

guidance on the
cranes & lifting appliances

(Jersey) regulations 1978



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S.W.4

Foreword

On the 5th March, 1979 the Safeguarding of Workers (Cranes and Lifting Appliances) (Jersey) Regulations, 1978 came into force having been passed by the States of Jersey on the 28th November, 1978.

The purpose of this Guide is to explain and to give guidance on the requirements of the Regulations, in such a way as to make it easier for employers, mechanical plant and crane owners, and others, to choose or adopt the right course which will enable them to ensure a reasonable standard of compliance with the Regulations and thus encourage a higher standard of safety. It is emphasised that these Regulations specify minimum standards of safety in relation to this subject.

This Guide should not be taken as authoritative or comprehensive and it does not take the place of the Regulations. The precise requirements should be obtained by reference to the Regulations, which can be accessed online through the Jersey Legal Information Board website, www.jerseylegalinfo.je or by purchasing a copy of the revised Regulations, reference 05.300.70, from the States of Jersey Book Shop, States Greffe, Morier House, Halkett Place, St. Helier. Further advice on specific matters may be sought from the Health and Safety Inspectorate at the Social Security Department.



Senator P Routier

Minister for Social Security



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Preface

When an accident happens involving a crane or a lifting appliance, such as a fork lift truck or a piling machine, the consequences are usually severe injury to personnel working with, or working in close proximity to, the equipment or machine involved.

The overturning of a crane or the collapse of a crane jib usually results in a spectacular event which can affect not only the working area where the equipment is being used, but also adjacent buildings and of course the public highway. It is, therefore, vitally important that cranes are used safely and that they are well constructed and maintained in good condition.

The Regulations deal with the use, construction and maintenance of cranes and lifting appliances used in any process of raising, lowering or suspending loads during the course of operations where persons are employed.

To summarise, the Regulations seek to achieve the following basic objectives -

- The testing and routine thorough examination of cranes and, where prescribed, certain types of lifting appliance
- The marking of safe working loads and means of identification
- The minimum standard of construction and requirements on safe use
- Provision of safety devices on cranes and lifting appliances
- Requirements relating to lifting operations



Part 1 – Introduction

Regulation 1 – Interpretation

1. The Regulations apply to cranes and lifting appliances used in the manner described in Regulation 2. The terms "cranes" and "lifting appliances" are defined legally in Regulation 1 which deals with the interpretation of various expressions used in the Regulations.
2. "Crane" means:-
"An appliance incorporating a structural member above ground level, or having a jib, and by means of which a load may be raised, lowered or suspended either by:-
 - a) a hook permanently attached to the structural member of the jib; or
 - b) a hook or any other securing device which is suspended from the structural member or jib by means of a rope or chain which forms an integral part of the appliance in such a manner as to permit movement of the hook or other securing device in any direction; and by means of which the load may be moved from one position to another by movement of the appliance as a whole, or by movement of the structural member or jib".
3. In order to constitute a crane so that the Regulations will apply, the machine must have a jib or other structural member above ground level (for example the horizontal part of an overhead travelling crane), beneath which loads can be controllably raised or lowered and also moved horizontally by movement of the jib or structural member.
4. In addition, the load must also be suspended from a hook or other similar securing device which is connected to a rope or chain which forms an integral part of the machine. The machine must be able to impart controlled three dimensional movement to the load whilst the load is secured to the suspended hook or other device.
5. The following machines are cranes within the meaning described above -
 - Mobile jib cranes
 - Overhead travelling cranes
 - Lorry mounted cranes
 - Derrick cranes
 - Tower cranes
 - Container cranes
 - Portal jib cranes
6. A machine used to raise persons to elevated positions for the purposes of working on road lighting equipment etc., where the persons are standing in a working platform constructed on the end of an articulated hydraulic jib, would not be regarded as a crane within the meaning of this Regulation.

