



Australian Government

Department of Education, Employment and Workplace Relations

RIIHAN306A Carry out lifting using multiple cranes

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit covers carrying out lifting using multiple cranes in the resources and infrastructure industries. It includes planning and preparing for a multiple lift and carrying out a multiple lift. 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
1. Plan and prepare for multiple lift	1.1. Access, interpret and apply compliance documentation relevant to the work activity 1.2. Obtain, interpret and clarify/confirm work requirements in the form of shift briefings, handover details or work orders before proceeding 1.3. Conduct work preparation in accordance with AS2550, legislation and manufacturers/site requirements 1.4. Carry out assembly and dismantling of boom/jib 1.5. Resolve coordination activities with others at the site prior to commencement of, and during, the work activity 1.6. Carry out crane pre-start, start-up, park-up and shutdown procedures 1.7. Position, stabilise and level cranes prior to commencement of multiple lift in accordance with relevant standards and specifications, and approved man-basket permit and use procedures
2. Carry out multiple lift	2.1. Obtain approval to carry out a multiple crane lift from the appropriate statutory authority 2.2. Plan multiple lift and obtain approval for lifting plan by an authorised person 2.3. Clarify and confirm multiple lift activities and responsibilities with the other crane operators 2.4. Carry out the multiple lift under the supervision of an authorised person in accordance with the appropriate standards, regulations and site safety requirements 2.5. Prepare load for lift in accordance with crane limitations and rigging requirements 2.6. Confirm the work area is clear and safe prior to commencing multiple lift 2.7. Interpret signals in accordance with AS2550 2.8. Use relevant crane controls and functions within manufacturer's specifications to

	<p>effectively lift and position loads</p> <p>2.9. Act on or report monitoring systems and alarms</p> <p>2.10. Recognise and respond to <i>hazardous and emergency situations</i></p>
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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 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 carry out lifting using multiple cranes:

- apply legislative, organisation and site requirements and procedures for carrying out lifting using multiple cranes
- apply operational safety requirements
- access, interpret and apply technical information
- calculate volume, weights
- maintain equipment records
- apply fault finding techniques
- comply with environmental requirements
- dispose of environmentally sensitive fluids and materials

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 carry out lifting using multiple cranes:

- Australian standards related to cranes/lifting
- site and equipment safety requirements
- crane equipment characteristics, technical capabilities and limitations
- multiple lift plans and planning
- multiple lifting operational procedures
- basic rigging and slinging requirements
- hand and whistle signals
- site environmental requirements and constraints related to crane operations
- hazardous chemicals
- emergency 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 carrying out lifting using multiple cranes • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of lifting using multiple cranes • working with others to undertake and carrying out lifting using multiple cranes that meet all of the required outcomes • consistent, timely completion of carrying out lifting using multiple cranes 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

	<p>required on the job.</p> <ul style="list-style-type: none"> • 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. • 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 carrying out lifting using multiple cranes
Guidance information for assessment	<p>Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.</p>

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, including: <ul style="list-style-type: none"> • AS2550 • cranes and state-based legislation and regulations • safety information and procedures • management plans • OHS policy • code of practice • manufacturer's instructions • safe working or job procedures • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
<p>Shift briefings/handover details/work orders may include:</p>	<ul style="list-style-type: none"> • crane equipment to be used • nature and scope of tasks • details of load chart/factors • achievement targets • working conditions • site lighting arrangements • defects on equipment • hazards and potential hazards • coordination requirements/issues
<p>Work preparation may include:</p>	<ul style="list-style-type: none"> • selection of stable base • clarification of multiple lift procedure • avoidance of obstacles and hazards • identification of loads • identification and selection of lifting equipment • inspection and certification of lifting equipment • fitting of optional implements/accessories

	<ul style="list-style-type: none"> • management of permits and tags
Plan multiple lifts may include:	<ul style="list-style-type: none"> • an assessment of the load to be carried by each crane • determination of the types of cranes suitable for use • the safety margins and hazard control measures to be used in the lift • the sequence of operations
Site safety requirements may include:	<ul style="list-style-type: none"> • control and safety of slewing speed • selection and observance of safe working levels and angles • avoidance of obstacles and hazards • boarding and disembarking procedures • observation of wind restrictions • communications and signalling procedures
Crane controls and functions may include:	<ul style="list-style-type: none"> • boom up • boom down • boom extensions • hoist up • hoist down • manual jib and fly-jib extensions • slew
Hazardous and emergency situations may include:	<ul style="list-style-type: none"> • accidents • injuries • power lines • trees • overhead service lines • bridges • surrounding buildings • obstructions • structures • facilities • other equipment • dangerous materials • earthworks • underground services • adverse weather conditions • time of day

Unit Sector(s)

Load Handling

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.