## **Qualification details**



# **MEM30205 - Certificate III in Engineering - Mechanical Trade**

#### **Summary**

Releases:

Release	Status	Release date
3	Current	2012/03/16
2	Replaced	2011/07/16
1	Replaced	2005/12/01

Usage recommendation: Superseded

Mapping:

Mapping	Notes	Date
Is superseded by and equivalent to MEM30219 - Certificate III in Engineering - Mechanical Trade		2019/06/26
Is superseded by MEM31319 - Certificate III in Refrigeration and Air Conditioning	Supersedes but is not equivalent to MEM30205 Certificate III in Engineering - Mechanical Trade	2019/06/26
Is superseded by MEM31419 - Certificate III in Engineering - Fixed and Mobile Plant Mechanic		2019/06/26
Is superseded by MEM31519 - Certificate III in Engineering - Toolmaking Trade		2019/06/26

#### Training packages that include this qualification

Code	Title	Release
MEM05	Metal and Engineering Training Package	7.0 - 11.1

#### **Units of competency**

Code	Title	Essential
MEM07001B	Perform operational maintenance of machines/equipment	N/A
MEM07002B	Perform precision shaping/planing/slotting operations	N/A
MEM07003B	Perform machine setting (routine)	N/A
MEM07004B	Perform machine setting (complex)	N/A
MEM07005C	Perform general machining	N/A
MEM07006C	Perform lathe operations	N/A
MEM07007C	Perform milling operations	N/A
MEM07008D	Perform grinding operations	N/A
MEM07009B	Perform precision jig boring operations	N/A
MEM07010B	Perform tool and cutter grinding operations	N/A
MEM07011B	Perform complex milling operations	N/A
MEM07012B	Perform complex grinding operations	N/A
MEM07013B	Perform machining operations using horizontal and/or vertical boring machines	N/A
MEM07014B	Perform electro-discharge (EDM) machining operations	N/A

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MEM07015B		
	Set computer controlled machines/processes	N/A
MEM07016C	Set and edit computer controlled machines/processes	N/A
MEM07018C	Write basic NC/CNC programs	N/A
MEM07019C	Program NC/CNC machining centre	N/A
MEM07020C	Program multiple spindle and/or multiple axis NC/CNC machining centre	N/A
MEM07021B	Perform complex lathe operations	N/A
MEM07022C	Program CNC wire cut machines	N/A
MEM07023C	Program and set up CNC manufacturing cell	N/A
MEM07024B	Operate and monitor machine/process	N/A
MEM07025B	Perform advanced machine/process operation	N/A
MEM07026B	Perform advanced plastic processing	N/A
MEM07027B	Perform advanced press operations	N/A
MEM07028B	Operate computer controlled machines/processes	N/A
MEM07029B	Perform routine sharpening/maintenance of production tools and cutters	N/A
MEM07030C	Perform metal spinning lathe operations (basic)	N/A
MEM07031C	Perform metal spinning lathe operations (complex)	N/A
MEM07032B	Use workshop machines for basic operations	N/A
MEM07033B	Operate and monitor basic boiler	N/A
MEM07034A	Operate and monitor intermediate class boiler	N/A
MEM07040A	Set multistage integrated processes	N/A
MEM09002B	Interpret technical drawing	N/A
MEM09022A	Create 2D code files using computer aided manufacturing system	N/A
MEM10004B	Enter and change programmable controller operational parameters	N/A
MEM10006B	Install machine/plant	N/A
MEM12003B	Perform precision mechanical measurement	N/A
MEM12006C	Mark off/out (general engineering)	N/A
MEM12023A	Perform engineering measurements	N/A
MEM12024A	Perform computations	N/A
MEM13007B	Maintain water treatment systems for cooling towers	N/A
MEM13014A	Apply principles of occupational health and safety in the work environment	N/A
MEM14004A	Plan to undertake a routine task	N/A
MEM14005A	Plan a complete activity	N/A
MEM15002A	Apply quality systems	N/A
MEM15024A	Apply quality procedures	N/A
MEM16006A	Organise and communicate information	N/A
MEM16007A	Work with others in a manufacturing, engineering or related environment	N/A
MEM16008A	Interact with computing technology	N/A
MEM17003A	Assist in the provision of on the job training	N/A
MEM18001C	Use hand tools	N/A
MEM18002B	Use power tools/hand held operations	N/A
MEM18003C	Use tools for precision work	N/A
MEM18004B	Maintain and overhaul mechanical equipment	N/A
MEM18005B	Perform fault diagnosis, installation and removal of bearings	N/A
MEM18006C	Repair and fit engineering components	N/A
MEM18007B	Maintain and repair mechanical drives and mechanical transmission	N/A

