Australian Government

Assessment Requirements for AHCARB310 Perform aerial rigging

Release: 1

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Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Performance Evidence

The candidate must be observed demonstrating rigging techniques for lowering, controlling and redirecting loads during tree pruning and tree removal.

The candidate must be assessed on their ability to integrate and apply the performance requirements of this unit in a workplace setting. Performance must be demonstrated consistently over time and in a suitable range of contexts.

The candidate must provide evidence for and demonstrate:

- confirming location of worksite and location of correct tree as identified in scope of works
- ensuring scope of works is within capacity and limits of team and equipment
- obtaining required site permits and licenses
- determining location of above-and-below-ground services
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- inspecting trees and identifying structural defects in relation to taxonomic tree species, tree anatomy, and tree physiology
- considering impact of wind speed and direction on rigging methods
- considering ‘cycles to failure‘ of load-bearing equipment
- selecting, preparing, and carrying out pre-operational and safety checks, on tools, equipment and machinery
- selecting and using personal protective equipment
- discussing and confirming work-zones locations and areas with work team
- recording and implementing work health, safety, site, environmental and traffic control measures
- communicating with work team during operations using voice, hand and whistle signals
- determining load limit of rigging system
- selecting appropriate anchor and attachment points
- considering mass and dimensions of tree part, centre of gravity, dimensions in relation to working space
- calculating load and balance
- consider breaking strength and safety factor of equipment in use

- determining impact of force under normal and failure conditions and apply safety factor
- designing rigging system to allow for load and impact of force
- discussing rigging system with work team
- selecting appropriate rigging equipment and inspecting for defects
- assembling and installing rigging equipment
- identifying problems, unsafe rigging practices and provide alternative rigging solutions
- maintaining effective communication with work team during rigging process
- attaching rigging and using appropriate knots as required
- monitoring and adjusting rigging system, taking into account environmental conditions
- testing tensioned load
- controlling load and raise, lowering or redirecting as required and in a manner appropriate to worksite
- operating lowering and friction devices
- performing tip lowering, butt lowering, horizontal lowering and lifting as required
- matching load frequency and size to processing capacity of ground crew
- retrieving appropriate components of rigging system
- checking proper completion of rigging operations
- cleaning and checking tools, equipment and machinery, replacing if faulty or worn, and storing
- use of industry standard terminology to describe arboriculture, equipment and work environment.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- site-specific risk assessments
- above-and-below-ground services
- selection, tying methods and purpose of appropriate industry knots
- types and purposes of a range of rigging equipment and devices
- estimation of distances and dimensions of tree parts and equipment
- estimation of centre of gravity for balancing a load
- how to estimate areas for safe work zones
- estimation of breaking strength, safety factor and cycles to failure
- signals and communication systems
- common problems and hazards with rigging and their potential consequences and solutions
- breaking strain, safe working load and ‘cycles to failure’ for rigging equipment
- anatomy, physiology, and taxonomy of tree species for a range of trees
- how variations in weather such as wind speed and direction affect work
- signs of equipment defects
- structural defects in trees
- operational use of lowering and friction devices
- first aid and rescue personnel, equipment and procedures applicable to tree work.

Assessment Conditions

Assessment must be demonstrated consistently over time in a suitable range of contexts and have a productivity-based outcome. No single assessment event or report is sufficient to achieve competency in this unit.

Assessment may be conducted in a simulated or real work environment, however determination of competency requires the application of work practices under work conditions.

The mandatory equipment and materials used to gather evidence for assessment include:

- equipment:
  - rigging equipment
  - single rope technique (SRT) climbing kit
  - static and dynamic rope kit
  - harness
  - lowering and friction devices
  - high decibel whistle
  - personal protective equipment (PPE)
  - first aid and emergency kit
  - rescue kit
  - traffic management kit
  - signage – work zone
  - trees
- materials:
  - rigging operations form - aerial
  - hazard identification and risk control form
  - equipment and PPE check form
  - emergency preparation form
  - rescue form - aerial
  - work communications form
  - knot identification form

Assessors must satisfy current standards for RTOs in the assessment of arboriculture units of competency.

Assessment must be conducted only by persons who have:

- arboriculture vocational competencies at least to the level being assessed
- current arboriculture industry skills directly relevant to the unit of competency being assessed

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72