Australian Government

Assessment Requirements for TLILIC0002 Licence to operate a vehicle loading crane (capacity 10 metre tonnes and above)

Release: 2

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Modification History

Release 2. This is the second release of this unit of competency in the TLI Transport and Logistics Training Package:

- Minor statement changes in unit Application
- Minor changes and re-ordering of Performance Evidence
- Minor changes and re-ordering of Knowledge Evidence
- Minor statement changes in Assessment Conditions.

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

Performance Evidence

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

- applying relevant communication signals from associated personnel
- applying relevant crane movements including:
  - boom/jib up and down (luffing)
  - catching load swing appropriately
  - positioning and using main hook and lifting gear to connect to load safely
  - raise and lower hoist
  - slew boom/jib
  - telescope in and out
- applying relevant mathematical calculations in conjunction with lift plan and load chart to determine radius requirements and relevant lifting gear to perform work/task to enable crane to be configured for load including:
  - boom
  - Stabiliser positioning
  - type of hook
- carrying out operational checks ensuring:
  - all controls are located, identified and tested for functionality
  - all hydraulic functions are operated
  - lifting gear movements and control functions are smooth and comply with lift plan
  - hazard warning systems, safety, audible and visual warning devices are checked for to ensure they are functional including:
    - reversing beepers

    - lights
    - horns
  - start-up is in accordance with manufacturer requirements and safe work procedures
  - there are no unusual noises
  - crane control functions comply with operating requirements
- communicating with other associated personnel through using appropriate worksite procedures which including:
  - 2-way radio
  - active listening
  - demonstrating and interpreting hand signals
  - questioning to confirm understanding
  - signage
  - whistles
  - written instructions
- completing the pre-start check including:
  - engine / mechanical fluid level checks as required by manufacturer requirements
  - presence of correct logbook
  - evidence of damage
  - fluid leaks
  - lights work effectively
  - locating, identifying and confirming all controls
  - fire extinguisher
  - safety equipment checks
  - signage and labels to ensure they are visible and legible
  - checking for signs of paint separation and stressed welds indicating potential structural weakness
  - tyres and wheels for damage/wear and correct inflation
  - updating records as required
  - visual damage or equipment faults
- complying with Commonwealth, state and territory Work Health and Safety (WHS)/Occupational Health and Safety (OHS)/Occupational Safety and Health (OSH) legislation
- conducting and applying risk and hazard assessment strategies including:
  - confirming work area operating surface suitability based on crane and task requirements
  - dynamic loads
  - ground conditions including condition of surface and slopes
  - load swing
  - overloading
  - lifting and placing load
  - tyre pressures and tyre condition

  - asymmetric loads
  - overhead hazards including electric lines and service pipes
  - restricted and poorly ventilated areas
  - risk of collision with people, moving plant and fixed structures
  - adequate lighting
  - traffic including pedestrians, vehicles and other plant
  - weather conditions
- confirming and following traffic management plan procedures relevant to their role in the work area
- determining any defects or faults with operation of crane and reporting to relevant person/s
- ensuring risk control measures within the work area are effective as per workplace procedures
- identifying, isolating, and tagging out defective lifting equipment and reporting to authorised person/s
- interpreting and confirming relevant documentation for the work task and relevant area
- maintaining three points of contact whilst accessing load surface area of vehicle loading crane and ensure rungs / steps are free of hazards
- monitoring load disconnection from hook is safe and ensuring no movement of controls
- operating a vehicle loading crane configured to its rated capacity (RC) of 10 metre tonnes or more to lift and move four different loads using the main hook through an obstacle course using all crane operational controls while the load is in full view of the crane operator. Loads must consist of:
  - a load of >50% of the Rated Capacity (RC) of the crane with a boom length of >75%, and
  - a round load with a minimum diameter of 300 mm and minimum length of 3 m that requires a dogger to sling, and
  - an asymmetrical load that requires a dogger to sling, and
  - stillage containing at least ten scaffolding standards or containing a load of steel pipes of equivalent weight that requires a dogger to sling
- positioning the vehicle loading crane for safe operation for:
  - application of the task
  - manoeuvring in the workplace
  - stability of the vehicle loading crane and the load
- positioning vehicle loading crane in relevant area for next task
- recording and maintaining accurate information relating to crane operations
- reporting to relevant person/s on site risk control measures that are not in place or deficient
- setting up and validating an exclusion zone
- shutting down a vehicle loading crane in accordance with manufacturer requirements and safe work procedures
- stabilising a vehicle loading crane for operation by:
  - correctly positioning plates or packing
  - deploying stabilisers
  - establishing correct size plates or packing in accordance with lift plan

