Training Standard

Title	Excavator 360 above 10 tonnes: tracked (novice)
Duration	**Minimum** **49 hours including assessment time** 1 learner. 1 trainer. 1 machine 2 learners.1 trainer. 2 machines **100 hours including assessment time** 3 learners.1 trainer. 1 machine **70 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.*
Learners pre-requisites	The learner 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 learner with the skills and knowledge to support the following: • operation of a 360 excavator – to carry out basic excavation, loading and grading type work • fit and use a range of bucket types • site the machine safely and efficiently for excavating, grading, and loading duties • carry out checks and minor adjustments and prepare the machine for work • travel the machine within site conditions • understand the capabilities, purposes, and limitations of using the 360 excavator for excavating, loading and grading duties • comply with all safety requirements • interpret given information to carry out excavating, loading and grading duties to given tolerances
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 360 excavator or b) a current card issued by one of the CSCS partner plant schemes at operator level bearing the category of 360 excavator • 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 the 360 excavator relating to the training they are delivering. This can be demonstrated with a valid and in date blue card from a 'Recognised Organisation' and a minimum of 3 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 learners to achieve the 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, learners 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 Organisations' quality arrangements. Approved Training Organisations' will be required to supply confirmation of approval (centre approval and scheme approval) with the related Recognised Organisations' awarding organisation or body. In most cases this will be an approval certificate provided by the Recognised Organisations' 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 Organisations' 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 learner)*
Keywords	Excavator, Digger, 360
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 learner will be able to:*
explain the factors that help maintain a safe working environment in the construction industry, and their responsibilities as a 360 excavator 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, LOLER, 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) • previous incidences involving relevant plant and pedestrians • working with other related roles e.g., marshallers, supervisors, other plant operatives, other occupations • awareness of the limits to their personal knowledge, skills, and experience and when situations exceed these limits the need to stop and seek further advice from supervisors or mentors *Assessment criteria:*

• identify common hazards on a construction site • explain safe working practices relevant to the role of the 360 excavator operator • explain personal health and safety relevant to the role of 360 excavator operator • identify aspects of legislation, regulations, and industry good practice relevant to the role of 360 excavator operator • describe reporting structures and the importance of good communication on site • explain the responsibilities of a 360 excavator operator
identify and extract information from the manufacturers' 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 *Assessment criteria:* • identify and extract key elements for the preparation and safe use of the machine using various sources
locate and identify the major components, signs and decals and all controls of the excavator 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, decals, and controls of the machine • outline the purpose, types and function of machine control systems and electronic aids
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 visual checks for damage, functionality, and effectiveness • checking all componentry systems are 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
- safety systems functions including emergency stop
- health and safety requirements when undertaking basic maintenance activities including personal protection equipment (PPE)
- 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 excavator use

Delivery to include:

- what safety control equipment/PPE should be worn/used for machine 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 specific machine and the personal effects of incorrect equipment

Assessment criteria:

- describe what forms of PPE and RPE must be worn for site operations
- explain why PPE and RPE must be worn for site 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 excavator

Delivery to include:

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

- procedures for accessing the excavator when carrying out adjustment and maintenance activities

Assessment criteria:

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

prepare and configure the excavator for site travel

Delivery to include:

- use of seatbelts and other restraining equipment
- adjustment of seating position and mirrors
- chassis checks
- isolation controls
- starting and stopping procedures including cold starting and those for turbochargers
- procedural requirements for exhaust particulate filter cleansing activities
- types of visibility aids and what factors can affect effective vision
- where and why effective vision is very important
- where issues can arise where vision is limited during operation
- ensuring warning and safety systems are operable
- legislative requirements and restrictions for being on the public highway
- machine configuration for site travel
- carrying of passengers/non-authorised personnel
- use of travel controls and speed modes

Assessment criteria:

- explain why the use of seatbelts and other restraining equipment should be worn at all times
- describe the types and function of isolation systems
- explain the importance of carrying out chassis checks, including for cleanliness
- explain the impact of not following starting and stopping procedures of turbocharged engines
- describe the reasons for exhaust particulate filter cleansing activities
- describe types of visibility aids and what factors can affect effective vision
- explain where and why effective vision is extremely important
- give examples of where poor visibility can arise and the issues this can cause
- explain why the warning, and other safety systems, are important
- outline the legal requirements for being on the public highway
- state the purpose of selectable travel speed modes
- ensure the seatbelt is worn correctly prior to any machine movement – *this should be observed during practical assessment*

