



Australian Government

Department of Education, Employment and Workplace Relations

TLID3207C Plan and conduct specialised lift

Release: 1

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Modification History

Not applicable.

Unit Descriptor

This unit involves the skills and knowledge required to plan and conduct a specialised lift by a mobile crane (excluding demolition work). It involves a lift which may be specialised in terms of job and equipment requirements, the qualities of the load, or the critical aspects of the location(s) of the lift. It includes inspecting the site, planning the lift, setting up the lift, working effectively in a team, lifting and moving the load, and following up on the job.

Application of the Unit

Work must be carried out in compliance with the licence/permit requirements and regulations of the relevant state/territory authorities pertaining to specialised mobile crane operations. Work is performed under general supervision. It involves the application of some judgement and routine principles and procedures to the planning and conduct of specialised lifts in a variety of operational contexts.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Not applicable.

Employability Skills Information

The required outcomes described in this unit of competency contain applicable facets of Employability Skills. The Employability Skills Summary of the qualification in which this competency is packaged will assist in identifying employability skill requirements.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the required performance needed to demonstrate achievement of the element. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

Elements and Performance Criteria

Element	Performance Criteria
1 Inspect site	1.1 Site is inspected as required with other relevant personnel to assess job requirements 1.2 All necessary parameters are measured to ensure accuracy of calculations 1.3 Hazards are identified through inspection of site and load 1.4 Additional information regarding load and possible hazards is sought from customer and expert personnel 1.5 Special site requirements are identified
2 Plan the lift	2.1 Operation plan is developed in consultation with other relevant personnel to include hazard prevention/control measures in line with workplace procedures, applicable Australian standards and codes of practice 2.2 Where required, approval to carry out lift is obtained from the appropriate statutory authority 2.3 Multiple crane lifts are planned (as applicable) to encompass the determination of the types of cranes suitable for use and an assessment of the share of the load to be carried by each crane 2.4 Cranes load chart is interpreted and information on permissible loads, radii, weights, boom and jib taken into account in planning the job 2.5 Safe Working Load (SWL) or Working Load Limit (WLL) is calculated 2.6 Appropriate drawings and simulations are created to check feasibility of planned operations 2.7 Information from previous lifts is used in developing the operational plan 2.8 A range of different alternatives is considered to ensure effective and safe lift

- 2.9 Unsolicited, irrelevant information is disregarded to focus on the task at hand
 - 2.1 Need for additional/specialised equipment is ascertained and arrangements made for collection/delivery to site
 - 0
 - 2.1 Communication system is determined and all team members are briefed on its use in conducting lift
 - 1
- 3 **Set up lift**
 - 3.1 Site measurements are checked to verify accuracy
 - 3.2 Operating and emergency controls are checked to ensure the crane is in safe working order
 - 3.3 Appropriate personal protective equipment is selected and worn in accordance with manufacturers specifications and site requirements
 - 3.4 Site is isolated as necessary and, when required, assistance sought to ensure public safety
 - 3.5 Other personnel on site are directed as necessary to ensure risks to personnel and equipment are minimised
 - 3.6 Variables which affect the predictability of the operation are eliminated wherever possible
- 4 **Work effectively in team**
 - 4.1 The advice of all team members is sought in developing the operational plan
 - 4.2 Ideas are discussed and evaluated with team members to determine viability and reach consensus on an effective plan
 - 4.3 Individual roles and responsibilities are clarified and agreed
 - 4.4 Other team members are assisted as necessary to ensure the operation can be completed safely and efficiently
- 5 **Lift and move load**
 - 5.1 Nominated authorised person is recognised as being in control and instructions are followed
 - 5.2 Test runs are conducted as necessary to ensure a safe lift

- 5.3 Load is hoisted and lowered into position using crane movements in accordance with the appropriate Australian standard
- 5.4 Danger is anticipated by monitoring of crane and load, and instruction to stop operation given where there are any concerns the lift is not proceeding as planned
- 5.5 Potential impact of change in one area of operation on the lift as a whole is recognised
- 5.6 In the event of unanticipated situations, contribution is made to developing alternative operational plan

6 Follow up on job

- 6.1 Specialised equipment is checked and re-stored in accordance with workplace procedures
- 6.2 Operation is reviewed in consultation with relevant personnel and contribution is made to recommendations for review of procedures where appropriate
- 6.3 Need for further after job debriefing or counselling is recognised and appropriate action is taken
- 6.4 Records are completed promptly in line with workplace procedures

Required Skills and Knowledge

REQUIRED KNOWLEDGE AND SKILLS

This describes the essential knowledge and skills and their level required for this unit.