    - levels are checked
- test-lifting load just clear of lifting plane to allow for checks to be safely made in consultation with associated personnel (dogger or rigger) to ensure:
    - slinging is correct
    - all crane equipment is functioning properly
    - load centre of gravity is correct
    - loads of unusual shape or weight distribution are correctly slung
- using communications signals including:
    - hoist down - hand and whistle and radio
    - hoist up - hand and whistle and radio
    - luff boom down - hand and whistle and radio
    - luff boom up - hand and whistle and radio
    - slew left - hand and whistle and radio
    - slew right - hand and whistle and radio
    - stop - hand and whistle and radio
    - telescope in - hand and whistle and 2-way radio (where manufacturer requirements allow)
    - telescope out - hand and whistle and 2-way radio (where manufacturer requirements allow).

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:

- appropriate worksite communication procedures including:
    - listening
    - hand signals
    - questioning techniques
    - signage
    - two-way radios
    - written instructions
    - whistles
- characteristics and impact of factors affecting vehicle loading crane stability whilst moving loads including:
    - overloading
    - poor load placement
    - asymmetric loads
    - tyre deflation/condition
- crane, lifting gear load chart/s and manufacturer requirements
- hazards including:
    - pack up and crane stability, crane tipping and demolition sites

    - ground stability including ground condition, recently filled trenches and slopes
    - insufficient lighting
    - obstacles or obstruction
    - other specific hazards and dangerous materials
    - overhead hazards including:
        - electric lines
        - service pipes
        - fixed structures
        - vegetation (trees)
    - traffic including pedestrians, vehicles and other plant
    - operations on unusual, uneven or difficult terrains
- lift impacting factors including:
    - centre of gravity
    - dynamic nature of load
    - flex/deflexion of load
    - length
    - radius of lift
    - weight
- manufacturer requirements on stabiliser procedures
- manufacturer requirements and instructions on shutting down and packing up crane
- mathematical calculations to:
    - estimate loads
    - radius requirements
    - relevant lifting gear to perform work/task
- prestart and operational checks required for a vehicle loading crane
- problems and appropriate response procedures to unplanned and/or unsafe situations and environmental conditions
- relevant documentation requirements and procedures for recording, reporting and maintaining workplace records and information
- relevant workplace instructions, safety information, emergency procedures
- risk assessment management and mitigation strategies including hierarchy of control:
    - elimination
    - substitution
    - isolation
    - engineering controls
    - administrative controls
    - personal protective equipment (PPE)
- roles and responsibilities of duty holders as per legislative obligations of Work Health and Safety (WHS)/Occupational Health and Safety (OHS)/Occupational Safety and Health (OSH) requirements and safe work / workplace procedures
- stability of load and avoidance of hazards using best crane practice including:

    - allowing for boom deflection
    - boom/jib as low as possible
    - crane stability
    - gently accelerating and braking on slew/boom to minimise load swing
    - lowering load safely onto appropriate dunnage taking into consideration swing and restrictions of area
    - minimum boom/jib length
    - minimum speed
    - using handheld taglines as required
    - identification of incorrect sling of load
- starting procedure of crane as per manufacturer requirements
- set up of:
    - jib
    - fly jib (where fitted)
- vehicle loading crane characteristics and capabilities to allow crane configuration to suit a range of loads
- weather bureau forecasts and environmental conditions that could impact operation including:
    - lightning
    - wind
    - water impacted ground
    - Ultra Violet (UV) exposure
- work area suitability based on relevant ground reports including:
    - backfilled ground
    - bitumen
    - concrete
    - hard compacted soil
    - pre-contaminated soils
    - rock
    - rough uneven ground
    - soft soils
- workplace standards, requirements, policies and procedures for conducting operations for the vehicle loading crane.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

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.

Assessment must occur in workplace operational situations. Where this is not appropriate, assessment must occur in simulated workplace operational situations that reflect workplace conditions.

- Simulators must not be used in the assessment of this unit of competency.

Resources for assessment that must include access to:

- vehicle loading crane with a RC of 10 metre tonnes or more in safe/serviceable working order in accordance with manufacturers specifications
- appropriate loads as outlined in the performance evidence requirements
- appropriate personnel to sling and direct loads including:
- dogger or rigger
- communications equipment including:
- two-way radios
- whistles
- relevant personal protective equipment (PPE)
- relevant documentation for operating a vehicle loading crane with an RC of 10 metre tonnes or more including:
  - approved codes of practice and relevant guidance material
  - relevant Australian technical standards
  - manufacturer guidelines (instructions, requirements or checklists), relevant industry standards and operating procedures (where applicable).

Links

Companion Volume Implementation Guide - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851