

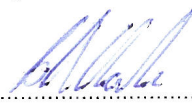
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Level 2

Competence and Training in Portable, Transportable and Mobile Plant Operation

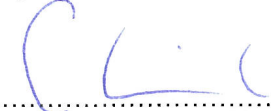
Endorsement and Authorisation

Endorsed by:


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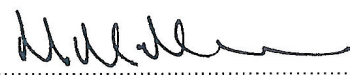
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User information

This Network Rail standard contains colour-coding according to the following Red–Amber–Green classification.

Red requirements – *No deviations, could stop the railway*

- **Red requirements shall** always be complied with and achieved.
- Red requirements shall be presented in a red box **with the word “shall” or expressed as a direct instruction**.
- Accountability for the efficacy of red requirements lies with the Professional Head/Standard Owner.
- Red requirements are monitored for compliance.
- Corrective actions shall be enforced if deviations are discovered through functional checks (e.g. engineering verification visits, audit or Operations Self-Assurance).

Amber requirements – *Controlled deviations, approved risk analysis and mitigation*

- **Amber requirements shall** be complied with unless deviation has been approved in advance.
- Amber requirements shall be presented with an amber sidebar **and with the word “shall” or expressed as a direct instruction**.
- Accountability for the efficacy of these requirements lies with the Professional Head/Standard Owner, or their nominated Delegated Authority.
- Amber requirements are monitored for compliance.
- Deviations **may** be permitted. Deviations are approved by the Standard Owner or through existing Delegated Authority arrangements.
- Corrective actions shall be enforced if **non-approved** deviations are discovered through functional checks (e.g. engineering verification visits, audit or Operations Self-Assurance).

Green – *Guidance*

Guidance is based on good practice. Guidance represents supporting information to help achieve **Red** and **Amber** requirements.

Guidance shall be presented with a dotted green sidebar **and with the word “should” (usually in notes) or as a direct instruction**.

Guidance is **not mandatory** and is not monitored for compliance.

Alternative solutions may be used. Alternative solutions do not need to be formally approved.

Decisions made by a competent person to use alternative solutions should be backed up by appropriate evidence or documentation.

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Issue record

Issue	Date	Comments
1	June 2012	First Issue

Compliance

This Network Rail standard is mandatory and shall be complied with by Network Rail and its contractors if applicable from 02 June 2013.

When this standard is implemented, it is permissible for all projects that have formally completed GRIP Stage 3 (Option Selection) to continue to comply with the issue of any relevant Network Rail standards current when GRIP Stage 3 was completed and not to comply with requirements contained herein, unless stipulated otherwise in the scope of this standard.

Reference documentation

NR/L2/CTM/021	Competence and Training in Track Safety
NR/L2/CTM/201	Competence Management
NR/L2/CTM/202	Quality Assurance in Training and Assessment
GE/RT8000	The Rule Book
NR/L2/OHS/018	Supplier requirements for the approval of medical assessments and drug and alcohol screening and certification (formerly RT/LS/S/018)
RIS-1701-PLT	Rail industry standard for portable and transportable plant used for infrastructure work.
CTM/220a	PTMP Equipment List
CTM/220b	PTMP Development Requirements

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1 Purpose

The purpose of this standard is to set out the minimum requirements for the training and assessment of individuals who operate and/or use portable, transportable and/or mobile plant on Network Rail managed infrastructure. It defines processes to be implemented and the standards to be achieved to confirm that individuals who operate and/or use portable, transportable and/or mobile plant are competent.

2 Scope

The standard applies to any individual who operates and/or uses portable, transportable and/or mobile plant on the Network Rail managed infrastructure.

This standard also applies to any individual who operates and/or uses portable, transportable and/or mobile plant when working on Network Rail owned or leased property unless the employer is able to demonstrate a fundamental equality in the assurance of employee competence by using an alternative system.

3 Definitions

Assessor

An individual who has been trained in assessment techniques and methods and has occupational experience and current knowledge of Railway Group Standards and Network Rail company specifications applicable to the activity and competence standard.

An individual approved to undertake assessments of individual against the requirements set out in specific competence standards.

See also Supported Assessor.

Assessment

A systematic process of gathering and judging evidence to 'prove' or 'determine' an individual's competence as defined in a competence standard. Assessment includes the re-assessment of individual's competence.

Authority to Work (AtW)

A document that details the work activities that an individual is authorised to undertake. It includes the details of the individual's competence and details of any restrictions that apply to the way the individual works e.g. the requirement for supervision.

Competence

The ability to undertake responsibilities and to perform activities to a recognised standard on a regular basis. A combination of practical thinking skills, experience and knowledge and may include a willingness to undertake work activities in accordance with agreed standards, rules and procedures. It can also include the consistent achievement of an identified standard of performance under defined normal, abnormal, and emergency situations; the ability to undertake work to confirm the safety of any person who might be affected by the work; and an appropriate level of physical fitness.

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Competence Management System (CMS).

A suitably resourced, logical and integrated cycle of activities within an organisation used to assure competence of those who may, through lack of competence, have a impact on the:

- safe operation and maintenance of Network Rail managed infrastructure;
- occupational health and safety of workers on or about the Network;
- safety of others affected by their actions or inactions;
- performance of Network Rail's business.

Competence standard

A statement of:

- what a person has to be able to do and how well, in order to achieve the intended outcome of work;
- the range of circumstances in which the ability would have to be demonstrated;
- the knowledge required to complete the work;
- the types of evidence needed to confirm that performance is consistent and can be sustained;
- how this would be assessed.

Mentoring period

A period of time between the satisfactory completion of training where an individual undertakes the work under supervision of a mentor. This period is used to enable the individual to practice the activity, acquire the associated knowledge and collate the relevant evidence ready for assessment.

On or near the line

As defined in GE/RT8000 The Rule Book.

Portable and transportable Plant

Any plant or equipment used for the installation, renewal or maintenance of the infrastructure meeting the requirements of RIS-1701-PLT Rail industry standard for portable and transportable plant used for infrastructure work.

Supported Assessor

An individual who has been trained in assessment techniques and methods but does not have current knowledge of Railway Group Standards and Network Rail company specifications applicable to the activity and competence standard.

A supported assessor shall use the expertise of another person who has the required knowledge to support all competence assessments.

