

# Construction Skills Certification Scheme

## Candidate Pack for – CSCS Remote Controlled Self-Erecting Tower Crane

Please read this document carefully. Further information and clarification may be obtained from the CSCS Operations Unit, phone 01 533 2500

### Guidance Notes for Candidates

The following documents are also attached:

- Part 1 – Skills Self-Analysis
- Part 2 – Applicant Details
- Part 3 – Endorsement of Operating Competence
- Part 4 – Practical Test Criteria

### Aim of Programme

The CSCS Crane training and assessment programme enables trained construction plant operators to gain recognition for their achievements by the way of certification, and provide an opportunity for participants to demonstrate their skills, knowledge and attitudes associated with plant operations, which provides suitable certification.

### Candidate Profile

Candidates for this programme must:

- Have at least six months full time experience operating as a trainee remote control self-erect tower crane operator in construction in accordance with the 5<sup>th</sup> Schedule – of the Safety, Health and Welfare at Work (Construction) Regulations 2013 – S.I. No. 291 of 2013. The six months experience must be within the last two years.
- Possess a valid 'Safe Pass' registration card
- Be in possession of a valid CSCS Slinger/Signaller card
- Be at least 18 years of age

Note: The above items must be verified by the current or previous employer (Part 3 of this pack)

### Application Requirements

- Approved Training organisations must send the Candidate Pack and Course Notes to the Candidate at least five days prior to the course date.
- Sections A B and C of Part 2 need to be completed by the applicant with Part 3 completed by the employer.
- Section C must list at least six months full time experience operating as a trainee remote control self-erect tower crane operator.
- Part 1 - Skills Self-analysis, Part 2 Applicant Details and Part 3 - Endorsement of Operating Competence must be completed and submitted to the chosen Approved Training Organisation at least one-day prior to attending the one-day training and assessment programme. Failure to do so will result in the candidate being unable to complete the programme.

**Candidates must bring with them on the day:- a passport sized photograph, their Safe Pass card, CSCS Slinger Signaller card plus safety helmet, safety boots, reflective 'hi-viz' jacket and gloves.**

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### One Day Programme Content

#### Induction

Registration and induction will be undertaken at the start of the day. Candidates **must** present their Safe Pass and Slinger Signaller cards and photograph to the assessor. Parts 1, 2 and 3 must be already submitted.

#### Skills Validation Session

Candidates will undertake a minimum of a 3 hour Skills Validation Session with the course instructor. The Skills Validation Session cannot give skills and knowledge not held, but allows trained operators to eliminate 'bad habits' gained on site.

Please note that the instructor has the right to refuse the candidate access to the test if they have demonstrated dangerous operating skills that contravene any part of the Safety, Health and Welfare Regulations.

#### Theory Test

On completion of the Skills Validation Session, candidates are allowed 45 minutes to undertake a multi-choice question paper. Questions will be based on the following:

- Legislation and regulations
- Employer and employee responsibilities
- Safe working practices
- Crane components and functions
- Correct operating techniques
- Pre-use checks and basic maintenance
- Types and characteristics of materials and loads
- Site safety
- Shut down and securing procedures

Subjects that the questions will be based on will be covered during the Skills Validation Session.

To be successful on the theory test, candidates must achieve a minimum of 70% of the total available marks. Candidates who achieve a minimum of 85% will be awarded a credit.

#### Practical Test

On the test the candidate will demonstrate tasks with the Crane. The tasks to be undertaken, equipment required and a sample grading sheet is contained in Part 4 of this pack – Practical Test criteria. Part 4 of this pack details the equipment and resources needed for the test and the tasks the candidate will be expected to carry out with a remote control self-erect tower crane.

The grading sheet is divided into essential items and scored marks. Scored marks allow a limited number of minor errors to be made. To succeed, the candidate must achieve all essential items and not exceed the maximum score. Candidates who score no penalty marks as well as all the essential marks will be awarded a credit. The practical test has a maximum time of 1 hour and 15 minutes in which all tasks must be completed.

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#### Feedback and Certification

If a candidate meets the required standard, the approved training organisation will send the relevant assessment documentation to SOLAS for certification and registration. The CSCS card is printed and posted to the training provider for distribution. A QQI certificate will also be awarded as a result of a pass on the one-day programme.

Candidates who achieve a credit in the theory test **and** practical test will be awarded an overall credit.

Candidates who are referred will receive written feedback from the assessor, and may be advised to undertake further training and/or site experience.

