



Australian Government

AHCARB206 Operate and maintain stump grinding machines

Release: 1

AHCARB206 Operate and maintain stump grinding machines

Modification History

Release	TP Version	Comment
1	AHCv1.0	Initial release

Application

This unit of competency describes the skills and knowledge required to operate motorised stump grinding machines to remove tree stumps from the ground.

This unit applies to individuals who undertake defined activities with specialised tools and methods, work in a structured context, apply knowledge and skills to demonstrate autonomy and limited judgement, and provide solutions to a limited range of predictable problems. Work is implemented with low risk work procedures, in accordance with manufacturers recommendations and to comply with Safe Work Method Statement documentation.

Licensing, legislative, regulatory, or certification requirements apply to this unit in some states and territories at the time of publication, and may differ according to jurisdiction. Specific determination should be sought through the relevant State or Territory. Works involving this unit of competency may be subject to local tree protection and preservation laws, and the relevant content of applicable Australian Standards

Pre-requisite Unit

AHCARB210 Work effectively in the arboriculture industry

HLTAID003 Provide first aid

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Element	Performance criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Prepare for stump removal operations	1.1 Determine site location and details and clarify with supervisor 1.2 Determine the depth below ground of stump grinding works 1.3 Determine and confirm location and depth of

Element	Performance criteria
	above-and-below-ground services 1.4 Unload stump grinder machine 1.5 Undertake a site-specific risk assessment by identifying work health and safety hazards and assessing risk
2. Carry out pre-operational and safety checks	2.1 Check maintenance log is complete and up to date 2.2 Check belts are appropriately tensioned and in good order 2.3 Check teeth are sharp 2.4 Check no teeth are missing or loose 2.5 Check tyre pressure is correct or tracks are appropriately tensioned 2.6 Check levels of oils and fluids 2.7 Check hoses 2.8 Check brakes are operational 2.9 Check cutter head rotates freely and is not obstructed
3. Check stump grinder safety features	3.1 Check guards for belt, power take-off (PTO) and grinder head are in place 3.2 Check kill switch clearly identifiable and working 3.3 Check that dead-man is working if fitted 3.4 Check debris curtain present and in good order 3.5 Check dust suppression system is working if fitted
4. Complete preparations for work	4.1 Select and use appropriate personal protective equipment 4.2 Confirm first aid and emergency personnel, equipment and procedures 4.3 Expose stump surrounds manually and check for and remove foreign bodies 4.4 Moisten surrounds as required 4.5 Record and implement work health, safety, site, environmental and traffic control measures
5. Position stump grinder	5.1 Determine exclusion zone for work operations 5.2 Isolate exclusion zone with barriers and signs 5.3 Position machine level within recommended ranges to avoid rollover 5.4 Avoid holes with machine wheels 5.5 Position machine to minimise impact from flying debris 5.6 Position operator in low risk position 5.7 Position operator to provide a clear view of the stump 5.8 Locate safety screens as required
6. Undertake removal	6.1 Communicate with work team during operations using voice,

Element	Performance criteria
operations	hand and whistle signals 6.1 Confirm work zone cleared prior to starting cutter head 6.3 Plan to complete a series of grinds across the stump 6.4 Start cutter head 6.5 Stop work if exclusion zone is breached and disengage cutter head if required 6.6 Position cutter head over stump 6.7 Engage cutter head into stump surface 6.8 Maintain engine speed in revolutions-per-minute (RPM) 6.9 Ensure grinding process is accurate, smooth and ergonomic 6.10 Grind stump to recommended depth of cut on each cutting pass 6.11 Ensure the cut size of each pass is not excessively deep causing the machine to labour excessively or to stall 6.12 Grind stump to predetermined spread and depth 6.13 Operate equipment without damaging underground services and surrounding areas
7. Remove grindings	7.1 Reposition machine away from ground stump 7.2 Disengage cutter head 7.3 Wait and remain clear of cutter head until cutter head stops moving 7.4 Remove build-up of grindings
8. Perform ongoing grinding operations	8.1 Make check in calls at prearranged times 8.2 Inspect grinder as required between stumps and when refuelling 8.3 Shutdown immediately if abnormal vibration or noise develops 8.4 Stop the engine before refuelling and allow engine to cool as required 8.5 Follow Safe Work Method Statement instructions for refuelling 8.6 Replace and secure fuel cap before restarting 8.7 Disengage cutter head and ensure a complete stop before moving to a new stump
9. Complete stump removal operation	9.1 Back-fill stump hole to original ground level 9.2 Maintain clean and safe work area throughout work and upon completion 9.3 Collect waste material and dispose of or recycle in a manner causing minimal environmental damage 9.4 Clean, maintain and store tools and equipment 9.5 Perform basic maintenance, including sharpening grinder and replacing teeth as required

Element	Performance criteria
	9.6 Load grinder in accordance with Safe Work Method Statement 9.7 Secure grinder for transport 9.8 Update records of operator usage in log record 9.9 Update records of maintenance and replacement items

Foundation Skills

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

Range of Conditions

Unit Mapping Information

This unit is not equivalent to AHCARB206A Undertake stump removal.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB206 Operate and maintain stump grinding machines