See also Assessor

Trainer

An individual who gives knowledge or information to learners in a systematic manner by presenting information, directing structured learning experiences, and managing/facilitating group discussions and activities.

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In Network Rail; An individual who is approved by Network Rail to deliver one or more named training events and is involved in the activity of delivering targeted learning to an audience.

Trolleys

All hand-controlled trolleys and other manually propelled equipment that is mounted on rail wheels or runners to allow it to be moved along the track.

Verification

In the context of this standard verification is a process by which the quality of assessment decisions and the supporting process are independently assured.

Verifier

An individual who is competent and authorised to review the assessment process and confirm assessment decisions.

Work experience record

A record of activities associated with a specific competence – designed to record evidence of when, where and how the duty of an individual is performed.

4 Requirements

4.1 Deployment

Employers shall not permit any individual to operate and/or use any portable, transportable and/or mobile plant within the scope of this standard until that individual has attended and successfully completed the appropriate training or has been assessed as competent against the requirements of this standard.

Where an individual has been trained they can undertake the work but may be subject to an appropriate level of supervision and/or mentorship.

4.2 Suitability.

Before any individual is nominated for training in any portable, transportable and/or mobile plant equipment, employers shall undertake an evaluation of their suitability to use the piece of equipment.

The behavioural framework contained in **Appendix C** can be used to support the assessment of capabilities. In assessing the suitability of individuals consideration should be given to the following capabilities:

- conscientiousness;
- working with others;
- concentration;
- team working;
- planning and decision making;
- personal safety.

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NOTE: The behavioural framework contains behavioural indicators which can be incorporated into existing recruitment arrangements such as an interview or specific assessments can be developed to evaluate these capabilities.

4.3 Work on or near the line

Where an individual is required to work on or near the line they shall hold the relevant track safety competence(s) as described in NR/L2/CTM/021: Competence and Training in Track Safety.

In addition, persons shall be able to demonstrate medical fitness and be screened for alcohol and drugs in accordance with Network Rail Specification NR/L2/OHS/018: Supplier requirements for the approval of medical assessments and drug and alcohol screening and certification (formerly RT/LS/S/018)

4.4 Identifying training needs

Subject to the minimum requirements in 4.1 and 4.2 employers shall have systems in place to identify specific training needs for individuals who operate and/or use portable, transportable and/or mobile plant. Employers shall use this information to determine what training is appropriate for each individual.

The following approach shall be used and documented to identify and satisfy specific training needs:

- identify deployment requirements for the individual concerned, taking account of specific types of portable, transportable and/or mobile plant that the individual shall be required to operate and/or use and the type of activities the individual shall be required to undertake;
- establish the current competence of the individual;
- establish what development is required and therefore which training and/or briefing modules are appropriate to match the deployment needs;
- agree a development plan with the individual and order in which the training is to take place;
- arrange training.

A training framework and specific training modules have been developed to address training needs of individuals who are required to operate and/or use portable, transportable and/or mobile plant. A summary of this framework is contained in **Appendix A.**

4.5 Assessment

Following successful completion of the relevant training the individual shall be assessed against the requirements of the relevant unit of competence contained in **Appendix B.**

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4.6 Mentoring and additional workplace support

4.6.1 General

Subject to the specific competence and/or the type of equipment, and following initial training, individuals may be subject to a period of mentoring or require additional support in the workplace.

4.6.2 Mentoring

Where a period of mentoring is required the individual's employer shall appoint a mentor who shall provide suitable supervision during the period of mentoring.

The initial period of mentoring shall not exceed four months unless the individual is unable to fully meet the competence criteria. Where additional time is required to fill knowledge and/or skills gaps, employers shall have systems in place to agree and arrange an extension to the mentoring period. Where the mentoring period is extended new certification issued as described in **5.1**. Extensions shall only be permitted where an agreement has been made and a development plan has been actioned.

4.6.3 Additional support in the workplace

Where a period of mentoring is not required, employers should consider whether the individual is in need of any additional support in the workplace in the period following initial training.

Additional workplace support should be considered where:

- the individual is newly trained; **and**
- the equipment is complex in it's operation or application; **or**
- the candidate is in-experienced in the environment being worked in; **or**
- the candidates behaviours indicate additional support would be beneficial to their development, e.g. building confidence.

Employers should consider appointing an appropriate person who can give suitable guidance and support to the individual during any period of support.

4.7 Approval of trainer

Trainers delivering training associated with this standard shall comply with NR/L2/CTM/202: Quality Assurance in Training and Assessment.

4.8 Approval of assessors

Assessors shall be approved in accordance the requirements of NR/L2/CTM/202: Quality Assurance in Training and Assessment.

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4.9 Verification

Employers shall have in place verification procedures to confirm that at least 10% of completed assessments are verified.

4.10 Maintaining competence

Employers shall have systems in place to demonstrate the continued competence of persons operating and/or using portable, transportable and/or mobile plant.

These systems shall consist as a minimum of:

- a) the use of records of work experience evidence.
- b) the implementation of a review regime to confirm that the work completed by the individual meets the performance statements and that the individual has the knowledge as defined in the relevant unit of competence;
- c) a system to confirm that there have been no incidents, accidents, close calls or near misses as a result of the individual completing the work, **OR** where there have been incidents, accidents, close calls or near misses the suitability of the individual to continue to operate and/or use the specific equipment of portable, transportable and/or mobile plant has been considered together with completion of a development action plan as a direct result of the incident.

Where the equipment has not been operated in a 12 month period, employers shall consider the requirement for the individual to continue to hold this competence.

NOTE: Details of the minimum practice requirements are detailed in the specific unit of competence in **appendix B**.

Where the competence is still required arrangements shall be made for the candidate to have a site surveillance completed by a competent and experienced person in that equipment to confirm correct operation. Where the competence is no longer required, the competence shall be withdrawn.

Where continued competence cannot be confirmed through the review, arrangements shall be made for the competence to be withdrawn. If competence is still required the responsible manager shall develop an action plan to restore the individual's competence which can include retraining and/or further mentoring and re-assessment.

5 Certification.

5.1 Issue of certification.

Certification for all competences as listed in **Appendix B** shall have a maximum validity as described in each competence unit, from the date of completion of the initial assessment.

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5.2 Issue of full certification.

Where there is no mentoring requirement full certification shall be issued on the successful completion of initial training.

5.3 Issue of probationary certification.

Where mentoring is required only provisional certification shall be issued until the post mentoring assessment has been successfully completed.