- identify and confirm that functional checks for all warning and safety systems have been carried out – *this should be observed during practical assessment*
- ensure that vision 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*

travel and manoeuvre the excavator safely across varying terrain and inclines

Delivery to include:

- how travel speeds affect tracked excavator chassis longevity
- how travel speeds affect excavator stability, safety, and emissions
- issues which can occur if departing from designated travel routes and work areas/restricted zones
- types of underground services and the effects of travelling near to/over services
- effects of travelling close to edges, embankments, structures and trenches
- travelling over various types of terrain
- travelling up, down and across inclines
- how certain types of surfaces can affect traction, particularly on inclines
- how uncompacted surfaces and inclines affect machine stability
- precautions when working on stockpiled materials
- effects due to changes of centre of gravity when on inclines
- machine configuration when travelling on and across steep inclines
- direction of travel
- precautions and obstructions on travel routes including overhead utilities
- regulative requirements for travelling near to or under overhead power lines

Assessment criteria:

- describe the effects on track longevity due to travel speed selection modes
- explain how uncompacted surfaces affect machine stability
- describe what a stockpile is and why precautions should be taken when travelling and working on them
- explain why track drive motors should be kept rearwards
- explain how and when the centre of gravity alters on a machine and the effects on its stability
- explain the effects of extreme turning on tracked machines
- describe how certain types of surfaces can affect traction, particularly on inclines
- state how travel speeds affect excavator stability, safety, and emissions
- describe issues which can occur if departing from designated travel routes and work areas/restricted zones
- describe types of underground services and the effects of travelling near to/over services
- explain the effects of travelling close to edges, embankments, structures and trenches
- 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*
- track through a chicane which requires left and right hand turns
- travel over rough, undulating ground, inclines, level surfaces– *this should be observed during practical assessment*
- travel the excavator through a restriction either side of the tracks
- maintain full visibility and look at or face direction of travel – *this should be observed during practical assessment*
- avoiding contact with structures and objects - *this should be observed during practical assessment*

Assessment requirements:

- the slope must have an incline of 18% (1:5.5) with sufficient manoeuvring area at the top, or a straight ramp with an up and down route with a flat area at the summit
- when tracking through the chicane and restriction, there must be minimal clearance to ensure accuracy of steering

travel and manoeuvre in areas of restricted space

Delivery to include:

- precautions to be taken when manoeuvring in areas of restricted space
- requirements when working alongside highways, railways and public areas
- height and slew restriction limiters
- checking machine size including height, width and working radius including tail swing relevant to working area
- lighting requirements and issues that may occur due to poor light

Assessment criteria:

- describe typical proximity hazards when in enclosed/restricted areas
- explain the factors to consider before entering areas of restricted space
- explain the factors to consider when setting up to work next to highways, footpaths, areas of public movement, railways
- explain the purpose and use of movement restrictors including height, radius and slew
- explain the potential risks of the tail swing of a machine in a restricted space
- explain the control measures to reduce risk caused by tail swing in a restricted space
- describe how poor lighting can affect overall safety

attach and remove buckets, using quick-hitch couplers

Delivery to include:

- types of excavating and grading buckets
- removal and attachment of buckets/attachments
- classifications of quick-hitch couplers
- procedures for the removal and fitting of attachments using manual and hydraulically operated quick-hitch couplers, including coupling, securing and checking to ensure safe attachment
- relevant health and safety legislation and legal duties
- risks associated with quick-hitch couplers
- visual inspections
- maintenance and storage

Assessment criteria:

- list the classifications of quick-hitch couplers
- describe the required procedures for removing and fitting attachments using manual and hydraulically operated quick-hitch couplers that ensures safe attachment
- outline the relevant health and safety requirements applicable to the operation of quick-hitch couplers and the legal duties of operators
- identify the risks associated with fitting attachments using quick-hitch couplers, including external intervention
- explain the consequences of incorrect fitment of attachments
- conduct visual inspections of quick-hitch couplers – pre-use and after attaching - *this should be observed during practical assessment*
- attach, secure, and detach at least one attachment using a quick-hitch coupler following manufacturer's instructions - *this should be observed during practical assessment*
- apply safe working practices when coupling and disconnecting an attachment using a quick-hitch coupler - *this should be observed during practical assessment*
- explain the procedures for maintaining quick-hitch couplers

conduct all necessary safety checks at the work area

Delivery to include:

