



Australian Government

MEM18002B Use power tools/hand held operations

Release: 1

MEM18002B Use power tools/hand held operations

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers using a range of hand held power tools and fixed power tools for hand held operations for a variety of general engineering applications.
------------------------	---

Application of the Unit

Application of the unit	This unit applies to loosening and fastening items or components and shaping, finishing, cutting, grinding metallic and non-metallic materials and/or tool bits to size and shape. This unit should not be selected if the power tools used are dedicated to an operation or machine, e.g. nut-runner, air drill, power driver, etc. For using hand tools, see Unit MEM18001C (Use hand tools). Band: A Unit Weight: 2
--------------------------------	---

Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units	

Prerequisite units	

Employability Skills Information

Employability skills	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 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.
---	--

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Use power tools	1.1.Power tools are selected appropriate to the task requirements. 1.2.Power tools are used for a determined sequence of operations - which may include clamping, alignment and adjustment to produce desired outcomes - to job specifications which may include finish, size or shape. 1.3.All safety requirements are adhered to before, during and after use. 1.4.Unsafe or faulty tools are identified and marked for repair before, during and after use according to designated procedures. 1.5.Operational maintenance of tools, including hand sharpening, is undertaken according to standard workplace procedures, principles and techniques. 1.6.Power tools are stored safely in appropriate location according to standard workshop procedures and manufacturers' recommendations.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

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

Required skills

Look for evidence that confirms skills in:

- reading and following information on standard operating procedures
- following verbal instructions
- selecting power tools appropriate to the task
- using power tools safely
- using clamping/securing devices
- identifying power tool defects
- maintaining power tools using appropriate techniques
- sharpening tools/tool bits within the scope of this unit
- storing power tools according to manufacturers'/ standard operating procedures.

Required knowledge

REQUIRED SKILLS AND KNOWLEDGE

Look for evidence that confirms knowledge of:

- application of different power tools
- clamping/securing methods
- adjustments/alignments to a range of power tools
- common faults and/or defects in power tools
- procedures for marking unsafe or faulty power tools for repair
- routine maintenance requirements of a range of power tools
- tool sharpening techniques for a range of power tools
- storage location and procedures of a range of power tools
- hazards/control measures associated with power tools
- use and application of personal protective equipment
- safe work practices and procedures

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

A person who demonstrates competency in this unit must be able to use power tools/hand held operations.

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

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.

Context of and specific resources for assessment

This unit may be assessed on the job, off the job or a combination of both on and off the job. Where assessment occurs off the job, that is the candidate is not in productive work, then an appropriate simulation must be used where the range of conditions reflects realistic workplace situations. The competencies covered by this unit would be demonstrated by an individual working alone or as part of a team. The assessment environment should not disadvantage the candidate.

This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with using power tools/hand held operations or other units requiring the exercise of the skills and knowledge covered by this unit.

Method of assessment

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 should not require language, literacy and numeracy skills beyond those required in this unit. 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.

Guidance information for assessment

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.

Power tools	Electric or pneumatic/hydraulic drills, grinders, jigsaws, nibblers, cutting saws, sanders, planers, routers, pedestal drills and pedestal grinders
Clamping	Multigrips, vices, jigs and fixtures, clamps etc.
Job specifications	Finish, size or shape etc.
Operational maintenance	Hand sharpening, cleaning, lubricating, tightening Simple tool repairs and adjustments using engineering principles, tools, equipment and procedures to statutory and regulatory requirements

Unit Sector(s)

Unit sector	
--------------------	--

Co-requisite units

Co-requisite units		

Competency field

Competency field	Maintenance and diagnostics
------------------	-----------------------------