Training Standard

Title	Ride on roller (novice)
Duration	**Minimum** **17 hours including assessment time** 1 learner. 1 trainer. 1 machine 2 learners.1 trainer. 2 machines **37 hours including assessment time** 3 learners.1 trainer. 1 machine **28 hours including assessment time** 2 learners. 1 trainer 1 machine 3 learners. 1 trainer. 2 machines 4 learners. 1 trainer. 2 machines The maximum number of learners is four per group, with a maximum number of two machines per group, all learning outcomes **must** be covered by each learner. Trainers must ensure all learners get equal and sufficient practical engagement time. *The duration stated in the training standard equals the minimum length of time the course and assessments should take to be completed based on the ratios above. How this is organised is at the discretion of the training provider.*
Delegates pre-requisites	The delegate does not hold a current industry recognised card within the plant category and/or has limited or no demonstrable practical experience of operating the category of plant in a construction environment. Experience of working on site and a basic knowledge of construction terminology would be beneficial.
Purpose/ scope	The purpose and scope of this standard is to provide the delegate with the knowledge to support the following: Safe operation of a ride on roller (also referred to as “roller”) by: • carrying out all checks, basic maintenance and preparation procedures for site operations • operating the machine safely and efficiently for compacting operations • travelling and manoeuvring on various types of terrain and surfaces • understanding the capabilities, purposes, and limitations of the machine • understanding all safety precautions • carrying out safe working practice including shut down and isolation procedures • understanding compaction requirements and material specifications
Occupational relevance	Training delivered against this standard would be relevant to the following occupational group(s):

	• operative and craft
Instruction/ supervision	As a minimum, course trainers must be able to demonstrate that, in relation to this standard, they have: Essential: • either a) a current card issued by one of the CSCS partner plant schemes at instructor/trainer/assessor level bearing the category of ride on roller or b) a current card issued by one of the CSCS partner plant schemes at operator level bearing the category of ride on roller • Level 3 Award in Education and Training or equivalent qualification listed in Appendix 3 of the Requirements for Approved Training Organisations • health and safety qualification at or equivalent to construction site management level, examples of which can be found in Appendix 6 of the Requirements for Approved Training Organisations • in addition to the required qualifications, the trainer must be able to demonstrate occupational experience of operating a ride on roller. This can be demonstrated with a valid and in date blue card from a 'Recognised Organisation' and a minimum of 1 years' site experience Desirable: • S/NVQ Level 2 Plant Operations in the specific category being trained • Level 3 Certificate in Assessing Vocational Achievement
Delivery	Training and assessment may be delivered in an on or off-site environment. Where training and assessment takes place within a working construction site environment, training must be segregated from productive work within a prescribed training area, which has been risk assessed and has appropriate control measures in place as required by current legislation and regulations. All equipment required for the training must be set aside specifically for the training session and be available for the entire training duration. Equipment is not to be shared with the working construction site. Welfare facilities must be provided wherever training and assessment takes place, and this should meet relevant legislation. All materials and equipment must be of a suitable quality and quantity for delegates to achieve learning outcomes delivery and assessment criteria, and must comply with relevant legislation, regulations and industry agreed requirements.

