



Australian Government

TLID3047 Shift loads using ship mounted crane

Release: 1

TLID3047 Shift loads using ship mounted crane

Modification History

Release 1. This is the first release of this unit of competency in the TLI Transport and Logistics Training Package.

Application

This unit involves the skills and knowledge required to shift loads using ship cranes in accordance with workplace and regulatory requirements as part of work activities in the stevedoring, transport, distribution and allied industries.

It includes planning work for the prevailing working conditions; using controls and operating systems to manage operating the crane; locating load and identifying load characteristics; safely moving load; monitoring controls; and stopping, shutting down and securing crane after completing operations.

Work is performed under some supervision generally within a team environment.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable.

Competency Field

D – Load Handling

Unit Sector

Not applicable.

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Plan work for current working conditions

PERFORMANCE CRITERIA

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

- 1.1 Crane movement areas are assessed to ensure they are clear of personnel and other obstructions and hazards
- 1.2 Traffic flow and work area conditions in proximity of load landing area are assessed to ensure safety of personnel, and to ensure there is no damage to equipment, loads and facilities

- 1.3 Load characteristics are taken into account to ensure appropriate attachments/gear are used to move load
- 1.4 Hazards are identified, risks are assessed and control measures are implemented
- 1.5 Occurrences in work area that may impact on safety and efficiency of operations are reported to appropriate personnel
- 2 Check controls and crane operating systems**
 - 2.1 Crane is prepared for operation in accordance with workplace procedures
 - 2.2 Relevant aspects of Marine Orders are explained and applied
 - 2.3 Crane is started in accordance with manufacturer guidelines and workplace procedures
 - 2.4 Radio communication is confirmed with personnel assisting operator in load shifting
 - 2.5 Instruments and gauges are monitored during start-up and operations to ensure operation is in accordance with manufacturer specifications and workplace/regulatory safety requirements
 - 2.6 Crane movements are tested in a trial run over water if possible
 - 2.7 Faults or damage to crane are immediately reported to appropriate personnel
- 3 Identify load characteristics**
 - 3.1 Load weight and dimensions are confirmed to ensure they fall within crane capacity
 - 3.2 Loading and unloading plans are followed to ensure efficiency and safety of operations
 - 3.3 Load characteristics are taken into account to ensure appropriate loading and unloading procedures are followed
 - 3.4 Hazardous cargo is identified and relevant procedures are taken into account when planning and conducting work
 - 3.5 Non routine cargo lifts are identified and appropriate lifting methods and equipment are arranged
- 4 Safely move load**
 - 4.1 Crane is operated using smooth and controlled movements, and allowances are made for any vessel trim or list movements during load transfer

- 4.2 Crane movements are efficiently managed to control block or load swing
- 4.3 In sudden ship movement or excessive trim or list, warnings are immediately communicated to personnel
- 4.4 Simultaneous crane operations are planned as required and controlled appropriately in accordance with relevant procedures
- 4.5 Continuous communication is maintained with personnel assisting operator with load movement operations using appropriate communications technology and procedures
- 4.6 Wharf and vessel work area conditions are constantly assessed and anticipated to ensure crane movement areas are clear of personnel and other obstructions
- 4.7 In a safety incident or emergency, crane is immediately stopped and workplace emergency procedures are followed
- 4.8 Safety incidents and emergencies are reported in accordance with workplace procedures and regulatory requirements

5 Monitor controls

- 5.1 Crane controls are monitored and operated in accordance with operating instructions
- 5.2 Control systems are explained and acted on in accordance with regulatory requirements, manufacturer guidelines and workplace procedures
- 5.3 Control faults are identified and reported in accordance with workplace guidelines

6 Stop, shut down and secure equipment

- 6.1 Crane is brought to a controlled halt in accordance with operating guidelines and is shut down without injury to personnel or damage to equipment, loads or facilities in accordance with workplace procedures
- 6.2 Crane is secured after operations in accordance with operating instructions and workplace procedures

Foundation Skills

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

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions can be found in the Companion Volume Implementation Guide.

Unit Mapping Information

This unit replaces and is equivalent to TLID3047A Shift loads using ship mounted crane.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851>

Assessment Requirements for TLID3047 Shift loads using ship mounted crane

Modification History

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements and performance criteria on at least one occasion and include:

- applying basic fatigue management techniques
- applying effective eye-hand coordination to operational tasks
- applying precautions and required action to minimise, control or eliminate identified hazards
- applying relevant legislation and workplace procedures
- communicating effectively with others
- completing relevant documentation
- dealing with internal and external customers in large, medium or small workplaces
- estimating size, shape and special requirements of loads
- identifying cargo, container and goods, coding, Australian Dangerous Goods (ADG) Code/International Maritime Dangerous Goods (IMDG) Code markings and emergency information panels
- identifying and correctly using relevant equipment
- implementing contingency plans
- interpreting and following operational instructions and prioritising work
- modifying activities depending on operational contingencies, risk situations and environments
- monitoring performance of crane and its equipment, and taking appropriate action as required
- monitoring work activities in terms of planned schedule
- operating and adapting to differences in equipment in accordance with standard operating procedures
- reading, interpreting and following relevant instructions, procedures, information and signs
- receiving, acknowledging and sending messages using appropriate communications equipment
- reporting and/or rectifying identified problems, faults or malfunctions promptly, in accordance with regulatory requirements and workplace procedures
- selecting and using appropriate personal protective equipment conforming to industry and work health and safety (WHS)/occupational health and safety (OHS) standards

- working collaboratively with others
- working systematically with required attention to detail without injury to self or others or damage to goods or equipment.

Knowledge Evidence

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

- Australian and international codes and regulations relevant to using cranes to shift loads, including ADG Code, IMDG Code and Marine Orders
- operational work systems, equipment, management and site operating systems for using boom cranes to shift loads
- problems that may occur and appropriate action that can be taken to resolve these problems
- relevant safety codes and emergency procedures
- relevant WHS/OHS and environmental protection procedures and guidelines
- requirements for safe working load (SWL) and working load limit (WLL) of cranes
- service and maintenance schedule requirements for lifting equipment
- types of boom cranes used to shift loads in terminals/wharves, their applications and procedures and precautions for their use
- workplace procedures and policies for using cranes to shift loads
- workplace procedures for multiple crane, dual crane and heavy lift operations.

Assessment Conditions

As a minimum, assessors must satisfy applicable regulatory requirements, which include requirements in the *Standards for Registered Training Organisations* current at the time of assessment.

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Assessment must occur in workplace operational situations where it is appropriate to do so. Where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions including controlled or open environments, exposed conditions and limited or restricted spaces.

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.

Resources for assessment include access to:

- a range of relevant exercises, case studies and/or simulations
- applicable documentation including workplace procedures, regulations, codes of practice and operation manuals
- relevant materials, tools and equipment
- personal protective clothing and equipment, including:
 - gloves
 - high visibility clothing
 - protective clothing
 - safety glasses
 - safety headwear and footwear
 - two-way radios.

Links

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