



Australian Government

Department of Education, Employment and Workplace Relations

ACMFAR307A Make standard shoes for a range of horses

Revision Number: 1

ACMFAR307A Make standard shoes for a range of horses

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit of competency covers the processes required to make standard horse shoes for a range of healthy horses to specifications. This unit forms part of the requirements of the trade qualification for farriery.
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Application of the Unit

Application of the unit	This unit is applicable to farriers working in standard farriery workplaces. In addition to legal and ethical responsibilities, all units of competency in the ACM10 Animal Care and Management Training Package have the requirement for animals to be handled gently and calmly. The individual is required to exhibit appropriate care for animals so that stress and discomfort is minimised.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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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. Organise facilities and materials for the manufacture of standard horse shoes	1.1. Work methods are determined, and appropriate materials and hand tools for the work are elected. 1.2. Hand tools and equipment are checked to ensure they are fit for purpose, and any deficiencies are rectified. 1.3. Common steel types appropriate for shoe fabrication are identified, along with processes used in such identification. 1.4. Dimensions used in standard horse shoes for healthy horses are identified. 1.5. The most suitable shoe, appropriate types of steel and dimensions to be used, is determined for a particular horse and its work. 1.6. The horse is examined at rest, walking and at the trot to identify gait and particular needs. 1.7. Fore and hind feet of the horse are measured, and allowance is made for a range of variants as applicable. 1.8. Specifications are produced for the required shoes. 1.9. Forge fire is maintained at the temperature necessary to work the materials selected.
2. Follow OHS requirements in relation to work	2.1. Occupational health and safety (OHS) requirements concerned with making of horse shoes and use of forges are followed, including use of appropriate personal protective equipment. 2.2. Correct positions and balance are utilised when using tools to perform particular activities.
3. Manufacture sets of standard shoes	3.1. The steel length required is determined from measurements and specification, and accurately cut. 3.2. Steel is heated in the forge to a malleable working temperature. 3.3. Standard steps involved in making shoes are performed. 3.4. Final fitting is performed humanely and checked against quality standards. 3.5. Minor alterations required to obtain final fit are completed. 3.6. The shoe is cooled in preparation for nailing.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

- adhere to OHS and animal welfare legislation, regulations and codes of practice
- appraise needs of individual horses
- build and maintain forge fire at appropriate temperature
- develop specifications for shoes
- make shoes for a range of healthy horses
- literacy skills to read and follow organisational policies and procedures, including OHS, waste management and hygiene standards; follow sequenced written instructions; and record the information accurately and legibly
- oral communication skills/language to fulfil the job role as specified, including questioning, active listening, asking for clarification and seeking advice when required
- numeracy skills to estimate, calculate, record and apply routine workplace measures to required tasks including measurements to assess shoe requirements
- problem-solving skills to select required materials and equipment and prioritise tasks
- use safe manual handling techniques and equipment
- use safe waste handling and disposal procedures.

Required knowledge

- movement of the hoof wall with weight bearing
- quality standards
- reasons for use of various metal types and dimensions in shoe making
- safe work practices
- sizes, styles and types of shoes required for a range of horses
- variants that apply in making shoes to fit an individual horse.

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 competence in this unit must be relevant to workplace operations and satisfy all of the requirements of the performance criteria, required skills and knowledge and the range statement of this unit. Assessors should ensure that candidates can:

- organise facilities and materials
- identify the shoe requirements of particular horses
- produce specifications to make shoes for particular horses
- make front and hind shoes for a range of healthy horses.

The skills and knowledge required to make standard shoes for range of horses must be transferable to a range of work environments and contexts and include the ability to deal with unplanned events.

Context of and specific resources for assessment

Assessment of this unit is to be practical in nature and will be most appropriately assessed in worksites, where routine farriery tasks are performed, or in a situation that reproduces normal work conditions.

There must be access to a range of healthy horses and the appropriate equipment and/or resources to enable one to demonstrate competence.

Method of assessment

To ensure consistency in one's performance, competency should be demonstrated, to industry defined standards, on more than one occasion over a period of time in order to cover a variety of circumstances and where possible, over a number of assessment activities.