	The class size and learner/trainer ratio must allow training to be delivered in a safe manner and enable learners to achieve the learning outcomes. Practical engagement can include seat time, any associated practical checks of the machine e.g pre-start checks, and observation time. Irrespective of the number of learners, effective learning must be maintained for all learners. Equal and sufficient practical engagement needs to be considered. The following training delivery methods may be used in the delivery of this standard: • face to face learning environment (such as a classroom/workshop/site office) for theoretical learning & assessment • on or off the job site environment for practical learning and assessment • simulator for practical training *note – if a simulator is used, it can only comprise of a total of 20% of overall practical training and not used in any assessment.*
Assessment	For the successful completion of training, delegates must complete an end of course practical assessment and knowledge test that has a clear pass or fail criteria as set out by the card scheme. The marking criteria must effectively measure every aspect of each learning outcome and additional guidance for training and assessment. Assessment must adhere to all points on the CITB Requirements for Approved Training Organisations including Appendix 6 which provides further guidance for assessment.
Quality assurance	**Recognised standard** CITB will gain assurance through the Recognised Organisation's quality arrangements. Approved Training Organisation's will be required to supply confirmation of approval (centre approval and scheme approval) with the related Recognised Organisation's awarding organisation or body. In most cases this will be an approval certificate provided by the Recognised Organisation's awarding organisation or body, listing the routes, qualifications and categories they are approved to deliver. In addition, a copy of the most recent external quality assurance monitoring report will be required, relating to the standard that you wish to be approved for. This information will be reviewed by CITB's quality assurance team. Approval will be subject to the required Recognised Organisation's documentation being supplied by you. As part of the quality assurance checks, CITB may confirm the accuracy of documentation with the issuing organisation.

	Please refer to the Requirements for Approved Training Organisations Appendix 6 for further guidance on quality assurance.

Renewal	**Classification**
☒ There are no mandatory renewal or recommended refresher requirements for this standard.	☒ Lifetime *(Please note standards using this classification will only be grant aided once per delegate)*
Keywords	Ride On Road Roller, Roller, Irons
Approval date	October 2024
Review cycle	On request or 5 years from approval date.

Learning outcomes Including additional guidance to support training delivery and final assessment *The delegate will be able to:*
explain the hazards of working in the construction industry, and their responsibilities as a ride on roller operator *Delivery to include*: • why the industry has many hazards and why safe working practices must be adopted and maintained • why personal health and safety is not just physical injury and can include the effects of noise and vibration. All of which can lead to lost time, lost income, expense for the employer, fines, custodial sentences etc. • Health & Safety at Work Act 1974, Provision and Use of Work Equipment Regulations (PUWER), Management of Health and Safety of Work (MHSW) Regulations, Construction (Design & Management) Regulations (CDM), Vibration at Work Regulations, Road Traffic Act, HSG144, HSG47 etc. in accordance with risk assessments, method statements, codes of practice and other relevant legislation, regulations, and industry good practice • operators' moral, legal, and environmental obligations • reporting structures, the importance of good communication on site (colleagues, management, and other workers on site) • past incidences involving relevant plant and pedestrians • working with other related roles e.g. marshallers, supervisors, other plant operatives, other occupations *Assessment criteria:* • identify common hazards on a construction site • explain safe working practices relevant to the role of ride on roller operator • explain personal health and safety relevant to the role of ride on roller operator

• identify aspects of legislation, regulations, and industry good practice relevant to the role of ride on roller operator • describe reporting structures and the importance of good communication on site • explain the responsibilities of a ride on roller operator
identify and extract information from the manufacturer's handbook/operator's manual, and other information sources including digital *Delivery to include*: • use of the operator's manual (for the specific machine) during the practical elements of training to identify key preparation, operational and safety aspects of the machine • types of information sources including machine control systems • interpreting compaction specifications *Assessment criteria:* • identify and extract key elements for the preparation and safe use of the ride on roller using various sources
locate and identify the major components, signs and decals and all controls of the ride on roller and explain their functions *Delivery to include*: • the purpose of principal components, the basic construction, controls, and terminology • how correct and sympathetic use of the controls can ensure efficiency and safety of the machine and help prolong machine life by reducing wear and tear • purposes of Roll Over Protection Systems (ROPS) and Falling Objects Protection Systems (FOPS) and other protection systems • machine control systems – efficiencies, GPS *Assessment criteria:* • identify and explain the application of all controls and management functions • explain why the correct and sympathetic use of controls aids efficiency, longevity, and safety • state the purposes of ROPS and FOPS and other protection systems • locate and identify the major components, signs and decals, and controls of the machine
conduct all pre-operational checks in accordance with manufacturers and legislative requirements *Delivery to include*: • complete all pre-start and running checks before any activity takes place including vibratory system set up, visual checks for damage, functionality, and effectiveness • all componentry systems fully functional including mechanical, hydraulic, pneumatic, electrical and electronic etc. • replenish fuels, fluids and lubricants and undertake grease-based lubrication activities • manufacturers periodic checks and operator level maintenance requirements • defect reporting requirements