5.4 Withdrawal of certification.

Certification shall be withdrawn or suspended if:

- the conduct of the holder gives cause to suspect lack of competence;
- the holder is unable to meet medical fitness requirements in line with the specific competence;
- the holder is suspected to have caused or contributed to an incident, or accident;
- the holder makes decisions or takes actions that result in a major breach of safety or endangers the safety of others.

Competence shall only be restored when competence or medical assessment has shown that the individual concerned complies with the requirements of this specification.

NOTE: Restoration of competence may include the requirement for the individual to attend initial, or recertification events, undergo an assessment or pass a suitable medical assessment as required.

5.5 Transferability of certification.

Where an individual is employed by more than one company the portable, transportable and/or mobile plant competence held can be transferred between employers.

Proof of prior experience shall be provided by the individual as a guide to the level of competence held. If required, an assessment shall be undertaken to establish the level of competence.

5.6 Renewal of certification

Certificates shall be re-issued following the satisfactory completion of competence renewal processes as detailed in **4.10** and the specific unit of competence.

6 Application

6.1 Units of competence

Units of competence have been developed that are suitable to control the risks associated with competent performance of individuals who operate and/or use portable, transportable and/or mobile plant on Network Rail managed infrastructure. These units are contained in the **Appendix B**.

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Units of competence shall be selected on the basis of the person's job role and responsibility.

6.2 Training

Any individual who is new to the operation and/or use of portable, transportable and/or mobile plant shall as a minimum successfully complete the core module regardless of what piece of portable, transportable and/or mobile plant they are required to operate or use.

6.3 Assessment strategy

6.3.1 General

The strategy to be applied to assessment takes account of a number of factors:

- whether or not the individual is new to the job role;
- what training and experience the individual has had;
- what different types of plant the individual is required to work with;
- the practicality of gathering observed evidence;
- the risks from incompetent performance.

6.3.2 Initial assessment

The approach for initial assessment used shall be as follows:

Case 1

Where the operation and/or use is new to the individual's area of responsibility they shall attend the relevant training and successfully complete the end of training assessments.

Additionally, where specified, they shall undertake a period of workplace experience under supervision (mentoring), against the objectives set out at the end of training.

Where mentoring is required individuals shall be assessed against the requirements of the relevant unit of competence.

Case 2

Where the individual has been previously trained and has been completing the operation for more than 1 year on the Network Rail infrastructure, they can be assessed for the specific competence.

The methodology for this assessment shall include the following as the primary source of evidence:

- detailed questioning/standard knowledge tests on the equipment;

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- performance reports from the line manager to confirm satisfactory and safe performance within the previous 12 months, across the range of work detailed in the unit of competence;
- If the employee is competent the assessor completing the assessment shall issue a certificate of competence.
- If the individual is not competent they shall be dealt with as described in **Case 1**.

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Appendix A Portable, Transportable and Mobile Plant Training Framework Summary

A.1 General

Where any individual requires training to develop their competence they shall attend and successfully complete the Network Rail approved portable, transportable and/or mobile plant training. This appendix contains a brief overview of the modules that form the portable, transportable and/or mobile plant training framework.

A.2 Portable, Transportable and Mobile Plant Modules

Safe Use of Portable and Transportable Plant

- This module is designed to train delegates who are new to the operation of hand held power tools and whose work involves the operation of general powered, (electric or petrol) tools, generator and trolleys. The aim of the module is to provide the basic underpinning knowledge of the plant and the legislation which covers the safe handling, use and storage of portable and/or transportable plant, generators and trolleys irrespective of the power source.

Delegates are required to pass this module before being able to progress onto any other item of portable and/or transportable plant.

Portable and Transportable Plant training events

- These modules are designed to train persons whose work involves the operation of portable and/or transportable plant within the scope of this document. The aim of the training is to develop the delegate's understanding of the rules and working instructions applicable to the specific item(s) of portable and/or transportable plant, training includes safe handling, use and storage. Training involves a high ratio of practical to theory training and assessment.

Safe Use of Mobile Plant

- This module is designed to train delegates who are new to the operation of mobile plant on the infrastructure and whose work involves the operation of general powered, (electric or petrol) mobile plant. The aim of the module is to provide the basic underpinning knowledge of the plant and the legislation which covers the safe handling, use and storage of mobile plant, irrespective of the power source.
- Delegates are required to pass this module before being able to progress onto any other item of mobile plant.

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Appendix B Units of Competence

B.1 General

Units of competence applicable to the operation and/or use of portable, transportable and/or mobile plant have been developed; based on a functional analysis the following units of competence have been identified as suitable to control the risks associated with competent performance of individuals who operate and/or use portable, transportable and/or mobile plant on Network Rail managed infrastructure.

B.2 Evidence requirements

Sufficient evidence shall be collected to enable competence to be assessed against all the performance statements and knowledge and understanding requirements for each element. Evidence shall be sufficient to demonstrate that the individual is capable of consistent competent performance.

B.3 Performance evidence

The units of competence in this appendix specify the form and quantity of performance evidence which shall be presented for each element.

There are two types of performance evidence:

- evidence of the way the individual carried out activities; evidence of the process involved in demonstrating competence. This takes the form of observation, authenticated log book entries, or performance reports.
- products of the individual's work; items that the individual produces or works on or documents produced as part of the activity. This evidence can be in the form of the product itself, or can be records or photographs generated as part of the work.

B.4 Knowledge evidence.

The knowledge evidence section of the element specifies the knowledge and understanding necessary for competent performance.

B.4.1 Knowledge requirements that are common to all units of competence

Candidates shall have knowledge and understanding of:

Health and safety legislation, regulations and safe working practices and procedures that shall include the relevant sections of:

- COSHH;
- current rule book;
- Electricity at Work Regulations;
- LOLER (Lifting Operations and Lifting Equipment Regulations);
- PUWER (Provision and Use of Work Equipment Regulations);
- Railway & Other Guided Transport Systems Safety Regulations (ROGS);

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- the Health and Safety at Work Act;
- Transport and Works Act (Alcohol and drugs);
- relevant Network Rail plant operation manual;
- Working at Height.

B.5 Assessment decisions.