If a candidate is successful in the theory but not the practical part of the test, then they may re-attempt just the practical part. If the candidate has not been successful in the theory test, then they may not attempt the practical test.

This concession may only occur if the candidate returns to the same approved trainer and training organisation within 9 months. If they choose to go to a different organisation, they will have to do both the practical and theory parts again.

For learners who do not reach the required standard, a period of 5 days must elapse before they can retake the test.

#### Registration Card Duration

CSCS registration cards are valid for five years and can be renewed up to six months before the expiry date

#### Cancellation of Certificates and Cards

Where it is discovered that the information provided by the Candidate was incorrect or the programme was not delivered in accordance with SOLAS specifications the Certification and registration card may be withdrawn and the relevant authorities notified.

**PARTICIPANT DATA PROTECTION NOTICE**

**1. PERSONAL DATA COLLECTED AND OBTAINED**

This Data Protection Notice ("**Notice**") sets out the basis on which SOLAS ("**SOLAS**", "**we**", "**our**" or "**us**") of Block 1, Castleforbes House, Castleforbes Road, Dublin 1 will use the personal details ("Personal Data") you will provide when completing the participant application form (the "**Form**") to be registered as a CSCS/QSCS cardholder. This Notice also details how SOLAS will process your Personal Data for the purpose of assessing your Form and, if successful, issuing your CSCS/QSCS card to you ("**Card**"). The Personal Data we obtain from you will be held by SOLAS as a controller.

SOLAS will collect and process the Personal Data that you provide in the Form (e.g. name, contact details, PPSN, address, photograph, occupation and employer details.).

**IMPORTANT:** where you provide Personal Data about other individuals (eg your existing/previous employer or endorsers), you agree that you are responsible for ensuring that such individuals know their Personal Data will be used by SOLAS accordance with this Notice.

**2. HOW AND WHY WE PROCESS YOUR PERSONAL DATA**

This section details how ("**legal basis**") and why ("**purposes**") we process your Personal Data:

**Legal basis:** it is necessary to process your Personal Data to enter into and perform our contract with you including for the following purposes: (a) to process your Form; (b) to issue you with a Card; (c) to verify your Card on an ongoing basis; (d) to renew your Card where you ask us to do so; and (e) to respond to you when we receive any correspondence from you. **IMPORTANT:** If you do not provide us with your Personal Data so that we can process it for the above purposes, we will not be able to assess or process your Form, issue you with or renew your Card and/or communicate with you as necessary in relation to your Form and/or your Card.

**Legal basis:** it is also necessary to process your Personal Data for the purpose of complying with legal obligations to which we are subject including to fulfil our statutory functions.

**3. DISCLOSURE OF YOUR PERSONAL DATA**

We may disclose some or all of your Personal Data to the following parties: SOLAS business units, SOLAS agents or service providers including CSCS/QSCS trainers, your existing or potential employers, government and state authorities including in particular the Construction Industry Federation (CIF), Credit Card Systems Ireland Ltd and Quality and Qualifications Ireland. We may also disclose your Personal Data to third parties if we are under a legal duty to disclose or share your Personal Data in order to comply with any legal or regulatory obligation or request or to perform a public function.

**4. KEEPING YOUR PERSONAL DATA**

We will keep your Personal Data for the period for which your Card is valid and/or renewed and for a period of 7.5 years from when your Card expires and/or is not renewed. In some cases, we will need to retain your Personal Data for longer periods for compliance with legal obligations imposed on us or where we are a party to legal proceedings with you, and to ensure you a continued client service. Such Personal Data will be securely retained in line with the SOLAS records retention and disposal Procedure.

**5. YOUR RIGHTS**

This subsection sets out the rights which you have to address any concerns or queries with us about our processing of your Personal Data:

Right	Further Information
Right to be Informed	<ul style="list-style-type: none"> <li>You have the right to know whether your Personal Data are being</li> </ul>

