



Australian Government

DEFEO808B Prepare explosives for metal hardening

Release 2

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Modification History

Release	TP version	Comments
2	DEF12 V2	Layout adjusted.
1	DEF12 V1	First release.

Unit Descriptor

This unit covers the competency required to prepare explosives for metal hardening. Metal hardening using sheet explosives is a specialised application of explosives and is used to harden metals such as rail points.

This unit does not cover firing of the charges, which is covered in DEFEO803A Conduct static proof tests.

Application of the Unit

This unit was developed for specialists working within proof and trials organisations within Defence but may be applicable to any individual in this field of work.

Typically these individuals must demonstrate the ability to work independently or as part of a team under direct and/or indirect supervision, use discretion and judgement, and take responsibility for the quality of their output. All activities are carried out in accordance with relevant organisational policies and procedures.

Licensing/Regulatory Information

Not applicable.

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 required performance needed to demonstrate achievement of the element. Where ***bold italicised*** text is used, further information is detailed in the Range Statement. Assessment of performance is to be consistent with the Evidence Guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Identify metal hardening requirements	1.1 Applicable <i>legislative, work health and safety (WHS)</i>, and <i>organisational requirements</i> relevant to the use of <i>sheet explosives</i> are verified and complied with throughout work activity 1.2 <i>Instructions</i>, plans and/or workplace check sheets are read and interpreted to identify processes and materials to complete work tasks 1.3 <i>Hardening needs</i> are rail measured and the appropriate explosives are identified 1.4 Relevant templates used in association with the cutting of the sheet explosives are identified and prepared
2. Prepare sheet explosives	2.1 Sheet explosives are inspected to ensure serviceability and safety 2.2 Sheet explosives are cut and labeled to the required length and shape 2.3 Sheet explosives are prepared for transport to the range
3. Prepare detonators	3.1 Detonators are identified in accordance with organisational procedures 3.2 Detonators are checked for continuity and repacked for transport in accordance with organisational procedures
4. Finalise activity	4.1 Area is reconditioned in accordance with organisational procedures 4.2 Documentation is finalised

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Required Skills

- analyse and evaluate information
- communicate effectively with stakeholders
- identify relevant information
- liaise effectively with stakeholders
- prepare and present simple reports
- provide and receive feedback in a constructive manner
- review literature
- use appropriate information technology and software
- use a variety of verbal and non-verbal communication techniques

Required Knowledge

- analysis process
- codes of practice
- explosive ordnance in relation to hardening steel
- information sources
- licensing requirements
- organisational guidelines and standards
- regulatory requirements
- relevant legislation
- simple research techniques
- standards relevant to organisational operations
- verbal communication techniques
- workplace safety in regard to handling explosive ordnance
- written communication to a level required in the preparation of simple reports

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for this Training Package.

Critical aspects for assessment and evidence required to demonstrate competency in this unit

Assessment must confirm the ability to:

- prepare explosives for metal hardening
- maintain the relevant records

Consistency in performance

Competency should be demonstrated over time in a variety of metal hardening environments or in a simulated environment.

Context of and specific resources for assessment

Context of assessment

Competency should be assessed in an actual or simulated activity.

Specific resources for assessment

Access is required to:

- licensed explosive workshop
- sheet explosives

Method of assessment

This unit may be assessed with the following unit:

- DEFEO101D Work safely with explosive ordnance

In a public safety environment assessment is usually conducted via direct observation in a training environment or in the workplace via subject matter supervision and/or mentoring, which is typically recorded in a competency workbook.

Assessment is completed using appropriately qualified assessors who select the most appropriate method of assessment.

Assessment may occur in an operational environment or in an industry-approved simulated work environment. Forms of assessment that are typically used include:

- direct observation
- interviewing the candidate
- journals and workplace documentation
- third party reports from supervisors
- written or oral questions

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 in the Performance Criteria is detailed below.

<i>Legislative requirements</i> may include:	• Anti discrimination • Australian Standards • Award and enterprise agreements • Confidentiality and privacy • Duty of care • Employee relations • Environment • Equal opportunity • Industrial relations • Legislation from all levels of government that affect organisational operations • Relevant industry codes of practice
<i>Work health and safety (WHS) requirements</i> may include:	• Commonwealth, state/territory legislation and regulations, organisational safety policies and procedures • Firefighting organisation and equipment • First aid equipment • Hazard and risk control and elimination • Rescue services • Systems covering hazardous materials and substances, and manual handling including lifting and carrying • Use of personal protective equipment and clothing
<i>Organisational requirements</i> may include:	• Access and equity principles and practices • Emergency and evacuation • Environmental management (waste disposal, recycling and re-use guidelines) • Equipment use, maintenance and storage • Ethical standards • Legal, organisational and site guidelines, policies and procedures relating to own role and responsibility • WHS • Procedural manuals • Quality assurance • Quality and continuous improvement processes and standards • Recording and reporting

<i>Sheet explosives</i> are:	• Contained in suitable material that allows it to be shaped and formed prior to functioning • Manufactured in sheets of varying thicknesses and lengths • Mixed and constituted uniformly in plasticised compounds
<i>Instructions</i> may include:	• Departmental requirements • Manufacturers' instructions for the use of equipment and materials • Workplace instructions including job sheets, plans, specifications, drawings and designs • Workplace procedures relating to reporting and communications • Workplace procedures relating to the use and operation of tools and equipment
<i>Hardening needs</i> may include:	• Compensating the differing sheet explosives available for use at a given time • Compliance with varying state/territory regulations regarding the thickness or other specification of hardening required

Unit Sector(s)

Not applicable.