



Australian Government

Department of Education, Employment and Workplace Relations

AHCMOM401A Conduct major repair and overhaul of machinery and equipment

Release: 1

AHCMOM401A Conduct major repair and overhaul of machinery and equipment

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers conducting major repair and overhaul of machinery and equipment and defines the standard required to: diagnose faults and repair requirements; dismantle and reassemble parts and components of machinery and equipment; select and use tools and materials appropriate to the task; carry out repairs and servicing of a range of machinery and equipment; determine appropriate cutting and welding techniques; operate welding equipment safely and effectively.
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Application of the Unit

Application of the unit	This unit applies to those working in a technical role to ensure that machinery and equipment for the enterprise is repaired or overhauled in a way that allows the core business of the enterprise to continue with minimal disruption.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
1. Prepare to carry out major repairs and overhaul of machinery and equipment	1.1. Major repairs and overhaul requirements for machinery and equipment are identified and resources organised according to manufacturer's recommendations and enterprise requirements. 1.2. Tools and equipment are identified, accessed and confirmed against job requirements. 1.3. Potential and existing hazards in the workplace are risk assessed and controlled according to Occupational Health and Safety (OHS) and enterprise requirements. 1.4. Suitable personal protective equipment is used and maintained according to OHS and enterprise requirements.
2. Conduct major repairs and overhaul of machinery and equipment	2.1. Machinery and equipment faults and malfunctions are located and confirmed. 2.2. Scope and costing for repairs or overhaul are estimated for approval by management. 2.3. Repair and replacement process is implemented for major repairs according to enterprise requirements, manufacturer's specifications and OHS procedures. 2.4. Worn or damaged parts in need of overhaul are identified, removed and overhauled. 2.5. Appropriate personnel are consulted as necessary in regard to overhaul requirements and major repairs according to enterprise requirements.
3. Carry out advanced welding repairs and workplace engineering	3.1. Cutting and welding equipment and materials are selected, set-up and started according to industry and OHS standards and enterprise requirements. 3.2. OHS hazards are identified, risks assessed and risk controls are implemented, monitored and reviewed. 3.3. Cutting and welding is conducted to industry and safety standards and according to enterprise requirements. 3.4. Workplace engineering tasks to modify design or manufacture parts are carried out according to enterprise and job requirements.
4. Complete major repairs and overhaul operation	4.1. Tools and equipment are shut down, adjusted, cleaned and stored consistent with manufacturer's specifications and enterprise requirements. 4.2. Waste from repair and maintenance activities is collected, treated and disposed or recycled according to enterprise environmental requirements. 4.3. Work areas are cleaned, returned to operating condition and maintained according to OHS and

ELEMENT	PERFORMANCE CRITERIA
	enterprise requirements. 4.4. Records of breakdowns, major repairs, overhauls, incidents and work conducted is detailed and recorded according to enterprise, industry and legislative requirements.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- recognise and replace deteriorated or worn parts
- plan and meet seasonal deadlines
- identify most effective and economic option in the replacement, repair and overhaul of components
- use and maintain welding and thermal cutting equipment
- use literacy skills to read, interpret and follow organisational policies and procedures, develop sequenced written instructions, record accurately and legibly information collected and select and apply procedures to a range of tasks
- use oral communication skills/language competence to fulfil the job role as specified by the organisation including questioning, active listening, asking for clarification, negotiating solutions and responding to a range of views
- use numeracy skills to estimate, calculate and record routine and more complex workplace measures and data
- use interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- assemblies and components of drive, electrical and hydraulic systems
- operational requirements of machinery and equipment
- detailed knowledge of mechanics and equipment operating systems
- storage and use of welding equipment
- OHS legislative and enterprise requirements
- environmental codes of practice with regard to the major repair of machinery and equipment.

Evidence Guide

EVIDENCE GUIDE

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment

Critical aspects for assessment and evidence required to demonstrate competency in this unit

The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following:

- diagnose faults and repair requirements
- dismantle and reassemble parts and components of machinery and equipment
- select and use tools and materials appropriate to the task
- carry out repairs and servicing of a range of machinery and equipment
- determine appropriate cutting and welding techniques
- operate welding equipment safely and effectively.

Context of and specific resources for assessment

Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole.

Machinery and equipment may include:

- harvesters
- tractors
- seeding machines with components such as metering systems, air flow control, blower drives, air system, electronic monitoring systems, hydraulic hoses and couplings
- engines
- boom spray units

RANGE STATEMENT	
	• harvesters • associated grain-handling equipment.
The repair and replacement process for machinery may involve:	• rectifying major faults and restoring machinery and equipment systems to an acceptable status of operation by replacing worn, failed, faulty or damaged mechanical, hydraulic, basic electrical or frame and support structure parts and components.
The repair and replacement process for machinery may include:	• carrying out tests and making adjustments • rectifying faults by welding, aligning, tightening, securing or adjusting components that are not a part of normal service operations • Major repairs may require dismantling and assembly operations.

Unit Sector(s)

Unit sector	Machinery operation and maintenance
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Co-requisite units

Co-requisite units	

Competency field

Competency field	
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