Assessment decisions of “competent” shall only be made when:

- all the required performance and knowledge evidence, as defined in the unit of competence has been provided;
- the evidence has been confirmed as accurate, current and attributable to the individual concerned;
- equipment endorsements can be added to a competence certificate following successful completion of the relevant training or briefing.

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B.6 Competence Index

Appendix Reference	PTMP Reference	Portable, Transportable and Mobile Plant Competence
B7	PTMP01	Safe use of generator equipment
B8	PTMP02	Safe use of drilling equipment
B9	PTMP03	Safe use of cutting and grinding equipment
B10	PTMP04	Safe use of tightening and fastening equipment
B11	PTMP05	Safe use of rail adjustment equipment
B12	PTMP06	Safe use of compacting, breaking and digging equipment
B13	PTMP07	Safe use of lifting and moving equipment on rail
B14	PTMP08	Safe use of portable lighting tower equipment
B15	PTMP09	Safe use of line side plant
B16	PTMP10	Safe use of needle guns
B17	PTMP11	Safe use of hinged column counterbalance jack (pole dropper) equipment
B18	PTMP12	Safe use of scaffold equipment
B19	PTMP13	Safe use of cable avoidance equipment
B20	PTMP14	Safe use of nail gun equipment
B21	PTMP15	Safe use of rail head cleaning unit equipment
B22	PTMP16	Safe use of trolley equipment
B23	PTMP17	Safe use of general lifting and moving equipment
B24	PTMP18	Operate mobile plant
B25	PTMP19	Safe use of automatic ballast sampler and trolley equipment
B26	PTMP20	Safe use of rail sprayer and trolley equipment
B27	PTMP21	Safe use of OLE winching equipment

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B.7 PTMP01: Safe use of generator equipment

B.7.1 Purpose

The purpose of this competence unit is to define the competence requirements for candidates required to prepare and use generators safely and effectively on the Network Rail managed infrastructure or on Network Rail owned or leased property.

B.7.2 Scope

This competence unit applies in all circumstances where any individual is required to use generators on Network Rail managed infrastructure or on Network Rail owned or leased property.

The level and extent of responsibility shall include their own safety and that of others who can be affected by their work. The candidate shall be expected to refer to others for authorisation when required, shall be responsible for the implementation of the instructions and shall work within set procedures and specifications. The candidate is responsible for the quality of their work.

The scope of this unit includes examples of generators as listed on CTM/220a Portable, Transport and/or Mobile Plant Equipment,

The scope of this unit does not include:

- 650V signalling supply generators; **or**
- 240V generators

B.7.3 Competence unit

To prove competence in this unit, the candidate shall demonstrate their ability to prepare and operate generators. The candidate shall show they can follow recording, reporting and escalation procedures.

This competence unit comprises one element:

Element 1: Prepare and operate generators for use on the infrastructure

B.7.4 Initial assessment, maintenance of competence and competence renewal

B.7.4.1 Initial assessment

Initial assessment decisions shall be made where there is satisfactory evidence of completion of training.

This shall include:

- practical demonstrations of performance requirements, carried out in a way which complies with the appropriate procedures.
- a test of the knowledge essential for generators. (As indicated in this unit and detailed in applicable documents and procedures).

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B.7.4.2 Maintenance of competence

Employers shall have systems in place to demonstrate the continued competence of persons required to undertake Safe use of generator equipment activities.

This should include confirmation that:

- the competence has been used on at least two (2) occasions within the previous 12 months; **and**
- there have been no incidents, accidents, close calls or near misses as a result of the candidate using the equipment.

Where competence cannot be confirmed competence shall be dealt with as detailed in 4.10.

B.7.4.3 Competence renewal

Competence shall be renewed at least every 5 years by means of assessment.

The assessment shall be used to confirm that;

- the competence has been used on at least two (2) occasions within the previous 12 months;
- there have been no incidents, accidents, close calls or near misses as a result of the candidate using the equipment;
- the knowledge essential for the safe use of generators has been retained. (As indicated in this unit and detailed in applicable documents and procedures); **and**
- the candidate continues to demonstrate the use of generators safely and correctly and in line with the performance statements.

B.7.5 Results

Results of any training, assessments and reviews shall be recorded as part of the requirements as described in NR/L2/CTM/201 Competence Management and in line with the employers company assurance procedures.

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PTMP01: Safe use of generator equipment

Element 1: Prepare and operate generators for use on the infrastructure

Performance statements

Candidates shall be able to:

- work safely at all times, complying with health and safety and other relevant regulations and guidelines;
- obtain all the required equipment and materials and confirm that it is in a safe and usable condition;
- confirm that the equipment being prepared is suitable for the work;
- carry out the necessary preparation and checks to equipment in line with work requirements;
- protect themselves and others from risks that may arise when preparing the generator for use;
- start the generator using appropriate method;
- shut down the generator to a safe condition on conclusion of the activities;
- deal promptly and effectively with problems within their control and report those that cannot be solved;
- communicate effectively with relevant parties in line with requirements;
- follow recording reporting and escalation procedures.

Knowledge statements

Candidates shall have knowledge and understanding of:

- what equipment preparation methods and procedures apply;
- what equipment care and control procedures apply to generators;
- how to determine whether a generator is capable of delivering the required output;
- what risks are associated with the preparation of generators and how this can affect the safety of others;
- how to complete the necessary checks and what action to take if a problem occurs;
- what safety precautions need to be taken when fuelling;
- how to operate the generator;
- who to communicate with, and at what stage when undertaking preparation check;
- what the limits of their authority are and who to escalate to when these limits are exceeded.

Scope of competence

- Preparation and checks include:
 - position of equipment;
 - service date;
 - checking for damage;
 - fluid levels;
 - safety devices.
- The equipment safety and preparation checks that are required shall be conducted by:
 - visual checks;
 - safety device tests.
- They shall be concerned with establishing:
 - certification validity;
 - wear and defects;
 - suitability for task;
 - environmental acceptability;
 - quarantine requirements;
 - fuel and lubricant levels;
 - cables plugs and sockets;

Performance evidence

Performance evidence shall be collected of the candidate completing performance statements c, d, e, f, g using methodology below.

- observation;
- authenticated work experience evidence;
- performance reports;
- relevant activity records.

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B.8 PTMP02: Safe use of drilling equipment

B.8.1 Purpose

The purpose of this competence is to define the competence requirements for candidates required to prepare and use drilling equipment safely and effectively on the Network Rail managed infrastructure or on Network Rail owned or leased property.