- safety checks that must be carried out to ensure the excavation area is clear of hazards
- communication and relationship requirements and methods with other machine operators and support workers
- requirements for sufficient manoeuvring area for manoeuvring between work areas
- ground conditions for excavating and maintaining stability
- overhead obstructions and nearby proximity hazards
- awareness of other machines and workers
- restricted, segregation and exclusion zoning requirements
- people/plant interface, procedures and dangers of allowing others near to a working machine
- danger zones of a working excavator
- working in hours of darkness and lighting requirements

Assessment criteria:

- explain the need for restricted, exclusion and segregation zones and how they are determined
- describe the safety checks that must be carried out to ensure the excavation area is clear of hazards
- describe the types of ground conditions including seasonal that can affect safe operations
- describe the methods of preventing contact with overhead lines
- describe the need for having sufficient manoeuvring space within the work area
- explain the importance of being aware of other machines, vehicles and workers
- explain the procedures and dangers of allowing others near to a working machine
- identify the danger zones around the working machine for others
- ensure ground conditions are suitable for excavating and maintaining stability – *this should be observed during practical assessment*
- identify any overhead obstructions and nearby proximity hazards – *this should be observed during practical assessment*
- ensure the integrity of restricted zones – *this should be observed during practical assessment*
- explain procedures for working in hours of darkness and lighting requirements
- identify and use designated excavation area entry and exit locations – *this should be observed during practical assessment*
- ensure loading areas are clear of hazards – *this should be observed during practical assessment*
- establish communication methods with supporting workers – *this should be observed during practical assessment*

configure and set-up for excavating and loading duties

Delivery to include:

- working radius – minimum to maximum
- required configuration for intended activity
- methods of relaying and interpreting excavation work specification
- visual reference points for excavation work
- temporary works requirements and efficiencies of working safely on raised platforms
- where spoil can and should not be placed
- why segregation of materials should be maintained
- positioning of excavator and vehicles for loading
- use of blades to maintain stability
- selection of correct bucket to meet work specification

Assessment criteria:

- explain how to establish the working range of the machine
- describe the types and methods of communication that are used to convey excavation and other work criteria to the operator
- explain types of site markings for excavations, what they mean and how they are interpreted

• outline regulatory requirements for working on temporary, raised platforms • explain where spoil should be placed for different types of excavations and effects of placing spoil in incorrect places • explain why excavated materials may need to be segregated and where they are placed • explain how dozing blades aid stability • position and set up the machine for given excavating tasks – *this should be observed during practical assessment*
explain actions required for hazards, underground and overhead services *Delivery to include:* • regulatory requirements for working near to or under overhead services • types of services, including buried and surface laid, and the various methods on how they are identified • emergency and reporting procedures if contact is made with services • minimum clearances when near to services • permit to break ground requirements *Assessment criteria:* • explain regulative distances that machines should be kept from different types of overhead services • describe the types of services that may be encountered on site • explain the emergency and evacuation procedures if contact is made with services on site • state the minimum distances to be kept from buried and surface laid services • explain methods and hierarchy of establishing buried services within the work area • explain how and why contact to services must be reported • explain why permits to break ground are required, who issues them and on what basis
excavate different types of excavations in various types of ground to given dimensions *Delivery to include:* • typical types of excavations able to be created by 360 excavators • how soil types determine excavation types and methods • methods of minimising excavation collapse including benching, trench boxes, other shoring and support methods etc. • causes of excavation collapse • method statements, job specifications, risk assessments, • placement or disposal of spoil • segregation of excavated materials • typical excavation tolerances • reasons for excavation dimensions and effects of not conforming to given tolerances • methods of efficient excavation techniques for different types of ground and support requirements • carrying out a range of excavating activities following given dimensions and tolerances

- working near to edges and deep excavations
- required control methods for open excavations
- methods of establishing excavation dimensions and tolerances
- establishing and maintaining visual contact with dedicated supporting workers

Assessment criteria:

- describe types and purposes of typical construction-based excavation
- explain how excavations should be carried out on differing soil types e.g. granular and cohesive
- describe causes of excavation collapse and effects of environmental conditions – dryness/high moisture
- explain the methods of minimising excavation collapse and methods of shoring
- explain what methods are used to transfer excavation specifications and requirements to the operator
- explain the reason for segregation of different soil types and how they should be segregated during excavation
- explain the reasons for limiting off-site disposal of spoil
- state the typical excavation tolerances in construction excavations and explain the effects of not conforming to given tolerances
- describe methods of efficient excavation techniques for different types of ground
- explain the importance of maintaining visual contact with dedicated supporting workers
- on level ground excavate a straight excavation with vertical ends to given dimensions and tolerances – *this should be observed during practical assessment*
- excavate a square excavation to given dimensions and tolerances – *this should be observed during practical assessments*