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Performance Evidence

The candidate must be observed removing stumps using a motorised stump grinder using low-risk work procedures. 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:

- determining site location and details and clarifying with supervisor
- determining the depth below ground of stump grinding works
- determining and confirm location and depth of above-and-below-ground services
- unload stump grinder machine
- undertaking a site-specific risk assessment by identifying work health and safety hazards and assessing risk
- checking maintenance log complete and up to date
- checking belts appropriately tensioned and in good order
- checking teeth are sharp
- checking no teeth are missing or loose
- checking tyre pressure is correct or tracks are appropriately tensioned
- checking levels of oils and fluids
- checking hoses
- checking brakes are operational
- checking cutter head rotates freely and is not obstructed
- checking guards for belt, power take-off (PTO) and grinder head are in place
- checking kill switch clearly identifiable and working
- checking that dead-man is working if fitted
- checking debris curtain present and in good order
- checking dust suppression system is working if fitted
- selecting and use appropriate personal protective equipment
- confirming first aid and emergency personnel, equipment and procedures
- exposing stump surrounds manually and check for and remove foreign bodies
- moistening surrounds as required

- recording and implementing work health, safety, site, environmental and traffic control measures
- determining exclusion zone for work operations
- isolating exclusion zone with barriers and signs
- positioning machine level within recommended ranges to avoid rollover
- avoiding holes with machine wheels
- positioning machine to minimise impact from flying debris
- positioning operator in low risk position
- positioning operator to provide a clear view of the stump
- locating safety screens as required
- communicating with work team during operations using voice, hand and whistle signals
- confirming work zone cleared prior to starting cutter head
- planning to complete a series of passes across the stump
- starting cutter head
- stopping work if exclusion zone is breached and disengage cutter head if required
- positioning cutter head over stump
- engaging cutter head into stump surface
- maintaining engine speed in revolutions-per-minute (rpm)
- ensuring grinding process is accurate, smooth and ergonomic
- grinding stump to recommended depth of cut on each cutting pass
- ensuring the cut size of each pass is not excessively deep causing the machine to labour excessively or to stall
- grinding stump to predetermined spread and depth
- operating equipment without damaging underground services and surrounding areas
- repositioning machine away from ground stump
- disengaging cutter head if risk of making unwanted contact
- waiting and remaining clear of cutter head until cutter head stops moving
- removing build-up of grindings
- making check in calls at prearranged times
- inspecting grinder as required between stumps and when refueling
- shutting down immediately if abnormal vibration and/or noise develops
- stopping the engine before refueling and allow engine to cool as required
- following safe work method statement instructions for refueling
- replacing and securing fuel cap before restarting
- disengaging cutter head and ensure a complete stop before moving to a new stump
- back-filling stump hole to original ground level
- maintaining clean and safe work area throughout work and upon completion
- collecting waste material and dispose of or recycle in a manner causing minimal environmental damage
- cleaning, maintaining and storing tools and equipment
- performing basic maintenance, including sharpening grinder and replacing teeth as required
- loading grinder in accordance with safe work method statement

- securing grinder for transport
- updating records of operator usage in log record
- updating records of maintenance and replacement items.

Knowledge Evidence

The candidate must demonstrate knowledge of:

- site hazard identification methods
- site risk assessment systems
- control measures for work health, safety, site, environmental and traffic control
- personal protective equipment
- communication systems using voice, hand and whistle signals
- first aid
- emergency procedures
- methods of locating services
- pre-operational checks of stump grinders including:
 - logs
 - belts
 - teeth
 - tyre pressure
 - oils and fluids
 - hoses
 - brakes
 - cutter head
 - guards
- safety checks of stump grinders including:
 - guards for belt, power take-off (PTO) and grinder head
 - kill switch
 - dead man
 - debris curtain
 - dust suppression
- exclusion zones
- operation of stump grinders
- cutter head engagement and disengagement
- positioning of stump grinders and operator
- work zone
- methods of determining spread and depth of cut
- recommended depths of cut
- cutting plan
- engine speed (rpm)
- abnormal vibration

- methods of back-filling
- environmental implications of removal activities
- appropriate methods of collecting waste material and disposal or recycling methods
- basic maintenance of stump grinders
- methods of sharpening stump grinders
- methods of teeth replacement of stump grinders
- records of operator usage in log record
- methods of maintaining records for basic maintenance and replacement items.

Assessment Conditions

It is an industry requirement for competency in this unit that assessment includes a log record, verifying ten (10) hours of operating a stump grinder, and five (5) hours of unloading and loading, setup and pre-operational and safety checks, preparatory work, backfilling and cleaning up, sharpening and basic maintenance, performed by the candidate.

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:
 - stump grinder
 - sharpening equipment
 - refuelling kit
 - spill kit
 - emergency communication system
 - personal protective equipment (PPE)
 - first aid and emergency kit
 - traffic management kit
 - signage – work zone
 - tree stumps
- materials:
 - stump grinder operations form
 - hazard identification and risk control form
 - pre-operational and safety check form
 - emergency preparation form
 - work communications form
 - work records 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

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