B.8.2 Scope

This competence unit applies in all circumstances where any individual is required to prepare and use drilling equipment on Network Rail managed infrastructure or on Network Rail owned or leased property.

The level and extent of responsibility shall include their own safety and that of others who can be affected by their work. The candidate shall be expected to refer to others for authorisation when required, shall be responsible for the implementation of the instructions and shall work within set procedures and specifications. The candidate is responsible for the quality of their work.

The scope of this unit includes examples of drilling equipment as listed on CTM/220a Portable, Transport and/or Mobile Plant Equipment.

B.8.3 Competence unit

To prove competence in this unit, the candidate shall demonstrate their ability to prepare and operate drills. The candidate shall show they can follow recording, reporting and escalation procedures.

This competence unit comprises two elements;

Element 1: Prepare drills for use on the infrastructure.

Element 2: Operate drills safely and effectively to achieve the required engineering outcome.

B.8.4 Equipment specific endorsements

This competence unit shall be endorsed with other types of drills by either training or briefing as detailed in CTM/220b Portable, Transportable and/or Mobile Plant Development Requirements.

B.8.5 Initial assessment, maintenance of competence and competence renewal

B.8.5.1 Initial assessment.

Where there is no mentoring requirement, initial assessment decisions shall be made where there is satisfactory evidence of completion of training.

This shall include:

- practical demonstrations of performance requirements, carried out in a way which complies with the appropriate procedures;

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- a test of the knowledge essential for the appropriate drilling equipment. (As indicated in this unit and detailed in applicable documents and procedures).

Where mentoring is required, initial assessment decisions shall be made where there is satisfactory evidence of completion of training and mentoring and shall be gathered from the candidate undertaking the activities in the work place

This shall include a competence assessment within 4 months of initial training to confirm that;

- the performance requirements of this unit have been met; **and**
- the candidate has the knowledge as defined in the table below.

Where competence cannot be confirmed competence shall be dealt with as detailed in **4.10**.

B.8.5.2 Maintenance of competence

Employers shall have systems in place to demonstrate the continued competence of persons required to undertake safe use of drilling equipment activities.

This should include confirmation that:

- the competence has been used on sufficient number of occasions (on at least two (2) occasions for wood sleeper drills and magnetic mounted drills, three (3) occasions for rail drills and at least one (1) occasion for all other drills within scope) within the previous 12 months; **and**
- there have been no incidents, accidents, close calls or near misses as a result of the candidate using the equipment

Where competence cannot be confirmed competence shall be dealt with as detailed in **4.10**.

B.8.5.3 Competence renewal

B.8.5.3.1 Wood sleeper drills and magnetic mounted drills

Competence shall be renewed at least every 5 years by means of assessment.

The assessment shall be used to confirm that;

- the competence has been used on at least two (2) occasions within the previous 12 months;
- there have been no incidents, accidents, close calls or near misses as a result of the candidate using the equipment;
- the knowledge essential for the safe use of wood sleeper drills and/or magnetic mounted drill as applicable has been retained. (As indicated in this unit and detailed in applicable documents and procedures); **and**

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- the candidate continues to demonstrate the use of wood sleeper drills and magnetic mounted drills as applicable safely and correctly in line with the performance statements.

B.8.5.3.2 Rail Drills

Competence shall be renewed at least every 4 years by means of assessment.

The assessment shall be used to confirm that;

- the competence has been used on at least three (3) occasions within the previous 12 months;
- there have been no incidents, accidents close calls or near misses as a result of the candidate using the equipment;
- the knowledge essential for the safe use of rail drills has been retained. (As indicated in this unit and detailed in applicable documents and procedures); **and**
- the candidate continues to demonstrate the use of rail drills safely and correctly in line with the performance statements.

B.8.5.3.3 All other drills with scope

Competence for all other drills within scope does not expire.

B.8.6 Results

Results of any training, assessments and reviews shall be recorded as part of the requirements as described in NR/L2/CTM/201 Competence Management and in line with the employers company assurance procedures.

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PTMP02 Safe use of drilling equipment

Element 1: Prepare drills for use on the infrastructure

Performance statements

Candidates shall be able to:

- work safely at all times, complying with health and safety and other relevant regulations and guidelines;
- obtain all the required equipment and materials and confirm that it is in a safe and usable condition;
- confirm that the equipment being prepared is suitable for the work;
- carry out the necessary preparation and checks to equipment in line with work requirements;
- protect themselves and others from risks that may arise when preparing the drill for use;
- deal promptly and effectively with problems within their control and report those that cannot be solved;
- communicate effectively with all relevant parties and in line with procedures;
- follow recording, reporting and escalation procedures.

Scope of competence

- Preparation and checks include:
 - position of equipment;
 - service date;
 - checking for damage;
 - fluid levels;
 - safety devices.
- The equipment safety and preparation checks shall be conducted by:
 - visual checks;
 - safety device test.
- They shall be concerned with establishing:
 - environmental acceptability
 - quarantine requirements
 - fuel and lubricant levels
 - certification validity
 - suitability of power source:
 - cables plugs
 - sockets
 - generators
 - battery
 - engine powered
 - wear and defects
 - suitability for task
 - suitability of associated equipment:
 - templates
 - drill bits/broach
 - clamps
 - specialist maintenance tools
 - cables, plugs and sockets

Knowledge statements

Candidates shall have knowledge and understanding of:

- what equipment preparation methods and procedures apply;
- what equipment care and control procedures apply to drills;
- how to determine whether a drill is suitable for the task required;
- what risks are associated with the preparation of drills and how this can affect the safety of others;
- how to complete the necessary checks and what action to take if a problem occurs;
- what safety precautions need to be taken when fuelling or connecting to a electrical power source;
- who to communicate with and at what stage when undertaking preparation checks;
- what the limits of their authority are and who to escalate to when these limits are exceeded..

Performance Evidence

Performance evidence shall be collected of the candidate completing performance statements c, d, e, using methodology below.

- observation;
- authenticated work experience evidence;
- performance reports;
- relevant activity records.