- carry out routine adjustments on ancillaries including scraper bar settings
- safety systems functions including emergency stop
- health and safety requirements when undertaking basic maintenance activities including Personal Protection Equipment (PPE) and sprinkler systems function
- check condition and function of seatbelt and any other restraining equipment
- check condition and function of any lighting and warning systems
- requirements for dealing with fluid spills including prevention and clean-up methods

Assessment criteria:

- conduct all pre-operational checks as above in accordance with manufacturer guidance and legislative requirements (note: verbal description to the instructor of specific pre-start checks will be acceptable if the machine is hot where they cannot be done safely e.g. engine fluids) – *this should be observed during practical assessment*
- explain the procedure for defect reporting and why it's important

identify and maintain personal protective equipment (PPE) and appropriate safety control equipment for ride on roller use

Delivery to include:

- what safety control equipment/PPE should be worn/use for ride on roller operations and include the following: suitable safety footwear, ear defenders, face/eye protection, dust mask, suitable gloves, overalls, hard hat, respiratory protective equipment (RPE), protective clothing etc.
- appropriate use of local exhaust ventilation (LEV), i.e. in confined spaces
- why weather conditions, including heat and cold, can determine what PPE is worn when using the ride on roller and the personal effects of incorrect equipment

Assessment criteria:

- describe what forms of PPE and RPE must be worn for ride on roller operations
- explain why PPE must be worn for ride on roller operations
- give an example of when use of LEV would be appropriate
- state how severe weather can affect safety and health with insufficient equipment

safely get on and off the machine

Delivery to include:

- working at height requirements
- safe use of all hand holds and steps
- facing the machine when getting on and off the roller for operational and maintenance purposes
- effects of continually getting on and off the roller e.g. fatigue, increased risk of falling etc.
- safe areas to get on and off the roller e.g. ground location, other vehicle movements etc.
- procedures for accessing the roller when carrying out adjustment and maintenance activities

Assessment criteria:

- explain the effects of not using correct procedures to get on and off the roller including when carrying out adjustment and maintenance activities
- demonstrate the correct procedures as listed above – *this should be observed during practical assessment*
- explain the areas for safely getting on and off the roller

prepare the roller for movement by checking and adjusting the machine for operation

Delivery to include:

- use of seatbelts and other restraining equipment
- adjustment of seating position and mirrors
- steering and transmission systems checks
- types of visibility aids and what factors can affect clear, all-round vision
- where and why effective vision is extremely important
- how and where issues can arise when vision is limited during operation
- warning beacons and other safety systems/lights are operable
- reversing warning aids function
- legislative requirements for road travel e.g. licencing for travelling on the public highway
- carrying of passengers/non-authorised personnel where additional seating is fitted, in line with manufacturers recommendations
- traction aids (single drum types)

Assessment criteria:

- ensure the seatbelt is worn correctly prior to any machine movement – *this should be observed during practical assessment*
- demonstrate that functional checks have been completed for all applicable warning lamps, safety systems and visions systems are in place, clear and functional – *this should be observed during practical assessment*
- conduct all-round visibility checks before moving away – *this should be observed during practical assessment*
- identify and select correct PPE and weather-related equipment to be worn during practical assessment
- explain the legal requirements for travelling on the public highway

travel and manoeuvre the roller safely across varying terrain and inclines

Delivery to include:

- travelling over undulating ground, on inclines, smooth level surfaces, uncompacted ground
- how travel speeds affect roller stability, safety, and emissions
- issues which can occur if departing from designated travel routes to/from the compaction area
- types of underground services and the effects of travelling near to/over services
- effects of travelling close to edges, embankments and trenches
- how uncompacted surfaces and inclines affect stability
- how certain types of surfaces can affect traction, particularly on inclines

