

Training Package	Metal and Engineering (MEM98)			HSC Requirements and Advice
Title	Use power tools/hand held operations			
Unit code	Unit Weight	Field	Band	HSC Indicative Hours
MEM18.2AA	2	Maintenance & diagnostics	Specialisation band A	

Evidence Guide		HSC Requirements and Advice
Assessment context	This unit may be assessed on the job, off the job, or a combination of both on and off the job. 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.	Key Terms and Concepts <ul style="list-style-type: none"> • alignment, adjustment and clamping • electrical supplies • faults • hazards • maintenance • manufacturers' specifications • occupational health and safety (OHS) • OHS legislation • operational maintenance • personal protective equipment (PPE) • power tool applications • power tools • reporting and recording • safe work practices • safety procedures • standard operating procedures (SOP) • storage.
Assessment conditions	<p>The candidate will have access to:</p> <ul style="list-style-type: none"> • all tools, equipment, materials and documentation required. <p>The candidate will be permitted to refer to the following documents:</p> <ul style="list-style-type: none"> • any relevant workplace procedures • any relevant product and manufacturing specifications • any relevant codes, standards, manuals and reference materials. <p>The candidate will be required to:</p> <ul style="list-style-type: none"> • orally, or by other methods of communication, answer questions put by the assessor • identify colleagues who can be approached for the collection of competency evidence where appropriate • present evidence of credit for any off-job training related to this unit. <p>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.</p>	
Critical aspects	This unit could be assessed in conjunction with any other units addressing the safety, quality, communication, materials handling, recording and reporting associated with the use of power tools in hand held operations or other units requiring the exercise of the skills and knowledge covered by this unit. Competency in this unit cannot be claimed until all prerequisites have been satisfied.	

Evidence Guide		HSC Requirements and Advice
Special notes	<p>During assessment the individual will:</p> <ul style="list-style-type: none"> • demonstrate safe working practices at all times; • communicate information about processes, events or tasks being undertaken to ensure a safe and efficient working environment; • take responsibility for the quality of their own work; • plan tasks in all situations and review task requirements as appropriate; • perform all tasks in accordance with standard operating procedures; • perform all tasks to specification; • use accepted engineering techniques, practices, processes and workplace procedures. <p>Tasks involved will be completed within reasonable timeframes relating to typical workplace activities.</p>	

<p>Range Statement</p> <p>Work undertaken autonomously or in a team environment using predetermined standards of quality, safety and workshop procedures involving the use of various power tools, including but not limited to electric or pneumatic drills, grinders, jigsaws, nibblers, cutting saws, sanders, planers, routers, pedestal drills and pedestal grinders.</p> <p>Applications may extend to loosening and fastening of items or components and the finishing, cutting, grinding of metallic and non-metallic materials and/or tool bits to size and shape.</p> <p>Routine maintenance tasks may include cleaning, lubricating, tightening, simple tool repairs and adjustments using engineering principles, tools, equipment and procedures to statutory and regulatory requirements.</p> <p>This unit should not be selected if the power tools used are dedicated to an operation or machine, ie. nut-runner, air drill, power driver etc. For using hand tools see Unit 18.1A (Use hand tools).</p>