	processed by us, how we use your Personal Data and your rights in relation to your Personal Data. We comply with this by way of this Notice.
<b>Right of Access</b>	<ul style="list-style-type: none"> <li>You have the right to request a copy of the Personal Data held by us about you.</li> <li>We will only charge you for making such an access request where we feel your request is unjustified or excessive.</li> </ul>
<b>Right to Rectification</b>	<ul style="list-style-type: none"> <li>You have the right to request that we amend any inaccurate Personal Data that we have about you.</li> </ul>
<b>Right to Erasure</b>	<ul style="list-style-type: none"> <li>You have the right to ask us to erase your Personal Data where:             <ol style="list-style-type: none"> <li>it is no longer necessary to perform your contract with us;</li> <li>you object to the processing and we have no overriding legitimate grounds;</li> <li>your Personal Data has been unlawfully processed; or</li> <li>it must be erased to comply with a legal obligation.</li> </ol> </li> </ul>
<b>Right to Restriction of Processing</b>	<ul style="list-style-type: none"> <li>You have the right to ask us to restrict processing your Personal Data in the following situations:             <ol style="list-style-type: none"> <li>where you contest the accuracy of your Personal Data;</li> <li>where the processing is unlawful and you do not want us to delete your Personal Data; or</li> <li>where we no longer need your Personal Data for the purposes of processing but you require the data in relation to a legal claim.</li> </ol> </li> <li>When you exercise this right we may only store your Personal Data.</li> <li>We may not further process the data unless you consent or the processing is necessary in relation to a legal claim or to protect the rights of another person or legal person or for reasons of important public interest.</li> <li>We will inform you before the processing restriction is lifted.</li> </ul>
<b>Right to Data Portability</b>	<ul style="list-style-type: none"> <li>You may request us to provide you with your Personal Data which you have given us, in a structured, commonly used and machine-readable format and you may request us to transmit your Personal Data directly to another controller, where this is technically feasible. This right only arises where:             <ol style="list-style-type: none"> <li>we process your Personal Data on the legal basis that it is necessary to perform our contract with you; <b>and</b></li> <li>the processing is carried out by automated means.</li> </ol> </li> </ul>

You can exercise any of these rights by submitting a request to **the Data Protection Officer, SOLAS, Castleforbes House, Dublin 1**. We will provide you with information on any action taken upon your request in relation to any of these rights without undue delay and at the latest within one month of receiving your request. We may extend this by up to 2 months if necessary, however we will inform you if this arises.

You have the right to lodge a complaint with the Data Protection Commission with regards to our processing of your Personal Data.

## 6. CHANGES TO THIS NOTICE

We may amend this Notice from time to time, in whole or part, at our sole discretion. Any changes to this Notice will be posted on the SOLAS CSCS/QSCS website at <http://www.solas.ie/Pages/CSCS.aspx>

If at any time we decide to use your Personal Data in a manner significantly different from that stated in this Notice, or otherwise disclosed to you at the time it was collected, we will notify you by e-mail, and you will have a choice as to whether or not we use your information in the new manner.

## 7. CONTACT US

If you have questions or concerns about this Notice, please contact the SOLAS Data Protection Officer at SOLAS Data Protection Officer, SOLAS, Castleforbes House, Dublin 1.

**Skills Self-Analysis CSCS remote control self-erect tower crane- Part 1**

**Introduction**

The aim of this form is to allow applicants to measure their knowledge and experience on the safe use of a remote control self-erect tower crane against the questions below. This is to ensure that all those attending the One-day Trained Operator Programme have sufficient skills and knowledge to comfortably meet the required standards. This section **must** be completed and returned to the chosen Approved Training Organisation prior to attending the one-day training and assessment programme.

**Instructions to the Applicant**

Please take your time and answer all questions honestly, as dishonest answers mean that you may be un-successful on the course programme. On completion, add up the total number of questions you have scored as 'yes' and refer to the Assessment Grading which will analyse your knowledge and experience

Please answer **all** questions as indicated:

	Yes	No
1. can you identify and use all the controls correctly?	<input type="checkbox"/>	<input type="checkbox"/>
2. can you extract information from the operators handbook?	<input type="checkbox"/>	<input type="checkbox"/>
3. do you correctly carry out all pre-use and running checks?	<input type="checkbox"/>	<input type="checkbox"/>
4. do you know the purpose of an anemometer?	<input type="checkbox"/>	<input type="checkbox"/>
5. do you know how to read and interpret load or duties charts correctly?	<input type="checkbox"/>	<input type="checkbox"/>
6. can you explain the different methods of determining the weight of a load?	<input type="checkbox"/>	<input type="checkbox"/>
7. do you know what the recommended minimum distance is when working near power lines?	<input type="checkbox"/>	<input type="checkbox"/>
8. do you know what is meant by 'inter-arcing'?	<input type="checkbox"/>	<input type="checkbox"/>
9. can you lift and place various loads very accurately in confined spaces?	<input type="checkbox"/>	<input type="checkbox"/>
10. can you explain what safety equipment is required and the safety procedures if accessing the end of the jib?	<input type="checkbox"/>	<input type="checkbox"/>
11. do you know how to set up an RCI/ASLI?	<input type="checkbox"/>	<input type="checkbox"/>
12. do you know at what wind speed will put your crane out-of-service?	<input type="checkbox"/>	<input type="checkbox"/>
13. have you lifted and placed various loads using the crane's full working reach?	<input type="checkbox"/>	<input type="checkbox"/>
14. do you know what is meant by 'load centre'?	<input type="checkbox"/>	<input type="checkbox"/>
15. can you recognise the approved hand signals?	<input type="checkbox"/>	<input type="checkbox"/>
16. can you explain how to control a load swing?	<input type="checkbox"/>	<input type="checkbox"/>
17. do you know which motions are cut when an overload occurs?	<input type="checkbox"/>	<input type="checkbox"/>
18. do you know how the accuracy of the flags can be checked?	<input type="checkbox"/>	<input type="checkbox"/>
19. can you shut down and secure the crane correctly after work?	<input type="checkbox"/>	<input type="checkbox"/>

Yes total \_\_\_\_\_

Candidate Name: ..... Date: .....

**Assessment Grading**

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### If you have scored 15 – 19

You appear to have a good understanding of remote control self-erect Tower Crane operations to comfortably participate on the trained operator course programme.

### If you have scored 10 – 14

Your understanding of remote control self-erect Tower Crane operations is limited and we advise that you acquire further knowledge before attending the trained operator course programme. Remedial training and further site experience is advised.

### Less than 10

Your supposed understanding of remote control self-erect Tower Crane operations is very limited and we strongly advise you not to attend the course until you have undertaken remedial or full training.

### Assessment Requirements

Should a candidate have any particular assessment requirements i.e. need a translator or reader/writer or any other form of special needs, the approved training organisation **must** be informed well in advance of attending the one day programme so that the appropriate help may be sourced.

Information regarding a candidate's particular requirements will be treated with the strictest confidence by the approved training organisation.

### REMINDER

Candidates must bring with them on the day:

- Passport sized photograph .....
- Safe Pass card .....
- Safety helmet .....
- Safety boots .....
- Reflective 'hi-viz' jacket .....
- Gloves .....

Further information and clarification may be obtained from the CSCS Unit Office or phone 01 5332500

**Application Details CSCS remote control self-erect tower crane - Part 2**



## Construction Skills Certification Scheme

### Section A Applicant Details

Surname ..... Forenames.....

Address .....

.....

..... Date of Birth: .....

Tel: ..... PPS Number .....

Safe Pass Expiry Date: .....

### Candidate Profile

Candidates for this programme must:

- Have at least six months full time experience operating as a trainee remote control self-erect tower crane operator in construction in accordance with the 5<sup>th</sup> Schedule – of the Safety, Health and Welfare at Work (Construction) Regulations 2013 – S.I. No. 291 of 2013. The six months experience must be within the last two years.
- Possess a valid 'Safe Pass' registration card
- Possess a valid CSCS Slinger/Signaller registration card
- Be at least 18 years of age

### Section B Applicant Declaration

I confirm that the information detailed in this application, and any submitted information is valid, genuine and correct.

- I have at least six months full time experience operating as a trainee remote control self-erect tower crane operator in construction within the last two years
- I am in possession of a valid 'Safe Pass' registration card
- I am in possession of a valid CSCS Slinger Signaller registration card
- I am at least 18 years of age

Please sign

Date: .....

### Applicants Experience - CSCS remote control self-erect tower crane - Part 2



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### Section C Applicant Experience

Please briefly list work carried out with a remote control self-erect tower crane for at least six months, including dates and location of work.

Dates from/to	Machine make & model	Location and brief details of work done
<i>Example</i>  9 Jan 14- 22 May 2015	<i>Liebherr CM 22</i>	<i>Barron Builds, Kilty Street, Dublin.            Moving and placing loads and skipping concrete into office block development.</i>
		<p style="text-align: right;"><i>(continue on a separate sheet if needed)</i></p>

**Endorsement of Operating Competence – remote control self-erect tower crane - Part 3**

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Applicant Name.....

This endorsement of operating competence must be completed by an existing or previous employer. This part can only be completed by a supervisor or line manager of the employer. The endorsing individual should only initial the statements where they can confirm that the applicant can carry out the work. Some endorsements may require the initials of more than one endorser. Copies of this form may be made if there are more than two endorsers signing.