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7. Small capacity hand operated hydraulic machines used for example to remove engines from vehicles, are considered as cranes, however, they are exempted from certain requirements of the Regulations, see page 34.
 8. "Lifting appliance" means:-
"An excavator, fork-lift truck, mechanical grab, mechanical shovel, piling machine of any description, pulley or pulley block, a winch which is designed to be used by itself, and any other prescribed appliance."
 9. Fork lift trucks are widely used in industry and are the cause of many accidents. Although many of these accidents are caused by misuse, defects on fork-lift trucks can significantly influence their safe operation.
 10. Machines known as chain blocks would normally be classified as lifting appliances under this definition.

Regulation 2 - Application

11. The Regulations apply to all working situations in the Island where "processes" involving the raising, lowering or suspension of loads take place, using cranes or lifting appliances, and where there is a risk of bodily injury being caused to persons gainfully occupied in employment. The Regulations do not apply to agricultural land except where building operations or works of engineering construction take place on such land. However, the Regulations would apply to premises used as a packing station for agricultural purposes.

Regulation 3 - Obligations

12. The obligations of all persons affected by the Regulations are clearly identified in this Regulation. Everybody, whether they are crane owners, employers, contractors or masters of vessels, has obligations under the Regulations. For example -
 - Owners must ensure that their equipment complies with the Regulations
 - Employers must not allow their employees to use equipment which does not comply with the Regulations
 - Employers engaged in processes of raising, lowering or suspending loads must ensure that the lifting operations comply with the Regulations
 - Employees must co-operate in carrying out the requirements of the Regulations - they must also report any defects that they may discover
 - No-one, whether he is an employer, contractor or employee, may wilfully and without reasonable cause endanger himself or others



Part 2 - Cranes & Lifting Appliances

Regulation 4 - Construction and Maintenance of Cranes and Lifting Appliances

13. Cranes and lifting appliances must be of good construction and be properly assembled. This means that they must be of good design which includes, amongst other things, being well built for the purpose for which they are intended to be used, and be put together properly.
14. The erection and dismantling of cranes and lifting appliances must only be carried out under the supervision of a competent person. This means a person who is fully conversant with the safe and correct procedures to be adopted to ensure the correct erection or dismantling sequence. In these cases manufacturers instruction manuals must always be available and followed. This is particularly relevant in the case of tower cranes where erection and dismantling must be carried out strictly in accordance with the manufacturers instructions.
15. The erection of jibs on cranes, especially mobile cranes, must follow the sequence described in the manufacturers instructions and each section must be identifiable with the crane in which it is normally used. The jib section must have been tested when assembled on the crane and only genuine manufacturers parts must be used. This is particularly important in relation to the use of bolts which are usually made from high tensile steel or other similar material. Substitution by mild steel bolts may result in failure.
16. Each part of a crane or lifting appliance which can affect the safe working of the crane or lifting appliance must be a) of good design, b) properly made, c) of sound material, d) of adequate strength for the purpose for which it is used, e) free from patent defect, and f) properly maintained. These requirements also apply to any means used for anchoring, fixing or supporting and stabilising the crane or lifting appliance, the failure of which could also affect its safe working.
17. "Maintained" is defined in Regulation 1 of the Regulations and means:-
"Maintained in an efficient state, in efficient working order, and in good repair".
18. This definition describes a result to be achieved rather than a means of achieving it. The word "maintained" is employed to denote the continuance of a state of working efficiency.
19. A "patent defect" is a plain obvious defect - one that can be noticed.



Regulation 5 - Testing and Examination of Cranes and Certain Lifting Appliances

- 20.** Cranes must be tested by a competent person before they are taken into use for the first time. They must also be tested by a competent person after they have been altered or repaired in such a manner that the strength or stability of the crane may have been changed. After the test, the crane must be thoroughly examined by the competent person who must complete a report in the form of a certificate of test. A specimen of the certificate showing the particulars which should be included is shown as form CLA.1. in Appendix I. Tests carried out in the UK on cranes would satisfy the requirements of this Regulation.
- 21.** The method and type of test cannot be specified in the Regulations as this depends upon many factors and the competent person will decide upon the manner and extent of the test.
- 22.** The aim of a test is to demonstrate that the crane conforms to its specification and can be safely operated at its rated capacity. The test usually involves the application of an overload, i.e. a load greater than the rated safe working load of the crane under the range of the normal duties of the crane. Tests can also include the use of non-destructive test facilities, i.e. scientific methods of determining the internal quality and condition of welds, straps, struts, metal fatigue etc.
- 23.** Cranes must be thoroughly examined at least once in every period of 12 months by a competent person. After the examination has been completed a report of the examination has to be made and this report must be completed in the form CLA.2. as shown in Appendix I. If a crane is employed on particularly arduous duties, the Minister for Social Security may, by order, require that the crane should be thoroughly examined more than once in every period of 12 months. This would be specified in subordinate legislation.
- 24.** The term "competent person" is **not** defined in Regulation 1. Competency is a matter of judgement not of definition, however, the following guidelines will assist employers or plant owners in determining the type of person who would carry out the duties of testing and examining for the purpose of these Regulations.