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PTMP02 Safe use of drilling equipment

Element 2: Operate drills safely and effectively to achieve the required engineering outcome

Performance statements

Candidates shall be able to:

- work safely at all times, complying with health and safety and other relevant regulations and guidelines including PPE;
- confirm that the drill is set up and ready for use;
- operate the drill within the defined parameters;
- manipulate the controls safely and correctly in line with operational procedures;
- produce finished work to the required quality and within the specified dimensional accuracy;
- carry out quality checks at suitable intervals;
- deal promptly and effectively with problems within their control and report those that cannot be solved;
- shut down the equipment to a safe condition on conclusion of the activities;
- dispose of waste materials in accordance with company guidelines;
- follow recording, reporting and escalation procedures.

Scope of Competence

- Operations to be carried out on:
 - rails;
 - sleepers;
 - other applicable on network rail assets.
- Operations to be performed include:
 - drilling;
 - cold bolt hole expansion.
- Quality checks to be completed include:
 - size;
 - shape;
 - position;
 - depth.
- Materials to be drilled include:
 - various steel;
 - timber;
 - concrete.
- Additional PPE can include:
 - gloves;
 - goggles;
 - ear defenders;
 - masks.

Knowledge statements

Candidates shall have knowledge and understanding of:

- which engineering specifications relate to drilling of rails, sleepers and other relevant materials;
- which drill bits to use for various applications;
- what setting methods and techniques are applied;
- tools and equipment operating and care procedures as defined by Network Rail or manufacturer;
- drilling characteristics of different materials including various steel, timber and concrete;
- quality control procedures and recognition of machining defects when drilling and/or cold expanding of bolt holes;
- the likely impact of your work others and the impact of their work for you;
- who to communicate with, and at what stage when undertaking preparation check;
- what the limits of their authority are and who to escalate to when these limits are exceeded.

Evidence Requirements

Performance evidence shall be collected of the candidate completing performance statements b, c, d, e, f and h using methodology below.

- observation;
- authenticated work experience evidence;
- performance reports;
- relevant activity records,

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B.9 PTMP03 Safe use of cutting and grinding equipment

B.9.1 Purpose

The purpose of this competence is to define the competence requirements for candidates required to prepare and use cutting and grinding equipment safely and effectively on the Network Rail managed infrastructure or on Network Rail owned or leased property.

B.9.2 Scope

This competence unit applies in all circumstances where any individual is required to prepare and use cutting and grinding equipment on Network Rail managed infrastructure or on Network Rail owned or leased property.

The level and extent of responsibility shall include their own safety and that of others who can be affected by their work. The candidate shall be expected to refer to others for authorisation when required, shall be responsible for the implementation of the instructions and shall work within set procedures and specifications. The candidate is responsible for the quality of their work.

The scope of this unit includes examples of cutting and grinding equipment as listed on CTM/220a Portable, Transport and/or Mobile Plant Equipment.

B.9.3 Competence unit

To prove competence in this unit, the candidate shall demonstrate their ability to prepare and operate cutting and grinding equipment. The candidate shall show they can follow recording, reporting and escalation procedures.

This competence unit comprises two elements:

Element 1: Prepare cutting and grinding equipment for use on the infrastructure.

Element 2: Operate cutting and grinding equipment safely and effectively achieve the required engineering outcome.

B.9.4 Equipment specific endorsements

This competence unit shall be endorsed with other types of cutting and grinding equipment by either training or briefing as detailed in CTM/220b Portable, Transportable and/or Mobile Plant Development Requirements.

B.9.5 Initial assessment, maintenance of competence and competence renewal

B.9.5.1 Initial assessment.

Initial assessment decisions shall be made where there is satisfactory evidence of completion of training.

This shall include:

- practical demonstrations of performance requirements, carried out in a way which complies with the appropriate procedures.

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- a test of the knowledge essential for the appropriate cutting and grinding equipment. (As indicated in this unit and detailed in applicable documents and procedures)

B.9.5.2 Maintenance of competence

Employers shall have systems in place to demonstrate the continued competence of persons required to undertake Safe use of cutting and grinding equipment activities.

This review shall confirm that:

- the competence has been used on sufficient number of occasions (on at least one (1) occasion for weld trimmers and at least four (4) occasions for all other cutting and grinding equipment within scope) within the previous 12 months; **and**
- there have been no incidents, accidents, close calls or near misses as a result of the candidate using the equipment

Where competence cannot be confirmed competence shall be dealt with as detailed in **4.10**.

B.9.5.3 Competence renewal

B.9.5.3.1 Weld trimmers

Competence for all types of weld trimmers within scope does not expire.

B.9.5.3.2 Plain Line Grinders

Competence shall be renewed at least every 4 years by means of training.

The assessment shall be used to confirm that;

- the competence has been used on at least three (3) occasions within the previous 12 months;
- there have been no incidents, accidents, close calls or near misses as a result of the candidate using the equipment;
- the knowledge essential for the plain line grinders has been retained. (As indicated in this unit and detailed in applicable documents and procedures); **and**
- the candidate continues to demonstrate the use of plain line grinders safely and correctly in line with the performance statements.

B.9.5.3.3 All other cutting and grinding equipment within scope

Competence shall be renewed at least every 3 years by means of training.

The assessment shall be used to confirm that;

- the competence has been used on at least four (4) occasions within the previous 12 months;

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- there have been no incidents, accidents, close calls or near misses as a result of the candidate using the equipment;
- the knowledge essential for the safe use of cutting and grinding equipment has been retained. (As indicated in this unit and detailed in applicable documents and procedures); **and**
- the candidate continues to demonstrate the use of cutting and grinding equipment safely and correctly in line with the performance statements.

B.9.6 Results

Results of any training, assessments and reviews shall be recorded as part of the requirements as described in NR/L2/CTM/201 Competence Management and in line with the employers company procedures.

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PTMP03 Safe use of cutting and grinding equipment

Element 1: Prepare cutting and grinding equipment for use on the infrastructure

Performance statements

Candidates shall be able to:

- work safely at all times, complying with health and safety and other relevant regulations and guidelines;
- obtain all the required equipment and materials and confirm that it is in a safe and usable condition;
- carry out the necessary preparation and checks to confirm equipment in line with work requirements;
- protect themselves and others from risks that arise when preparing the cutting and/or grinding equipment for use;
- deal promptly and effectively with problems within their control and report those that cannot be solved;
- dispose of waste materials in accordance with company guidelines;
- communicate effectively with all relevant parties and in line with procedures;
- follow recording, reporting and escalation procedures.

