

# Construction Skills Certification Scheme

## CSCS Slinger Signaller Candidate Pack

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 Slinger Signalling training and assessment programme enables trained construction Slinger Signallers 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 slinger signaller 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 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 before the course start 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 of part 2 must list at least six months full time experience operating as a trainee slinger signaller.
- 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 course. 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 valid Safe Pass card plus safety helmet, safety boots, reflective 'hi-viz' jacket and gloves.**

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## CSCS Slinger Signaller Candidate Pack

### One Day Programme Content

#### Induction

Registration and induction will be undertaken at the start of the day. Candidates **must** present their Safe Pass card 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
- Equipment, components and functions
- Correct slinging techniques
- Pre-use checks and basic maintenance
- Communication procedures
- Types and characteristics of materials and loads
- Site safety
- Completion of work 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 as a slinger/signaller with a 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 slinging and signalling tasks the candidate will be expected to carry out.

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 in which all tasks must be completed.

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## CSCS Slinger Signaller Candidate Pack

### 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.

# Construction Skills Certification Scheme

## Skills Self-Analysis CSCS Slinger Signaller - Part 1

### Introduction

The aim of this form is to allow applicants to measure their knowledge and experience on the safe operations of slinging and signalling 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

### Assessment Questions

Please answer **all** questions as indicated:

	Yes	No
1. Can you identify markings and other relevant information relating to lifting gear?	<input type="checkbox"/>	<input type="checkbox"/>
2. Can you estimate the weight and centre of gravity for different types of loads?	<input type="checkbox"/>	<input type="checkbox"/>
3. Are you able to select the correct lifting gear for different types of loads?	<input type="checkbox"/>	<input type="checkbox"/>
4. Have you slung various loads including balanced, unbalanced and loose?	<input type="checkbox"/>	<input type="checkbox"/>
5. Are you able to guide various loads and place them accurately in confined areas?	<input type="checkbox"/>	<input type="checkbox"/>
6. Can you demonstrate the correct hand signals to a crane operator?	<input type="checkbox"/>	<input type="checkbox"/>
7. Do you know how to prevent a long load from swinging?	<input type="checkbox"/>	<input type="checkbox"/>
8. Do you know what type of lifting gear to use for a bundled load?	<input type="checkbox"/>	<input type="checkbox"/>
9. Do you know what is meant by S.W.L.?	<input type="checkbox"/>	<input type="checkbox"/>
10. Do you know what a regular inspection of lifting gear should cover?	<input type="checkbox"/>	<input type="checkbox"/>
11. Can you explain what load radius means?	<input type="checkbox"/>	<input type="checkbox"/>
12. Are you able to explain what happens if the crane rope isn't vertical before lifting the load?	<input type="checkbox"/>	<input type="checkbox"/>
13. Do you know what precautions to take with loads having a large surface area?	<input type="checkbox"/>	<input type="checkbox"/>
14. Have you used radios to communicate with the crane driver?	<input type="checkbox"/>	<input type="checkbox"/>
15. Can you explain what happens to the crane's lifting capacity when the radius between the crane and load is increased?	<input type="checkbox"/>	<input type="checkbox"/>
16. Can you explain what happens if the angles of a chain sling increase beyond 90°?	<input type="checkbox"/>	<input type="checkbox"/>
17. Do you know what course of action that must be taken if lifting gear is found to be defective	<input type="checkbox"/>	<input type="checkbox"/>
18. To ensure even loading of a multiple leg sling, can you explain how the legs may be connected to the hook block	<input type="checkbox"/>	<input type="checkbox"/>

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

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

# Construction Skills Certification Scheme

## Skills Self-Analysis CSCS Slinger Signaller - Part 1

### Assessment Grading

#### If you have scored 12 – 18

You appear to have a good understanding of Slings and Signalling operations to comfortably participate on the trained operator course programme.

#### If you have scored 8 – 11

Your understanding of Slings and Signalling 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 8

Your supposed understanding of Slings and Signalling 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



## Construction Skills Certification Scheme

### Application Details CSCS Slinger Signaller - Part 2

#### 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 Slinger Signaller 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 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 Slinger Signaller in construction within the last two years
- I am in possession of a valid 'Safe Pass' registration card
- I am at least 18 years of age

Please sign

Date: .....



## Construction Skills Certification Scheme

## Application Details - CSCS Slinger Signaller - Part 2

## Section C

## Applicant Experience

**Please briefly list work carried out as a Slinger Signaller for at least six months, including dates and location of work.**

[illegible]

## Construction Skills Certification Scheme

### Endorsement of Slinging & Signalling Competence - Part 3

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. Identify, check, select and attach suitable and serviceable lifting gear for different types of loads	
2. Recognise and use approved hand signals and two way radio communication	
3. Estimate / establish the weight of loads for lifting	
4. Protect loads, lifting gear and lifting points from damage	
5. Attach and detach lifting gear to and from the load and crane hook	
6. Direct, control and guide a variety of loads (including off-set loads) to the required location	
7. Attach and use tag lines to control the movement of loads	
8. Follow given instructions and manufacturers requirements when working with	

#### Endorsers Details

Full Name: .....

Company name and address: .....

Position: ..... Contact Tel no: .....

Relationship to Applicant.....

*The named individual signing this section must be in a supervisory or managerial position, nominated by the employer organisation.*

#### Declaration

We/I the employer confirm that:

- the applicant has as least six months full time experience operating as a trainee Slinger Signaller in construction within the last two years
- the applicant is in possession of a valid 'Safe Pass' registration card
- the information detailed in this application, and any submitted information is valid, genuine and correct.