25. The person should:-

- a) have the requisite knowledge and experiences, both theoretical and practical, of the type of crane or lifting appliance to be tested and examined; to certify with confidence that it is capable of being used safely and it is free from patent defect and suitable in every way for the duty in which the crane or lifting appliance is to be used. Additionally, the extent of his competency will depend upon the organisation behind him and the technical facilities available to him. This is quite relevant where a person is an engineer surveyor employed by an engineering insurance company specialising in this type of work. As a general rule, persons carrying out duties under Regulation 5 should have at least the following experience and training -
- A sound technical and professional training with recognised national qualifications, and have approximately two years practical experience in a suitable appointment
 - A satisfactory knowledge of the inspections or tests or examinations that they are carrying out
 - The ability to draw up certificates and reports required on the work that they are carrying out
 - A thorough knowledge of the applicable specifications, statutory Regulations and Codes of Practice
 - The necessary experience to interpret and evaluate the results of their work
- b) generally, not be an employee of the person who owns or uses the crane or lifting appliance. There are exceptions to this however, particularly in the case of large crane hire companies who employ highly experienced engineers to do this work.

26. If, after a thorough examination, a competent person concludes that a crane cannot continue to be used safely, he must inform the owner and user of the crane immediately, and within 28 days forward a written report to the Health and Safety Inspectorate at the Social Security Department. The owner and user of the crane, when informed that a crane cannot continue to be used safely, must ensure that the crane is taken out of use.

27. The competent person may, during the course of thoroughly examining a crane, decide that it should be re-tested within a specified period of time or decide that the crane cannot be used safely after a specified period of time without certain repairs being carried out. Under these circumstances, a crane must not be used beyond the period specified by the competent person in the report, unless the crane has been re-tested or unless the necessary repairs have been carried out.

28. Once every four years, or at every fourth thorough examination, the competent person must state in his report whether, in his opinion, he considers the crane should be re-tested as required by Regulation 5, and the period within which this must be done.



Regulation 6 - Stability of Cranes and Lifting Appliances

- 29.** Where a crane or a lifting appliance is to be used on a slope or on uneven or soft ground, precautions must be taken to prevent overturning. This can be done, for example, by reducing the slope, levelling the ground or by using suitable supports.
- 30.** If a situation occurs where a tower crane or other crane which needs portable ballast for its stability has new anchorage or alterations of the ballast materials, it must be tested before use. This test must be made so that maximum pull is applied to the anchorage or ballast, and a load 25% higher than the maximum rated load is permissible if the same results can be achieved. The results of the test must be recorded on form number CLA.3. shown in Appendix I. The test and report must be carried out by the competent person. When making this test, caution and care has to be exercised to avoid the over-stressing of crane components. Manufacturers instructions should be strictly followed.
- 31.** Anchoring and ballasting materials must be secured to the crane structure in the appropriate and correct position.
- 32.** Where portable ballast is used, a diagram or notice showing its position and weight must be attached to the crane. Each removable weight must be marked with its self-weight.
- 33.** Cranes must not be used in weather conditions likely to affect their stability. A competent person must examine the anchorage and ballast arrangements as soon as practicable after a crane has been subjected to such weather conditions. A crane is not to be used again until all necessary steps have been taken to ensure its stability.
- 34.** All mobile cranes must be fitted with level indicators. The indicators must be fixed in a position where they can be easily seen by the crane driver.

