# Recommended Qualification Structure for Construction Plant or Machinery Maintenance

### Level 3

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**

VR209 v2	Confirm work activities and resources for the work
VR210 v3	Develop and maintain good working relationships
VR211 v2	Confirm the occupational method of work
VR659 v1	Operate plant machinery or machinery for non-operational activities
VR664 v1	Diagnose faults in plant or machinery systems or components
VR670 v1	Determine and complete service to maintain plant or machinery
VR671 v1	Determine and advise on the viability of repair or replacement for returning plant or machinery to service

## Plus optional (three from the following) (10)

VR663 v2	Inspect plant or machinery for operational serviceability
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
VR673 v1	Provide technical information, advice and guidance to users of plant or machinery



# **Unit endorsements for Construction Plant or Machinery Maintenance Level 3**

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 equipment
	Tracked plant
	Wheeled plant Rollers
VR664	At least four of the following:
	Power unit
	Transmission
	Steering
	Hydraulic
	Pump
	Brake
	Pneumatic
	Electrical
	Electronic
	Operating ancillaries and attachments
VR665	Heating: at least two of the following:
	Components freed
	Heat treatment
	Corrosion reduction/removal
	Adjustment  Figure 1 and
	Expansion and contraction fit
	Welding: at least two of the following:
	Oxygen and fuel gas  Manual metal arc
	MIG or MAG
	Tungsten inert gas
	Soldering: at least one of the following:
	Oxygen and fuel gas
	Iron and flux
	Electric soldering iron
	Joints: at least two of the following:
	Butt
	Lap
	Fillet
	Corner
	Positions: at least two of the following:
	Flat
	Vertical/horizontal
	Vertical
	Overhead
	Thermal cutting: at least one of the following:
	Oxy fuel gas
	Plasma

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NOS	Endorsement
VR667	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
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

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NOS	Endorsement
VR673	At least two of the following:
	Breakdown Handover Request Contract/guarantee/warranty/hire agreement Recall Modification/alteration

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

