

CPCS renewal test factsheet



Introduction to the CPCS renewal test

The industry-led CPCS Management Committee has determined that key safety-related knowledge must be checked on each category prior to the renewal of a CPCS Competent Operator (blue) card. The CPCS renewal test is the means by which blue cardholders will be tested on topics that reflect safety issues identified through consultation, that occur regularly on site.

For each topic identified there is a set of questions, from which a number will be included in the test and for which supporting information is provided in this factsheet. Each test will ask a total of 15 questions selected randomly to ensure all topics are covered.

The test will cover all categories within the scheme through modules. Some modules have been devised to cover a range of similar CPCS categories.

The CPCS renewal test is available on the CITB-ConstructionSkills Testing Services platform alongside the Health, safety and environment test.

The questions and answers will not be published but factsheets are available for each module to cover the topics.

How to use this factsheet

Prior to taking the test, cardholders are advised to carefully study the factsheet, which will prepare them in deciding the correct answer or answers to each given question. Correct answers are based on legislation or good practice adopted, in the majority of cases, by the construction and allied sectors.

It is acknowledged that variations may occur depending on the nature of the operation or on how the machine is used. However the correct answer to each question is based on common practices or manufacturers' requirements for the majority of machine types within each module, and applies to this test irrespective of how a machine may be used within a particular activity or sector. It is important, therefore, that this factsheet is studied carefully.

The questions are selected randomly and will not appear in the order that topics appear in this factsheet.

If the card holder does not answer all the questions correctly, the score report issued after completing the test will indicate the topic areas in which the questions were answered incorrectly. The cardholder should, prior to retaking the test, re-study all topic areas.

Scoring the test

To be successful in this module, cardholders need to correctly answer a minimum of 12 out of the 15 questions presented. However, because many of the questions are safety-related, in the majority of cases, a minimum number of questions per topic need to be answered correctly. Failure to do so, even if the overall minimum number of correct answers has been reached, may mean that the cardholder is unsuccessful on the test.

The top of each topic states the number of questions that will be presented for each topic and the minimum number of questions that must be answered correctly in order to pass the test.

Concessions

To avoid duplication of questions where similar categories are held, booking concessions are provided. This means that, if several similar categories are held, only one module needs to be booked. The following chart indicates if there is a booking concession for this category.

Concessions are provided to holders of the category of Skid steer loader.

Other categories held:

Wheeled loading shovel

Tracked loading shovel

Needs only to book:

Wheeled loading shovel

Tracked loading shovel

Note: *The above concessions are an outline of what tests you may have to book; please refer to Module matcher for details of full concessions where more than one category is held.*

This factsheet has been designed to highlight only topics that have been identified through industry consultation area with safety issues or where good practice is often not complied with. The questions within the CPCS renewal test for this category also reflect this.

It is not intended as a training tool and cannot list all essential knowledge and understanding for this category. Operators must always follow manufacturers' requirements, industry good practice and be aware of their own limitations with the machine, and seek further guidance and help where needed.

Further information about the CPCS renewal test can be found at www.cskills.org/cpcs

Preparation

Topic scoring information: 0 correct answers required out of 1 question presented to pass

- Skid steer loaders are used in a variety of sectors, particularly where their compact size allows them to be used within restricted and confined areas. They are predominately used to extract materials from a stockpile or similar area and to load small receptacles such as skips, in a safe and efficient manner. As with all plant, correct and proper preparation is essential to ensure that the skid steer will work safely and efficiently. Manufacturers provide guidance within the operator's manual or in other ways, such as decals on the machine, showing what regular checks need to be carried out. These need to be complied with otherwise the skid steer could be unsafe to work. Failure to properly check the skid steer before work could lead to injuries or a near miss, because faults can affect the performance and safety of the machine.
- Defects noted by a skid steer operator, even if they consider them to be insignificant, must be reported immediately, otherwise the fault could get worse during the working day. An operator could incorrectly diagnose what they consider to be a minor fault, such a chafing of a hydraulic hose, when in fact it could be severe, and possibly lead to injury, as the machine's performance may significantly deteriorate or a component may fail.
- Skid steers can use a wide variety of attachments, such as a bucket, with quick-hitch type couplers commonly used to connect an attachment to the machine. Buckets and other attachments have been known to detach unintentionally during work, causing injuries and death. Therefore it is essential that the operator, immediately after fitting the attachment, ensures both visually and physically that the latches are fully engaged and locked. The operator must exit the cab to undertake a close and thorough examination.
- In many cases, changing an attachment or tool requires the removal of the existing attachment and repositioning the machine to couple up the new attachment. Without any attachment or tool on the skid steer, the weight is biased towards the rear, which means care must be taken when driving and repositioning to prevent the machine from tipping up backwards.

