

UEP40518 Certificate IV in ESI Generation Maintenance (Mechanical)

Release 1

UEP40518 Certificate IV in ESI Generation Maintenance (Mechanical)

Modification History

Release 1. This is the first release of this qualification in the UEP - Electricity Supply Industry - Generation Sector Training Package.

Qualification Description

Participants gaining this qualification will be able to complete power generation work functions in the electrical supply industry. Functions can include the installation, repair, maintenance of plant and mechanical systems, maintenance planning and scheduling. It also includes observation of safe working practices, supervision of others and the coordination of work activities.

No licensing, legislative or certification requirements apply to this qualification at the time of publication.

Entry Requirements

There are no entry requirements for this qualification.

Packaging Rules

A total 1280 weighting points comprising 770 core weighting points, plus 510 elective weighting points from the general elective units listed below.

Choose a total of 730 weighting point from the general elective units list below of which between 0 and 220 weighting points can be taken from Group A. A total of 310 weighting points may be taken from Group B. Between 200 and 510 weighting points may be taken from Group C, you may select all your elective units from this group.

Up to 220 weighting points of the general elective units Group A, may be selected, with appropriate contextualisation, from any relevant nationally endorsed Training Package or accredited course, provided that selected units contribute to the vocational outcome of the qualification. Previously assigned weighting points are listed in UEP CVIG, if not listed weighting points will be 10 points unless directed from the ESI Generation Industry Reference Committee (IRC). The general elective units must contribute to the vocational outcomes of the qualification.

Where imported units are selected, care must be taken to ensure that all prerequisite units specified are complied with.

Where a prerequisite unit is attached to a unit, it is identified by this symbol \bot .

Core units Weighting points

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MEM07005C	Perform general machining	80
	∟ MEM09002 Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
MEM07006C	Perform lathe operations	40
	∟ MEM07005C Perform general machining	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
MEM07007C	Perform milling operations	40
	∟ MEM07005C Perform general machining	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
MEM07008D	Perform grinding operations	40
	∟ MEM07005C Perform general machining	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
MEM09002B	Interpret technical drawing	40
MEM12003B	Perform precision mechanical measurement	20
	∟ MEM12023A Perform engineering measurements	
MEM12023A	Perform engineering measurements	50
MEM12024A	Perform computations	30
MEM18001C	Use hand tools	20
MEM18002B	Use power tools/hand held operations	20
MEM18003C	Use tools for precision work	40
	∟ MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	

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	∟MEM18002B Use power tools/hand held operations	
MEM18006C	Repair and fit engineering components	60
	∟ MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	
	∟MEM18003C Use tools for precision work	
	∟MEM18055B Dismantle, replace and assemble engineering components	
MEM18007B	Maintain and repair mechanical drives and mechanical transmission assemblies	40
	∟MEM09002B Interpret technical drawing	
	∟MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	
	∟MEM18003C Use tools for precision work	
	∟MEM18006C Repair and fit engineering components	
	∟ MEM18009B Perform levelling and alignment of machines and engineering components	
	∟MEM18055B Dismantle, replace and assemble engineering components	
MEM18009B	Perform levelling and alignment of machines and engineering components	40
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	
	∟MEM18003C Use tools for precision work	
	∟MEM18006C Repair and fit engineering components	
	∟MEM18055B Dismantle, replace and assemble engineering components	
MEM18055B	Dismantle, replace and assemble engineering components	30
	∟MEM09002B Interpret technical drawing	

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	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
UEENEEE117A	Implement and monitor energy sector OHS policies and procedures	20
UEENEEE101A	Apply Occupational, Health and Safety regulations, codes and practices in the workplace	20
UEPOPS202	Apply quality systems to work	20
UEPOPS337	Maintain quality systems within the team ∠UEPOPS202 Apply quality systems to work	20
UEPOPS338	Facilitate workplace communication	20
UEPOPS417	Monitor and implement environmental site plans and procedures	20
UEPOPS430	Control permit to work operations	30
UEPOPS439	Plan and organise work	30
Group A elective units		Weighting points
BSBCUS401	Coordinate implementation of customer service strategies	40
BSBCUS401 BSBINM401	<u>-</u>	40
	strategies	
BSBINM401	Strategies Implement workplace information system	40
BSBINM401 BSBINN301	Implement workplace information system Promote innovation in a team environment	40 40
BSBINM401 BSBINN301 BSBLED401	Implement workplace information system Promote innovation in a team environment Develop teams and individuals	40 40 40
BSBINM401 BSBINN301 BSBLED401 BSBMGT402	Implement workplace information system Promote innovation in a team environment Develop teams and individuals Implement operational plan	40 40 40 40
BSBINM401 BSBINN301 BSBLED401 BSBMGT402 BSBMGT403	Implement workplace information system Promote innovation in a team environment Develop teams and individuals Implement operational plan Implement continuous improvement	40 40 40 40 40