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Code	Title	Essential
MEM18008B	Balance equipment	N/A
MEM18009B	Perform levelling and alignment of machines and engineering components	N/A
MEM18010C	Perform equipment condition monitoring and recording	N/A
MEM18011C	Shut down and isolate machines/equipment	N/A
MEM18012B	Perform installation and removal of mechanical seals	N/A
MEM18013B	Perform gland packing	N/A
MEM18014B	Manufacture press tools and gauges	N/A
MEM18015B	Maintain tools and dies	N/A
MEM18018C	Maintain pneumatic system components	N/A
MEM18019B	Maintain pneumatic systems	N/A
MEM18020B	Maintain hydraulic system components	N/A
MEM18021B	Maintain hydraulic systems	N/A
MEM18022B	Maintain fluid power controls	N/A
MEM18024B	Maintain engine cooling systems	N/A
MEM18025B	Service combustion engines	N/A
MEM18026C	Test compression ignition fuel systems	N/A
MEM18027C	Overhaul engine fuel system components	N/A
MEM18028B	Maintain engine lubrication systems	N/A
MEM18029B	Tune diesel engines	N/A
MEM18030B	Diagnose and rectify low voltage electrical systems	N/A
MEM18031B	Diagnose and rectify low voltage starting systems	N/A
MEM18032B	Maintain induction/exhaust systems	N/A
MEM18033B	Perform engine bottom-end overhaul	N/A
MEM18034B	Perform engine top-end overhaul	N/A
MEM18035B	Diagnose and rectify braking systems	N/A
MEM18037B	Diagnose and rectify low voltage charging systems	N/A
MEM18038B	Maintain wheels and tyres	N/A
MEM18039B	Diagnose and rectify track type undercarriage	N/A
MEM18040B	Maintain suspension systems	N/A
MEM18041B	Maintain steering systems	N/A
MEM18042C	Diagnose and rectify manual transmissions	N/A
MEM18043C	Diagnose and rectify automatic transmissions	N/A
MEM18044C	Diagnose and rectify drive line and final drives	N/A
MEM18045B	Fault find/repair electrical equipment/components up to 250 volts single phase supply	N/A
MEM18046B	Fault find/repair electrical equipment/components up to 1000 volts a.c./1500 volts d.c.	N/A
MEM18047B	Diagnose and maintain electronic controlling systems on mobile plant	N/A
MEM18048B	Fault find and repair/rectify basic electrical circuits	N/A
MEM18049C	Disconnect/reconnect fixed wired equipment up to 1000 volts a.c./1500 volts d.c.	N/A
MEM18050C	Disconnect/reconnect fixed wired equipment over 1000 volts a.c./1500 volts d.c.	N/A
MEM18051B	Fault find and repair/rectify complex electrical circuits	N/A
MEM18052B	Maintain fluid power systems for mobile plant	N/A
MEM18054B	Fault find, test and calibrate instrumentation systems and equipment	N/A
MEM18055B	Dismantle, replace and assemble engineering components	N/A
MEM18056B	Diagnose and repair analog equipment and components	N/A

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Code	Title	Essential
MEM18057B	Maintain/service analog/digital electronic equipment	N/A
MEM18058C	Modify electronic equipment	N/A
MEM18060B	Maintain, repair control instrumentation - single and multiple loop control systems	N/A
MEM18062B	Install, maintain and calibrate instrumentation sensors, transmitters and final control elements	N/A
MEM18063B	Terminate signal and data cables	N/A
MEM18064B	Maintain instrumentation system components	N/A
MEM18065B	Diagnose and repair digital equipment and components	N/A
MEM18066B	Diagnose and repair microprocessor-based equipment	N/A
MEM18067B	Tune control loops - multi controller or multi element systems	N/A
MEM18071B	Connect/disconnect fluid conveying system components	N/A
MEM18072B	Manufacture fluid conveying conductor assemblies	N/A
MEM18086B	Test, recover, evacuate and charge refrigeration systems	N/A
MEM18087B	Service and repair domestic and light commercial refrigeration and air conditioning equipment	N/A
MEM18088B	Maintain and repair commercial air conditioning systems and components	N/A
MEM18089B	Maintain and repair central air handling systems	N/A
MEM18090B	Maintain and repair industrial refrigeration systems and components	N/A
MEM18091B	Maintain and repair multi stage, cascade and/or ultra-cold industrial refrigeration systems	N/A
MEM18092B	Maintain and repair commercial and/or industrial refrigeration and/or air conditioning controls	N/A
MEM18094B	Service and repair commercial refrigeration	N/A
MEM18095A	Maintain and repair cooling towers/evaporative condensers and associated equipment	N/A
MEM18096A	Maintain, repair/replace and adjust refrigerant flow controls and associated equipment	N/A
MEM18097A	Manufacture cavity dies	N/A
MEM18098A	Prepare to perform work associated with fuel system installation and servicing	N/A
MSAENV272B	Participate in environmentally sustainable work practices	N/A

#### Classifications

Scheme	Code	Name
ANZSCO Identifier	323000	Mechanical Engineering Trades Workers
ASCED Qualification/Course Field of Education Identifier	0307	Mechanical And Industrial Engineering And Technology
ASCO (occupation type) Identifier	4111-11	General Mechanical Engineering Tradesperson
Qualification/Course Level of Education Identifier	514	Certificate III
Taxonomy - Industry Sector	N/A	Electrotechnology, Jewellery, Mechanical Engineering, Oil and Gas Drilling, Electricity Generation Operations, Electricity Distribution, Airconditioning and Refrigeration

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Scheme	Code	Name
Taxonomy - Occupation	N/A	Sewing Machine Mechanic, Plant Service and Maintenance Operator (Quarry), Watchmaker, Weaving Mechanic, Fluid Power Mechanic, toolmaker, Tufting Mechanic, Knitting Mechanic, Electrical Instrumentation Tradesperson, Tool and Die Maker, Plant Mechanic, Spinning Mechanic, Maintenance Mechanic, Motorman, Mechatronics Tradesperson, Maintenance Fitter, Refrigeration and Air-conditioning Mechanic, Textiles Mechanic, Pumpman, Steam Generation / Boilerhouse Operator (Pulp and Paper), Mechanical Engineering Tradesperson

### **Classifications history**

Scheme	Code	Name	Start date	End date
ANZSCO Identifier	323000	Mechanic al Engineerin g Trades Workers	2007/02/02	
ASCO (occupation type) Identifier	4111-11	General Mechanic al Engineerin g Tradesper son	2006/05/25	
ASCED Qualification/Course Field of Education Identifier	0307	Mechanic al And Industrial Engineerin g And Technolog y	2006/05/25	
Qualification/Course Level of Education Identifier	514	Certificate III	2005/12/01	

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