Scope of competence

- Preparation and checks include:
 - correct fitting of discs/blades/stones;
 - position of equipment;
 - service date;
 - checking for damage;
 - fluid levels;
 - safety devices.
- The equipment safety and preparation checks shall be conducted by:
 - visual checks;
 - physical checks;
 - safety device test;
- They shall be concerned with establishing:
 - Certification validity;
 - wear and defects;
 - suitability for task;
 - environmental acceptability;
 - suitability of associated equipment;
 - clamps;
 - discs and stones;
 - guards;
 - specialist maintenance tools.
 - quarantine requirements;
 - fuel and lubricant levels;
 - Security of components;
 - suitability of power source;
 - cables plugs and sockets;
 - generators;
 - battery;
 - engine powered;

Knowledge statements

Candidates shall have knowledge and understanding of:

- what equipment preparation methods and procedures apply;
- how to determine what type of disc/blade/stone is required for the particular equipment type;
- how to confirm that the disc/blade/stone is correctly fitted to the equipment;
- what equipment care and control procedures apply to cutting and grinding equipment;
- how to determine whether cutting and grinding equipment is suitable for the task required;
- what risks associated with the preparation of cutting and/or grinding equipment and how this can affect the safety of others;
- how to complete the necessary checks and what action to take if a problem occurs;
- what safety precautions need to be taken when fuelling or connecting to a electrical power source;
- who to communicate with, and at what stage when undertaking preparation checks;
- what the limits of their authority are and who to escalate to when these limits are exceeded.

Evidence Requirements

Performance evidence shall be collected of the candidate completing performance statements b, c, and d, using methodology below.

- observation;
- authenticated work experience evidence;
- performance reports;
- relevant activity records.

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PTMP03 Safe use of cutting, and grinding equipment

Element 2: Operate cutting and grinding equipment safely and effectively to achieve the required engineering outcome

Performance statements

Candidates shall be able to:

- work safely at all times, complying with health and safety and other relevant regulations and guidelines including PPE;
- confirm that the cutting and/or grinding equipment is set up and ready for use;
- confirm that suitable arrangements are in place to maintain the safety of others who maybe affected by the work;
- operate the cutting and/or grinding equipment within the defined parameters;
- operate the controls safely and correctly in line with operational procedures;
- produce finished work to the required quality and within the specified dimensional accuracy;
- carry out quality checks at suitable intervals;
- deal promptly and effectively with problems within their control and report those that cannot be solved;
- shut down the equipment to a safe condition on conclusion of the activities;
- dispose of waste materials in accordance with company guidelines;
- follow recording, reporting and escalation procedures.

Scope of competence

- Operations shall be carried out on:
 - rails;
 - switches and crossings;
 - sleepers;
 - other applicable materials on network rail assets.
- Operations to be performed include:
 - cutting;
 - grinding;
 - shearing.
- Quality checks to be completed can include:
 - size;
 - profile;
 - position;
 - depth.
- Materials to be cut or ground can include:
 - various steels;
 - timber;
 - concrete;
 - any other materials on Network Rail assets.
- Additional PPE can include:
 - flame retardant PPE;
 - gloves;
 - goggles;
 - ear defenders;
 - masks.

Knowledge statements

Candidates shall have knowledge and understanding of:

- which engineering specifications, documentation and risk control sheets relate to cutting, and/or grinding equipment, of rails, sleepers and other relevant materials;
- which discs/blade/stones to use for various applications;
- what appropriate fitting methods and techniques are applied;
- what equipment (and associated consumables) operating and care procedures as defined by Network Rail or manufacturer;
- how to determine what limitations apply to reduce Hand Arm Vibration risks;
- quality control procedures and recognition of machining defects when cutting, grinding and/or shearing
- how to limit the impact of your work on the safety of others and assets;
- what precautions need to be taken to mitigate against the risk of fires.
- who to communicate with and at what stage when undertaking the activity;
- what the limits of their authority are and who to escalate to when these limits are exceeded.

Evidence requirements

Performance evidence shall be collected of the candidate completing performance statements b, c, d, e, f, g, i and j using methodology below.

- observation;
- authenticated work experience evidence;
- performance reports;
- relevant activity records.

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B.10 PTMP04 Safe use of tightening and fastening equipment

B.10.1 Purpose

The purpose of this competence is to define the competence requirements for candidates required to prepare and use tightening and/or fastening equipment safely and effectively on the Network Rail managed infrastructure or on Network Rail owned or leased property.

B.10.2 Scope

This competence unit applies in all circumstances where any individual is required to prepare and use tightening and/or fastening equipment on Network Rail managed infrastructure or on Network Rail owned or leased property.

The level and extent of responsibility shall include their own safety and that of others who can be affected by their work. The candidate shall be expected to refer to others for authorisation when required, shall be responsible for the implementation of the instructions and shall work within set procedures and specifications. The candidate is responsible for the quality of their work.

The scope of this unit includes examples of tightening and fastening equipment as listed on CTM/220a Portable, Transport and/or Mobile Plant Equipment.

B.10.3 Competence unit

To prove competence in this unit, the candidate shall demonstrate their ability to prepare and operate tightening and fastening equipment. The candidate shall show they can follow recording, reporting and escalation procedures.

This competence unit comprises two elements:

- Element 1: Prepare tightening and fastening equipment for use on the infrastructure.
- Element 2: Operate tightening and fastening equipment safely and effectively and effectively achieve the required engineering outcome.

B.10.4 Equipment specific endorsements

This competence unit shall be endorsed with other types of tightening and/or fastening equipment by either training or briefing as detailed in CTM/220b Portable, Transportable and/or Mobile Plant Development Requirements.

B.10.5 Initial assessment, maintenance of competence and competence renewal

B.10.5.1 Initial assessment.

Initial assessment decisions shall be made where there is satisfactory evidence of completion of training.

This shall include:

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- practical demonstrations of performance requirements, carried out in a way which complies with the appropriate procedures.
- a test of the knowledge essential for the appropriate tightening and fastening equipment. (As indicated in this unit and detailed in applicable documents and procedures).

B.10.5.2 Maintenance of competence

Employers shall have systems in place to demonstrate the continued competence of persons required to undertake safe use of tightening and fastening equipment activities.

