



Australian Government

MEM05065 Maintain weld records

Release: 1

MEM05065 Maintain weld records

Modification History

Release 1. New Unit.

Application

maintaining accurate and compliant weld records associated with enterprise quality system requirements, an individual customer or project, or as part of welder qualification continuity requirements.

It defines the knowledge and skills required to establish record keeping requirements, record accurate details of welds in accordance with formal weld record systems and traceability requirements as defined in the unit in conjunction with its prerequisites. Weld record keeping may be undertaken electronically or manually.

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

Band: A

Unit weight: 4

Pre-requisite Unit

MEM05085 Select welding processes

MEM09002 Interpret technical drawing

MEM11011 Undertake manual handling

MEM12023 Perform engineering measurements

MEM12024 Perform computations

MEM13015 Work safely and effectively in manufacturing and engineering

MEM14006 Plan work activities

MEM16006 Organise and communicate information

MEM18001 Use hand tools

MEM18002 Use power tools/hand held operations

Plus one or more of the following units and their prerequisites

MEM05090 Weld using manual metal arc welding process

MEM05091 Weld using gas metal arc welding process

MEM05092 Weld using gas tungsten arc welding process

MEM05093 Weld using submerged arc welding process

MEM05096 Weld using flux core arc welding process

MEM05097 Weld using oxy fuel gas welding process

Competency Field

Fabrication

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Identify weld record keeping requirements	1.1 Identify general record keeping requirements associated with job 1.2 Identify any regulatory requirements that apply to weld record keeping 1.3 Identify scope of welding records and parameters to be recorded and form of the record
2. Record welds	2.1 Record job and welding task data according to specifications 2.2 Record details of welds performed including any required test pieces and production test plate welds in the required form, together with joint numbers and symbols, and standard identifiers for materials and consumables 2.3 Check that all weld parameters and other data required for traceability has been entered correctly before finalising weld record
3. Participate in maintaining own welder continuity	3.1 Monitor own pre-qualification against relevant standards, codes and weld procedure specifications (WPS) 3.2 Contribute welder pre-qualification data for validation and entry into welder logs or other like records

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for 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.

Weld record keeping requirements include one or more of the following:	• welder identification • WPS and standards related to the welding performed • welder pre-qualification and continuity information • welding supervisor • weld bay/location in the enterprise • job number or other job identifier • date welds performed • any pre or post weld heat treatment • equipment, material and consumables used • basic non-destructive testing (NDT) and other tests performed by the welder • weld non-conformities and faults and record of corrective or preventative actions taken • other non-conformances • other records required by the enterprise welding record management quality system data.
Enterprise weld record systems include one or more of the following:	• PC based records using standard spreadsheet or word processing software • PC based records using dedicated weld record software programs • electronic records using cloud based dedicated weld record software programs • welding parameter data gathered automatically by the welding machine, handheld recording devices connected or loaded to welding software • paper or microfiche record systems.
Welding parameters include one or more of the following:	• material specification and grade • material preparation requirements • joint details • process type • position • run sequence and pass number • welding process • filler material • material diameter • current • voltage • polarity • wire feed speed • travel speed • pre and post heat input.
Individual job and	• job commencement and conclusion

welding time data includes one or more of the following:	• commencement and conclusion times for each joint weld • on arc time • pre and post heat time and date.
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Unit Mapping Information

Release 1. New unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>

Assessment Requirements for MEM05065 Maintain weld records

Modification History

Release 1. New Unit.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include the ability to:

- review job specifications and drawings for at least two fabrications for record keeping requirements with customer, enterprise and any regulatory requirements to be identified for each fabrication
- record job, time and weld data including weld parameters for at least two fabrications covering a minimum of three weld positions for each fabrication. Recording for each fabrication must also include details of test pieces and/or production test plates
- access and monitor own pre-qualifications records against weld procedure specifications (WPS) and standards and codes.

Note: Where a volume and/or frequency is not specified, demonstration must be provided at least once.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- welding symbols and abbreviations used in Australian and equivalent international standards
- welding parameters
- methods used by suppliers of materials and consumables to identify product type, batch number, date of manufacture/use by date and compliance information to standards
- procedures for recording sample welds, test pieces and production test plates
- welding procedure specifications
- welder qualification records.

Assessment Conditions

- Assessors must:
 - have vocational competency in maintaining weld records at least to the level being assessed with relevant industry knowledge and experience

- satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015* or its replacement and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Assessment must occur in a functioning workplace. Where assessment in the workplace would be unsafe, impractical or threatens the environment, assessment must occur in a sufficiently rigorous simulated environment that reflects the circumstances that would be experienced in a functioning workplace. Assessment must cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills.
- Knowledge assessment may be either verbal or written but must adequately reflect the knowledge requirements of the unit in a functioning workplace.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

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