

**Field      Engineering and Technology****Review of *Mechanical Engineering* unit standards**

<b>Subfield</b>	<b>Domain</b>	<b>ID</b>
Mechanical Engineering	Engineering - Fabrication	25713
	Engineering Machining and Toolmaking	2699, 2705-2709, 2713, 2716
	Engineering - Measurement	4432, 4437, 4439
	Fluid Power - Hydraulics	2727, 2731, 2733, 20597, 20599, 20613
	Fluid Power- Pneumatics	2732, 20598, 20606, 20614
	Maintenance and Diagnostics in Mechanical Engineering	2411
	Mechanical Assembly	2387, 2391
	Mechanical Installation	2390
	Welding	2690, 2692-2694, 2697

Competenz has completed the review of the unit standards listed above.

**Date new versions published**

**August 2017**

**Planned review date**

**December 2022**

**Summary**

The unit standards were reviewed to meet Competenz's ongoing unit standard review schedule. The review was carried out during March – May 2017. Any feedback that may have been received from industry training managers, technical experts, assessors and users was considered. The format was brought up-to-date. No material changes were made. Changes were endorsed by the industry technical group.

**Main changes**

- Guidance information notes and unit standard format were updated and aligned with the latest NZQA template.
- Title changes of prerequisite or recommended for entry unit standards were updated.

**The last date for assessment of superseded versions of Category B unit standards is December 2022**

**Detailed list of unit standards – classification, title, level, and credits**

<b>Key to review category</b>	
<b>A</b>	Dates changed, but no other changes are made - the new version of the standard carries the same ID and a new version number
<b>B</b>	Changes made, but the overall outcome remains the same - the new version of the standard carries the same ID and a new version number
<b>C</b>	Major changes that necessitate the registration of a replacement standard with a new ID
<b>D</b>	Standard will expire and not be replaced

## Engineering and Technology &gt; Mechanical Engineering &gt; Engineering - Fabrication

<b>ID</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
25713	Demonstrate knowledge of steel construction workshop and worksite operations, procedures and processes	4	4	B

## Engineering &gt; Mechanical Engineering &gt; Engineering Machining and Toolmaking

<b>ID</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
2699	Operate and monitor a production engineering machine	2	4	B
2705	Produce components by performing horizontal boring operations	4	15	B
2706	Produce components by performing vertical boring operations	4	15	B
2707	Grind tools and cutters used in engineering machining operations	4	15	B
2708	Produce components by electro-discharge machining operations	4	15	B
2709	Produce components by CNC wire cut electro-discharge machine operations	4	15	B
2713	Set manually operated production engineering machines	3	15	B
2716	Produce components by performing jig-boring operations	4	15	B

## Engineering and Technology &gt; Mechanical Engineering &gt; Engineering - Measurement

<b>ID</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
4432	Demonstrate knowledge of, and convert, units of measure used in engineering	2	2	B
4437	Select, use, and care for advanced engineering measuring equipment	3	3	B
4439	Select, use, and care for complex engineering measuring equipment for precision jobs	4	4	B

## Engineering &gt; Mechanical Engineering &gt; Fluid Power - Hydraulics

<b>ID</b>	<b>Title</b>	<b>Level</b>	<b>Credit</b>	<b>Review Category</b>
2727	Service hydraulic power system components under supervision	3	20	B
2731	Service hydraulic power system components	4	20	B
2733	Diagnose hydraulic power system faults	4	20	B

ID	Title	Level	Credit	Review Category
20597	Shut down for maintenance, and start up, a hydraulic power system	2	4	B
20599	Clean a hydraulic power system for service	2	4	B
20613	Maintain a hydraulic power system	3	7	B

## Engineering &gt; Mechanical Engineering &gt; Fluid Power - Pneumatics

ID	Title	Level	Credit	Review Category
2732	Service pneumatic power system components	4	20	B
20598	Shut down for maintenance, and start up, a pneumatic power system	2	4	B
20606	Diagnose pneumatic power system faults	4	20	B
20614	Maintain a pneumatic power system	3	7	B

## Engineering &gt; Mechanical Engineering &gt; Maintenance and Diagnostics in Mechanical Engineering

ID	Title	Level	Credit	Review Category
2411	Test fluids used in machinery and equipment for variation from specification	4	3	B

## Engineering &gt; Mechanical Engineering &gt; Mechanical Assembly

ID	Title	Level	Credit	Review Category
2387	Assemble mechanical components under supervision	2	2	B
2391	Assemble and fit precision tooling or mechanical components using technology aids	4	10	B

## Engineering &gt; Mechanical Engineering &gt; Mechanical Installation

ID	Title	Level	Credit	Review Category
2390	Install industrial machines	4	10	B

## Engineering &gt; Mechanical Engineering &gt; Welding

ID	Title	Level	Credit	Review Category
2690	Weld steel pipe using the oxyacetylene welding process	4	12	B
2692	Repair non-ferrous metal components using welding processes	4	10	B
2693	Repair ferrous metal components using welding processes	4	10	B
2694	Weld steel pressure pipe using the manual metal arc welding process with cellulosic electrodes	4	20	B
2697	Weld aluminium pipe in all positions using the gas tungsten arc welding process	4	12	B