

L3 Construction Plant and Machinery Maintenance

EVIDENCE EXAMPLES

It will be necessary for you to start gathering information which can be used as evidence within your NVQ.

The following list gives some examples of documentation that will be useful.

The NVQ Level 3 Diploma in Construction Plant and Machinery Maintenance is made up of 7 Mandatory units plus 3 Optional units (10 Units Total). You must provide details to your assessor of which optional units are relevant to your work that will be achievable for you; these are detailed within this document.

The Suggested Evidence List will hopefully assist you in providing the correct information towards your NVQ. When you collect your evidence, this **MUST** be sent to either of the following:

Assessor@workforceskillssupport.co.uk

WhatsApp – 07496423820 (**Please ensure you state your full name and Company when sending evidence via WhatsApp**).

You will be required to provide evidence towards your NVQ to show competence against the NVQ Units - some units will have endorsements you must cover to achieve the full unit through working on different systems. Evidence may vary depending on what you use within your organisation and the 3 optional units you decide to complete. The main types of evidence used for this type of NVQ that you can start to gather are:

1. **Job Sheets** – Briefly detailing work you have completed.
2. **Service/Inspection Sheets** – For relevant work you have completed, including repairs.
3. **Workshop manuals used** – Photos of the pages used to gather information, send these with associated job sheets.
4. **Risk Assessments for Work Activities** – Provide copies of risk assessments you work to or dynamic risk assessments that you carry out yourself.

NVQ Mandatory Units – You must complete all Mandatory Units

Unit Title:	Confirming work activities and resources for an occupational work area in the workplace
Evidence:	<p>This unit covers organising the required tools and parts/components you will need to complete your plant maintenance repairs:</p> <ol style="list-style-type: none"> 1. Risk Assessments for work Activities. 2. This will also be covered with your assessor through professional discussion and Questioning about your job sheets
Unit Title:	Developing and maintaining good occupational working relationships in the workplace
Evidence:	<ol style="list-style-type: none"> 1. This will also be covered with your assessor through professional discussion and Questioning about your job sheets. 2. Your assessor will also gather a witness statement from one of your managers to cover requirements of this unit.
Unit Title:	Confirming the occupational method of work in the workplace
Evidence:	<p>This unit cover how you plan for your repair activities and what data/information you need to refer to:</p> <ol style="list-style-type: none"> 1. Photos of any pages of reference material you have used as part of your plant maintenance activities such as workshop manuals, parts manuals, technical service bulletins, manufacturers data etc. 2. This will also be covered with your assessor through professional discussion and Questioning about your job sheets.
Unit Title:	Operating plant or machinery for non-operational activities in the workplace