Assessment requirements:

- the length of the excavation will be determined by the machine weight as follows:
    - above 10 tonnes – 15 - 20 metres
- the square box must be 3x the width of the bucket
- excavation and box depths must be a minimum of 1 metre and be within +/- 35mm of the given size
- the excavation must be straight within +/- 60mm

place materials into transporting vehicles and hoppers

Delivery to include:

- types of transporting vehicle typically loaded by 360 excavators
- visibility requirements for loading purposes including raised platforms
- transporting vehicle positioning for loading and how this varies with type
- communication methods – signals etc.

- positioning of excavator for loading
- maintaining safety and stability of transporting vehicle during loading
- sequence of loading a vehicle
- how incorrect loading can cause stability issues for transporting vehicle
- effects of overloading a transporting vehicle
- vision issues of overloading front-facing skip/body types
- safe positioning of loading vehicle driver prior to loading
- efficient methods of loading vehicles to capacity
- carrying out loading activities to capacity of various transporting vehicle types

Assessment criteria:

- state the types of transporting vehicle which are typically loaded by 360 excavators within construction activities
- explain how visibility can be improved when loading high-sided vehicles
- state requirements for constructing and working on raised platforms/stockpiles
- describe the considerations for positioning of the excavator in relation to various transporting vehicle types for loading activities
- explain the types of communication methods for loading activities
- explain the causes of lateral and longitudinal instability and vision issues of a transporting vehicle when being loaded
- explain why the sequence of loading a vehicle is important
- explain the potential effects (safety, legal and commercial) of overloading and underloading a transporting vehicle
- explain where the driver of the loading vehicle should be stationed prior to loading on a range of vehicle types
- load material into a transporting vehicle to capacity – *this should be observed during practical assessments*

Assessment requirements:

- the loading vehicle must require at least 5 x bucket loads to be filled to the capacity
- the vehicle must be loaded and discharged at least twice

reinstate excavation – grade, spread and level ground and materials

Delivery to include:

- the importance of ground compaction and settlement
- methods of grading and spreading various types of soil
- use of grading buckets and blades
- method statements, risk assessments for grading and levelling purposes
- types of attachments for grading and levelling activities
- methods of establishing grading and levelling dimensions and tolerances
- carrying out grading and levelling activities following given dimensions and tolerances

Assessment criteria:

- describe how ground compaction, settlement and void elimination is catered for following reinstatement activities
- explain the purposes of grading and how various material types should be spread
- state the types of grading buckets and explain the use of grading blades to level surfaces
- state why method statements and risk assessments are required for grading and levelling activities
- state other types of attachments for grading and levelling activities
- explain how grading and levelling tolerances are established
- backfill and reinstate previous excavations back to original level – *this should be observed during practical assessments*

explain environmental considerations of machine 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 machine 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 required of both machine and transporter for loading and unloading of the machine
- explain the precautions to be taken when driving the machine 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 an excavator 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 machine isolation including security and non-authorised use by others
- use of anti-vandalism equipment

Assessment criteria:

- demonstrate and explain safe parking of the machine - machine 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
- demonstrate how to isolate and secure the machine 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
- explain the need for operators to remove debris/packed earth from undercarriage components

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

Lifting Operations and Lifting Equipment Regulations 1998 (LOLER)
https://www.hse.gov.uk/work-equipment-machinery/loler.htm

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

A guide to workplace transport safety HSG 136 - HSE
https://www.hse.gov.uk/pubns/books/hsg136.htm

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

Avoiding danger from overhead power lines GS6 – HSE
https://www.hse.gov.uk/pubns/gs6.pdf

Excavation and underground services
https://www.hse.gov.uk/electricity/information/excavations.htm

Avoiding danger from underground services HSG47
https://www.hse.gov.uk/pubns/books/hsg47.htm

The Work at Height Regulations 2005
https://www.hse.gov.uk/work-at-height/index.htm

The Confined Spaces Regulations 1997
https://www.hse.gov.uk/confinedspace/legislation.htm

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

Related standards

Excavator 360 below 10 tonnes: tracked training
Excavator 360 below 10 tonnes: wheeled training
Excavator 360 above 10 tonnes: wheeled training

Excavator 360 below 10 tonnes: lifting operations training
Excavator 360 above 10 tonnes: lifting operations training