



Australian Government

Department of Education, Employment and Workplace Relations

PMASUP237B Undertake crane, dogging and load transfer operations

Revision Number: 1

PMASUP237B Undertake crane, dogging and load transfer operations

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency applies to an operator who has a qualification as a crane operator or licensed dogger, or who is licensed to operate heavy machinery, moves materials and portable plant around a site. It covers the safe movement of equipment and supplies, correct stacking, loading and unloading of supplies and equipment and initiating routine and emergency maintenance on equipment.
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Application of the Unit

Application of the unit	<p>Generally the operations technician would be part of a team and may be expected to be capable of performing all parts of this unit. At all times they would be liaising and cooperating with other members of the team.</p> <p>This unit does not include forklift operation. For forklift operation see <i>TDTD1097 Operate a forklift</i>.</p> <p>There may be licensing requirements for this unit. Check local regulations.</p>
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units	
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Employability Skills Information

Employability skills	This unit contains employability skills.
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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. Plan and prepare work.	1.1. Carry out a job hazard analysis/job safety analysis for job 1.2. Adhere to site requirements 1.3. Secure a permit to work as required 1.4. Determine coordination requirements with other site personnel 1.5. Determine job method to include hazard prevention and controls, Australian standards for safety procedures, codes of practice and manufacturer specifications 1.6. Erect barricades, warning signs, overhead protection to requirements 1.7. Calculate mass and dimensions of load 1.8. Calculate safe working load 1.9. Determine positioning of load.
2. Select equipment.	2.1. Select lifting/moving equipment and accessories consistent with requirements and within safe working capacity of equipment 2.2. Inspect gear and label and reject damaged/worn items 2.3. Select, use and correctly fit personal protective equipment.
3. Secure load.	3.1. Secure load and protect to prevent damage 3.2. Secure moving/loose parts of load and lash to prevent movement 3.3. Attach, position, adjust and secure equipment correctly, to meet requirements for movement of load.
4. Move load.	4.1. Prepare load destination to accept load 4.2. Move load safely to required destination in accordance with planned procedure 4.3. Use standard communication signals to co-ordinate safe movement of the load.
5. Remove gear.	5.1. Remove equipment/gear/accessories safely from load 5.2. Inspect equipment/gear/accessories for wear and damage, clean, maintain and store, and record usage and condition 5.3. Complete site/job records.
6. Control hazards.	6.1. Identify hazards in site work area 6.2. Assess the risks arising from those hazards 6.3. Implement measures to control those risks in line with procedures and duty of care.
7. Respond to problems.	7.1. Monitor transfer frequently and critically throughout load shifting using measured/indicated data and senses (sight, hearing, etc) as appropriate. 7.2. Recognise transfer problems

ELEMENT	PERFORMANCE CRITERIA
	7.3. Analyse cause of transfer problems within scope of skill level 7.4. Take timely and appropriate action to solve transfer problems.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE
This describes the essential skills and knowledge and their level, required for this unit.
Required skills
Ability to isolate the causes of problems to an item of equipment within the load shifting system and to distinguish between causes of problems/alarms/fault indications such as: <ul style="list-style-type: none"> • equipment failures • load spills or damage • electrical failure • mechanical failure • operational problems.
Required knowledge
<ul style="list-style-type: none"> • safe working capacity and limits of the equipment • company specific work organisations and workflow • all items on a schematic of the equipment and the function of each • nature/condition of materials being shifted and the particular hazards of each.

Evidence Guide

EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Assessment of this unit should include demonstrated competence on actual plant and equipment in a work environment. The unit will be assessed in as holistic a manner as is practical and may be integrated with the assessment of other relevant units of competency. Assessment will occur over a range of situations, which will include disruptions to normal, smooth operation.

Simulation may be required to allow for assessment of parts of this unit. Simulation should be based on the actual plant and will include walk throughs of the relevant competency components. Simulations may also include the use of case studies/scenarios, role plays and 3D virtual reality interactive systems. In the case of evacuation training or training for competencies practised in life threatening situations, simulation may be used for the bulk of the training.