- how use of the roller can affect other works

Assessment criteria:

- demonstrate safe travel over rough, undulating ground, inclines and level surfaces – *this should be observed during practical assessment*
- demonstrate safe travel speeds in accordance with terrain and environment – *this should be observed during practical assessment*
- face the direction of travel – *this should be observed during practical assessment*
- travel up and down a gradient – *this should be observed during practical assessment*
- stop and start on the gradient whilst travelling uphill – *this should be observed during practical assessment*
- stop and start on the gradient whilst travelling downhill – *this should be observed during practical assessment*
- explain other occupations on site and how their work can be affected by the roller movement

conduct all necessary safety checks at the work area

Delivery to include:

- safety checks that must be carried out to ensure that the area to be compacted is clear of hazards
- actions required for emergency situations
- communication requirements and methods with other machine operators and support workers
- requirements for sufficient manoeuvring area for manoeuvring between compacted and non-compacted areas
- ground conditions to support the ride on roller and maintain stability
- procedures for mounting/dismounting raised kerbed area
- working in hours of darkness and lighting requirements

Assessment criteria:

- identify and use designated compacting area entry and exit locations – *this should be observed during practical assessment*
- demonstrate how to ensure the compacting area is clear of hazards and explain why this is important - *this should be observed during practical assessment*
- establish communication methods with other machine operators and support workers - *this should be observed during practical assessment*

compact a range of materials to specification

Delivery to include:

- typical hazards within a compaction area and reasons for exclusion zones
- checks which need to be carried out at the compaction area
- types of granular, cohesive and bituminous type materials that can be compacted
- compacting procedures for cambers, crossfalls, radius, straight runs, edges, kerbing and raised ironwork

- examples of poor compacting techniques including scuffing, turning on a pass, too close to edges etc.
- applying overlaps, passes and correct travel speeds
- compacting a range of compatible materials according to a given specification including straight runs, against kerbs and edges, around radius or various angles and around raised ironwork
- use of vibration modes and settings including frequency and amplitude
- use of water
- how to interpret compaction specifications
- effects of not following the compaction specification including applying too many or insufficient number of passes, incorrect vibration setting, speeds etc.
- dangers of working near to edges or on cambers when using vibration mode

Assessment criteria:

- explain the checks which need to be carried out at the compaction area
- describe typical hazards within a compaction area and reasons for exclusion zones
- explain compacting procedures for cambers, crossfalls, radius, straight runs, edges, kerbing and raised ironwork
- explain the dangers of working near to edges or on cambers when using vibration mode
- describe types of granular, cohesive and bituminous type materials that can be compacted
- identify compaction methods required in accordance with the compaction specifications for a range of materials
- describe the effects of not following the compaction specification including applying too many or insufficient number of passes, incorrect vibration setting, speeds etc.
- ensure compaction area is clear of hazards - *this should be observed during practical assessment*
- enter compaction area exclusion zone using correct entry point - *this should be observed during practical assessment*
- compact a straight run with supporting and un-supporting edges applying at least 3 passes - the straight run to be compacted must be no less than 15m in length with a sufficient hard standing to move on and off and park the machine – *this should be observed during practical assessment*
- compact a radius with supporting edge applying at least 3 passes - the radius must have a curve of 5-10m
- apply vibration mode as relevant to the compaction method - *this should be observed during practical assessment*

Assessment requirements:

- compaction specifications provided to delegate for them to identify correct method for material and layer thickness
- the width of the uncompacted area must be no less than 4 x the width of the drum of the roller to be used and each pass must be on uncompacted ground
- cones or other obstructions must be placed in the compacting area to simulate ironwork

