



Australian Government

AHCARB212 Operate and maintain stump grinding machines

Release: 1

AHCARB212 Operate and maintain stump grinding machines

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 5.0.

Application

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

The unit applies to individuals who operate stump grinders in a broad range of arboriculture contexts who undertake defined routine activities under supervision. They exercise limited autonomy within established and well known parameters, providing solutions to a limited range of predictable problems.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Unit Sector

Arboriculture (ARB)

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for stump removal operations	1.1 Confirm work instructions and stumps to be removed with supervisor 1.2 Assess the size and scale of stump grinding works 1.3 Identify and confirm location and depth of above and below ground services with supervisor 1.4 Confirm workplace health and safety hazards and controls from

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	job safety analysis (JSA) with supervisor 1.5 Confirm availability of first aid and emergency personnel, equipment and procedures 1.6 Unload stump grinder from transport vehicle according to workplace and safety procedures
2. Carry out stump grinder pre-operational and safety checks	2.1 Check maintenance log for outstanding performance issues, and report incomplete maintenance to supervisor 2.2 Conduct pre-start checks on stump grinder according to manufacturer instructions 2.3 Check fluid levels and fill to manufacturer specifications 2.4 Check safety guards are secure and in place 2.5 Check safety switches are functioning correctly 2.6 Check debris curtain is in working order according to manufacturer instructions
3. Complete preparations for work	3.1 Select, check and use personal protective equipment 3.2 Assess stump and surrounds for impediments to grinding operations 3.3 Implement workplace health, safety, site, environmental and traffic control measures
4. Operate stump grinder	4.1 Plan the grinding operation and position grinder according to site conditions and operator instructions 4.2 Implement stump grinder start-up procedure 4.3 Operate stump grinder to grind stump according to manufacturer and operator instructions 4.4 Monitor cutting operation and adjust cutting rate and depth according to manufacturer and supervisor instructions 4.5 Undertake corrective action when stump grinder performance or safe operation has been compromised 4.6 Implement shutdown procedures following stump removal

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
5. Complete stump grinding operations	5.1 Dispose of waste according to work instructions and environmental procedures 5.2 Clean stump grinder and equipment according to workplace and biosecurity procedures 5.3 Perform operator maintenance according to manufacturer instructions 5.4 Report and record stump grinder usage, maintenance and repair requirements according to repair and maintenance procedures 5.5 Load and secure stump grinder onto transport vehicle according to workplace and safety procedures, and regulatory requirements 5.6 Maintain records and report stump grinding outcomes according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.

Skill	Description
Reading	Interpret textual information from maintenance logs, operating instructions and policies to identify relevant and key information for preparing and operating machinery safely
Writing	Complete stump grinder operation records using clear language and industry terminology to ensure clarity of meaning
Numeracy	Perform basic calculations to determine fuel mixtures and machine fluid level and volumes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCARB212 Operate and maintain	AHCARB206 Operate and maintain	Prerequisite units removed	Equivalent

stump grinding machines	stump grinding machines	Performance criteria clarified Foundation skills added Assessment requirements updated	
-------------------------	-------------------------	--	--

Links

Companion Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>

Assessment Requirements for AHCARB212 Operate and maintain stump grinding machines

Modification History

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 5.0.

Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.

There must be evidence that the individual has safely operated a stump grinding machine to remove at least one stump no less than 60cm in diameter, including:

- unloaded and loaded the grinder on a transport vehicle
- carried out set-up and pre-operational and safety checks
- prepared the site ready for stump grinding work
- cleaned, sharpened and maintained the stump grinder.

There must also be evidence that the individual has:

- confirmed work instructions and stumps to be removed, and assessed the size and scale of the works
- confirmed hazards and controls from job safety analysis (JSA) including:
 - located services
 - selected, checked and used appropriate personal protective equipment
 - confirmed the availability of first aid and emergency equipment, personnel and procedures
 - implemented workplace health, safety, environmental and traffic control measures
- reviewed the maintenance log for outstanding performance issues, and reported inconsistencies
- assessed stump surrounds for impediments to stump grinding operations and planned and positioned stump grinding machine according to site conditions and operating procedures
- implemented start-up procedure and operated stump grinder including monitored ongoing performance and undertook adjustments and corrective action where performance was lacking
- shut down machine according to operator instructions and cleaned stump grinder disposing of waste material according to environmental and biosecurity procedures
- maintained records and reported grinding operations according to workplace procedures.

Knowledge Evidence

An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:

- site hazards, risk assessment and documenting controls in JSA, including:
 - control measures for workplace health, safety, site, environmental and traffic control
 - personal protective equipment
 - first aid kits and access
 - emergency procedures
 - methods and purpose for locating above and below ground services
 - exclusion zones, barriers and fencing
- pre-operational checks of stump grinders, including:
 - maintenance logs and their purpose
 - belts and pulleys, wear and replacement
 - cutter head and teeth adjustments and sharpening
 - tyre pressure
 - oil and fluid levels
 - preparing and adding fuel
 - hydraulic hoses
 - brakes
 - engine types and fuels
- safety checks of stump grinders, including:
 - guards for belt, power take-off (PTO) and grinder head
 - kill switch
 - dead man
 - debris curtain
- operation of stump grinders, including:
 - impediments to stump grinding operations
 - cutter head engagement and disengagement
 - positioning of stump grinders and operator
 - methods for determining spread and depth of cut
 - engine speed (rpm)
 - common faults, their signs and symptoms
- environmental implications of stump grinding operations, including methods of collecting waste material and disposal and recycling
- basic maintenance of stump grinding machines, including:
 - sharpening teeth
 - teeth replacement
 - belt replacement
 - records of operator usage in log record

- methods of maintaining records for maintenance and replacement items.

Assessment Conditions

Assessment of the skills in this unit of competency must take place under the following conditions:

- physical conditions:
 - access to stumps ready for grinding
- resources, equipment and materials:
 - stump grinder
 - tooth sharpening equipment
 - tools and equipment for conducting basic maintenance practices
 - cutter teeth
 - fuel and spill kit
 - personal protective equipment
 - first aid, emergency and traffic management kit
- specifications:
 - workplace procedures for stump grinding
 - manufacturer instructions for safe operation, cleaning and storage of stump grinding equipment
 - arboriculture hygiene and biosecurity standards.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards. In particular, assessors must 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 Volumes, including Implementation Guides, are available at VETNet: -
<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72>