Element	Performance Criteria	Assessor Guide		HSC Requirements and Advice
		To observe that	To confirm that	
1 Use power tools	1.1 Appropriate power tools selected according to the task requirements.	The appropriate power tools are selected in accordance with the task requirements.	<p>The task(s) to be performed can be identified.</p> <p>The appropriate power tools for the task(s) to be performed can be selected from a range of power tools provided.</p> <p>The reasons for selecting the chosen power tools can be explained.</p>	<p>Learning experiences for the HSC must address:</p> <p>Awareness of the function and use of a range of power tools including:</p> <ul style="list-style-type: none"> • name • characteristics • purpose.
	1.2 Power tools used following 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.	<p>The appropriate power tools are used to produce the desired outcomes to job specifications.</p> <p>Where appropriate, work piece is clamped in accordance with standard operating procedures.</p> <p>Where appropriate, the power tool is aligned and adjusted to achieve the desired outcome.</p>	<p>The outcomes to be achieved by the use of power tools can be identified.</p> <p>The job specifications to be achieved by the use of power tools can be identified.</p> <p>The need to secure work pieces when using power tools can be explained.</p> <p>A range of clamping/securing devices and their application can be identified.</p> <p>The adjustments that can be made to a range of power tools can be identified.</p> <p>The tools and procedures to be used in adjusting a range of power tools can be identified.</p> <p>The need to align power tools to achieve the required outcomes can be identified.</p>	<p>Learning experiences for the HSC must address:</p> <p>Knowledge of the use of power tools in:</p> <ul style="list-style-type: none"> • staging • scenery • props • costumes. <p>Understanding of the importance of securing work pieces when using power tools.</p> <p>Standard operating procedures (SOP) including:</p> <ul style="list-style-type: none"> • alignment • adjustment • clamping • start up and shut down.
	1.3 All safety requirements are adhered to before, during and after use.	All safety procedures are followed at all times and appropriate personal protective clothing and safety equipment are used.	The safety procedures to be followed before, during and after the use of power tools can be identified.	<p>Learning experiences for the HSC must address:</p> <p>A basic understanding of occupational health and safety (OHS) legislation.</p>

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			The personal protective clothing and safety equipment to be used when using power tools can be identified.	<p>Awareness of a range of personal protective equipment (PPE) including:</p> <ul style="list-style-type: none"> • footwear • head protection • gloves • protective clothing • respirator • face mask • hearing protection • eye protection. <p>Importance of correct fitting PPE.</p> <p>Awareness of the importance of safe work practices including:</p> <ul style="list-style-type: none"> • following SOP and manufacturer's specifications before, during and after use • risk management • correct manual handling • safe handling, application and storage of hazardous substances • appropriate use of PPE • regular servicing and maintenance of tools and equipment • selection of appropriate tool for use • working with electricity in a safe manner • adequate ventilation • attaching appropriate safety guards where required.
	1.4 Unsafe or faulty tools identified and marked for repair according to designated procedures before, during and after use.	Where appropriate, unsafe or faulty tools identified before, during or after use are marked for repair in accordance with standard operating procedures.	<p>Common faults and/or defects in power tools can be identified.</p> <p>The procedures for marking unsafe or faulty tools for repair can be given.</p>	<p>Learning experiences for the HSC must address:</p> <p>Identification of faulty tools and equipment including:</p> <ul style="list-style-type: none"> • malfunctions • broken or missing components including safety guards • unusual noise/vibrations/smells • damage to job.

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	1.5 Operational maintenance of tools, including hand sharpening, undertaken according to standard workplace procedures, principles and techniques.	Where appropriate, power tools are maintained/sharpened using appropriate techniques in accordance with standard operating procedures.	<p>The operational maintenance requirements of a range of power tools can be identified.</p> <p>The procedures for maintaining/sharpening a range of power tools can be identified.</p> <p>The techniques to be used in maintaining/sharpening a range of power tools can be identified.</p>	<p>Learning experiences for the HSC must address:</p> <p>Awareness of the purpose of routine operational maintenance of power tools including:</p> <ul style="list-style-type: none"> • lubrication • safety checks • cleaning and decontamination • tightening and adjustment • replacement of consumable components • repair/replacement of worn, malfunctioning or damaged components/parts • sharpening.
	1.6 Power tools stored safely in appropriate location according to standard workshop procedure and manufacturer's recommendations.	All power tools are safely stored in the appropriate location in accordance with manufacturer's/standard operating procedures.	<p>The storage location of a range of power tools can be identified.</p> <p>The procedures for storing a range of power tools can be identified.</p>	<p>Learning experiences for the HSC must address:</p> <p>Issues relating to the storage of hand tools and equipment including:</p> <ul style="list-style-type: none"> • security • climatic affects • OHS considerations • stability • ease of access. <p>Knowledge of methods by which hand tools are catalogued and accessed during production.</p>