Required knowledge:

Relevant road rules, regulations, permit and licence requirements pertaining to mobile crane operation

Relevant OH&S and environmental procedures and regulations

Mobile crane applications, capacities, configurations, safety hazards and control mechanisms

Operational procedures for crane crews

Prioritising and multi-tasking work

Company work procedures concerning the setting up and rigging of a mobile crane at a work site

Problems that may arise when planning and supervising a specialised lift using a mobile crane and actions that should be taken to prevent or solve them

Focus of operation of work systems and equipment

Relevant agreements, codes of practice or other legislative requirements

Required skills:

Communicate effectively with others when planning and supervising a specialised lift using a mobile crane

Read and interpret instructions, procedures, information, technical data, manuals and signs relevant to the planning and supervision of a specialised lift using a mobile crane

Interpret and follow operational instructions and prioritise work

Complete documentation related to the planning and supervision of a specialised lift using a mobile crane

Operate electronic communication equipment to required protocol

Provide leadership and work collaboratively with others when planning and supervising a specialised lift using a mobile crane

Adapt appropriately to cultural differences in the workplace, including modes of behaviour

and interactions with others

Promptly report and/or rectify any problems identified when planning and supervising a specialised lift using a mobile crane in accordance with regulatory requirements and workplace procedures

Plan own work including predicting consequences and identifying improvements

Develop contingency plans for possible unanticipated situations

Apply precautions and required action to minimise, control or eliminate hazards that may exist during the planning and supervision of a specialised lift using a mobile crane

Monitor work activities in terms of planned schedule

Modify activities depending on differing operational contingencies, risk situations and environments

Work systematically with required attention to detail without injury to self or others, or damage to goods or equipment

Operate and adapt to differences in equipment in accordance with standard operating procedures

Ensure the use of required personal protective equipment conforming to industry and OH&S standards

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and skills, the range statement and the assessment guidelines for this Training Package.

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 and satisfy all of the requirements of the elements and performance criteria of this unit and include demonstration of applying:

the underpinning knowledge and skills

relevant legislation and workplace procedures

other relevant aspects of the range statement

Context of and specific resources for assessment

Performance is demonstrated consistently over a period of time and in a suitable range of contexts

Resources for assessment include:

a range of relevant exercises, case studies and other simulated practical and knowledge assessment, and/or

access to an appropriate range of relevant operational situations in the workplace

In both real and simulated environments, access is required to:

relevant and appropriate materials and/or equipment, and/or

applicable documentation including workplace procedures, regulations, codes of practice and operation manuals

Method of assessment

Assessment of this unit must be undertaken by a registered training organisation

As a minimum, assessment of knowledge must be conducted through appropriate written/oral tests

Practical assessment must occur:

through appropriately simulated activities at

the registered training organisation, and/or
in an appropriate range of situations in the
workplace

Range Statement

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.

Operations may be conducted:	day or night in a variety of weather conditions
Environment may include movement of:	equipment goods materials vehicular traffic
Customers may be:	internal or external
Mobile crane may be involved in work in a range of industry sectors including:	construction and demolition manufacturing waterfront mining primary industry utilities (electricity, gas, water) arboricultural swimming pool quarrying
Specialised lifts may include:	large surface areas-pools tilt-up panels drive-in movie screens tree removal and replacement bridge beams multiple crane lifts passing loads to other cranes tailing out of loads turning loads over lifting high value goods recovery work specialised operations-drag lines

	clam shell
	pile driving
	barge work
	work involving work box duties
Hazards may include:	power lines
	noise, light, energy sources
	overhead service lines
	surrounding buildings, structures, facilities
	underground services
	obstructions
	uneven or unstable ground and recently filled trenches
	stationary and moving machinery and equipment
	hazardous or dangerous materials
	traffic hazards and congestion
Hazard management is:	consistent with the principle of hierarchy of control with elimination, substitution, isolation and engineering control measures being selected before safe working practices and personal protective equipment
Consultative processes may involve:	other employees and supervisors
	management
	union representatives
	clients
	industrial relations and OH&S specialists
	other professional or technical staff
Requirements for access and/or lift may include:	site restrictions and procedures
	authorities and permits
	hours of operation
	induction
	slings, chains, nets, brackets and other specialised lifting equipment
	noise restrictions

	personal protective equipment
	support trucks
	additional gear and equipment
	communications equipment
Personal protective equipment may include:	gloves
	safety headwear and footwear
	sunscreen, sunglasses and safety glasses
	two-way radios
	high visibility clothing
Depending on the type of organisation concerned and the local terminology used, workplace procedures may include:	company procedures
	enterprise procedures
	organisational procedures
	established procedures
	site procedures
Documentation/records may include:	site plans
	Safe Working Load (SWL) and Working Load Limit (WLL)
	operations manuals including load charts and crane and rigging manuals
	induction documentation
	competency standards and training materials
	job specifications and procedures
	manufacturers specifications
	workplace operating procedures and policies
	supplier and/or client instructions
	communications technology equipment, oral, aural or signed communications
	personal and work area work procedures and practices
	conditions of service, legislation and industrial agreements including:
	workplace agreements and awards
	occupational health and safety procedures
	standards and certification requirements

Applicable procedures and codes may include:

quality assurance procedures

emergency procedures

relevant state/territory regulations and licence/permit requirements pertaining to specialised mobile crane operations

relevant state/territory road rules

relevant state/territory OH&S legislation

relevant state/territory fatigue management regulations

relevant state/territory environmental protection legislation

Unit Sector(s)

Not applicable.

Competency Field

D - Load Handling