Signature

Date:

# Construction Skills Certification Scheme

## Slinging & Signalling Practical Test Specifications - Part 4

### Equipment and Resources

A crane that meets current legislation with certificates which must be either:

- Mobile crane having a jib length of not less than 18 metres.
- Crawler crane having a jib length of not less than 18 metres.
- Tower crane with a tower height of not less than 20 metres.

The crane operator must be a competent operator and be in possession of the relevant CSCS registration card.

2. Loads to consist of:

- 1 x load having an offset centre of gravity not less than 20% of the load centre line. **Load 1**
- 1 x load consisting of bundled rounded section articles, being not less than 6 metres in length. **Load 2**
- 1 x cubed load being a minimum of 2 metres x 2 metres x 2 metres having 4 lift points. **Load 3**
- 1 x load having a weight not less than 5 tonnes. **Load 4**

3. Certified Lifting equipment and accessories with certificates, for the loads as in item 2 including:

- chain-slings 2 and 4 leg with shortening clutches.
- webbing slings/polyester.
- appropriate intermediate connections.
- appropriate tag lines.

4. Defective lifting accessories which are not suitable for lifting

5. Level area of ground which must:

- be capable of supporting the crane and loads.
- have obstructions to facilitate blind lifts.
- have sufficient area to cover the exercises as outlined in the exercise specification.

6. 2 x hand held radios.

7. Vehicle bed or trailer which may be simulated but having the same dimensions.

### Tasks

## Construction Skills Certification Scheme

### The Candidate needs to:

1. Carry out checks to the operating area, identify hazards and inform the assessor and crane operator of any actions to be taken.
2. Check and select appropriate lifting accessories which are suitable for each lift
3. Prepare **Load 1** for lift. The load is to be located at a distance of not less than 8 metres radius from the crane.
4. Lift **Load 1** to a given point. This point is to be no more than 6 metres radius and at 210 degrees from the original start point. Once landed detach the load.
5. Prepare **Load 2** for lift. The load is to be located at a distance of not less than 8 metres radius. This load is to be fitted with a tag line.
6. Lift **Load 2** to a given point. This point is to be not less than 12 metres radius and not less than 280 degrees from the original start point. This load is to be controlled by the tag line. Once landed detach the load.
7. Prepare **Load 3** for lift. The load is to be located on the vehicle bed (simulating the arrival of a load on site)
8. Lift **Load 3** to a given point. This point is to be out of sight of the visible sight of the crane operator and at a distance of not less than 12 metres radius. Once landed detach the load.
9. Prepare **Load 4** for lift. This load is to be located at minimum radius.
10. Lift **Load 4** to a given point. This point is to be at 110 degrees from the start point. Once landed detach the load.
11. Detach the load and return all lifting equipment back to the original location.

### Time

**All tasks must be completed within one hour**

### Example of Practical Assessment Marking Sheet

1.	Check all lifting gear for serviceability
2.	Check the certification of all the lifting gear
3.	Check all landing areas prior to lifting
4.	Identify all weights and establish centres of gravity correctly
5.	Select the correct lifting equipment for each load
6.	Ensure load security & stability
7.	Use effective hand signals that conform to the agreed code
8.	Give clear and concise verbal instructions to the crane operator
9.	Conform with legislation and manufacturers instructions
10.	Complete the test in the given time

# Construction Skills Certification Scheme

## Safe Lifting Operations



## Slinger/Signaller

# **Construction Skills Certification Scheme**

## **Safe Lifting Operations**

### **Slinger/Signaller**

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The Construction Skills Certification Scheme Unit has made every effort to ensure that the information contained within this publication is accurate. Its content should be used as guidance material and not as a replacement for current regulations.

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Printed in 2013





# Receipt

I have received a copy of the CSCS Safe Lifting Operations – Slinger/Signaller notes and agree to read it carefully and comply with all the guidance and advice on safety and good working practices which it contains.

Signature	
Full Name	
Date	

Name of Company or Organisation	
Address	

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## Acknowledgements

Extracts from BS 7121: Part 1 are reproduced with the kind permission of the British Standards Institution. Complete copies can be obtained by post from B.S.I. Sales, 389 Chiswick High Road, London W4 4AL.

Extracts and illustration by kind permission of:

- CITB-ConstructionSkills
- Construction Plant-hire Association.

## Introduction

This guide for safe slinging and signalling operations has been produced for operatives involved in the movement and controlling of loads. It sets out to provide guidance in an easy to read form, paying particular attention to the duties of the slinger/signaller. It covers a wide range of lifting conditions and activities, and aims to promote safe working practices which comply with current legislation and the precautions to be taken if accidents are to be avoided.

Specific sections on the inspection and use of lifting gear and the safe slinging and signalling of loads contain readily accessible information in a checklist format with a simple **Do's** and **Don'ts** message.

This guide complements manufacturers' instructions and recommendations with regard to:

- general safety legislation and safe working procedures for slingers/signallers
- selection and use of lifting gear
- safe and efficient use of lifting gear.

Manufacturer/company information, sling charts and safe working load tables should always be used for the relevant lifting gear and referred to as and when required.

This guide does not attempt to try to cover every aspect of working conditions when selecting and using lifting gear and carrying out slinging and signalling operations.

## 1. Safety, the law and you

This section provides guidance for employers, employees and the self-employed who use mobile plant equipment. Minimum legal requirements are outlined which relate to the safe use of mobile plant. Various Acts of the Oireachtas and statutory requirements, examples of which are listed below, provide the definitive legislation to be followed.

