



Australian Government

AHCMOM401 Conduct major repair and overhaul of machinery and equipment

Release: 2

AHCMOM401 Conduct major repair and overhaul of machinery and equipment

Modification History

Release	Comments
Release 2	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 3.0.
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 1.0.

Application

This unit of competency describes the skills and knowledge required to prepare for, carry out and complete major repair and overhaul of machinery and equipment.

The unit applies to individuals who apply specialised skills and knowledge to ensure that workplace machinery and equipment is repaired or overhauled in a way that enables minimal disruption to workplace operations. They have responsibility for their own work and for the quality of the work of others within known parameters. This includes applying and communicating non-routine technical solutions to predictable and unpredictable problems.

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

Pre-requisite Unit

Nil

Unit Sector

Machinery operation and maintenance (MOM)

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 to carry out major repairs and overhaul of machinery	1.1 Identify major repairs and overhaul requirements for machinery and equipment and organise resources according to workplace procedures, operation and maintenance manuals and manufacturer

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
and equipment	specifications 1.2 Identify, access and confirm tools and equipment against job requirements 1.3 Identify hazards and assess risks in the workplace and implement control practices to manage risks according to health and safety workplace procedures 1.4 Select, fit and use personal protective equipment according to workplace procedures and operation and maintenance manuals
2. Conduct major repairs and overhaul of machinery and equipment	2.1 Confirm machinery and equipment faults and malfunctions listed 2.2 Estimate scope and cost for repairs or overhaul and inform management and other relevant personnel 2.3 Consult with specialist technical personnel in regard to overhaul requirements and major repairs 2.4 Identify worn or damaged parts and remove or overhaul 2.5 Implement repair and replacement process for major repairs according to workplace requirements and manufacturers' specifications
3. Carry out advanced welding repairs and workplace engineering	3.1 Identify health and safety in the workplace hazards, assess risks and implement, monitor and review risk controls 3.2 Select and set up cutting and welding equipment and materials according to health and safety in the workplace requirements 3.3 Conduct cutting and welding according to industry and workplace safety standards 3.4 Carry out workplace engineering tasks to modify design or manufacture parts according to job requirements
4. Complete major repairs and overhaul operation	4.1 Shut down, adjust, clean and store tools and equipment according to workplace practices 4.2 Collect and treat, dispose or recycle waste from maintenance activities according to workplace procedures 4.3 Clean, maintain and return work areas to operating condition 4.4 Record breakdowns, major repairs, overhauls and incidents 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 information from a range of sources to identify relevant and key information about workplace operations
Writing	Complete workplace documentation to record machinery and equipment breakdowns, major repairs, overhauls and safety incidents
Oral communication	Use clear language to present information to management and consult with specialist technical personnel
Numeracy	- Estimate and calculate repair and overhaul costs for materials requirements, resources and specialist technical personnel - Provide timeframes for completing machinery and equipment repair
Navigate the world of work	Recognise and follow workplace requirements, including safety requirements, associated with own role and area of responsibility

Range of Conditions

This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Machinery and equipment must include at least one of the following:	- harvesters - tractors - seeding machines with components including metering systems, air flow control, blower drives, air system, electronic monitoring systems, hydraulic hoses and couplings - engines - boom spray units - grain handling equipment.
Personal protective equipment must include:	- non-slip heat and fire resistant boots or shoes - safety glasses and goggles - welding gloves and gauntlets - welding helmet.

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
AHCMOM401 Conduct major repair and overhaul of machinery and equipment Release 2	AHCMOM401 Conduct major repair and overhaul of machinery and equipment Release 1	Minor changes to performance criteria and range of conditions	Equivalent unit

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 AHCMOM401 Conduct major repair and overhaul of machinery and equipment

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Performance Evidence

An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that, on at least one occasion, the individual has undertaken major repair and overhaul of machinery and equipment in a manner that allows the core business of the enterprise to continue with minimal disruption and has:

- identified potential workplace hazards and implemented control measures
- diagnosed faults and identified the most effective and economic option in the replacement, repair and overhaul of components
- selected and used tools and materials appropriate to the task
- recognised and replaced deteriorated or worn parts
- disassembled and reassembled parts and components of machinery and equipment according to operation and maintenance manual and manufacturer specifications
- used and operated welding and thermal cutting equipment safely and effectively
- determined appropriate cutting and welding techniques
- disposed of wastes to minimise environmental impact
- recorded details of breakdowns, major repairs, overhauls and incidents in workshop record.

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:

- assemblies and components of drive, electrical and hydraulic systems
- operational requirements of machinery and equipment
- detailed knowledge of mechanics and equipment operating systems
- use and storage of welding equipment
- maintenance manuals and manufacturer specifications for machinery and equipment operation relevant to repair tasks

- environmental impacts of machinery and equipment major repair and disposal of fuels, oils and other wastes
- workplace procedures applicable to health and safety in the workplace for major repair of machinery and equipment.

Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
 - a workplace setting or an environment that accurately represents workplace conditions
- resources, equipment and materials:
 - machinery and equipment
 - repair and overhaul tools and equipment
 - welding equipment
 - safety equipment and personal protective equipment applicable to the task being undertaken
- specifications:
 - machinery and equipment operation and maintenance manual and manufacturer specifications
 - workplace procedures applicable to health and safety in the workplace and machinery maintenance
- relationships:
 - team members and supervisors
- timeframes:
 - according to the job requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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