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CPCCCM2007B	Use explosive power tools	15
	∟ CPCCOHS2001A Apply OHS requirements, policies and procedures in the construction industry	
CPCCLDG3001A	Licence to perform dogging	30
CPCCLRG3001A	Licence to perform rigging basic level ∟ CPCCLDG3001A Licence to perform dogging	40
CPCCLRG3002A	Licence to perform rigging intermediate level LCPCCLRG3001A Licence to perform rigging basic level	40
CPCCLSF2001A	Licence to erect, alter and dismantle scaffolding basic level	40
MEM09003B	Prepare basic engineering drawing ∟ MEM09002B Interpret technical drawing	80
MEM09004B	Perform electrical/electronic detail drafting ∟ MEM09002B Interpret technical drawing ∟ MEM09003B Prepare basic engineering drawing	80
MEM09005B	Perform basic engineering detail drafting ∟ MEM09002B Interpret technical drawing ∟ MEM09003B Prepare basic engineering drawing	80
MEM09006B	Perform advanced engineering detail drafting ∟ MEM09002B Interpret technical drawing ∟ MEM09003B Prepare basic engineering drawing ∟ MEM09005B Basic engineering detail drafting	40
RIIHAN309E	Conduct telescopic materials handler operations	80
TAEDEL301	Provide work skill instruction	40
TLILIC0002	Licence to operate a vehicle loading crane (capacity 10 metre tonnes and above)	40
TLILIC0003	Licence to operate a forklift truck	40
TLILIC0005	Licence to operate a boom type elevating work platform (boom length 11 metres or more)	30

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TLILIC0008	Licence to operate a non-slewing mobile crane (greater	60
	than 3 tonnes capacity)	

Group B elective units		Weighting points
MEM05004C	Perform routine oxy acetylene welding	20
MEM05007C	Perform manual heating and thermal cutting	20
MEM05012C	Perform routine manual metal arc welding	20
MEM18010C	Perform equipment condition monitoring and recording	40
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
MEM18018C	Maintain pneumatic system components	40
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟ MEM18003C Use tools for precision work	
	∟ MEM18006C Repair and fit engineering components	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
MEM18020B	Maintain hydraulic system components	40
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟ MEM18003C Use tools for precision work	
	∟ MEM18006C Repair and fit engineering components	
	∟ MEM18055B Dismantle, replace and assemble engineering components	

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UEPMNT302	Install and maintain industrial pipe work	40
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	
	∟ MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble	
	engineering components	
UEPMNT303	Maintain mechanical valves	40
	∟MEM18006C Repair and fit engineering components	
	∟MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	
	∟MEM18003C Use power tools/hand held operations	
	∟MEM18055B Dismantle, replace and assemble engineering components	
UEPMNT304	Maintain mechanical pumps	40
	∟MEM18006C Repair and fit engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	
	∟MEM18003C Use tools for precision work	
	∟MEM18055B Dismantle, replace and assemble	
	engineering components	
UEPMNT305	Maintain industrial fans	40
	∟MEM18006C Repair and fit engineering components	
	∟MEM09002B Interpret technical drawing	
	∟MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	

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	∟ MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
UEPMNT307	Maintain industrial screens, strainers and filters	20
	∟ MEM18006C Repair and fit engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟ MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
UEPMNT308	Maintain conveyors and associated equipment	40
	∟ MEM18006C Repair and fit engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
UEPMNT309	Maintain material feeders	40
	∟ MEM18006C Repair and fit engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟ MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
UEPMNT310	Maintain material crushers	40
	∟ MEM18006C Repair and fit engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	

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	∟MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
UEPMNT311	Maintain fuel transport equipment	80
	∟ MEM18006C Repair and fit engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟ MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
UEPMNT312	Maintain industrial pressure vessels	80
	∟MEM18006C Repair and fit engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
UEPMNT313	Maintain internal combustion engines	100
	∟ MEM18006C Repair and fit engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
UEPMNT314	Maintain hydro turbines	100