### Legislation

Legislation to be followed includes the Safety, Health and Welfare at Work Act 2005 (SHAWWA). Parts of the Act and other regulations connected with the operation of plant include:

- *General Duties of Employer*
- *General Duties of Employee and Persons in Control of Places of Work*
- Protective and Preventive Measures
- Safety Representatives and Safety Consultation
- The Health and Safety Authority
- Offences and Penalties

*All Health and Safety rules also apply to self-employed persons.*

### Regulations and Codes of Practice

Regulations made under an Act of the Oireachtas are mandatory

**Safety, Health and Welfare at Work (Construction) Regulations 2013 S.I No. 291 of 2013 include**

- Design and Management
- General Duties of Contractors and others
- General Safety Provisions
- Excavations, Shafts, Earthworks, Underground Works and Tunnels
- Cofferdams and Caissons
- Compressed Air
- Explosives
- General Health Hazards
- Construction Work on or Adjacent to Water
- Transport, Earthmoving and Materials-Handling Machinery and Locomotives
- Demolition
- Roads
- Construction Site Welfare Facilities
- SCHEDULE 4 - Safety Awareness Scheme
- SCHEDULE 5 - Construction Skills Certification Scheme
- SCHEDULE 6 - Procedure for Selection of Site Safety Representatives
- SCHEDULE 7 - List of Machinery

- **The Safety, Health and Welfare at Work (General Application) Regulations 2007 S.I. No. 299** include:
- Workplace and Work Equipment
- Use of Work Equipment
- Personal Protective Equipment
- Manual Handling of Loads
- Display Screen Equipment
- Electricity
- Work at Height
- Control of Noise at Work
- Control of Vibration at Work
- Safety Signs at Places of Work
- First-aid
- Explosive Atmosphere at Places of Work

The introduction of the above legislation, which protects people at work and those who may be affected by their actions, has helped to improve our working environment.

The legislation concerns employers, employees and the self-employed, and makes people responsible for their actions, as well as their omissions, including others affected by their actions.

Regulations made under an Act of the Oireachtas are mandatory and may be supplemented by an Approved Code of Practice (ACoP), which advises organisations and their staff on how to comply with the law.

If the advice of the ACoP is followed then generally you are meeting the requirements and complying with the law. If you, or your organisation, are prosecuted for breaking a health and safety law and it is proven you did not follow the advice in the ACoP, you must prove you have complied with the law in another way.

*Penalties can be imposed on persons who are found guilty of a Health and Safety Offence (on summary conviction), which may include:*

- a fine
- a term of imprisonment.

*Penalties may be imposed for:*

- disobeying a Prohibition notice
- unauthorised disclosure of information
- a breach of the conditions of a licence.

## Duties of personnel

It is in the interest of every employer and employee involved in the use of plant and equipment to promote safety within their workplace.

### Legal duties of employers

*'Every employer shall ensure, so far as is reasonably practicable, the safety, health and welfare at work of his or her employees.'* \*

Employers have a duty to:

- provide a safe working environment that is without risk to health
- provide and maintain safe plant and equipment and ensure it has been designed, constructed, tested and examined to be safe
- carry out risk assessments and provide their employees with clear and appropriate information on any risks that exist in the workplace and how they intend to reduce those risks
- prepare a safety statement based on the risk assessment
- provide suitable protective clothing and equipment (PPE) to ensure the health and safety at work of their employees. *'Every employer shall ensure that any measure taken by him or her relating to safety, health and welfare at work do not involve financial cost to his or her employees'* \*
- provide employees with any necessary information, including legal requirements, adequate instruction, training and supervision *'in a form, and manner and, as appropriate, language that is reasonably likely to be understood by the employee concerned'* \*
- obtain the services of a competent person for Health and Safety purposes
- provide adequate welfare facilities

**\*Source:** Safety, Health and Welfare at Work Act 2005

## **Legal duties of employees**

In general terms, the law says that you must:

- be responsible and as safe and careful as possible in your work, so as not to put the health and safety of yourself or others at risk, including members of the public
- co-operate with and assist your employer or any other person, as far as necessary, to enable them to carry out their legal duties in health and safety
- not interfere with or misuse any safety devices or equipment
- not intentionally or recklessly interfere with anything provided in the interest of health, safety and welfare
- follow your employer's procedures and the manufacturer's instructions which apply to the care and safe operation of the machine you are responsible for
- inform your employer, without unreasonable delay, of any work situation that you are aware of which presents a risk to the health and safety of yourself and others
- report (without delay) any defects in plant and equipment which might endanger safety.

All Health and Safety rules also apply to self-employed persons.



## 2. Accident prevention and control

Accidents are unplanned, unwanted events which can injure or kill people. Industry also pays a price with loss of working hours, loss of production and damage to plant and equipment and extra costs.

Remember that **you** as a slinger/signaller **are the key to safety**: good safety practices not only protect you but also protect others around you.

Accidents can be caused by unsafe working practices and attitudes of people in the workplace. By following a safety programme and adopting safe working practices, unsafe conditions can be avoided. This contributes to improving safety in the workplace.

Prevention can remove or reduce the likelihood of an accident by following some basic rules, for example:

### Do

- Protect yourself – wear all protective clothing and personal safety equipment issued to you or required by your working conditions
- Follow a safety programme – understand and follow safety procedures when working on site and using plant and work equipment
- Assess your ability to do the job – ensure you are fully aware of the job requirements and how they need to be carried out
- Stay alert – know where to get help. Know the first aid and emergency procedures
- Make yourself aware – study the manufacturer's information and your company's operating instructions and procedures for using your plant and equipment. If the information is not provided, ask your supervisor or the suppliers of the plant/equipment to supply it
- Report faulty/unsafe plant or equipment and any dangerous occurrences and incidents
- Use the equipment safely so as not to affect its condition or use
- Be careful – human error is caused by carelessness, fatigue, preoccupation and lack of concentration. Ensure you watch out for others who are affected by your actions
- Ensure all personal injuries, no matter how slight, are reported and entered in the accident book (or equivalent)
- Take advantage of any training programme offered by your employer or contractor. You are never too old to learn new practices or techniques