Working safely

Topic scoring information: 4 correct answers required out of 9 questions presented to pass

- In all but a few cases, the entry to the operating seat is through the front of the cab, so the operator has to climb over the bucket and/or loader arms. Care must be taken so that any trip hazards are minimised. Before leaving the cab, even if it has side-entry doors, the loader's arms or arm must be lowered and the safety bar disengaged. The only time that an operator can exit the cab with raised loader arms is when the boom cylinder safety struts have been applied by an assistant, mainly for maintenance reasons.
- The engine of the skid steer must always be switched off before the operator exits the cab, even if it is only for a short period. This can also minimise the possibility of an operating or transmission lever or pedal being accidentally moved or trod on, which would cause unintentional movement if the engine was left running. This has occurred even with the safety bar disengaged. On some types of skid steer, the foot pedal operates the loader arms, which can cause them to suddenly lower, even with the engine switched off. Due to the transmission type and poor maintenance, some skid steers have crept forward when the engine has been left running and when the operator is not in the seat.
- In order to communicate with other workers or vehicle drivers, skid steer operators have, although stayed within the cab, leant out of the machine's cab and have inadvertently moved one or more of the operating levers. This has had, again, activated a hydraulic service or transmission drive, leading to unintentional machine movement.
- As skid steers travel and work in congested areas, where other vehicles and pedestrians are also moving, the planning of any travel routes needs to take pedestrians into account and should be segregated from the skid steer's travel route to avoid any contact. Planning should also consider changes in the road surface, particularly in wet weather, as the travel routes and work area can become slippery and firm ground turn into soft ground.

SKID STEER LOADER

- If a skid steer is working near to the edge of an embankment, a suitable barrier or earth bund should be provided that is capable of preventing the machine from going over the edge. Operators must remember that any protection measure can only minimise, not prevent, the machine going over an edge. This also applies when a skid steer needs to tip a load over an edge or into a trench. If a skid steer is working near to an area with overhead power lines, guidance from the Health and Safety Executive recommends that a minimum distance of 9 metres, including the operating height of any bucket, is maintained from the lines.
- All skid steers are fitted with a roll over protective structure (ROPS), which is usually the cab itself, or an additional overhead bar. If the skid steer does roll over onto its side, the ROPS frame can minimise, but not eliminate, injuries to an operator, providing the seatbelt is being worn. To minimise any risk of instability, all steering and operating movements should be controlled through the gentle use of all controls, especially when turning, as sharp cornering can cause the machine to overturn. Some types of skid steer are equipped with a safety stop button which, if the machine is getting into difficulty, can be pressed or activated which immediately stops down the engine, which also shuts down the hydraulic system and transmission drive.
- Some of the smaller types of skid steer do not have a self-levelling system on the loader arms. This means that if a full bucket is raised to full height and the operator makes no manual adjustment to the tilt of the bucket, material can fall and spill onto the cab area.

Reversing and visibility *(Travelling)*

Topic scoring information: 0 correct answers required out of 2 questions presented to pass

- Reversing vehicles are still a significant factor in accidents, injuries and fatalities in the workplace. Guidance recommends that the reversing of vehicles is, as the first course of action, eliminated. Where this is not reasonably practicable, such as in the case of skid steer operations, then other measures must be taken, with the next step being to restrict operations to within a segregated, controlled area.
- Skid steers, by the nature of their work, undertake a significant amount of reversing within tight, confined areas where the movement of other plant and people can occur. Because of the design of a skid steer, there is limited vision from the operator's seat, particularly to the rear and to sides when the loader arm or arms are semi-raised. Additional vision aids, such as mirrors systems, can provide some assistance in providing all-round vision but operators must be particularly observant when operating and reversing the machine.
- Accidents have occurred where an oversized bucket or other attachment has been fitted. This not only affects stability when it is loaded, but can severely restrict the vision of the operator causing them to strike other machines or structures.

Stability

Topic scoring information: 1 correct answer required out of 3 questions presented to pass

- The compact design of a skid steer means that they are less stable in certain conditions for which operators need to be aware. Travelling and working on slopes needs particular care and the operator's handbook, which should be with the machine, should be checked to determine the maximum gradient that the machine can travel and work on. In principle, the skid steer with a full bucket load must be driven forward up a slope but it must reverse down the slope. The opposite applies, in most cases, when the bucket is empty. However, if the machine is driven up the slope with the bucket in the raised position, the machine's centre of gravity is biased both higher and towards the rear, so the machine can tip backwards. Due to the weight transfer, tipping a full bucket of material whilst the skid steer is on a slope and facing downhill can also cause the machine to tip forward.
- High production rates means that operators, after discharging a load into a skip, will reverse and turn at the same time whilst lowering the bucket. Skid steers have overturned because the centre of gravity has exceeded safe margins due to the raised bucket and turning action. The machine's centre of gravity can exceed the wheel track (distance between each set of wheels) beyond safe margins when it is travelling with a raised front bucket on uneven ground. As raising a loaded bucket can make a skid steer less stable, the loading of skips or vehicles, particularly high-sided types, should only be undertaken on firm and level ground.