Evidence:	<p>This will also be covered with your assessor through professional discussion and Questioning about your job sheets, you must provide evidence to cover 2 of the following endorsements:</p> <ul style="list-style-type: none"> • Hand-operated power tools • Static machinery • Pedestrian controlled power equipment • Tracked plant • Wheeled plant • Rollers <p>1. Job Sheets – following repairs or when manoeuvring plant into the work area if you have operated the plant during these repairs, it can be covered through discussions with your assessor.</p>
Unit Title:	Determining and completing service to maintain plant or machinery in the workplace
Evidence:	<p>This will also be covered with your assessor through professional discussion and Questioning about your job sheets, you should cover 5 of the following:</p> <ul style="list-style-type: none"> • Fluids, fuels, lubricants, coolants • Service items • Lubrication • Flushing through • Cleaning parts and components • Fastenings secured <p>1. Job Sheets – Detailing Type of service completed (250, 500, 1000 Hour or 6 monthly), if you have also completed repairs as well as a service it will cover more units.</p> <p>2. Service Sheets – If you complete specific service documentation such as check lists.</p> <p>3. Photos – of servicing procedures, removed and replace filters, spillage controls.</p>
Unit Title:	Diagnosing faults in plant or machinery systems or components in the workplace
Evidence:	<p>This will also be covered with your assessor through professional discussion and Questioning about your job sheets, you must provide evidence to cover 4 of the following endorsements:</p> <ul style="list-style-type: none"> • Power Unit • Transmission • Steering • Hydraulic • Pump • Brake • Electrical • Electronic • Operating ancillaries and attachments <p>1. Job Sheets – you must provide evidence where you have had to complete fault diagnostics from 4 of the systems detailed above, a single job sheet may cover more than one endorsement if you have worked on several systems during repairs to plant or machinery.</p> <p>a. You should provide evidence where you have had to use diagnostic aids to diagnose faults, you don't have to cover all the below, but this provides suggestions of equipment's:</p> <ol style="list-style-type: none"> i. Multi-meter ii. Power Probes iii. Pressure Gauges iv. Flow Meters v. Compression Testers vi. Computer diagnostics <p>2. Photos – Provide photos of diagnostic aids being used, and configured on the plant or machinery.</p>
Unit Title:	Determining and advising on the viability of repair or replacement for returning plant or machinery to service in the workplace
Evidence:	<p>This will also be covered with your assessor through professional discussion and Questioning about your job sheets:</p> <p>You will be asked how you determined that any repairs you have completed and provided as evidence, where a viable solution, for example:</p> <ul style="list-style-type: none"> • Cost of the repair • Cost of parts

	<ul style="list-style-type: none"> • Cost of labour • Age or condition of the equipment
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Optional Units – You **MUST** choose 3 additional unit only from the selection below:

Unit Title:	Inspecting plant or machinery for operational serviceability in the workplace
Evidence:	<p>This unit covers inspections on plant and equipment will also be covered with your assessor through professional discussion and Questioning about your job sheets or inspection sheets.</p> <ol style="list-style-type: none"> 1. Job sheets or inspection documents, could include: <ul style="list-style-type: none"> • Pre delivery inspection sheets • Off hire inspections • Pre or post repair inspections 2. Photos – These should show any specialist inspection tools you have used such as vernier gauges, pressure gauges, laptop or equipment software.
Unit Title:	Handing over plant or machinery to the control of others in the workplace
Evidence:	<p>This unit covers inspections on plant and equipment will also be covered with your assessor through professional discussion and Questioning about your job sheets or handover documentation:</p> <ol style="list-style-type: none"> 1. job sheets – these should detail who the equipment control was handed over to i.e. hire desk, manager, user etc. 2. Commissioning or familiarisation documentation – specific documentation used to hand control of equipment over to customers or users of the plant.
Unit Title:	Providing technical information, advice and guidance to users of plant or machinery in the workplace
Evidence:	<p>This unit covers inspections on plant and equipment will also be covered with your assessor through professional discussion and Questioning about your job sheets or documentation used to record advice given to customers and users of plant, this must cover 2 endorsements detailed below:</p> <p>Unit Endorsements: Two of the following endorsements required: Breakdown Handover Request Contract/guarantee/warranty/hire agreement Recall Modification/alteration</p> <p>Evidence may include:</p> <ol style="list-style-type: none"> 1. Job sheets – these should detail the advice provided. 2. Site diary – these should detail the advice provided. 3. Company Documentation - these should detail the advice provided. 4. Any other documentation used to record advice provided to customers and plant operators.
Unit Title:	Installing, repairing or modifying construction resources by heating, welding, brazing, soldering and thermal cutting in the workplace
Evidence:	<p>This will also be covered with your assessor through professional discussion and Questioning about your job sheets, you must provide evidence to cover full range of endorsements as specified below:</p> <p>Heating: Two of the following endorsements required:</p> <ul style="list-style-type: none"> • Components freed • Heat transmission • Corrosion reduction/removal • Adjustment • Expansion and contraction fit <p>Welding: Two of the following endorsements required:</p> <ul style="list-style-type: none"> • Oxygen and fuel gas • Manual metal arc

