



Australian Government

Department of Education, Employment and Workplace Relations

RIIHAN311A Conduct operations with integrated tool carrier

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers the conduct of integrated tool carrier operations in the resources and infrastructure industries. It includes planning and preparing for work; lifting and moving loads; selecting, removing and fitting attachments; and carrying out post-operational procedures. Licensing, legislative, regulatory and certification requirements that apply to this unit can vary between states, territories, and industry sectors. Relevant information must be sourced prior to application of the unit.

Application of the Unit

This unit is appropriate for those working in an operational role at worksites within:

- Civil construction
- Coal mining
- Drilling
- Extractive industries
- 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

<p>Elements describe the essential outcomes of a unit of competency.</p>	<p>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.</p>
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<p>1. Plan and prepare for operations and other safety measures</p>	<p>1.1. Access, interpret and apply compliance documentation relevant to the work activity</p> <p>1.2. Plan and prepare work according to site procedures and relevant legislation</p> <p>1.3. Receive, interpret and clarify shift changeover details</p> <p>1.4. Select personal protective equipment and other safety measures appropriate for work activities</p> <p>1.5. Select appropriate tools and equipment according to job type and specifications to maximise efficiency and effectiveness of work activities</p> <p>1.6. Inspect and assess site conditions and take action according to site requirements</p> <p>1.7. Perform equipment pre-start checks</p> <p>1.8. Identify, address and report potential risks and hazards</p> <p>1.9. Carry out start-up procedures according to manufacturer's specifications and site procedures</p> <p>1.10. Communicate with other equipment operators and personnel using approved communication methods</p> <p>1.11. Identify, address and report environmental issues</p> <p>1.12. Adhere to emergency procedures in case of fire and/or accident according to manufacturer's guidelines and site procedures</p>
<p>2. Lift and move load</p>	<p>2.1. Operate equipment safely within work environment, limitations, site conditions and capacity of equipment and attachments</p> <p>2.2. Monitor and manage equipment performance using appropriate indicators to aid efficient operations</p> <p>2.3. Assess site conditions and position equipment to ensure safety of other equipment and personnel</p> <p>2.4. Establish weight of load and select appropriate slings and lifting gear</p>

	<p>accordingly</p> <p>2.5. Secure load utilising approved method to ensure stability of the load and equipment and safety of other equipment and personnel</p> <p>2.6. Maintain safety of site by implementing appropriate safety provisions</p> <p>2.7. Guide movement of equipment using approved signals</p> <p>2.8. Complete all required documentation clearly, concisely and on time</p>
3. Complete operations	<p>3.1. Safely move integrated tool carrier between worksites, observing relevant codes and traffic management requirements</p> <p>3.2. Prepare integrated tool carrier for relocation in accordance with the manufacturer's specifications</p> <p>3.3. Safely park integrated tool carrier and prepare for maintenance and shutdown in accordance with manufacturer's manual and organisational requirements</p> <p>3.4. Inspect integrated tool carrier for faults in accordance with manufacturer's specifications and/or organisational requirements</p>
4. Select, remove and fit attachments	<p>4.1. Select attachment for the task</p> <p>4.2. Remove attachment, fit and test</p> <p>4.3. Use attachment in accordance with manufacturer's recommendations and design limits</p> <p>4.4. Remove and clean attachments and store in designated location</p>
5. Carry out post-operational procedures	<p>5.1. Inspect, fault find and report faults</p> <p>5.2. Carry out routine <i>operator servicing, maintenance and housekeeping tasks</i></p> <p>5.3. Maintain and process <i>records and reports</i></p> <p>5.4. Carry out regular programmed maintenance in accordance with manufacturer's and/or organisational requirements</p>

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 of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes the ability to carry out the following as required to conduct integrated tool carrier operations:

- apply legislative, organisation and site requirements and procedures
- interpret ground conditions
- use hand and power tools
- employ driving techniques
- use lifting techniques/tow
- refuel vehicle

Required knowledge

Specific knowledge is required to achieve the performance criteria of this unit, particularly for its application in the various circumstances in which this unit may be used. This includes knowledge of the following as required to operate an integrated tool carrier:

- site and equipment safety requirements
- techniques for calculating safe working loads
- materials safety data sheet and materials handling methods
- safe operating techniques in all terrain
- basic earthworks calculations
- site procedures
- geological and technical data (basic)
- equipment parking
- primary and secondary ventilation
- isolation procedures
- site safety requirements
- equipment safety requirements
- start-up and shutdown procedures
- operational procedures and checks
- equipment processes, technical capability and limitations
- lifting procedures/loading procedures
- slinging
- towing procedures

Evidence Guide

<p>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.</p>	
<p>Overview of assessment</p>	
<p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p>	<p>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:</p> <ul style="list-style-type: none"> • knowledge of the requirements, procedures and instructions for conducting integrated tool carrier operations • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of integrated tool carrier operations • working with others to undertake and complete the conduct of integrated tool carrier operations that meet all of the required outcomes • consistent timely completion of integrated tool carrier operations that safely, effectively and efficiently meet the required outcomes
<p>Context of and specific resources for assessment</p>	<ul style="list-style-type: none"> • 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. • Assessment of this competency requires typical resources normally used in a resources and infrastructure sector environment. Selection and use of resources for particular worksites may differ due to the site circumstances. • 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.