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UEPMNT315	Maintain wind turbines	100
UEPMNT317	Diagnose and repair faults in mechanical equipment	40
UEPMNT318	Conduct generator mechanical maintenance L MEM18006C Repair and fit engineering components L MEM09002B Interpret technical drawing L MEM12023A Perform engineering measurements L MEM18001C Use hand tools L MEM18002B Use power tools/hand held operations L MEM18003C Use tools for precision work L MEM18055B Dismantle, replace and assemble engineering components	80
UEPMNT320	Inspect and repair faults in mechanical equipment and components L MEM18006C Repair and fit engineering components L MEM09002B Interpret technical drawing L MEM12023A Perform engineering measurements L MEM18001C Use hand tools L MEM18002B Use power tools/hand held operations L MEM18003C Use tools for precision work L MEM18055B Dismantle, replace and assemble engineering components	40
UEPMNT339	Perform sheet metal work L MEM18006C Repair and fit engineering components L MEM09002B Interpret technical drawing L MEM12023A Perform engineering measurements	60

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	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟ MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
UEPMNT340	Fabricate metal structures and components	40
	∟ MEM18006C Repair and fit engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟ MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
UEPMNT367	Install and commission stationary gas fuelled reciprocating engines	60
	∟ CPCCWHS1001 Prepare to work safely in the construction industry	
	∟ HLTAID001 Provide cardiopulmonary resuscitation	
UEPMNT368	Repair and maintain stationary gas fuelled reciprocating engines	60
	∟ CPCCWHS1001 Prepare to work safely in the construction industry	
	∟ HLTAID001 Provide cardiopulmonary resuscitation	
UEPOPS301	Conduct single energy source isolation procedures for permit to work	40
Group C elective	units	Weighting points
UEPMNT401	Install and maintain complex mechanical seals	40
	∟UEPMNT304 Maintain mechanical pumps	
	∟ MEM18006C Repair and fit engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	

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	∟ MEM18003C Use tools for precision work	
	1	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
UEPMNT402	Conduct complex levelling and alignment	40
	∟ MEM18009B Perform levelling and alignment of machines and engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟ MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
	∟ MEM18006C Repair and fit engineering components	
UEPMNT403	Maintain complex mechanical valves	40
	∟UEPMNT303 Maintain mechanical valves	
	∟ MEM18006C Repair and fit engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟ MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
UEPMNT404	Maintain complex mechanical pumps	40
	∟ UEPMNT304 Maintain mechanical pumps	
	∟ MEM18006C Repair and fit engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟ MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	

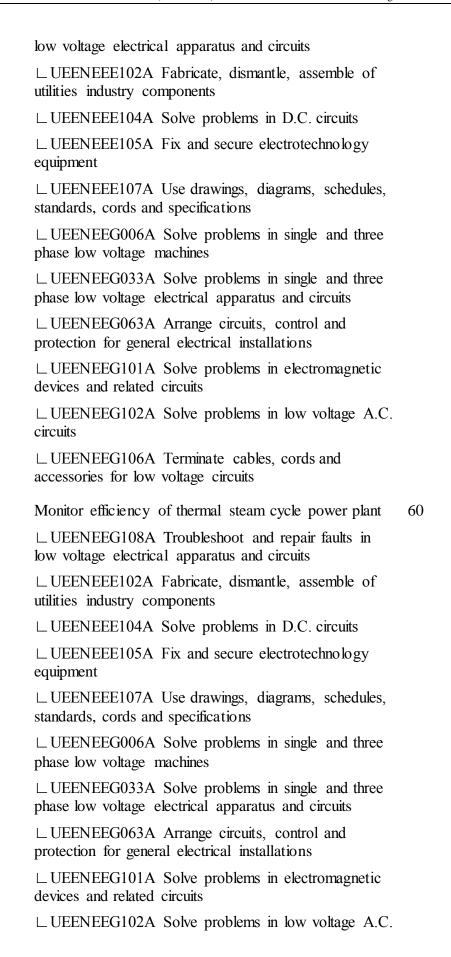
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UEPMNT406	Install and maintain a steam turbine	100
	∟ UEPMNT402 Conduct complex levelling and alignment	
	∟ MEM18009B Perform levelling and alignment of machines and engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	
	∟ MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
	∟ MEM18006C Repair and fit engineering components	
UEPMNT407	Repair a gas turbine unit	100
	∟UEPMNT402 Conduct complex levelling and alignment	
	∟MEM18009B Perform levelling and alignment of machines and engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	
	∟ MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
	∟ MEM18006C Repair and fit engineering components	
UEPMNT408	Install hydro turbines	100
	∟ UEPMNT402 Conduct complex levelling and alignment	
	∟ MEM18009B Perform levelling and alignment of machines and engineering components	
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟ MEM18001C Use hand tools	
	∟ MEM18002B Use power tools/hand held operations	

