



Australian Government

PMASUP237 Undertake crane, dogging and load transfer operations

Release: 1

PMASUP237 Undertake crane, dogging and load transfer operations

Modification History

Release 1. Supersedes and is equivalent to PMASUP237B Undertake crane, dogging and load transfer operations

Application

This unit of competency covers the skills and knowledge required to use load shifting equipment to move materials and portable plant around a site.

This unit of competency applies to operators who hold a qualification as a crane operator or licensed dogger or are licensed to operate heavy machinery.

This unit of competency applies to operators who are required to move equipment and supplies, load, unload and stack the items, and initiate routine and emergency maintenance on equipment.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members and the control room operator, as appropriate.

Some jurisdictions may require the holder of this unit to be licensed or certified and users should check with the relevant authorities.

Pre-requisite Unit

Nil

Competency Field

Support

Unit Sector

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

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|---|------------------------------|-----|---|
| 1 | Plan and prepare work | 1.1 | Carry out a job hazard analysis (JHA)/job safety analysis (JSA) for job |
| | | 1.2 | Adhere to site requirements |
| | | 1.3 | Secure a permit to work, as required |

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| | 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 and overhead protection to requirements |
| | 1.7 | Determine mass and dimensions of load |
| | 1.8 | Determine safe working load (SWL) |
| | 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 (PPE) |
| 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 coordinate 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 smell, sight, sound and feel as appropriate
		7.2	Recognise transfer problems
		7.3	Analyse cause of transfer problems within scope of skill level
		7.4	Take timely action to solve transfer problems

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Regulatory framework The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used, and include one or more of the following:

- legislative requirements, including work health and safety (WHS)

- industry codes of practice and guidelines
- environmental regulations and guidelines
- Australian and other standards
- licence and certification requirements
- road traffic authority requirements

All operations to which this unit applies are subject to stringent health, safety and environment (HSE) requirements, which may be imposed through state/territory 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.

Procedures All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, include one or more of the following:

- plans
- drawings
- specifications
- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant

Hazards Hazards include one or more of the following:

- electricity
- gas
- gases and liquids under pressure
- structural hazards
- structural collapse
- equipment failures
- industrial (machinery, equipment and product)
- equipment or product mass
- noise, rotational equipment or vibration
- plant services (steam, condensate and cooling water)

- limited head spaces or overhangs
- working at heights, in restricted or confined spaces, or in environments subjected to heat, noise, dusts or vapours
- flammability and explosivity
- hazardous products and materials
- unauthorised personnel
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- extreme weather
- other hazards that might arise

Routine problems

Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of the following:

- unstable loads or load swinging
- faulty or damaged lifting gear
- obstructions on site
- unsafe lifting practices

Known solutions are drawn from one or more of the following:

- procedures
- training
- remembered experience

Non-routine problems must be reported according to relevant procedures.

Load shifting equipment

This unit of competency includes all such items of equipment and unit operations which form part of the site load-shifting system, including as appropriate to the facility:

- crane
- front end loader
- dogging and rigging equipment
- load-shifting equipment (e.g. slings, ropes, shackles, eye bolts, spreader beams, equalising gear, clamps, pulley systems, winches, packs and rigging screws)

Typical of the plant and equipment moved are:

- packaged compressor units
- large pumps and valves
- pipe

Action Action taken in response to problems includes one or more of the following:

- 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

Unit Mapping Information

Release 1. Supersedes and is equivalent to PMASUP237B Undertake crane, dogging and load transfer operations

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=9fc2cf53-e570-4e9f-ad6a-b228ffdb6875>

Assessment Requirements for PMASUP237 Undertake crane, dogging and load transfer operations

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to:

- determine work permit requirements
- select and use equipment to secure, move and remove loads
- undertake checks and inspections to confirm processes and equipment conform to safety requirements and job specifications
- determine the most likely cause of routine problems and take action to ensure a timely return to full performance
- distinguish between causes of problems/alarms/fault indications, such as:
 - equipment failures
 - load spills or damage
 - electrical failure
 - mechanical failure
 - operational problems
- complete records.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe working capacity and limits of the equipment
- company-specific work organisations and work flow
- nature/condition of materials being shifted and the particular hazards of each
- organisational procedures, including those covering:
 - work permit systems
 - safety, hazards and hazard control
 - personal protective equipment (PPE)
 - organisation standard operating procedures (SOPs)
- hierarchy of control.

Assessment Conditions

- The unit should be assessed holistically and the judgement of competence based on a holistic assessment of the evidence.
- The collection of performance evidence:
 - should occur over a range of situations which include typical disruptions to normal, smooth operation of an operating plant
 - will typically include a supervisor/third-party report or other evidence, focusing on consistent performance and problem recognition and solving. A supervisor/third-party report must be prepared by someone who has a direct, relevant, current relationship with the person being assessed and who is in a position to form a judgement on workplace performance relevant to the unit of competency
 - must include the use of appropriate industrial load shifting equipment and the moving of actual industrial type loads requiring demonstration of load transfers
 - may use industry-based simulation for part only of the unit where safety, lack of opportunity or significant cost is an issue.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment in a simulated environment should use evidence collected from one or more of:
 - walk-throughs
 - pilot plant operation
 - demonstration of skills
 - industry-based case studies/scenarios
 - 'what ifs'.
- Knowledge evidence may be collected concurrently with performance evidence (provided a record is kept) or through an independent process, such as workbooks, written assessments or interviews (provided a record is kept).
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- The regulatory framework will be reflected in workplace policies and procedures and is not required to be independently assessed.
- Foundation skills are integral to competent performance of the unit and should not be assessed separately.
- Assessors must satisfy the assessor competency requirements that are in place at the time of the assessment as set by the VET regulator.

- In addition, the assessor or anyone acting in subject matter expert role in assessment must demonstrate both technical competency and currency. If the assessor cannot demonstrate technical competency and currency they must assess with a subject matter expert who does meet these requirements.
- Technical competence can be demonstrated through one or more of:
 - relevant VET or other qualification/Statement of Attainment
 - appropriate workplace experience undertaking the type of work being assessed under routine and non-routine conditions
 - appropriate workplace experience supervising/evaluating the type of work being assessed under routine and non-routine conditions
- Currency can be demonstrated through one or more of:
 - being currently employed undertaking the type of work being assessed
 - being employed by the organisation undertaking the type of work being assessed and having maintained currency in accordance with that organisation's policies and procedures
 - having consulted/had contact with an organisation undertaking the type of work being assessed within the last twelve months, the consultation/contact being related to assessment
 - conducting on-the-job training/assessments of the type of work being assessed
 - being an active member of a relevant professional body and participating in activities relevant to the assessment of this type of work

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