



Australian Government

Department of Education, Employment and Workplace Relations

RIISAM309A Service and maintain pumps

Release: 1

RIISAM309A Service and maintain pumps

Modification History

Not applicable.

Unit Descriptor

This unit covers servicing and maintaining pumps in the coal and metalliferous mining and extractive industries. It includes: preparing for and carrying out of servicing and maintenance; and the recording and reporting on the servicing and maintenance undertaken.

Application of the Unit

This unit is appropriate for those working in operational or maintenance roles, at worksites within:

- Coal mining
- Extractive industries
- Metalliferous mining

Licensing/Regulatory Information

Refer to Unit Descriptor.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Prepare for service and maintenance	1.1. Access, interpret and apply compliance documentation relevant to the servicing and maintaining of pumps 1.2. Obtain, interpret and clarify work requirements for the satisfactory completion of operations 1.3. Identify and obtain items required for the safe, effective and efficient conduct of the tasks 1.4. Identify and obtain tools required for the safe, effective and efficient completion of the tasks 1.5. Identify and arrange support required for the safe, effective and efficient completion of the tasks 1.6. Inspect and prepare work area in coordination with others 1.7. Carry out isolation and lock-out of all equipment necessary for the safe execution of tasks
2. Carry out service and repairs	2.1. Resolve coordination requirements with others at the site prior to commencing and during work activities 2.2. Carry out inspection of pumps, fault find and report outcomes to appropriate person 2.3. Select and use servicing and maintenance tools in an appropriate, safe, effective and efficient manner 2.4. Select and operate servicing and maintenance items safely, effectively and efficiently 2.5. Carry out safe effective and efficient servicing of pumps 2.6. Carry out the safe, effective and efficient maintenance of pumps 2.7. Recognise and respond to hazardous and emergency situations 2.8. Dispose of used oil, lubricant and other waste 2.9. Return and secure all tools and re-usable items

	2.10. Maintain servicing and maintenance records
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Required Skills and Knowledge

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

Required skills

Specific skills are required to achieve the performance criteria in this unit, particularly for the application in the various circumstances in which this unit may be applied. This includes the ability to carry out the following as required to service and maintain pumps:

- apply legislative, organisation and site requirements and procedures
- apply site risk, statutory compliance, health, safety, environmental, quality and communication requirements and procedures
- apply site and manufacturer's requirements and procedures for servicing and maintenance of the site's pumps
- apply communication procedures with those providing support
- apply work area and equipment inspection procedures
- apply work area safeguarding options and requirements
- apply isolation and lock-out requirements and procedures
- apply hazard and emergency procedures
- apply site service and maintenance reporting requirements and procedures
- apply procedures for working in confined spaces
- work wearing appropriate personal protective equipment
- use tools

Required knowledge

Specific knowledge is required to achieve the Performance Criteria of this unit, particularly its application in a variety of circumstances in which the unit may be used. This includes knowledge of the following, as required to service and maintain pumps:

- site risk, statutory compliance, health, safety, environmental, quality and communication requirements and procedures
- site and manufacturer's requirements and procedures for servicing and maintenance of the site's pumps
- items required to be used in the servicing and maintenance of the site's pumps
- characteristics of the items required in the servicing and maintenance of the site's pumps
- tools required for the servicing and maintenance of the site's pumps
- site pump servicing and maintenance support requirements and available
- site work area inspection requirements
- site work area safeguarding options and requirements
- site isolation and lock-out requirements and procedures
- site hazard and emergency procedures
- site service and maintenance reporting requirements and procedures

- site service and maintenance record procedures
- site requirements and procedures for working in confined spaces
- site requirements and procedures for working in isolation
- site requirements for the use of personal protective equipment

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 worksite operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit and include evidence of the following: • knowledge of the requirements, procedures and instructions for the servicing and maintaining pumps • implementation of requirements, procedures and techniques for the safe, effective and efficient servicing and maintaining of pumps • working with others to service and maintain pumps that meet all of the required outcomes • consistent timely servicing and maintaining of pumps that safely, effectively and efficiently meets the required outcomes
Context of and specific resources for assessment	• This unit must be assessed in the context of the work environment. Where personal safety or environmental damage are limiting factors, assessment may occur in a simulated environment provided it is realistic and sufficiently rigorous to cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills. • The assessment environment should not disadvantage the participant. For example, language, literacy and numeracy demands of assessment should not be greater than those required on the job. • Customisation of assessment and delivery environment to sensitively accommodate cultural diversity. • Aboriginal people and other people from a non English speaking background may have second language issues.

	• Assessment of this competency requires typical resources normally used in the work environment. Selection and use of resources for particular worksites may differ due to site circumstances. • Where applicable, physical resources should include equipment modified for people with disabilities. • Access must be provided to appropriate learning and/or assessment support when required.
Method of assessment	This unit may be assessed in a holistic way with other units of competency. The assessment strategy for this unit must verify required knowledge and skill and practical application using more than one of the following assessment methods: • written and/or oral assessment of the candidate's required knowledge • observed, documented and/or first hand testimonial evidence of the candidate's: • implementation of appropriate requirement, procedures and techniques for the safe, effective and efficient achievement of required outcomes • consistently achieving the required outcomes • first hand testimonial evidence of the candidate's: • working with others to service and maintain pumps
Guidance information for assessment	Consult the SkillsDMC User Guide for further information on assessment including access and equity issues.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Relevant compliance documentation may include:	• legislative, organisation and site requirements and procedures • manufacturer's guidelines and specifications • Australian standards • code of practice • Employment and workplace relations legislation • Equal Employment Opportunity and Disability Discrimination legislation
Servicing may include:	• inspection • cleaning • clearing blockages • greasing • checking and topping-up fluids, including: • coolants • lubricants • hydraulic oils
Maintenance may include:	• replacing wear components, including pump seals, liners and impellers • replacing v-belts • tensioning fasteners and v-belts • adjust pump settings
Work requirements may come from briefings, handovers, and work orders and may include:	• service and maintenance schedules • production requirements • nature and scope of tasks • achievement targets • operational conditions • operational requirements • site layout and out of bounds areas • worksite inspection requirements • plant or equipment defects • hazards and potential hazards • coordination requirements or issues

Items may include:	• replacement parts • fasteners • packing materials
Tools may include:	• hand tools • power tools • special tools
Support may include:	• other site personnel • contractors • cranes • other lifting equipment
Inspect and prepare work area may include:	• identification of hazards • selection and implementation of control measures for the hazards identified • safeguarding site and non-site personnel by: • erection of barricades and posting of signs • selection of appropriate equipment to ensure personnel safety and protection
Coordination with others may include with:	• stores personnel • processing plant operators • mobile plant operators • other maintenance personnel
Hazardous and emergency situations may include	• confined spaces • working alone • personal injury • electrical • dust • noise • environmental • chemical • fire

Unit Sector(s)

Service and Maintenance

Competency field

Refer to Unit Sector(s).

Co-requisite units

Not applicable.