## **Don't**

- Use plant or work equipment that you have not been trained to use
- Overload any plant or work equipment either by lifting or loading
- Use or treat equipment carelessly or in an unsafe manner
- Throw or drop objects from plant or work equipment
- Attempt to carry out work on moving parts of plant or work equipment with the safety guards removed
- Indulge in horseplay on plant or work equipment
- Attempt to use any type of plant or work equipment if you are under the influence of drugs, alcohol or any other substance which affects your health or judgement
- Ignore warning instructions or safety signs

### 3. Selecting and using lifting gear

Your duties as a slinger/signaller require you to be responsible for the selection and use of lifting gear and accessories and the loads to be lifted by them. The slinging of the loads to be lifted by a crane/lifting appliance is in your hands. You should know the rules of good slinging and the conditions and suitability of the lifting gear to be used.

The examination, marking and use of lifting gear is subject to a number of Regulations (see Appendix D for statutory certification requirements). However, since you select and use lifting gear on a regular basis and depend on its suitability, proper attachment and safe working condition, this section has been included to give you some guidance on important points which affect you.

#### Identification and selection of lifting gear

All chains, ropes and accessories for lifting, used for raising or lowering and as a means of suspension, must be examined by a competent person prior to their first use and subsequently thoroughly examined every six months by a competent person, or as defined in a schedule devised by a competent person, and a record kept.

There are many different types of lifting gear and accessories which are available to use such as wire rope slings, chain slings, fibre rope slings, flat lifting slings, hooks, shackles, eyebolts, spreader beams to name a few. See Appendix B for illustrations of slinging arrangements, chains, hooks and shackles.

You will need to ensure that you select the right item of lifting gear or accessory to suit the specific lifting operation being undertaken.

Great care needs to be taken with the handling and storing of lifting gear, which should be stored correctly in a designated storage area to keep it safe, dry and secure.

Every item of lifting gear which you select and use must:

- be properly constructed and of the correct capacity, length and size for the load to be lifted
- be marked to show the safe working load and identification
- have a current, thorough examination report, and when appropriate, a current test certificate
- be suitable for the intended purpose.

**Important: You must inspect every item of lifting gear before use. Any item of lifting gear which shows visible signs of damage must not be used.**

If you are in any doubt about the condition of any lifting gear or accessory report it immediately.

**Never attempt to carry out repairs to any item of lifting gear. This should be done by a competent and authorised person.**

Follow your company's procedures for discarding lifting gear which is unsuitable for use.

## **4. Safe slinging and signalling**

As a slinger/signaller you are responsible for ensuring that the correct methods are used to lift, move and control loads under your supervision. You will have been delegated duties from an appointed person or, in some instances, you may be the appointed person.

Simple measures taken by yourself and your employer and following some basic rules can remove or reduce the possibility of risk, for example:

### **Do**

- Comply fully with instructions given by site managers/supervisors/appointed persons
- Check that slings, chains and other accessories are not shortened by tying knots in them or wrapping them around the crane hook
- Check that chains are not joined by bolts or wire
- Check that wire ropes are not sharply bent at any point
- Check that wire ropes are never used singly when hooked by a spliced eye: the cable is liable to untwist, allowing splices to open and slip
- Check that the proper pins are used in all types of shackles
- Check that all end kinks, rings or shackles ride freely upon any hook on which they are used
- Use spreader beams when necessary

### **Don't**

- Use any slings of insufficient length, which create a wide angle between legs
- Use extra long slings, which reduce the headroom considerably
- Use any wire ropes or slings that have become damaged or rusty

## **When loading**

### **Do**

- Protect slings from sharp-edged loads by packing suitable material between the load and the sling
- Ensure the load is evenly distributed to avoid excessive stress on one side of the sling

### **Don't**

- Let any load rest on a wire rope, it may crush the strands and render the rope unsafe

## When unloading

### Do

- Make sure there is firm foundation for the load and make provision for the removal of all slings and chains
- Stack material securely and provide safe access for subsequent removal

### Don't

- Stack materials where they will cause an obstruction
- Balance loads which could fall or become unstable as a result of changes in weather conditions

## Before lifting

### Do

- Ensure hooks are 'c' type, or fitted with a safety catch
- Ensure that the loads to be lifted are known in advance and that load weights are established and clearly marked
- Ensure the combined weight of the load and all lifting gear *does not exceed the safe working load of the crane*
- Ensure that the methods of communication to be used for carrying out the lift are understood by everyone i.e. hand signals, radio signals or other
- Ensure that radios are fully charged at the start of the shift
- Check that the crane's/lifting appliance's hook is placed centrally over the load to prevent the load swinging when it is being raised, and that the load is balanced
- Ensure you can see the crane driver/lifting appliance operator – if you can't use radios
- Take your hands away from any chains, slings or ropes before the crane takes the strain of the load
- Give warning to all persons to keep clear of the load prior to lifting

### Don't

- Attempt to lift a load without establishing its weight. If in doubt ask your supervisor or a competent person

## During lifting

### Do

- Use approved hand signals clearly and distinctly (see Appendix C for recommended hand signals)
- Protect wire ropes and slings from sharp edges of the load with soft wood or other suitable packing
- Ensure the load is lifted off the ground and is free and correctly slung before hoisting
- When signalling, stand in a position so as to:
  - see the load
  - be seen clearly by the crane driver
  - face the driver of the crane/lifting appliance if possible
- Use hand/tag lines to guide loads wherever practicable (see Appendix B for the use of hand/tag lines)
- Keep all persons not involved in lifting operations away from the vicinity – especially children and the general public

### Don't

- Allow the load to be carried over the heads of other persons. If necessary, give warning to persons to keep clear of the load
- Drag chains, slings, hooks or loads along the ground
- Ride on a crane load or allow any other person to do so
- Use lifting gear for other purposes e.g. towing
- Tie knots in chains to shorten them
- Double up slings. ***This does not double the safe working load!***

### Notes

*Only the person responsible for the lift must give signals, except in an emergency.*

*Hooks and slings not in use should not be placed on the carrying hook. They may cause the sling carrying the load to ride on the nose of the hook.*

*Hooks should be left free when not in use.*

## **5. Slinging and signalling safety checklist**

**S**afety starts with you. Remember! You, as a slinger are the key to safety. You are legally responsible for your own safety and that of others working nearby.