	<ul style="list-style-type: none"> • Customisation of assessment and delivery environment should sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second language issues. • 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	<p>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:</p> <ul style="list-style-type: none"> • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • implementation of appropriate requirements, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistent achievement of required outcomes • first hand testimonial evidence of the candidate's: <ul style="list-style-type: none"> • working with others to undertake and complete the integrated tool carrier operations
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

Range Statement

<p>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.</p>	
<p>Compliance documentation may include:</p>	<ul style="list-style-type: none"> • legislative, organisation and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • Employment and Workplace Relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
<p>Legislation may include:</p>	<ul style="list-style-type: none"> • site safety and health • site inspection • relevant OHS • explosives • environment
<p>Safety (OHS) means:</p>	<ul style="list-style-type: none"> • OHS requirements are to be in accordance with state or territory legislation and regulations, organisational safety policies and procedures, and site or project safety plan, including protective clothing and equipment, use of tools and equipment, workplace environment and safety, handling of materials, use of fire fighting equipment, use of First Aid equipment, hazard control, hazardous materials and substances • personal protective equipment is to include that prescribed under legislation, regulation and workplace policies and practices • safe operating procedures are to include the following: <ul style="list-style-type: none"> • recognising and preventing hazards associated with underground and overhead services • other machines • personnel • restricted access barriers • traffic control • working at heights

	<ul style="list-style-type: none"> • working in proximity to others • worksite visitors and the public • safe parking practices including ensuring : <ul style="list-style-type: none"> • access ways are clear • equipment/machinery is away from overhangs and refueling sites, a safe distance from excavations and secured from unauthorised access or movement • hazards and risks including <ul style="list-style-type: none"> • uneven/unstable terrain • trees • fires • overhead and underground services • bridges • buildings • excavations • traffic • embankments • cuttings • structures • hazardous materials • ventilation • dust suppression may include: <ul style="list-style-type: none"> • watering down site • use of water trucks • mobile/fixed sprays • screens (vent doors, vent blinds) • ventilation bags operational emergency procedures related to this unit are: <ul style="list-style-type: none"> • emergency shutdown and stopping • extinguishing fires • organisational First Aid requirements • evacuation
Tools and equipment may include:	<ul style="list-style-type: none"> • lifting and maintenance equipment relevant to the integrated tool carrier
Pre-start checks may include:	<ul style="list-style-type: none"> • visual and audio warning devices and lights • engine and stop engine lights (orange and red) • fluid levels (windscreen washer tank, hydraulic oil, coolant, grease, water, engine oil, fuel transmission)

	<ul style="list-style-type: none"> • cab (horn, lights, air conditioner) • air filter restriction indicator • display instrumentation and gauges (indicators, gauges, laser levels) • computer system • vehicle number • danger tags • personnel proximity • tyres and rim condition/wheel nuts and studs • light positioning and cleanliness • radiator top up tank • oil leaks (engine, transmission, hydraulic hoses, on ground) fuel leaks (engine, on ground) • water leaks (radiator, hoses) • no combustible material around exhaust • damage to equipment • portable fire extinguisher (bracket, gauge, hose, ease of access) • fire suppression unit (pins in position in triggers) • cab mounts • windows (clean, emergency exit tag in place) • engine oil to be checked before starting engine • grease lines • cab condition (no rags in air conditioner vent, dirt around brake and accelerator pedals, seat condition, all gear secured)
Risks and hazards may include:	<ul style="list-style-type: none"> • equipment malfunction • unsafe ground • adjoining pit walls • road conditions • rocks • pot holes • spillage • decline traffic • visibility • unauthorised personnel • mount dismount injuries
Communication methods may include:	<ul style="list-style-type: none"> • signage • hand signals • horn and/or whistles • radio

	<ul style="list-style-type: none"> • telephone • lights • written and verbal • flags • emergency communication and signalling procedures
Environmental issues may include:	<ul style="list-style-type: none"> • dust • fumes • noise • water
Work environment may include:	<ul style="list-style-type: none"> • confined spaces • working within capacity of equipment • road clearances • ample vision
Indicators may include:	<ul style="list-style-type: none"> • brake air pressure • brake oil temperature • computer indicators • engine oil pressure • service meter • speedometer/odometer • tachometer • oil temperature • voltmeter • water temperature
Site conditions may include:	<ul style="list-style-type: none"> • wet • dry • stability of ground • broken ground • stable ground (compaction), amount of scale • slope of working surface • location of water table • ventilation characteristics (fumes, dust) • visibility • noise
Operator service, maintenance and housekeeping tasks are those established and authorised for the site and may include:	<ul style="list-style-type: none"> • cleaning, • authorised servicing and the monitoring • recording and reporting of faults • conduct of authorised minor replacements • provision of assistance to maintenance personnel during maintenance and repair activities

Records and reports may include:	<ul style="list-style-type: none">• fuel usage• computer readings• end of shift documentation• supplies logs• work logs stockpile information• quality information• despatch details
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Unit Sector(s)

Load Handling

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.