

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The questions and answers will not be published but factsheets are available for each module to cover the topics.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

Other categories held:

No concessions available

Needs only to book:

No concessions available

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 for work *(Preparation)*

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

- Loader compressors are used mainly within the road building and utility sectors and are used to undertake loading duties, using a front-mounted bucket, and breaking duties, using compressed air-powered tools such as a hand-held (pneumatically operated) breaker. Loader compressors were traditionally based on agricultural tractors but most now are purpose-built units based on an excavator 180 or loading shovel chassis. The handling and use of compressed air tools requires care, and this factsheet aims to outline some of the issues relating to both loader and compressed air use.
- As with all plant and equipment, it is necessary to carry out pre-use checks that conform to manufacturer's requirements. Failure to do so has caused near-misses or injuries because the machine's performance has deteriorated or a component has failed. If an operator notices a fault or defect, they must report it immediately and not use the machine until they are authorised to do so. What they may consider to be a minor fault, even if they are experienced, could actually be a significant but not visible fault, such as chafing on a hydraulic hose.
- Some checks may either need to be made, or made easier, by raising the front loader arms. As soon as the loader arms have been raised, the safety strut must be fitted before work commences, preventing any unintentional lowering of the arms.
- Clear vision is a requirement for safe operation and cleaning the windows should be undertaken on a daily or regular basis. On many loader compressors, cleaning the glass from the outside means that work is being carried out at height. Safe access to the cab glass should be considered before work starts such as by using proper guard rail-equipped steps. Operators who have climbed onto the loader arms or the compressor have tripped or slipped, and a fall has occurred.
- Travelling and working on the public highway is a common activity for loader compressors and in many cases, the use of a flashing or rotating amber beacon is required. The operator needs to check that it is visible from all angles, particularly if placed low and/or onto one side of the machine or cab, but particularly from the rear of the machine when travelling on the public highway.

Stability and working safely *(Working tasks)*

Topic scoring information: 4 correct answers required out of 8 questions presented to pass

- The reversing of vehicles is 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 when using the front loader for loading duties, then other measures must be taken. The next step is to minimise any reversing to within a segregated, controlled area where the movements of pedestrians or other workers are kept to a minimum.
- As loader compressors travel on site where pedestrian movement takes place on site, the planning of any travel routes should segregate pedestrians from the loader compressors travel route to avoid any contact. Planning should also take into account changes in the road or work surface, particularly in wet weather as both the off-road travel routes and work areas can become both slippery and firm ground can turn into soft ground.
- After discharging a load into a vehicle body, many operators tend to reverse and turn at the same time whilst lowering the bucket. This can, and has, caused the machine to overturn because the centre of gravity has exceeded safe margins, due to the raised bucket and turning action. A sideways overturn can occur when the machine's centre of gravity has exceeded the wheel track (the distance between each set of wheels) and travelling with a raised front bucket on uneven ground also makes the machine less stable and prone to overturn because of the raised centre of gravity. Care must be taken when loading vehicles which should only be undertaken on firm and level ground.

LOADER COMPRESSOR

- If the machine is loading material 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 height of the bucket, is maintained from power lines mounted on wooden poles.
- Good practice, as well as manufacturer's recommendations, normally requires that, for the majority of plant, the engine is switched off when the operator leaves the cab. This prevents, where an operating or transmission lever is accidentally moved, unintentional movement of either a hydraulic component or the machine. In the case of compressor operations, the engine needs to be left running – however, the handbrake must be fully applied and all transmission levers placed in neutral before the operator leaves the cab and care taken when exiting the cab so as to not accidentally move an operating lever.
- The loading of transporting vehicles such as tipping lorries is a skill from which if not undertaken correctly and the vehicle body loaded unevenly, has caused vehicles to overturn onto their side when tipping their load at the destination point. If loading smaller vehicles, such as a small dumper or pick-up truck, operators need to take into account that it is relatively easy to unintentionally overload the vehicle. Where vehicles are being loaded within a congested area and where there is some pedestrian movement, for example on street works operations, operators need to be aware of any overspill on the far side of the vehicle when loading as overspill can contact those in the area.
- All loader compressors are fitted with a roll over protective structure (ROPS) – either the cab itself or an additional overhead bar. If the loader compressor does roll over on its side, the ROPS frame can minimise, but not eliminate, injuries to an operator, providing the seatbelt is being worn.
- Where a loader compressor is working on and around inclines and gradients, before travelling up and down gradients, the correct direction of travel must be determined as recommended by the loader compressor manufacturer. In most cases, the principle is that a loaded machine drives up a slope but reverses down whilst an unladen machine reverses up but drives down the slope. If the operator decides to tip a load whilst facing down a slope, they need to be aware that the machine is less stable as the centre of gravity has moved towards the front of the machine and the rear of the machine can rear or tip up.

Powered tool safety

Topic scoring information: 3 correct answers required out of 5 questions presented to pass

- The handling and use of a power tool such as a breaker will involve such areas as noise, manual handling, dusts and vibration, all which require control measures to be in place before work starts to minimise health issues for the operator and those nearby.
- Before any below-ground digging is to take place, there must be a thorough check for underground services. A series of procedures should be followed, normally starting with consultation with utility and service providers – electricity, water/waste water, gas, telecommunications etc. – followed by using cable avoidance tools to confirm the exact locations of services followed by trial digs where required. Some cable avoidance tools have limitations in detecting certain types of services and these limitations need to be known by the avoidance tool operator. Where the location of a service is known, it is recommended that only hand/non-mechanical digging should be undertaken within 0.5 metres of a cable or pipe. Other minimum distances or conditions apply and should be checked with the utility or service provider before work starts.
- When an air hose is being connected to a breaker, a whip-check cable should be attached between the hose and the breaker. As the name suggests, an unplanned disconnection of a compressed air hose can cause the end of the hose to violently whip, which can cause injury. The correct tool for breaking duties needs to be selected for efficiency and safety; for example, where a layer of asphalt is being cut, a straight blade chisel type tool would normally be specified. To be most efficient, it is normal to vary the point of contact with a recommendation of a maximum of 25 seconds before moving the breaker to another part of the area being broken or cut.