**A**ccidents are unplanned, unwanted events, which can injure or kill people. Simple measures taken by your employer and yourself can reduce the risk of them happening.

**F**ines can be imposed on your employer and yourself for breaching Health and Safety Regulations. In some instances it can also lead to imprisonment.

**E**nsure you have determined the weight of the load before attempting to sling it or lift it.

**L**ifting gear and accessories must not be used unless they are certified and suitably marked, identifying the safe working load.

**I**rregular shaped loads should be treated with care. Their centre of gravity will need to be established to ensure safe and secure lifting.

**F**irm foundations should be sought/provided for landing loads.

**T**ravel the route the load will be taking before carrying out lifting operations, checking for any hazards, obstructions etc.

**I**n addition to the compulsory check, see that the lifting gear is checked for defects each time it is put into service. Reject any lifting gear/accessories that are unsafe.

**N**ever attempt to exceed the safe working load of any item of lifting gear.

**G**ive warnings to all persons to keep clear of the load prior to the start of the lift and during the movement of the load. Use appropriate methods of communication. Use approved hand and radio signals and ensure they are agreed and understood by everybody involved. Ensure that radio equipment to be used is fully charged at the start of every shift.



**O**bserve all warning/safety signs traffic regulations and other activities on site – you are the eyes and ears of the crane driver/lifting appliance operator.

**P**ersonal protective equipment (PPE) should be worn at all times. Ensure high visibility recognised clothing is worn to distinguish you from others during lifting operations.

**E**nsure you use packing to prevent lifting gear being damaged by sharp edged loads.

**R**adio equipment to be used for lifting operations should be checked for serviceability and be fully charged at the start of every shift.

**A**lways keep the load under control during lifting operations. Where necessary use hand or tag lines.

**T**ake your hands away from chains, slings and ropes before the crane/lifting appliance takes the strain.

**I**nspect the areas where the loads and materials are to be placed or landed. Where necessary, make provision for safe access and subsequent removal.

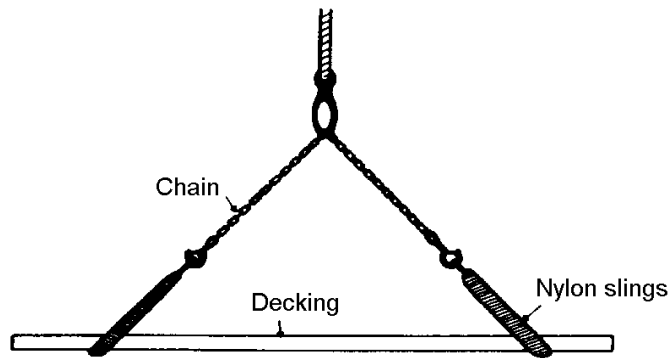
**O**nly the person responsible for the lift must give signals, except in an emergency.

**N**ever carry out a lifting operation if it is likely to endanger yourself and others (even if requested by work colleagues to try and cut corners on a job). If in any doubt seek guidance from your supervisor.

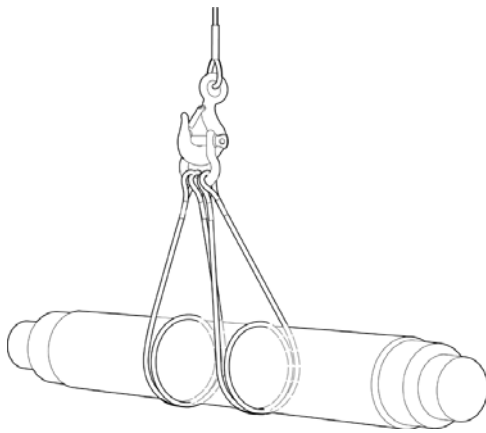
**S**to**r**e and secure lifting gear and accessories in accordance with your company's instructions and procedures.