This unit of competency requires an application of the knowledge contained in the use of the load shifting equipment, to the level needed to maintain control and recognise and resolve problems. This can be assessed through questioning and the use of what-if scenarios both on the plant (during demonstration of normal operations and walk-throughs of abnormal operations) and off the plant.

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

Competence must be demonstrated in the ability to apply pre-requisite skills within the context of an operating plant, recognise and analyse potential situations requiring action and then in implementing appropriate corrective action. The emphasis should be on the ability to stay out of trouble rather than on recovery from a disaster.

Consistent performance should be demonstrated. In particular look to see that:

- early warning signs of equipment/processes needing attention or with potential problems are

EVIDENCE GUIDE	
	<p>recognised</p> <ul style="list-style-type: none"> the range of possible causes of problems can be identified and analysed and the most likely cause determined appropriate action is taken to ensure a safe lifting operation is performed obvious problems in related plant areas are recognised and an appropriate contribution made to their solution. <p>These aspects may be best assessed using a range of scenarios/case studies/what-ifs as the stimulus with a walk-through forming part of the response. These assessment activities should include a range of problems, including new, unusual and improbable situations which may have been generated from the past incident history of the plant, incidents on similar plants around the world, hazard analysis activities and similar sources.</p>
Context of and specific resources for assessment	As a general rule assessment will require access to an operating plant over an extended period of time, or a suitable method of gathering evidence of operating competence over a range of situations. A bank of scenarios/case studies/what-ifs will be required as will a bank of questions which will be used to probe the reasoning behind the observable actions.
Method of assessment	In all plants it may be appropriate to assess this unit concurrently with relevant teamwork and communication units.
Guidance information for assessment	Assessment processes and techniques must be culturally appropriate and appropriate to the oracy language and literacy capacity of the assessee and the work being performed.

Range Statement

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. Add any 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.</p>	
Codes of practice/standards	Where reference is made to industry codes of practice, and/or Australian/international standards, the latest version must be used.
Context	<p>This unit of competency includes all such items of equipment and unit operations which form part of the site load-shifting system. For your plant this may include (select relevant items):</p> <ul style="list-style-type: none"> • crane • front end loader • dogging and rigging equipment • load-shifting equipment, eg slings, ropes, shackles, eye bolts, spreader beams, equalising gear, clamps, pulley systems, winches, packs, rigging screws. <p>Typical of the plant and equipment moved are:</p> <ul style="list-style-type: none"> • packaged compressor units • large pumps and valves • pipe.
Site information	<p>Site information may include:</p> <ul style="list-style-type: none"> • plans • drawings • specifications.
Requirements	<p>Requirements may be set by:</p> <ul style="list-style-type: none"> • State regulatory bodies • road traffic authorities • local government • enterprise/company.
Typical Problems	<p>Typical problems for your plant may include:</p> <ul style="list-style-type: none"> • unstable loads or load swinging • faulty or damaged lifting gear • obstructions on site • unsafe lifting practices.
Appropriate	Appropriate action includes:

RANGE STATEMENT	
action	<ul style="list-style-type: none"> • determining problems needing action • determining possible fault causes • rectifying problem using appropriate solution within area of responsibility • following through items initiated until final resolution has occurred • reporting problems outside area of responsibility to designated person.
Procedures	<p>Procedures may be written, verbal, computer-based or in some other form. They include:</p> <ul style="list-style-type: none"> • all work instructions • standard operating procedures • formulas/recipes • batch sheets • temporary instructions • any similar instructions provided for the smooth running of the plant. <p>For the purposes of this Training Package, 'procedures' also includes good operating practice as may be defined by industry codes of practice (eg Responsible Care) and government regulations.</p>
Health, safety and environment (HSE)	<p>All operations to which this unit applies are subject to stringent health, safety and environment requirements, which may be imposed through State or Federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between Performance Criteria and HSE requirements, the HSE requirements take precedence.</p>

Unit Sector(s)

Unit sector	Support/generic
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		
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