



Australian Government

Department of Education, Employment and Workplace Relations

RIIHAN212A Conduct non-slewing crane operations

Release: 2

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Modification History

Not applicable.

Unit Descriptor

This unit covers the operation of non-slewing cranes, other than gantry cranes in the resources and infrastructure industries. It includes planning and preparation, operating the crane and crane operator maintenance. The work required in this unit relates to the National Standard for High Risk Work. 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

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 for non-slewing crane operations	1.1. Access, interpret and apply compliance documentation relevant to the work activity 1.2. Access, interpret and confirm work requirements prior to proceeding 1.3. Identify and control site hazards and access, interpret and apply safety information and procedures throughout the work 1.4. Coordinate activities at the site prior to commencement of and during operations
2. Operate non-slewing crane	2.1. Carry out pre-start, start-up, park-up and shut-down procedures in accordance with Australian standards, manufacturer's and/or site requirements 2.2. Position crane safely prior to commencement of lift operations in accordance with Australian standards, manufacturer's specifications and approved man-basket operation procedures 2.3. Use relevant crane controls and functions within manufacturer's specifications to effectively lift and position loads or personnel as required 2.4. Respond to monitoring systems and alarms in accordance with manufacturer's instructions and site procedures 2.5. Recognise and respond to hazardous and emergency situations in accordance with manufacturer's instructions and site procedures 2.6. Complete work in accordance with the agreed plan and within the operating capacities of the allocated equipment 2.7. Interpret signals in accordance with AS2550
3. Travel crane	3.1. Plan the route so crane will travel on firm and level surfaces 3.2. Identify and control hazards en route 3.3. Maintain Australian standards, manufacturer's instructions and site requirements when crane is travelling

4. Perform multiple crane lift	4.1. Obtain approval to perform a multiple crane lift from the appropriate statutory authority. 4.2. Plan multiple crane lift and obtain approval for lifting plan by an authorised person 4.3. Perform the multiple crane lift under the supervision of an authorised person in accordance with the appropriate Australian standard and other statutory regulations
5. Perform crane operator maintenance	5.1. Inspect non slewing crane report/repair faults in accordance with manufacturer instructions and site requirements 5.2. Perform routine operational servicing, lubrication and housekeeping tasks in accordance with manufacturer instructions and site authorised procedures and practices 5.3. Perform minor maintenance to manufacturer instructions and site requirements 5.4. Support operator during the preparation and procedure of major maintenance tasks in accordance with site requirements 5.5. Process records in accordance with site requirements

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 non-slewing operations:

- apply legislative, organisation and site requirements and procedures for the operation of non-slewing cranes
- calculate volume and weights
- access interpret and apply technical information relating to the operations of non-slewing cranes other than gantry cranes
- maintain equipment records
- use hand and power tools
- apply fault finding techniques when planning to operate a non-slewing cranes other than gantry cranes
- 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 operate a non slewing crane:

- Australian standards related to cranes/lifting
- site and equipment safety requirements
- non-slewing crane other than gantry crane equipment characteristics, technical capabilities and limitations
- non-slewing crane other than gantry crane operational procedures
- non-slewing crane other than gantry crane maintenance systems and procedures
- basic geological and survey data related to non-slewing cranes other than gantry cranes
- basic rigging and slinging methods
- hand and whistle signals
- site environmental requirements and constraints related to non-slewing cranes other than gantry cranes
- Hazchem relevant to non-slewing cranes other than gantry cranes

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 the operation of non-slewing cranes • implementation of requirements, procedures and techniques for the safe, effective and efficient completion of non-slewing crane operations • working with others to undertake and complete the operation of non slewing cranes that meets all of the required outcomes • consistent timely completion of non-slewing crane operations 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. • 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.

	• 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	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 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: • working with others to undertake and complete the operation of non slewing cranes
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.

Compliance documentation may include:	• legislative, organisation and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards, particularly AS2550 • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
Work requirements may include:	• shift briefings • handover details • work orders • 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 identification and control • coordination of work
Hazards may include:	• power lines • trees • overhead service lines • bridges • surrounding buildings • obstructions • structures • facilities • other equipment • dangerous materials • earthworks • underground services
Safety information and	• legislation and regulations

procedures may include:	• relevant Australian standards • hazard identification and control • management plans • OHS policy • code of practice • manufacturer's instructions • safe working or job procedures • control and safety of travelling speed • selection and observance of safe working levels and angles • boarding and disembarking procedures • communications and signalling procedures
Prepare for operations may include:	• selection of stable base • avoidance of obstacles • hazard identification and hazard control • identification of load • identification and selection of lifting equipment • inspection and certification of lifting equipment • management of permits and tags
Crane controls and functions may include:	• boom up • boom down • boom extensions • hoist up • hoist down • manual jib extensions
Multiple crane lift may include:	• assessment of the load to be carried by each crane • determination of the types of cranes suitable for use • safety margins to be used in the lift • hazard identification and control measures • sequence of operations
Records may include:	• maintenance records • handover records • records of breaks • log books

Unit Sector(s)

Load Handling

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.