## APPENDIX A

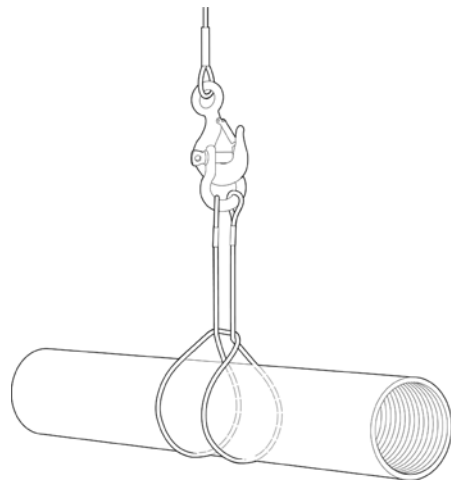
### Types of lifting gear



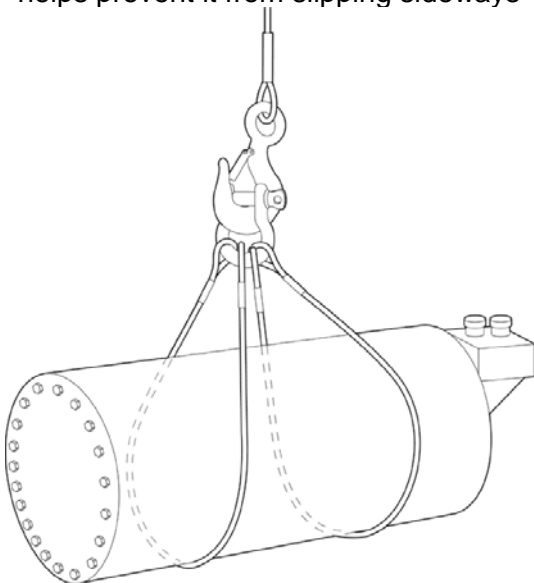
**Nylon sling** used to lift decking



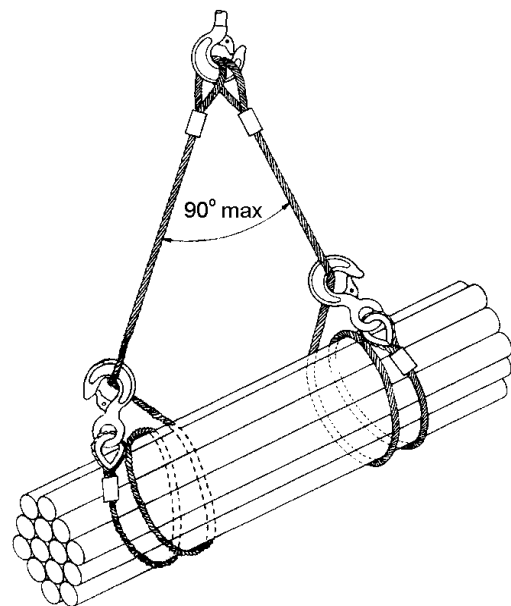
**Double wrap sling** grips the load and helps prevent it from slipping sideways



**Choker sling** (not recommended for long loads or loose bundles)



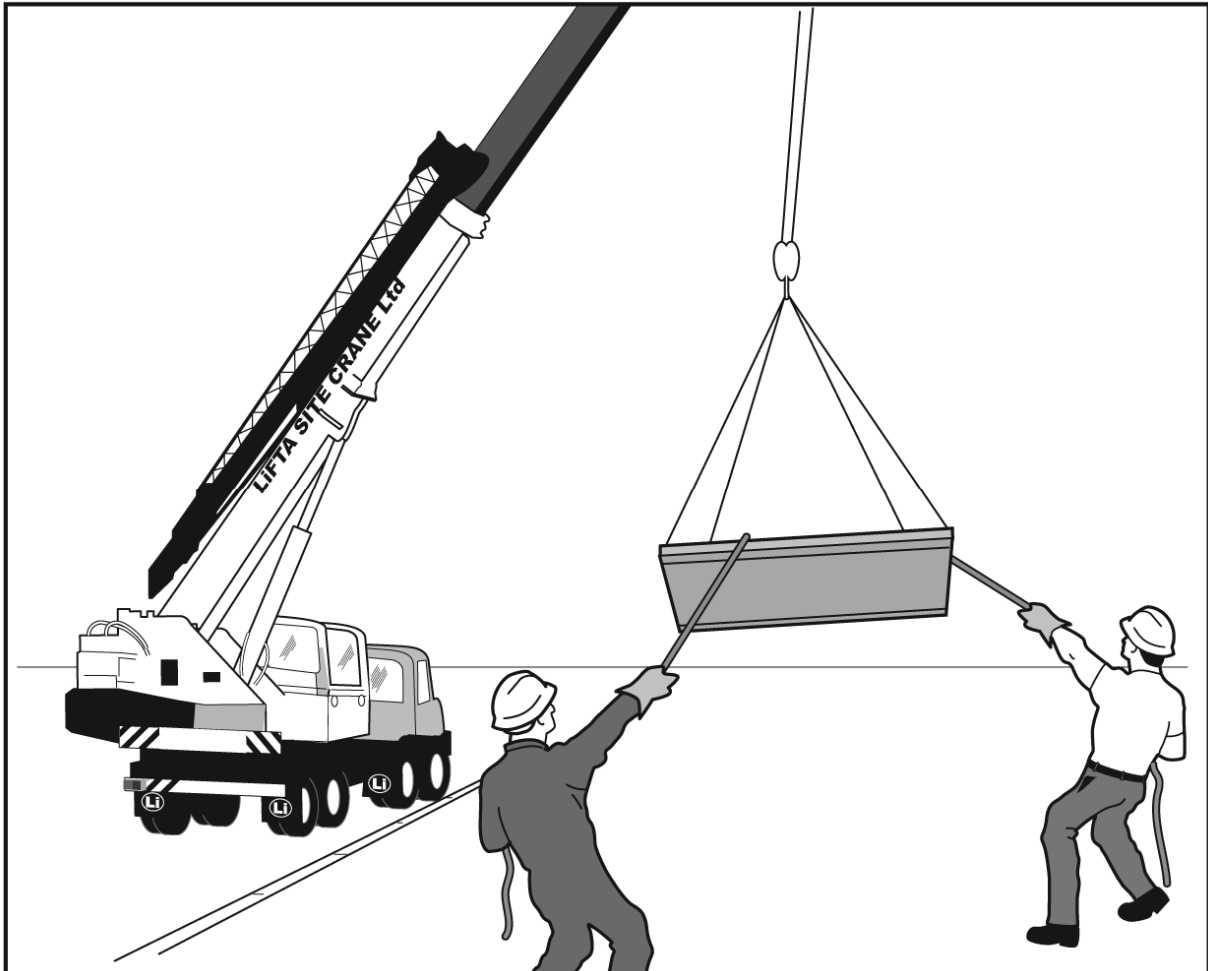
**Cradle sling** (Note: care must be taken to prevent slings sliding in towards each other)



