedures</i>.</p> <p>1.2 Armoured vehicle is <i>prepared for battle</i>.</p> <p>1.3 Armoured vehicle faults are identified, reported and/or rectified in accordance with standard procedures.</p> <p>1.4 Work health and safety (WHS) requirements and recognised safety precautions are applied throughout the operation in accordance with standard procedures.</p>
<p>2. Operate armoured vehicle</p>	<p>2.1 Road laws and other legislative requirements are applied throughout the operation in accordance with operational requirements and standard procedures.</p> <p>2.2 Armoured fighting vehicle is <i>driven</i> in accordance with operational requirements and standard procedures.</p> <p>2.3 <i>Tactical operating techniques</i> are applied in accordance with operational requirements and standard procedures.</p> <p>2.4 <i>Driving techniques</i> to negotiate <i>complex terrain</i> are applied in accordance with operational requirements and standard procedures.</p> <p>2.5 Faults are reacted to in accordance with operational requirements and standard procedures.</p> <p>2.6 <i>Vehicle communications systems</i> are operated in accordance with standard procedures.</p> <p>2.7 <i>Navigational techniques</i> are applied in accordance with orders and standard procedures.</p>
<p>3. Conduct operator maintenance</p>	<p>3.1 <i>Inspections and checks</i> are conducted to maintain armoured fighting vehicle performance in accordance with operational requirements and standard procedures.</p> <p>3.2 Armoured vehicle <i>sub-systems</i> and <i>ancillary equipment</i> are tested, adjusted or replaced in accordance with operational requirements and standard procedures.</p> <p>3.3 Relevant documentation is completed and stored in accordance with standard procedures.</p>

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- apply operational safety
- communication skills
- drive a vehicle
- employ relevant vehicle equipment
- fieldcraft skills
- maintenance skills
- navigation techniques
- work in a team

Required Knowledge

- armoured vehicle tactics, techniques and procedures
- characteristics and employment of vehicle weapon systems
- characteristics, technical capabilities, maintenance requirements and employment of vehicle communication systems
- characteristics, technical capabilities, maintenance requirements, effects, employment and limitations of vehicle
- current operational environment
- fieldcraft
- navigation techniques
- operational safety
- orders
- specific civil and military regulations relevant to the operation of the vehicle
- team work
- vehicle documentation

Evidence Guide

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to receive and apply orders; to react instinctively to orders; to operate the vehicle without a breach of safety procedures; to apply tactical operating techniques over cross country, roads and water crossings and to apply defensive driving techniques work as an effective member of the crew.

Consistency in performance

Competency should be demonstrated over a range of actual or simulated operator contexts that could be

expected in an operation.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in an operational or simulated operational environment. The simulation should replicate the live environment where stress and fatigue are key features. The individual must be assessed as part of a crew.

Specific resources for assessment

Access to an armoured vehicle, crew and suitable area for driving.

Range Statement

<p><i>Armoured vehicle</i> may include:</p>	<ul style="list-style-type: none"> • all current in-service equipment: <ul style="list-style-type: none"> • main battle tank family of vehicles • light armoured vehicle family of vehicles • light tracked armoured family of vehicles
<p><i>Checking an armoured vehicle</i> may include:</p>	<ul style="list-style-type: none"> • preparation for recovery and water operations • testing, adjusting and/or replacing: <ul style="list-style-type: none"> • air intake and exhaust system • braking systems • cooling system • engine lubrication system • firefighting equipment • fuel system • hydraulic system • lighting, electrical and charging system • pivot steering system • steering mechanical and hydraulic systems • suspension and running gear • transmission system • transfer case, differentials and marine drives • universal joints, drive shafts and planetary gears • vehicles batteries
<p><i>Standard procedures</i> may include:</p>	<ul style="list-style-type: none"> • Australian Standards • job guides, pamphlets and other publications • manufacturers' handbooks, industry specifications and technical instructions • WHS regulations • organisational policies and procedures • relevant local government by-laws • relevant state/territory or federal legislation • verbal and/or written orders and job instructions
<p><i>Preparing an armoured vehicle for battle</i> may include:</p>	<p>loading:</p> <ul style="list-style-type: none"> • ammunition • camouflage gear • fuel • water
<p><i>Driving an armoured vehicle</i> may include:</p>	<ul style="list-style-type: none"> • starting • steering • manoeuvring

	<ul style="list-style-type: none"> • positioning • stopping
<i>Tactical operating techniques</i> must include:	<ul style="list-style-type: none"> • specific patrol formations • methods of movement • adoption of fire positions • concealment procedures • turret down • hull down • all around defence • jockeying • counter surveillance techniques • use of ground to provide cover and concealment • physical concealment of vehicle
<i>Driving techniques</i> must include	<ul style="list-style-type: none"> • approach (entry/exit) • gear selection • speed • steering • use of brakes
<i>Complex terrain</i> may include:	<ul style="list-style-type: none"> • ascents and descents • bogs and marshlands • close country • dirt tracks • ditches • knife edges • open country • ridges • roads and highways • slopes • trenches • urban and rural areas • vertical steps • water courses
<i>Vehicle communication systems</i> may include:	<ul style="list-style-type: none"> • associated communication accessories • battlefield command support system • cipher equipment • HF installation • Remote and line equipment • UHF installation • VHF installation • vehicle intercommunication system
<i>Navigational techniques</i> may	<ul style="list-style-type: none"> • map marking

include:	<ul style="list-style-type: none"> • map reading • operating global positioning systems • route cards
<i>Inspections and checks</i> may include:	<ul style="list-style-type: none"> • first parade • halt parade • final parade • ancillary equipment • basic maintenance and fault finding • communication checks • functionality of key operating components • service engine • weapon systems operation
<i>Sub-systems</i> may include:	<ul style="list-style-type: none"> • air intake and exhaust system • armoured vehicle ramp system • compressed air and braking systems • cooling system • engine lubrication system • firefighting equipment • fuel system • heater • hydraulic system • lighting, electrical and charging system • nuclear, biological and chemical (nbc) system • pivot steering system • steering mechanical and hydraulic systems • suspension and running gear • transfer case, differentials and marine drives • transmission system • universal joints, drive shafts and planetary gears • vehicles batteries • water operations system • wheels and suspension
<i>Ancillary equipment</i> may include:	<ul style="list-style-type: none"> • block and tackle • chainsaw • de-humidifiers • emergency breathing apparatus • firefighting equipment • fuel pumps • generators • global positioning systems • night fighting equipment

	<ul style="list-style-type: none">• specialist medical equipment• specialist tools and equipment
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Unit Sector(s)

Not applicable.