

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The questions and answers will not be published but factsheets are available for each module to cover the topics.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

Other categories held:

Hoist

Needs only to book:

Hoist

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

- A Mobile Elevating Work Platform (MEWP) mast climber is a working platform consisting of deck sections that are bolted together to form a platform of a predetermined length, located on a vertical mast or masts. The platform is used to give workers and materials access at height so that work can be carried out on different levels of a structure. The platform is attached to a vertical mast or masts which is itself fixed, usually by ties, to a structure, although free-standing mobile units are available where heights are limited. The most common method of driving the platform is via a rack and pinion system where the motor is situated within the platform structure.
- As with all plant and equipment, thorough pre-use checks must be undertaken, following the manufacturer's requirements. This information will be found within the operator's manual as well as on warning or information decals around the mast climber and platform. The operator's manual, which contains vital information, must be with the mast climber which should not be used unless the manual for that model and type is available to the operator.
- As there is a variety of mast climber types and models, the operator (that is, anyone who is going to operate the mast climber) must have undertaken familiarisation training. This is in addition to basic training, meaning that each operator understands the specific requirements for that particular type or model, which may differ from previous versions they have operated.
- One of the key checks that must be undertaken is on the emergency lowering system. If the platform cannot be lowered from the operating controls, for example because of an electrical or mechanical failure, it can be lowered from ground level and it is imperative that this function is checked according to manufacturer's recommendations. A check should also be made on the lowering warning alarm to ensure that it functions correctly and is audible to those who may be below a lowering platform.
- Another check to be taken prior to work is to ensure that the chassis, and stabilisers where fitted, on free-standing units are still firmly located and on level ground. A thorough check should be made followed a spell of very wet weather, as this can soften the ground. If any issue is noted, the mast climber installer should be contacted.
- All types of mast climber should be fitted with one or more safety or emergency-stop buttons that should also be checked before work starts. Pressing an emergency stop button cuts working power, which isolates or cuts off lifting and lowering functions. Mast climbers are fitted with a variety of safety systems, such as limit switches, which, for example, prevent the platform from exceeding safe limits. Although some systems are adjustable, they can only be adjusted by trained and qualified installation and maintenance staff and not by the operator.

Working safely

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

- All mast climbers have a maximum weight limit which is determined by the manufacturer and should be clearly marked on platform. When calculating the load to be taken by the platform, the operator must avoid overloading by taking into account the combined or total weight of any tools, materials and people. They must further consider that materials that are removed at height and loaded into the platform can overload a platform. Unprotected materials that have been left outside in wet weather may be heavier than indicated on any labelling, tare sheet or other documentation due to waterlogging, for which the operator needs to take into account.
- As mast climbers are used to access different levels of a multi-storey structure, they are exposed to weather conditions that may not be apparent at ground level, such as high wind speeds and sudden changes of direction. The operator must know the maximum wind speed that the mast climber can be operated in and shut down operations if the wind speed exceeds manufacturer's criteria during the working day. The operator

must also take into account gusts of wind or wind funnelling caused, for example, by being between two buildings, which can exceed safe maximum.

- When a platform is to be raised the operator must ensure that the limbs of any passengers are within the area of the platform as injuries could be caused by striking parts of the mast or the structure. Where a mast climber is being used, for example when undertaking renovation work on an occupied residential or office building, they also need to take into account that windows may be opened when the platform is being raised or lowered. Before lowering the platform, the operator needs to visibly check that there are no hazards or people below and then maintain visibility during lowering in case any hazards appear.
- On single-masted units, when taking materials up to the required level for work, the operator needs to ensure that the load is spread evenly prior to raising the platform to take materials up to the required level for work, and then maintain load balance if materials are used, or removed, from the platform.

Emergency procedures

Topic scoring information: 2 correct answers required out of 4 questions presented to pass

- Before using a mast climber, a rescue plan needs to be devised in case of a mechanical or electrical malfunction that causes people to be trapped at height if the platform can't be lowered manually. The rescue plan and procedures should be communicated to all those in the platform before work starts, along with the communication procedures between those at ground level and those in the platform if a malfunction occurs at height.
- On single masted mast climbers, the emergency lowering process should be devised so that the platform can be safely lowered by a single person from within the platform. On twin mast units, two operators are sometimes needed to simultaneously operate the emergency lowering system at each mast. The emergency procedure for twin mast platforms should be checked before a lone operator/person uses the mast climber.
- A mast climber is designed as a working platform to allow work to be undertaken on a structure. It is not designed for the access and egress of people to and from the platform. Operatives can only leave the platform at height in emergency situations.

Working at height and overhead working *(Working at height)*

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

- Fall arrest equipment may be required under certain circumstances when working at height, for example, where a platform is not equipped with full guard-railing and toe boards. All measures must be established before work starts, along with the type of harness required. If the use of fall arrest equipment is specified, the operating height of the platform needs to be taken into account as fall arrest equipment needs a minimum height to work effectively.
- The use of fall arrest equipment must be checked for each type of platform and, where permitted, must only be secured to the approved securing points in the platform, and not on any other part of the platform or machine as the momentum of a fall could cause component failure. Fall arrest equipment must also not be secured to a structure external to the platform. If it is used, a retrieval procedure must be planned before work starts to determine the recovery time needed if there is a fall from the platform.
- An exclusion zone should be set up below the platform's working area. This must be checked regularly to ensure it is effectively separating people from the danger zone below the platform where they can either be struck by objects falling from the platform or by the lowering platform itself. Additional measures such as putting netting around the platform should be considered where it is being used in an area with a lot of pedestrians. When working from a platform in high winds, materials, waste or debris could be blown over the side.