• a rolling pass comprises of compacting in one direction using the dead rolling method and returning on the same path using the vibratory system • the compactable material used must clearly show areas that have been compacted, overlapped and any direction change • compaction must take place as close to the supported area as practicable depending on the material used • an overlap will comprise of no more than one quarter of the width of the compacting drum • realignment for new passes only takes place on designated turning areas
explain environmental considerations of ride on roller use *Delivery to include:* • health and social reasons to reduce machine emissions • government industry zero emission initiatives • what 'tailpipe' emissions are caused by compression ignition (CI) diesel engines during internal combustion • air quality and the component gases of air • how engine emissions, including particulate matter affect air quality and the effects on human and environmental wellbeing • measures to reduce emissions during operations including alternative/low emission fuels, fuel treatments and particulate filtration systems etc. • efficient use of the machine and when and how minimising engine use can aid air quality and fuel savings • eco-friendly oils, fluids and lubricants • fuel-saving techniques for specific item of plant • appropriate disposal of waste • spillage procedures *Assessment criteria:* • explain the health and social reasons for reducing machine emissions • discuss government industry zero emission initiatives • list two or more effects on human and environmental wellbeing as a result of engine emissions • identify measures to reduce emissions on site • explain appropriate disposal of waste • explain spillage procedures • describe the need to keep engine speed and load to a minimum whilst maintaining working efficiency
explain loading/unloading procedures for machine transportation *Delivery to include*: • procedures for preparing the ride on roller for loading onto a transporter • traction and surface preparation requirements

- understanding of agreed methods of communication between the plant operator and others
- working at height requirements when driving onto or off a transporter bed

Assessment criteria:

- describe the preparation of both roller and transporter for loading and unloading of the roller
- explain the precautions to be taken when driving the roller onto and off the transporter bed
- state the methods of communication between the plant operator and others
- describe the dangers of and requirements for working at height when on the vehicle bed

carry out all end of work and shut down procedures

Delivery to include:

- types of safe locations, areas, and ground/terrain types where rollers may be parked and should not be parked
- reasons for ensuring safe parking and unintentional movement and ground support requirements
- carrying out parking, shut down and isolation requirements according to manufacturer's instructions
- reasons for roller isolation including security and non-authorised use by others
- use of anti-vandalism equipment
- water tank draining procedures
- scraper bar release

Assessment criteria:

- demonstrate and explain safe parking of the roller - *roller is parked in a safe, designated location, clear of hazards on level, firm ground – this should be observed during practical assessment*
- apply brake systems effectively – *this should be observed during practical assessment*
- demonstrate how to isolate and secure the roller to prevent non-authorised use and explain why this is important – *this should be observed during practical assessment*
- describe the use of anti-vandalism equipment

Additional information about this standard

Where EU legislation is listed this should be followed unless superseded by updated legislation, as result of (but not limited to) Brexit.

The Management of Health and Safety at Work Regulations 1999
https://www.legislation.gov.uk/uksi/1999/3242/contents/made

Health and Safety at Work Act 1974
https://www.hse.gov.uk/legislation/hswa.htm

The Construction (Design and Management) Regulations 2015

https://www.hse.gov.uk/construction/cdm/2015/index.htm

Road Traffic Act 1988
https://www.legislation.gov.uk/ukpga/1988/52/contents

Provision and Use of Work Equipment Regulations 1998 (PUWER)
https://www.hse.gov.uk/pubns/books/puwer.htm

Safe Use of Vehicles on Construction Sites HSG 144 - HSE
https://www.hse.gov.uk/pubns/books/hsg144.htm

Safety signs and signals. The Health and Safety Regulations 1996
https://www.hse.gov.uk/pubns/books/l64.htm

New Roads & Street Works Act 1991 (NRSWA)
https://www.gov.uk/government/collections/new-roads-street-works-act-1991-highways-agency-responsibility

Highways specs

Highway Authorities and Utilities Committee (HAUC(UK))
https://www.hauc-uk.org.uk/HAUC

CPA guidance notes

Plant safety group

Where EU legislation is listed this should be followed unless superseded by updated legislation, as result of (but not limited to) Brexit.

Related standards