Australian Government

Assessment Requirements for TLILIC3019 Licence to operate a reach stacker (greater than 3 tonnes capacity)

Release: 1

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Modification History

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

Performance Evidence

A person who demonstrates competency in this unit must provide evidence of safely operating a reach stacker greater than 3 tonnes capacity and satisfy all of the elements, performance criteria and foundation skills requirements of the unit on at least one occasion including:

- applying appropriate mathematical procedures to estimate loads
- applying best mobile practice including:
  - carrying container at manufacturer recommended height
  - gently accelerating and braking (to minimise container swing)
  - minimum boom length
  - minimum speed
  - not driving across inclines or slopes
- applying pre-start operational checks in accordance with manufacturer instructions, Australian Standards and industry guidelines including:
  - checking all operational functions
  - external visual check including evidence of damage, leaks, electrical, wheels and tyres, boom and spreader
  - interpreting load chart/range diagram
  - making sure logbook, operators manual are available
  - checking safety devices/alarms are fitted where appropriate
- applying post-operational checks after shut down to ensure reach stacker is safe for the next operator including checking:
  - all systems are shut down
  - equipment is parked to avoid hazards
  - for hydraulic or brake fluid leaks
  - for structural damage
- assessing ground conditions to confirm site is suitable (firm, level and safe) to operate reach stacker
- communicating with other workplace personnel, through:
  - appropriate worksite protocols

  - listening
  - making and interpreting hand signals
  - questioning to confirm understanding
  - signage
  - two way radios
  - verbal and non-verbal language
  - written instructions
- complying with organisational and site policies and procedures
- complying with WHS/OHS licensing legislation
- eliminating or reducing risk to personnel and property through the application of control measures including:
  - adequate illumination
  - disconnected power
  - insulated electric lines
  - moving obstructions
  - pedestrian controls
  - personal protective equipment
  - safety tags on electrical switches/isolators
  - using safety observer inside exclusion zone
  - traffic barricades and traffic controls
  - trench covers
- ensuring appropriate path is in accordance with traffic management plan and is:
  - clear of obstacles
  - clear of personnel
  - free of ramps or inclines
- identifying hazards, assessing risk and implementing hazard control strategies, including hierarchy of control as applied to positioning and safely operating reach stacker
- interpreting information (such as procedures) relating to conducting reach stacker operations accurately
- operating a reach stacker greater than 3 tonnes capacity that incorporates an attachment for lifting, moving and travelling with a shipping container, including all functions to their maximum extension and safe working rated capacity while applying relevant reach stacker movements:
  - articulating
  - booming up and down
  - equalising spreader
  - extending/retracting spreader
  - rotating spreader
  - telescoping in and out
- using and interpreting manufacturer standards and data, including range diagram/load charts to enable reach stacker to be configured to mobile, stack and unstack containers

- using communications signals including:
  - luff boom down – hand
  - luff boom down – whistle and/or two-way radio
  - luff boom up – hand
  - luff boom up – whistle and/two-way radio
  - stop –hand
  - stop – whistle and/or two-way radio
  - telescope out – hand
  - telescope out – whistle and/or two-way radio
  - telescope in – hand
  - telescope in – whistle and/or two-way radio
- reading and comprehending manufacturer specifications, instructions, procedures and safety signs
- recording and maintaining accurate information relating to reach stacker operations
- shutting down a reach stacker, greater than 3 tonnes capacity in accordance with manufacturer specifications and workplace procedures including:
  - idling engine to stabilise temperature
  - parking in a safe location
  - using correct parking procedures
  - retracting boom
  - retracting spreader
  - repositioning cabin
  - retracting stabilisers
  - turning off engine
- stabilising reach stacker by:
  - applying computer stability reading as a percentage
  - deploying stabilisers
- test-lifting container prior to commencing operations, just clear of lifting plane to allow for checks to ensure:
  - all reach stacker hydraulic controls and brake systems are functioning properly (no boom creep etc.)
  - boom length and height are displayed correctly
  - computer/weight scale is working correctly
  - computer correctly displays stability percentage of reach stacker
- verifying problems and equipment faults, and applying appropriate response procedures to unplanned and/or unsafe situations including:
  - environmental conditions (wind, lightning, storms)
  - failure/loss of control (brakes and steering)
  - failure of equipment (hydraulic system, computer)
  - rail/road moving unannounced while loading/discharging.

