



Australian Government

Assessment Requirements for CPCCR13016 Perform advanced tower crane erection

Release: 2

Assessment Requirements for CPCCRI3016 Perform advanced tower crane erection

Modification History

- Release 2 Updated reference to general construction induction training program.
- Release 1 This version first released with CPC Construction, Plumbing and Services Training Package Release 5.0.
- Supersedes and is equivalent to CPCCRI3016A Perform advanced tower crane erection. Updated to meet the Standards for Training Packages 2012.

Performance Evidence

To demonstrate competency in this unit, a candidate must meet the elements and performance criteria by performing advanced tower crane erection to:

- fully erect and rig one hammerhead tower crane, including a jib
- fully erect and rig one luffing boom tower crane, including a jib
- complete the raising of one hammerhead tower crane by installing at least two extra sections
- complete the raising of one luffing boom tower crane by installing at least two extra sections.

Knowledge Evidence

To be competent in this unit, a candidate must demonstrate knowledge of:

- workplace and regulatory requirements for performing advanced tower crane erection under applicable Commonwealth, state or territory work health and safety (WHS) legislation and codes of practice:
 - job safety and environmental analyses (JSEAs)
 - safe work method statements (SWMSs)
 - safety manuals and instructions for plant, tools and equipment
 - signage and barricades
 - personal protective equipment (PPE)
 - working at heights requirements
 - environmental and worksite safety plans
 - reporting problems
- scope of work for performing advanced tower crane erection:
 - calculations:
 - load charts

- fleet angles
- diverter sheaves
- lead loads
- head loads
- load angle factors
- multiple fall
- load share
- precast compliance charts
- safe working loads
- load slinging methods:
 - straight sling
 - adjustable sling
 - reeved sling
 - inclined sling
- cranes used for erecting tower cranes:
 - fixed cranes
 - tower cranes
 - hydraulic mobile cranes
 - lattice boom mobile cranes
 - slewing cranes
- tower cranes:
 - hammerhead tower cranes
 - luffing boom tower cranes
 - self-erecting tower cranes
- tower crane components:
 - crane bases
 - bottom towers
 - tower sections
 - climbing frame/transition pieces
 - tower braces
 - guys
 - masts
 - turntables
 - machine decks
 - power packs
 - main jibs
 - counter jibs
 - counterweights
 - wire ropes
 - hook and block reeving

- connecting bolts
- types, characteristics and limitations of tools, equipment and materials required for performing advanced tower crane erection:
 - chain slings
 - flexible steel wire rope (FSWR) slings
 - natural or synthetic fibre slings
 - air winches
 - chain blocks
 - chain winches
 - come-alongs
 - drifts
 - eye bolts
 - hammers
 - hand operated creeper winches
 - jacks
 - plumbing/levelling equipment
 - pneumatic wrenches
 - podgers
 - pulley blocks
 - shackles
 - shifting spanners
 - sledge hammers
 - spanners
 - spirit levels and automatic levels
 - tape measures
 - torque multipliers
 - trolleys
 - turn buckles
 - wedges
 - wrenches
- requirements for use of tools, equipment and materials for performing advanced tower crane erection:
 - safe operating procedures
 - operational, maintenance and basic diagnostic procedures
 - workplace and equipment safety requirements
- signalling methods and communications
- requirements for cleaning up work area, maintaining and storing plant, tools, equipment and materials, and for environmentally friendly waste management.

Assessment Conditions

Assessors must meet the requirements for assessors outlined in the Standards for Registered Training Organisations.

Assessment must be conducted in the workplace or a simulated workplace using realistic conditions, materials, activities, responsibilities, procedures, safety requirements and environmental considerations.

Candidates must have access to:

- industry-standard equipment required to perform the tasks specified in the Performance Evidence
- appropriate workplace information and records, including policies, procedures and legislative requirements.

Links

Companion volumes to this training package are available at the VETNet website - <https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=7e15fa6a-68b8-4097-b099-030a5569b1ad>