	<ul style="list-style-type: none"> • MIG or MAG • Tungsten inert gas <p>Soldering: one of the following endorsements required:</p> <ul style="list-style-type: none"> • Oxygen and fuel gas • Iron and flux • Electric soldering iron <p>Joints: Two of the following endorsements required:</p> <ul style="list-style-type: none"> • Butt • Lap • Fillet • Corner <p>Positions: two of the following endorsements required:</p> <ul style="list-style-type: none"> • Flat • Vertical/horizontal • Vertical • Overhead <p>Thermal cutting: one of the following endorsements required:</p> <ul style="list-style-type: none"> • Oxy fuel gas • Plasma <ol style="list-style-type: none"> 1. Job Sheets – you must provide evidence where you have had to complete Welding and Soldering repairs, a single job sheet may cover more than one endorsement during repairs to plant or machinery. 2. Photos – Provide photos of any welding or soldered repairs, including any templates made to fabricate new components.
Unit Title:	Producing one-off components to restore or maintain the operational functions or plant or machinery in the workplace
Evidence:	<p>This will also be covered with your assessor through professional discussion and Questioning about your job sheets.</p> <p>This unit covers fabrication of components to carry out repairs on Plant and Machinery, you Must provide evidence of 2 pieces you have fabricated including photos.</p> <ol style="list-style-type: none"> 1. Job Sheets – you must provide evidence where you have had fabricate 2 components using a selection of different processes, for example: <ul style="list-style-type: none"> a. – measuring, marking out, disassembling, cutting, drilling, filing, shaping, joining, assembling, fitting, fixing and securing. 2. Photos – Provide photo evidence of the fabricated pieces you have made.
Unit Title:	Installing plant or machinery for operational activities in the workplace
Evidence:	<p>This will also be covered with your assessor through professional discussion and Questioning about your job sheets.</p> <p>This unit covers installing Plant and Machinery on site such as Cranes, mobile crushers and screeners, hoists etc., you Must provide evidence of 2 installations on 2 different sites which cover the minimum endorsements below:</p> <p>Unit Endorsements:</p> <p>One of the following endorsements required:</p> <ul style="list-style-type: none"> 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

	<ol style="list-style-type: none"> Job Sheets – you must provide evidence where you have had to install at least one of the equipment's detailed in the endorsement list, this could include any handover or commissioning documentation. Photos – Provide photo evidence of the plant installed on site.
Unit Title:	Carrying out specific tests on plant or machinery to determine operational serviceability in the workplace
Evidence:	<p>This will also be covered with your assessor through professional discussion and Questioning about your job sheets.</p> <p>This unit covers Testing of components and systems prior to, during and post repairs on Plant and Machinery, you Must provide evidence to meet the endorsements detailed below:</p> <p>Unit Endorsements: At least four of the following endorsements required:</p> <ul style="list-style-type: none"> 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 (cranes, hoists, MEWPs, MHE) <ol style="list-style-type: none"> Job Sheets – you must provide evidence detailing the specific testing you have completed as part of the pre-start/functional checks, testing during repairs or post repair to ensure the machinery is serviceable. Photos – Provide photo evidence of any test equipment used.
Unit Title:	Configuring plant or machinery for specific operational activities in the workplace
Evidence:	<p>This will also be covered with your assessor through professional discussion and Questioning about your job sheets.</p> <p>This unit covers setting up Plant and Machinery ready for operations with the correct systems or ancillaries, you Must provide evidence to cover the endorsements as specified:</p> <p>Unit Endorsements: Two of the following endorsements required:</p> <ul style="list-style-type: none"> 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 <ol style="list-style-type: none"> Job Sheets – you must provide evidence where you have set up equipment ready for site operations, this could include for example placing a breaker on a excavator, load testing a MEWP, setting operating parameters. Photos – Provide photo evidence of any configuration completed