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 mathematical calculation for determining container weight
- Australian and industry standards relevant to operating a reach stacker greater than 3 tonnes capacity
- Commonwealth, state or territory WHS/OHS legislation, standards and codes of practice relevant to the full range of processes for the crane class
- ground stability including:
  - backfilled ground
  - bitumen
  - concrete
  - hard compacted soil
  - hard standing
  - railway lines
  - rock
  - rough uneven ground
  - soft soils
- hazards including:
  - condition of plant and equipment
  - dangerous goods/hazardous substances
  - environmental conditions (wind, lightning, storms)
  - insufficient lighting
  - movement of vehicle or rail wagon
  - ground stability (condition, recently filled trenches, slopes)
  - other specific site hazards (work personnel, other equipment)
  - overhead hazards (electric lines, service pipes)
  - traffic (pedestrians, vehicles)
  - underground hazards (electric lines, service pipes)
  - weather conditions (high winds, lightning)
- hierarchy of hazard identification and control:
  - elimination
  - substitution
  - isolation
  - engineering controls
  - administrative controls

  - personal protective equipment (PPE)
- manufacturer specifications, instructions, procedures and safety signs
- organisational and workplace standards, requirements, policies and procedures for conducting reach stacker operations
- procedures for recording, reporting and maintaining workplace records and information
- reach stacker characteristics and capabilities (including use of range diagrams/load charts) to allow reach stacker configuration to suit the range of containers
- reach stacker operations and safe operating procedures
- risks associated with overhead electric lines, electrical cables, ground conditions, reach stacker stability
- typical routine problems encountered operating reach stacker and equipment, and adjustments required for correction.

Assessment Conditions

Assessments must be conducted by an assessor accredited for this high risk work (HRW) licence class in the Commonwealth/state/territory where the licence will be obtained (i.e. an assessor authorised by a Commonwealth/state/territory WHS/OHS regulator).

As a minimum, assessors must satisfy applicable regulatory requirements, which may include requirements in 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 all assessment must be conducted in the English language.

Assessment of performance must be undertaken in the workplace and/or under realistic workplace conditions which typically reflect:

- performing tasks/activities within timelines that would be expected in a workplace
- standard and authorised work practices, safety requirements and environmental constraints
- using full-scale equipment

Reach stacker (greater than 3 tonnes capacity) operation assessment must be conducted in a working zone in accordance with state/territory arrangements.

- If the working zone is located at a 'live' site, assessment should continue in all weather conditions unless the safety of the candidate or others could be compromised.

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

Accredited assessors are responsible for ensuring that candidates have access to:

- appropriate reach stacker (greater than 3 tonnes) in safe operating condition, suitable containers and container stack
- appropriate work area including:
  - depot

  - rail siding
  - warehouse
  - wharf
- appropriate/authorised personnel including:
  - Commonwealth, state/territory government regulatory bodies
  - guide
  - operations supervisor
  - site WHS/OHS personnel
  - supervisory personnel
- communications equipment including:
  - fixed channel two-way radios
  - hand held two-way radios
  - hand signals
  - whistle
- controls including:
  - boom extension levers
  - cabin positioning controls
  - luffing levers
  - twist lock controls
  - spreader controls (extend/retract/side shift/rotate)
- container spreader including:
  - articulation device to rotate container
  - appropriate extension from containers
  - side-shift to balance/equalise container
  - twist locks to engage and disengage the container
- range of diagrams that include:
  - container dimensions
  - height of container stack
  - maximum reach
  - maximum weight
- required personal protective equipment (PPE) for the purpose of Performance Assessment
- safety devices including:
  - audible and visual reversing devices
  - horns/sirens
  - lights
  - operator restraint devices
  - stability and weight limitation/warning devices
- safe work method statement (SWMS), as required
- signage and labels including:
  - control labels

- range diagram/load charts
- reach stacker data plates/labels
- reach stacker safety decals

- where appropriate relevant workplace procedures and standards for operating a reach stacker greater than 3 tonnes including:
  - approved codes of practice and guidance
  - Australian Standards
  - checklists
  - equipment logbook
  - history record system
  - industry operating procedures
  - relevant industry standards (where applicable)
  - logbook
  - manufacturer guidelines (instructions, specifications or checklists) for the purpose of the Performance Assessment
  - service logbook
  - workplace procedures (work instructions, operating procedures, checklists).

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=df441c6e-213d-43e3-874c-0b3f7036d851