

Recommended Qualification Structure for Construction Plant or Machinery Maintenance

Level 2

This structure has been recommended by employers and stakeholders from the above occupational area for organisations to form the basis of academic capability and competence outcomes. Qualifications with a competence outcome at the above level must have units derived from the following National Occupational Standards (NOS) and consist of the mandatory/optional groups as stated.

MANDATORY

- VR641 v2 Conform to general workplace health, safety and welfare
- VR642 v1 Conform to productive work practices
- VR643 v1 Move, handle or store resources
- VR659 v1 Operate plant or machinery for non-operational activities
- VR660 v1 Service plant or machinery
- VR661 v1 Remove and replace plant or machinery components to restore operational use
- VR662 v2 Dismantle and assemble plant or machinery components to replace worn, damaged or faulty parts
- VR663 v2 Inspect plant or machinery for operational serviceability
- VR664 v1 Diagnose faults in plant or machinery systems or components

Plus optional (two from the following)

- VR665 v1 Install, repair or modify construction resources by heating, welding, brazing, soldering and thermal cutting
- VR666 v1 Produce one-off components to restore or maintain the operational functions of plant or machinery
- VR667 v1 Install plant or machinery for operational activities
- VR668 v3 Carry out specific tests on plant or machinery to determine operational serviceability
- VR669 v1 Configure plant or machinery for specific operational activities
- VR672 v1 Hand over plant or machinery to the control of others

(Total 11)

Unit endorsements for Construction Plant or Machinery Maintenance Level 2

Where industry requests; qualifications can be endorsed to show an option route and the type of resources and/or activities that relate to the unit. Listed below are the endorsements that can apply for units derived from the following NOS.

NOS	Endorsement
VR659	At least two of the following: Hand-operated power tools Static machinery Pedestrian controlled power equipment Tracked plant Wheeled plant Rollers
VR660	At least five of the following: Fluids, fuels, lubricants, coolants Service items Lubrication Flushing through Cleaning parts and components Fastenings secured
VR661	At least seven of the following: Housing Transmission Steering Track or running gear Hydraulic Pump Brakes Electrical Electronic Ancillaries
VR662	At least four of the following: Power unit Transmission Steering Hydraulic Pump Brake Electrical Electronic Ancillaries (blade, boom, cab, drives)
VR664	At least four of the following: Power unit Transmission Steering Hydraulic Pump Brake Pneumatic Electrical Electronic Operating ancillaries and attachments

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NOS	Endorsement
VR665	<p>Heating: at least two of the following: Components freed Heat treatment Corrosion reduction/removal Adjustment Expansion and contraction fit</p> <p>Welding: at least two of the following: Oxygen and fuel gas Manual metal arc MIG or MAG Tungsten inert gas</p> <p>Soldering: at least one of the following: Oxygen and fuel gas Iron and flux Electric soldering iron</p> <p>Joints: at least two of the following: Butt Lap Fillet Corner</p> <p>Positions: at least two of the following: Flat Vertical/horizontal Vertical Overhead</p> <p>Thermal cutting: at least one of the following: Oxy fuel gas Plasma</p>
VR667	<p>At least one of the following: Mobile or ringer crane Tower crane Hoist Rig (piling/drilling/demolition) Excavation/vacuum plant machinery Batching/mixing/blending plant Crushing/screening plant Power generation equipment Pump Climate management machines Concrete placing boom</p>

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NOS	Endorsement
VR668	At least four of the following: Electric systems Cooling systems Lubrication systems Emission control Hydraulic systems Hydrostatic drive Transmission systems Pneumatic systems Braking systems Vibration management Steering/suspension systems Generator output control Electronic management Powered access equipment Material handling equipment Water pumps Craneage Lifting equipment Load testing
VR669	At least two of the following: Attachments Ancillaries Fire prevention Structural support Safety measures Contaminant reduction Carriage of ancillaries/additional equipment Rail and trackside Cutting equipment Additions (e.g. publicity boards, notices, lights) Machine control Productivity measurement

Note: Where industry requests an Awarding Body to further endorse a unit, the Awarding Body must first seek approval from the Standards Setting Body to ensure the endorsement is appropriate to the unit.