Modification history

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| Release | Comments |
| Release 2 | This version released with ACM Animal Care and Management Training Package Version 3.0. |
| Release 1 | This version released with ACM Animal Care and Management Training Package Version 1.0. |

| ACMFAR305 | Perform welding tasks using a forge  |
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| Application | This unit of competency describes the skills and knowledge required to determine welding requirements, prepare materials and carry out routine welding of either mild steel or aluminium using a forge. Welding in this unit is not required to meet the AS/NZS 1554 General Purpose Standard.The unit applies to individuals who use specialised knowledge and technical skills to perform welding relevant to farriery services across different equine industry sectors. No occupational licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | Farriery (FAR) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Identify work requirements | 1.1 Interpret instructions to determine task and time requirements1.2 Identify welding or bending requirements from specifications1.3 Identify locations of welds according to specifications |
| 2. Prepare materials for welding | 2.1 Calculate the amount of metal required for bending or welding2.2 Clean and prepare materials using tools and techniques appropriate for task2.3 Select and correctly fit personal protective equipment |
| 3. Prepare and manage fire for welding | 3.1 Select fuel and prepare tools to manage the fuel source3.2 Set up forge according to workplace procedures3.3 Manage the fire to maintain its effectiveness as a forge3.4 Identify the correct forge heat for particular operations3.5 Assess and control risks relating to preparing and managing fire for welding |
| 4. Carry out farriery welding tasks using a forge fire | 4.1 Apply and control heat to the material to be forged4.2 Carry out farriery welding tasks using welds and tools appropriate for task4.3 Extinguish the forge fire safely and complete clean-up procedures4.4 Dispose of waste material safely according to workplace procedures |

| Foundation SkillsThis 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. |
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| Skill | Description |
| Reading | * Interpret instructions and diagrams to determine welding requirements
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| Numeracy | * Calculate the amount of metal required for bonding and welding
* Estimate time to complete activities
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| Navigate the world of work | * Take responsibility for adherence to work health and safety requirements relating to own role and work area
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| Get the work done | * Plan, sequence and prioritise tasks and assemble equipment to carry out welding tasks, judging correct welding heat to perform process on selected material
* Monitor safety and risk factors during welding operations
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| Unit Mapping Information |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| ACMFAR305 Perform welding tasks using a forge | ACMFAR305 Perform welding tasks using a forge | Changes to assessment requirements | Equivalent unit |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet: <https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=b75f4b23-54c9-4cc9-a5db-d3502d154103> |

| TITLE | Assessment requirements for ACMFAR305 Perform welding tasks using a forge |
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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 the individual has:* performed four distinct farriery welding tasks using both steel and aluminium, including two tasks using a gas forge and two tasks using a solid fuel/coke forge
* for each task the individual must have:
* identified requirements and specifications, and prepared materials for welding
* selected and correctly fitted personal protective equipment
* prepared and managed fire for welding
* completed tasks according to specifications and within designated timeframe.
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| Knowledge Evidence |
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| 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:* types of forges and forge fuel, including:
* solid fuel forge using coke, coal or charcoal fuel
* LPG gas
* equipment used in welding tasks for farriery activities, including:
* anvil with stand (shop anvil to a stall jack)
* ?
* ?
* principles and practices for welding using a forge:
* materials to be welded and how they react to heat
* process of welding by forge-produced heat including different heat levels
* tools appropriate for different types of forges
* types of welding tasks, including:
* bending
* drawing down
* forge brazing
* forge welding - straight scarf and diagonal scarf welds
* punching and drifting
* upsetting or jumping up
* safe work practices including:
* manual handling
* types of personal protective equipment
* use of fire and dangers to operators
* use of bottled gas
* safe disposal of waste materials
* work health and safety requirements and farriery industry codes of practice.
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| Assessment Conditions |
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| Assessment of skills must take place under the following conditions: * physical conditions:
* a workplace or simulated environment that accurately reflects performance in a real workplace setting
* resources, equipment and materials:
* solid fuel forge and LP gas forge and associated tools and equipment
* personal protective equipment correctly fitted and applicable to tasks for individual
* materials for welding
* specifications:
* work instructions for welding tasks.

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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