This should include confirmation that:

- the competence has been used on sufficient number of occasions (on at least one (1) occasion for hydraulic spike extractors, and at least two (2) occasions for all other tightening and fastening equipment within scope) within the previous 12 months; **and**
- there have been no incidents, accidents, close calls or near misses as a result of the candidate using the equipment

Where competence cannot be confirmed competence shall be dealt with as detailed in 4.10.

B.10.5.3 Competence renewal

B.10.5.3.1 Hydraulic Spike Extractors

Competence for all types of hydraulic spike extractors within scope does not expire.

B.10.5.3.2 Huck Bolt Fastener

Competence shall be renewed at least every 5 years by means of training.

The assessment shall be used to confirm that;

- the competence has been used on at least two (2) occasions within the previous 12 months;
- there have been no incidents, accidents, close calls or near misses as a result of the candidate using the equipment;
- the knowledge essential for the safe use of huck bolt fastener equipment has been retained. (As indicated in this unit and detailed in applicable documents and procedures); **and**
- the candidate continues to demonstrate the use of huck bolt fastener equipment safely and correctly in line with the performance statements.

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B.10.5.3.3 All other tightening and fastening equipment within scope

Competence shall be renewed at least every 5 years by means of assessment.

The assessment shall be used to confirm that;

- the competence has been used on at least two (2) occasions within the previous 12 months;
- there have been no incidents, accidents, close calls or near misses as a result of the candidate using the equipment;
- the knowledge essential for the safe use of tightening and fastening equipment has been retained. (As indicated in this unit and detailed in applicable documents and procedures); **and**
- the candidate continues to demonstrate the use of the tightening and fastening equipment safely and correctly and in line with the performance statements.

B.10.6 Results

Results of any training, assessments and reviews shall be recorded as part of the requirements as described in NR/L2/CTM/001 Competence Management Systems process and in line with the employers company procedures.

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PTMP04 Safe use of tightening and fastening equipment

Element 1: Prepare tightening and fastening equipment for use on the infrastructure

Performance statements

Candidates shall be able to:

- work safely at all times, complying with health and safety and other relevant regulations and guidelines;
- obtain all the required equipment and materials and confirm that it is in a safe and usable condition;
- carry out the necessary preparation and checks to confirm equipment in line with work requirements;
- protect themselves and others from risks that arise when preparing the tightening and/or fastening equipment for use;
- deal promptly and effectively with problems within their control and report those that cannot be solved;
- communicate effectively with all relevant parties and in line with procedures
- follow recording, reporting and escalation procedures.

Knowledge statements

Candidates shall have knowledge and understanding of:

- what equipment preparation methods and procedures apply;
- how to determine what type of socket and/or associated equipment is required for the particular equipment type;
- how to confirm that the socket and/or associated equipment is correctly fitted to the equipment;
- what equipment care and control procedures apply to tightening, and/or fastening equipment;
- how to determine whether tightening, and/or fastening equipment is suitable for the task required;
- what risks are associated with the preparation of tightening, and/or fastening and how this can affect the safety of others;
- how to complete the necessary checks and what action to take if a problem occurs;
- what safety precautions need to be taken when fuelling or connecting to electrical, pneumatic, or hydraulic power sources;
- who to communicate with and at what stage when undertaking preparation checks;
- what the limits of their authority are and who to escalate to when these limits are exceeded.

Scope of competence

- Preparation and checks include:
 - correct fitting of sockets;
 - position of equipment;
 - service date;
 - checking for damage;
 - fluid levels;
 - safety devices.
- The equipment safety and preparation checks shall be conducted by:
 - visual checks;
 - physical checks;
 - safety device test.
- They shall be concerned with establishing:
 - certification validity;
 - wear and defects;
 - suitability for task;
 - environmental acceptability;
 - quarantine requirements;
 - fuel and lubricant levels;
 - security of components;
 - suitability of Power source;
 - cables plugs and sockets;
 - generators;
 - battery;
 - engine powered.
 - suitability of associated equipment inc:
 - sockets and fittings;
 - extension kits;
 - quick release adaptors;
 - universal joints.

Evidence Requirements

Performance evidence shall be collected of the candidate completing performance statements b, c, and d, using methodology below.

- observation;
- authenticated work experience evidence;
- performance reports;
- relevant activity records.

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PTMP04 Safe use of tightening and fastening equipment

Element 2: Operate tightening and fastening equipment safely and effectively to achieve the required engineering outcome

Performance statements

Candidates shall be able to:

- work safely at all times, complying with health and safety and other relevant regulations and guidelines including PPE;
- confirm that the tightening and/or fastening equipment is set up and ready for use;
- confirm that suitable arrangements are in place to maintain the safety of others who may be affected by the work;
- operate the tightening and/or fastening equipment within the defined parameters;
- operate the controls safely and correctly in line with operational procedures;
- produce finished work to the required quality and within the specified dimensional accuracy;
- carry out quality checks at suitable intervals;
- deal promptly and effectively with problems within their control and report those that cannot be solved;
- shut down the equipment to a safe condition on conclusion of the activities;
- dispose of waste materials in accordance with company guidelines;
- follow recording, reporting and escalation procedures.

Scope of competence

- Operations shall be carried out on:
 - screws;
 - bolts;
 - clips;
 - fastenings;
 - other applicable materials that require tightening/fastening on network rail assets.
- Operations to be performed include:
 - tightening;
 - fastening;
 - un-fastening.
- Quality checks to be completed can include:
 - security;
 - position;
 - depth;
 - torque.
- Additional PPE can include:
 - gloves;
 - goggles;
 - ear defenders.

Knowledge statements

Candidates shall have knowledge and understanding of:

- which engineering specifications, documentation and risk control sheets relate to tightening and/or fastening equipment, of fastenings clips and/or bolts and other relevant materials;
- which sockets and/or associated equipment to use for various applications;
- what appropriate tightening and fastening methods and techniques are applied;
- what equipment operating and care procedures as defined by Network Rail or manufacturer;
- how to determine what limitations apply to reduce Hand Arm Vibration risks;
- quality control procedures and recognition of machining defects when tightening, fastening and/or unfastening.
- how to limit the impact of your work on the safety of others and assets;
- who to communicate with and at what stage when undertaking the activity;
- what the limits of their authority are and who to escalate to when these limits are exceeded.

Evidence requirements

Performance evidence shall be collected of the candidate completing performance statements b, c, d, e, f, g, i and j using methodology below.

- observation;
- authenticated work experience evidence;
- performance reports;
- relevant activity records.