Each statement must be initialled by the endorser. The applicant can only be considered competent providing **all** statements are signed by one or more endorsers in the Endorsers details section.

I consider that the above named applicant is able to competently:	Initials
1. Check, inspect and maintain the remote control self-erect tower crane for efficient and safe use under construction site conditions	
2. Understand and interpret duties/load charts and safe load indicators	
3. Place the self-erect crane into service	
4. Understand and establish safe use of lifting Accessories	
5. Lift and place a variety of loads accurately and safely using the full radius and working range of the self-erect crane	
6. Follow given instructions and signals when working with the self-erect crane	
7. Shut down, secure and leave the self-erect crane in a safe condition	
8. Follow manufacturers requirements when working with the self-erect crane	

<b>Endorsers Details</b>	
Full Name: .....	
Company name and address: .....	
.....	
Position: .....	Contact Tel no: .....
Relationship to Applicant.....	
<i>The named individual signing this section must be in a supervisory or managerial position, nominated by the employer organisation.</i>	
<b>Declaration</b>	
We/I the employer confirm that:	
<ul style="list-style-type: none"> <li>• the applicant has at least six months full time experience operating as a trainee remote control self-erect tower crane operator in construction within the last two years</li> <li>• the applicant is in possession of a valid CSCS Slinger Signaller registration card</li> <li>• the applicant is in possession of a valid 'Safe Pass' registration card</li> <li>• the information detailed in this application, and any submitted information is valid, genuine and correct.</li> </ul>	
Signature	Date:

### Practical Test Specifications – remote control self-erect tower crane – Part 4

#### Equipment and Resources

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- Serviceable remote control self-erecting tower crane meeting current legislation which must have an under-hook height of not less than 14 metres, with the operator's and other appropriate manuals.
- Suitable loads of known weights, being:
  - 1 x load which must be a minimum of 75% of the cranes maximum working capacity at full radius - **Load 1**
  - 1 x load which must be within the duties chart for 2 falls of rope - **Load 2**
  - 1 x load being a tube or structure not less than 5 metres in length with two lifting points, one at each end - **Load 3**
- A test area with a high structure between the lifting and landing places having have a minimum height of 5 metres, and able to carry out 'blind' lifts.
- An anemometer or other device to check the wind speed.
- Suitable certificated lifting gear for all loads.

### Tasks

The Candidate needs to:

1. Carry out full pre-use checks as required by the manufacturer.
2. Put the crane into service.
3. Set the crane to lift **Load 1**. The load is to be positioned at a distance of not less than 90% of the full radius of the crane. Lift **Load 1** and slew for a minimum of 90 degrees. Place the load at minimum radius. When landed detach the load.
4. Set the crane to lift **Load 2**. The load is to be positioned at mid radius. Lift **Load 2** and place into a given position at least 75% of full radius. The route is to include lifting over a high structure of not less than 5 metres in height. Once landed return the load back to its start point and detach.
5. Set the crane to lift **Load 3**. The load is to be positioned at minimum radius. Lift **Load 3** and rotate the crane through a minimum of 360 degrees. Once landed detach the load.
6. Set the crane to lift a load from a designated position, and land in a position out of sight of the candidate. On completion lift and land the load at the original start point.
7. Put the crane out of service in the correct order and secure.

### Time

- The candidate must complete all tasks within 1 hour

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### Notes

- Before carrying out any lifts, the candidate must confirm the total weight of the load with the instructor and ensure that the ASLI/RCI is programmed correctly for the falls of rope, radius, boom length etc.
- All loads must be placed within 200 mm of a given position. The instructor will determine that position.
- All lifting and landing movements to be under directions of a signaller who must be competent and hold the relevant CSCS registration card.
- Tasks 3, 4 and 5 may be carried out in any order.
- Tasks 6 and 7 may be combined with tasks 3, 4 or 5.

### Candidates will be assessed under the following headings

1. Carry out pre-use checks
2. Maintain full observation
3. Check all crane operations and limit switches prior to lifting loads
4. Check/Programme RCI/ASLI/Load moment indicator correctly
5. Ensure that all loads & equipment did not contact obstructions
6. Keep within SWL at all times
7. Conform correctly to given signals
8. Place all loads at the given points within the given tolerance
9. Conform with legislation and manufacturer's instructions
10. Complete the test in the given time