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	∟ MEM18003C Use tools for precision work	
	∟ MEM18055B Dismantle, replace and assemble engineering components	
	∟ MEM18006C Repair and fit engineering components	
UEPMNT419	Perform civil drafting	60
	□ UEENEEE107A Use drawings, diagrams, schedules, standards, cords and specifications	
	∟ MEM09002B Interpret technical drawing	
UEPMNT421	Conduct technical inspection of process plant and equipment	60
	∟ UEPMNT351 Test and commission electrical equipment	
	∟ UEENEEE102A Fabricate, dismantle, assemble of utilities industry components	
	∟ UEENEEE104A Solve problems in D.C. circuits	
	□ UEENEEE107A Use drawings, diagrams, schedules, standards, cords and specifications	
	□ UEENEEG033A Solve problems in single and three phase low voltage electrical apparatus and circuits	
	□ UEENEEG063A Arrange circuits, control and protection for general electrical installations	
	∟ UEENEEG101A Solve problems in electromagnetic devices and related circuits	
	∟UEENEEG102A Solve problems in low voltage A.C. circuits	
	□ UEENEEG106A Terminate cables, cords and accessories for low voltage circuits	
UEPMNT422	Conduct performance testing on process plant and equipment	60
	∟ UEPMNT351 Test and commission electrical equipment	
	∟UEENEEG108A Troubleshoot and repair faults in	

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UEPMNT424

	circuits	
UEPOPS402	Conduct multiple energy source isolation procedures for permit to work	40
	∟ UEPOPS301 Conduct single energy source isolation procedures for permit to work.	
MEM07011B	Perform complex milling operations	40
	∟ MEM07005C Perform general machining	
	∟MEM07007C Perform milling operations	
	∟MEM09002B Interpret technical drawing	
	∟MEM12003B Perform precision mechanical measurement	
	∟ MEM12023A Perform engineering measurements	
	∟MEM12024A Perform computations	
	∟MEM18001C Use hand tools	
MEM07012B	Perform complex grinding operations	40
	∟ MEM07005C Perform general machining	
	∟ MEM07008D Perform grinding operations	
	∟MEM09002B Interpret technical drawing	
	∟MEM12003B Perform precision mechanical measurement	
	∟ MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
MEM07021B	Perform complex lathe operations	40
	∟ MEM07005C Perform general machining	
	∟MEM07006C Perform lathe operations	
	∟MEM09002B Interpret technical drawing	
	∟MEM12003B Perform precision mechanical measurement	
	∟MEM12023A Perform engineering measurements	
	∟MEM12024A Perform computations	
	∟MEM18001C Use hand tools	
MEM18019B	Maintain pneumatic systems	40

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	∟MEM09002B Interpret technical drawing	
	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	
	∟MEM18003C Use tools for precision work	
	∟MEM18006C Repair and fit engineering components	
	∟MEM18018C Maintain pneumatic system components	
	∟MEM18055B Dismantle, replace and assemble engineering components	
MEM18021B	Maintain hydraulic systems	40
	∟ MEM09002B Interpret technical drawing	
	∟MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations	
	∟MEM18003C Use tools for precision work	
	∟MEM18006C Repair and fit engineering components	
	∟MEM18020B Maintain hydraulic system components	
	∟MEM18055B Dismantle, replace and assemble engineering components	
MEM18022B	Maintain fluid power controls	80
	∟ MEM09002B Interpret technical drawing	
	∟ MEM12023A Perform engineering measurements	
	∟MEM18001C Use hand tools	
	∟MEM18002B Use power tools/hand held operations ∟MEM18003C Use tools for precision work	
	∟MEM18006C Repair and fit engineering components	
	∟MEM18018C Maintain pneumatic system components	
	∟MEM18019B Maintain pneumatic systems	
	∟MEM18055B Dismantle, replace and assemble engineering components	
	∟MEM18020B Maintain hydraulic system components	
	∟MEM18021B Maintain hydraulic systems	
	MEM18055B Dismantle replace and assemble	

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engineering components

Qualification Mapping Information

This qualification replaces and is equivalent to UEP40312 Certificate IV in ESI Generation Maintenance (Mechanical)

Links

Companion Volume implementation guides are found in VETNet - https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=1715b9fa-e7bd-441c-bb8d-cf22c 9c825a8

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