**Double choker**

## APPENDIX B

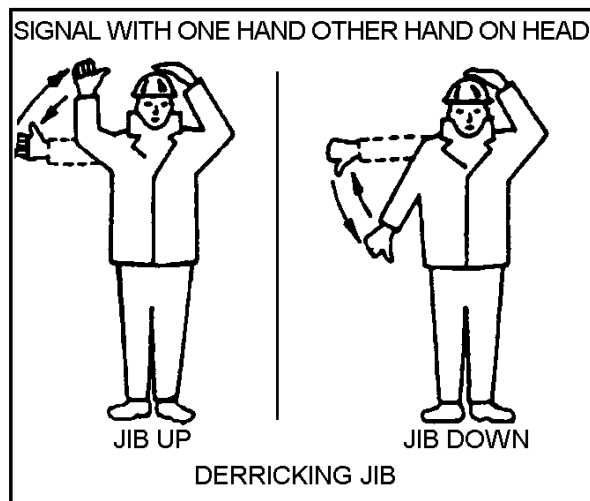
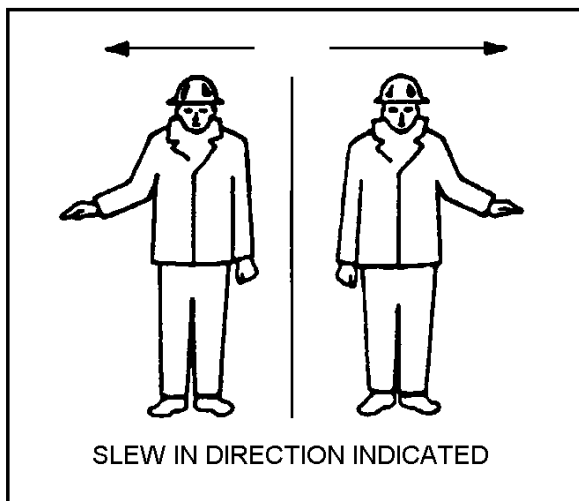
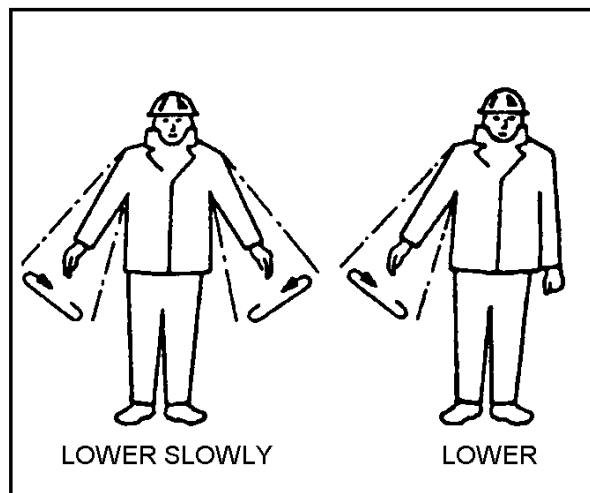
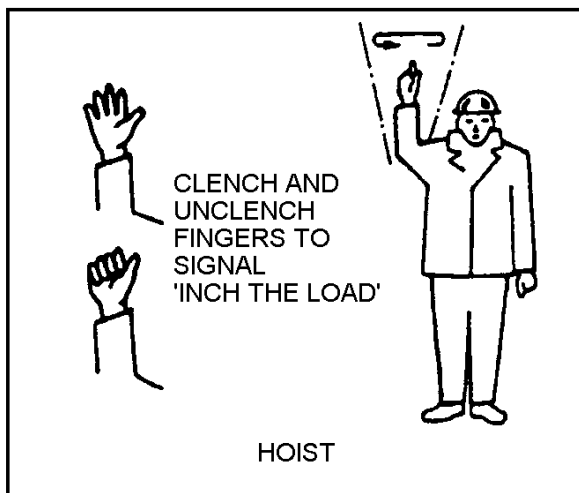
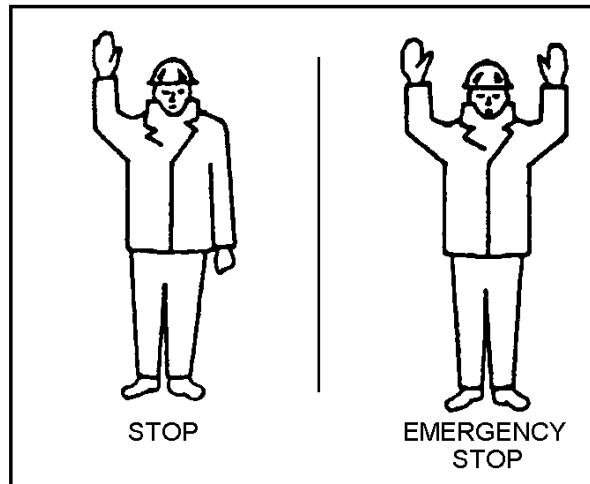
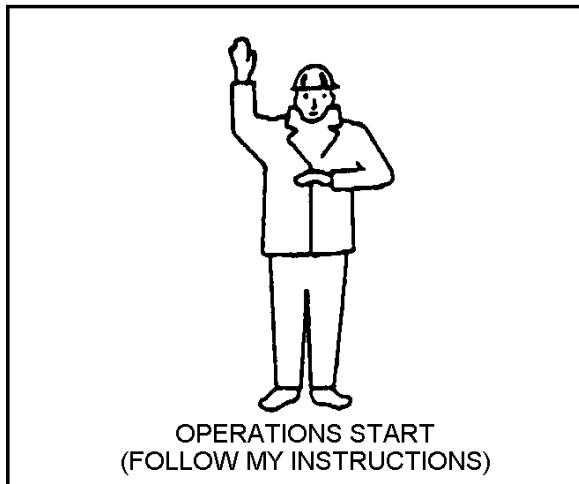
### Use of hand/tag lines



