



Australian Government

Department of Education, Employment and Workplace Relations

MEM05014C Monitor quality of production welding/fabrications

Release: 1

MEM05014C Monitor quality of production welding/fabrications

Modification History

Not Applicable

Unit Descriptor

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| Unit descriptor | This unit covers performing basic inspection of completed or partly completed welded fabrications produced by others in a production environment. |
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Application of the Unit

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| Application of the unit | <p>This competency would be used in a production welding environment to monitor the quality of production fabrication work where knowledge of the welding techniques and testing procedures is required. Duties should be carried out in consultation with appropriately qualified supervisor or engineer.</p> <p>Band: A Unit Weight: 2</p> |
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

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| Prerequisite units | | |
| Path 1 | MEM05012C | Perform routine manual metal arc welding |
| | MEM05015D | Weld using manual metal arc welding process |

| Prerequisite units | | |
|---------------------------|-----------|---|
| | MEM05051A | Select welding processes |
| | MEM05052A | Apply safe welding practices |
| | MEM12023A | Perform engineering measurements |
| | MEM18001C | Use hand tools |
| | MEM18002B | Use power tools/hand held operations |
| Path 2 | MEM05017D | Weld using gas metal arc welding process |
| | MEM05050B | Perform routine gas metal arc welding |
| | MEM05051A | Select welding processes |
| | MEM05052A | Apply safe welding practices |
| | MEM12023A | Perform engineering measurements |
| | MEM18001C | Use hand tools |
| | MEM18002B | Use power tools/hand held operations |
| Path 3 | MEM05019D | Weld using gas tungsten arc welding process |
| | MEM05049B | Perform routine gas tungsten arc welding |
| | MEM05051A | Select welding processes |
| | MEM05052A | Apply safe welding practices |
| | MEM12023A | Perform engineering measurements |
| | MEM18001C | Use hand tools |
| | MEM18002B | Use power tools/hand held operations |

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| Prerequisite units | | |
| Path 4 | MEM05004C | Perform routine oxy acetylene welding |
| | MEM05007C | Perform manual heating and thermal cutting |
| | MEM05051A | Select welding processes |
| | MEM05052A | Apply safe welding practices |
| | MEM12023A | Perform engineering measurements |
| | MEM18001C | Use hand tools |
| | MEM18002B | Use power tools/hand held operations |

Employability Skills Information

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

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| 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 |
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| 1. Monitor quality of welded products | 1.1. Weld requirements are identified from specifications and/or drawings. 1.2. Inspection procedures are carried out to standard operating procedures. 1.3. Nonconforming welds are reported and corrective action is initiated according to standard operating procedures. 1.4. Pre-set gauges are used to monitor quality of product. |
| 2. Initiate testing when required | 2.1. Test requirements are implemented according to standard operating procedures and any legislative or regulatory requirements. |
| 3. Undertake procedures reporting | 3.1. Data is collected to standard operating procedures. 3.2. Reports are prepared as required. |

Required Skills and Knowledge

| REQUIRED SKILLS AND KNOWLEDGE |
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| This section describes the skills and knowledge required for this unit. |
| Required skills |
| Look for evidence that confirms skills in: <ul style="list-style-type: none"> • recognising nonconforming welds • reading, interpreting and following information on specifications, standard operating procedures, drawings and other applicable reference documents • using pre-set gauges • collecting weld test data • entering routine and familiar information onto proformas and standard workplace forms/reports |
| Required knowledge |
| Look for evidence that confirms knowledge of: <ul style="list-style-type: none"> • the function of pre-set gauges • test requirements appropriate to the welded product • legislative and/or regulatory requirements of the welded product |

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| REQUIRED SKILLS AND KNOWLEDGE |
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| <ul style="list-style-type: none">• reporting and corrective action procedures |
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Evidence Guide

| EVIDENCE GUIDE | |
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| <p>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.</p> | |
| <p>Overview of assessment</p> | <p>A person who demonstrates competency in this unit must be able to monitor the quality of completed or partly completed welded fabrications produced by others in a production environment. Competency in this unit cannot be claimed until all prerequisites have been satisfied.</p> |
| <p>Critical aspects for assessment and evidence required to demonstrate competency in this unit</p> | <p>Assessors must be satisfied that the candidate can competently and consistently perform all elements of the unit as specified by the criteria, including required knowledge, and be capable of applying the competency in new and different situations and contexts.</p> |
| <p>Context of and specific resources for assessment</p> | <p>This unit may be assessed on the job, off the job or a combination of both. Where assessment occurs off the job, i.e. the candidate is not in productive work, appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.</p> <p>This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with monitoring the quality of production welding/fabrications or other units requiring the exercise of the skills and knowledge covered by this unit.</p> |
| <p>Method of assessment</p> | <p>Assessors should gather a range of evidence that is valid, sufficient, current and authentic. Evidence can be gathered through a variety of ways including direct observation, supervisor's reports, project work, samples and questioning. Questioning techniques should not require language, literacy and numeracy skills beyond those required in this unit of competency. The candidate must have access to all tools, equipment, materials and documentation required. The candidate must be permitted to refer to any relevant workplace procedures, product and manufacturing specifications, codes, standards, manuals and reference materials.</p> |

EVIDENCE GUIDE

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| Guidance information for assessment | |
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Range Statement**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.

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| Inspection procedures | Visual/gauges inspections |
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Unit Sector(s)

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| Unit sector | |
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Co-requisite units

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| Co-requisite units | | |
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Competency field

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| Competency field | Fabrication |
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