The assessment strategy must include practical skills assessment. Suggested strategies for this unit are:

- written and/or oral assessment of candidate's required

EVIDENCE GUIDE	
	knowledge • observed, documented and first-hand testimonial evidence of candidate's application of practical tasks • simulation exercises that reproduce normal work conditions • third-party evidence • workplace documentation • portfolio. This unit may be assessed in a holistic way with other units of competency relevant to the industry sector, workplace and job role.
Guidance information for assessment	Assessment methods should reflect workplace demands (e.g. literacy and numeracy demands) and the needs of particular target groups (e.g. people with disabilities, Aboriginal and Torres Strait Islander people, women, people with a language background other than English, youth and people from low socioeconomic backgrounds).

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.

Work methods may include:

- forging techniques
- use of gas and other forges
- use of grinding equipment
- use of specific parts of the anvil to shape and forge metal
- use of welding equipment.

Materials and hand tools may include:

- materials:
 - steel
 - aluminium
 - rubber
 - plastic and other synthetics
- other metals:
 - copper
 - magnesium
 - titanium
- hand tools:
 - centre punch
 - creaser/fuller
 - heel cropper or hardy
 - horseshoer's anvil
 - nail stamp
 - pritchel
 - rounding hammer
 - ruler and angle gauges
 - vice
 - shoemaking tongs
- fire tools:
 - ash rake
 - fire poker
 - fire rake
 - fire tongs.

RANGE STATEMENT	
<i>Steel types</i> may include:	• concave • flat • fullered • round.
<i>Dimensions used in shoe manufacture</i> may include:	• size and shape of feet • work horse is doing • surface horse is working on.
Considerations in selecting the <i>most suitable shoe</i> may include:	• types of horses: • competition horse • draught and carriage horse • harness or thoroughbred race horse • Olympic disciplines • pleasure riding horse • endurance • polo and polocrosse horses • working stock horses • current status of the horse: • its gait and conformation • level of work (e.g. whether it is spelling or training) • particular needs: • pregnancy, injury or ailment management • the gauge of steel selected should be appropriate to foot size • the weight of the shoe in relation to the work to be performed • the style of shoe selected will be influenced by: • availability of materials • cost involved • the preference of the owner • the terrain the horse is worked on • the type of work the horse does • shoes may be machine or handmade: • fullered concave • plain stamped • hand fullered • sizes available in machine made horseshoes • shoes for fore and hind feet.

RANGE STATEMENT	
Variants in shoe size and shape may include:	• toe clip • side clip • block heels • tapered heels • trailers • stud holes • rolled toe • set toe.
Specifications to produce required shoes may include:	• a copy of an existing item • drawings • oral instructions • written instructions.
OHS requirements may include:	• being prepared to say no to handling an uneducated, stressed or difficult horse • following safe work method statements for: • cleaning and sharpening tools • completing farriery tasks: • applying fillers and other treatments • removing, replacing and fitting shoes • trimming feet • handling horses • using bottled gas • using personal protective equipment: • eye and ear protection • farrier's apron • gloves • work boots • working with fire to shape shoes, shoe horses and weld • working with tools and metal.
Considerations to ensure materials are accurately cut may include:	• impact of accuracy on the fit and comfort of the final product • impact on final product dimensions if calculations are not correct • tools used are sharp • tools are appropriate for the material being cut and the type of cut required.
Indicators of malleable working temperature may include:	• temperature of heat source • colour or other features to indicate temperature:

RANGE STATEMENT	
	• warm heat • black heat • dull red or blood red heat • bright red heat • bright yellow or near welding heat • light welding, sweating or slippery heat • full welding heat • white or snowball heat • time in heat.
Standard steps in making shoes may include:	• marking the length • cutting the bar stock • marking the centre bar stock and the heels • creating the toe bend • marking and punching the nail holes • forming heels • turning the branches • drawing the clips • levelling the shoe • finishing the heels.
Quality standards in fitting shoes may include:	• the shoe is shaped to fit the foot with allowance for expansion at the heels and outline fit • the heels of the shoe cover the buttresses • the foot surface of the shoe and wall of the foot fit tightly against each other and the shoe will not 'rock' from side to side • the heels of the shoe fit flat against the heels of the foot • the shoe has sole relief • the nail holes on the shoe are opened sufficiently for the correct size nail to be used • nail holes are positioned to allow for maximum security and safety when nailing • there are no burrs or sharp edges.

Unit Sector(s)

Unit sector	Farriery
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Competency field

Competency field	
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Co-requisite units

Co-requisite units		