Use of hand lines for controlling the movement of a load

## APPENDIX C

### Recommended crane signals

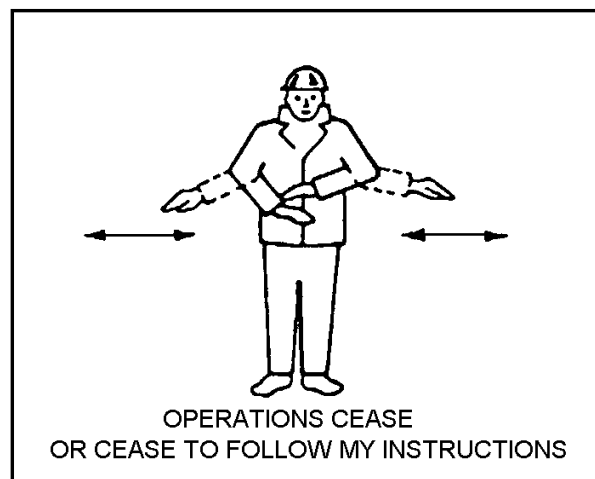
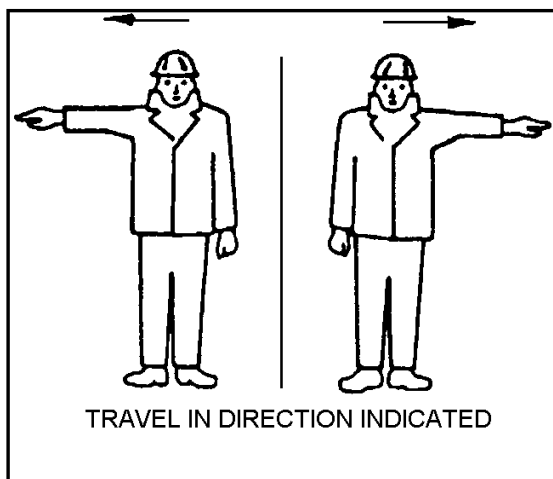
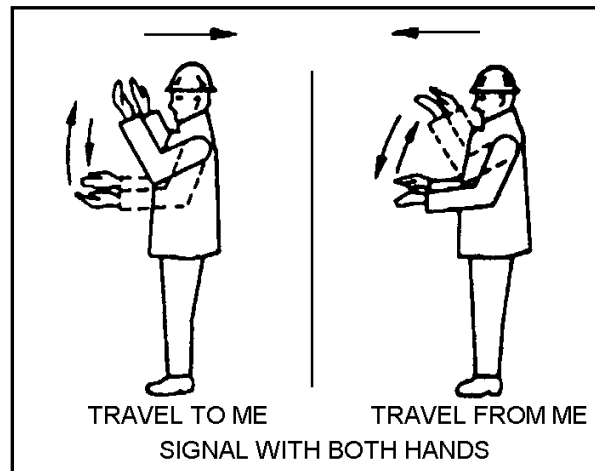
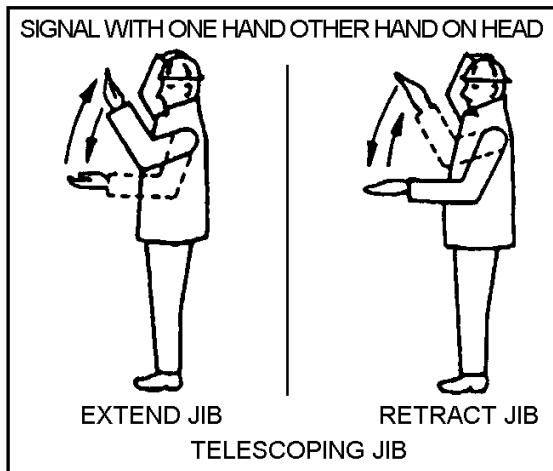


#### Note:

*The signaller should stand in a secure position where he/she can see the load and can be seen clearly by the driver and should face the driver if possible. Each signal should be distinct and clear.*

## APPENDIX C

### Recommended crane signals (continued)



## APPENDIX D Statutory Certification required for Lifting Accessories

- The Safety Health and Welfare at Work (General Applications) Regulations 2007 came into operation on 1<sup>st</sup> November 2007 and are quite clear on what items of plant require certification.
- Forms for recording Tests/Inspections are no longer prescribed. Any form can be used provided it contains the information specified in Part E of Schedule 1 of the Regulations

### Lifting Gear

Regulation No	What is it	Who completes it	When is it required
57. [1] (a) (v)	Certificate of Test & Examination	Manufacturer / Supplier.	When supplied and while Lifting Gear is in use.
57. [1] (a) (v)	Report of Results of thorough examination of: <b>Chains, Ropes and Lifting Gear</b>	Competent Person.	Every six months.
57. [1] (i)	Report of annealing or appropriate heat treatment of: <b>Chains and Lifting Gear</b>	Competent Person.	When Heat Treated and at intervals as specified by the Competent Person.

#### . Notes:

- Lifting accessories include: chains, chain slings, rope slings (except a fibre rope sling), or similar gear, rings, links, hooks, plate clamps, shackles, swivels and spreader beams etc.
- A Certificate of Test and Examination is not required for a fibre rope or a fibre rope sling. Regulation 57 states “in the case of a fibre rope or a fibre rope sling, information from the manufacturer on its safe working load is available” and “it is marked in plain legible figures and letters with a Safe Working Load and a means of identification.