



Australian Government

Department of Education, Employment and Workplace Relations

RIIMPO202A Undertake towing underground

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers undertaking towing in underground metalliferous mines.

Application of the Unit

This unit is appropriate for those working in mobile plant operator roles, underground operations within:

- Metalliferous mining

Licensing/Regulatory Information

Refer to Unit Descriptor.

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 performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for towing	1.1. Access, interpret and apply compliance documentation relevant to towing in underground metalliferous mines 1.2. Receive, interpret and clarify shift changeover details 1.3. Select personal protective equipment appropriate for work activities 1.4. Select appropriate type of towing equipment according to job type and specifications to maximise efficiency and effectiveness of work activities 1.5. Perform equipment pre-start checks 1.6. Carry out start-up procedures 1.7. Identify, address and report potential hazards and risks 1.8. Communicate with other equipment operators and personnel using approved communication methods 1.9. Identify, address and report environmental issues 1.10. Adhere to emergency procedures in case of fire and/or accident 1.11. Use approved dust suppression and extraction methods 1.12. Ensure area is well ventilated before entry into work area
2. Shackle and hitch vehicle/equipment	2.1. Identify towing/lifting points on vehicle/equipment 2.2. Select suitable towing equipment for type and size of vehicle/equipment 2.3. Hitch towing equipment to vehicle/equipment using approved method 2.4. Confirm security and balance of hitch prior to commencing tow
3. Tow and unhitch vehicle/equipment	3.1. Follow vehicle and site procedures for towing observing safe driving conventions 3.2. Monitor condition of ground and hitch and adjust towing accordingly 3.3. Proceed to destination by most direct route 3.4. Unhitch vehicle/equipment in authorised

	area using approved methods 3.5. Complete all required documentation clearly, concisely and on time 3.6. <i>Clean towing vehicle</i> and associated equipment
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Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

Specific skills are required to achieve the performance criteria in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required to Undertake towing underground:

- apply legislative, organisation and site requirements and procedures
- apply procedures for assessing towing options for vehicle/equipment
- apply hazard identification procedures
- apply procedures for operating and maintaining equipment
- use hand tools and equipment
- apply vehicle driving techniques
- apply vehicle refuelling requirements and procedures

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following, as required to Undertake towing underground:

- mine operational system
- hitching systems
- towing procedures
- underground procedures
- geological and technical data
- equipment parking
- environmental procedures
- equipment safety requirements
- start-up and shutdown procedures
- operational procedures and checks
- equipment processes, technical capability and limitations
- manufacturer's specifications
- emergency procedures
- driving regulations, rules and conventions
- vehicle refuelling procedures

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	The evidence required to demonstrate competency in this unit must be relevant to worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following: • knowledge of the requirements, procedures and instructions for towing underground • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of towing underground • working with others to undertake and complete towing underground that meets all of the required outcomes • consistent timely completion of towing underground that safely, effectively and efficiently meets the required outcomes
Context of and specific resources for assessment	• This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job. • Customisation of assessment and delivery environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second language issues.

	• Assessment of this competency requires typical resources normally used in the work environment. Selection and use of resources for particular worksites may differ due to site circumstances. • Where applicable, physical resources should include equipment modified for people with disabilities. • Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods: • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistently achieving the required outcomes • first hand testimonial evidence of the candidate's: • working with others to undertake and complete towing underground
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Relevant compliance documentation may include:	• legislative, organisation and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • codes of practice • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
Towing equipment may include:	• steel rope • shackles • couplers • hooks • ropes • rigid link • chains • blocks and wedges • jacks (hydraulic and mechanical) • truck mounted towing winch
Pre-start checks may include:	• air filter restriction indicator • cab (horn, lights, air conditioner) • cab condition (no rags in air conditioner vent, dirt around brake and accelerator pedals, seat condition, all gear secured) • cab mounts • computer systems • correct location of equipment • damage to equipment • danger tags • display instrumentation and gauges (indicators, gauges, laser levels) • emergency brake checks • emergency steering • engine and stop engine lights (orange and red) • fire suppression unit (pins in position in

	- triggers) - fluid leaks (oil/fuel/water - engine, transmission, hydraulic hoses, on ground, radiator, hoses) - fluid levels (windscreen washer tank, hydraulic oil, coolant, grease, water, engine oil, fuel, transmission) - light positioning and cleanliness - no combustible material around exhaust - personal proximity - portable fire extinguisher (bracket, gauge, hose, ease of access) - radiator top up tank - safety mechanisms operational (horn, operating lights) - start-up, park and shutdown procedures may include: - tyres and rim condition - vehicle is left secured - vehicle number - visual and audio warning devices and lights - wheel nuts and studs - windows (clean, emergency exit tag in place)
Potential hazards and risks may include:	- adjoining pit walls - brake failure - break and steering failure - bund and/or wall collapse - clean floor - communication failure - decline traffic - discharge area may include: - fatigue - fire - fire on equipment - hydraulic line failure - level surface - mount dismount injuries - pot holes - road conditions - rocks

	• spillage • stable ground • surface free of obstructions • unauthorised personnel • undercut brow • unsafe ground • visibility
Environmental issues may include:	• dust • fumes • noise • water
Emergency procedures may include:	• clean up • equipment shutdown procedures • evacuation procedures • First Aid • notification of authorities • safety equipment • use of personal protective equipment
Dust suppression and extraction methods may include:	• mobile/fixed sprays • screens (vent doors, vent blinds) • use of water trucks • ventilation bags operational • watering down site
Safe driving conventions may include:	• speed limits • mine lighting • site vehicle identification lights • right of way • parking in stockpiles • parking on incline/decline • refuelling procedures • rules at intersections • driving regulations, rules and conventions
Cleaning methods may include:	• degreasing • forced air • steam cleaning • vacuum/ ammeter • water
Tow vehicles may include:	• wheel drive (diesel, electric) • wheel drive • articulated • rigid

	• tipping or ejector tray
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Unit Sector(s)

Mobile Plant Operations

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.