Regulation 7 - Travelling Cranes

- 35.** In some cases cranes are mounted on rail tracks which may be either temporary or permanent.
- 36.** The tracks must be laid on a firm foundation and a secure and even running surface provided. Materials which could obstruct the crane wheels on the tracks must be prevented from finding their way on to the rails, and the rail tracks must be provided with stops or buffers at each extremity to prevent de-railment of the crane.

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- 37.** The requirement for electrically earthing the rail tracks, originally contained under Regulation 7, were superseded by the Electricity at Work (Jersey) Regulations, 1983. In order to meet the requirements of these regulations, the rail tracks must also be "earthed" electrically so as to ensure that if an electric fault occurs, any dangerous electrical charge which may develop can be safely discharged to earth via the rail track. In assessing whether or not rails are efficiently earthed, the possibility of deposits (which cannot be avoided) accumulating on the track, must be taken into consideration. These deposits, which may be due to infrequent use, excessive dust or otherwise, could resist the safe discharge of an electrical current.

Regulation 8 - Overhead Travelling Cranes

- 38.** Many fatal or very serious accidents have been associated with the movement of overhead travelling cranes. These accidents have occurred mainly to maintenance workers employed on, or near, the wheel tracks of this type of installation.
- 39.** Where persons are employed within the vicinity of the wheel track of the crane and there is a risk of being struck, effective measures must be taken to warn the operator of the crane, or indeed any other equally effective precaution, to ensure that the crane does not approach within 20' (6100mm) of that place .
- 40.** Various systems of work have been devised to ensure compliance with these requirements. Some examples are as follows -
- The temporary construction of stop blocks on the rails and the electrical isolation of the particular section of the rail track, would be deemed to be effective measures to prevent the crane from approaching within 20' (6100mm) of where personnel are likely to be employed
 - The placement of explosive detonators on the relevant section of the track is one means of taking effective measures to warn the crane driver
 - In many industries, a properly organised and detailed permit to work system is employed to ensure that in all circumstances during the progress of maintenance work, a system exists which will prevent the crane from approaching within the specified 20' (6100mm) of the place where personnel may be working
- 41.** There is also a specific requirement in this Regulation to ensure the existence of effective measures, to warn persons who may be working in any position above floor level and who are liable to be struck by an overhead travelling crane or by the load suspended from the crane.
- 42.** The only occasion where such a warning is unnecessary is when the persons work is closely connected with, or dependent upon, the movement of the crane.

Regulation 9 - Coupled Cranes

43. The use of more than one crane to lift the same load is sometimes called a "tandem lift". This is sometimes necessary when the load to be lifted exceeds the safe working load of a single crane, and a crane of an appropriate capacity for the load is not available. Lifting a load with two cranes is a potentially dangerous operation and requires very careful planning. An accurate calculation must also be made to determine the share of the load which is to be taken by each crane.
44. This Regulation is quite specific in the requirements which must be adopted when this type of operation takes place i.e. -
- Advance planning
 - Supervision by a competent person
 - The use of cranes of similar design and equal capacity
 - Each share of a load taken by a crane must not exceed 75% of the safe working load of that crane
45. If an operation requires the use of more than two cranes to raise one load, the operators responsible will be required to apply for a certificate of exemption under Regulation 27.

Regulation 10 - Marking of Safe Working Loads

46. The safe working load (S.W.L.) of a crane is defined in Regulation 1. It is the relevant safe working load as is required to be marked on the latest certificate of test and thorough examination issued by a competent person, in accordance with the requirements contained in Regulation 5 of these Regulations, see page 10.
47. All cranes must be marked with their S.W.L.'s and where the S.W.L. varies according to an alteration of the jib radius or the inclination of the jib, an indicator must be fitted to the crane which:-
- a) shows the safe working load for each change of radius or inclination, and which shall also show an indication of the radius or jib inclination; or
 - b) indicates the radius or inclination of the jib in such a way that the safe working load can be calculated by the crane driver from suitable tables provided in the cab of the crane.
48. The tables must be clear and legible, and always be maintained in that condition. They must be comprehensive so as to ensure that the driver is able to assess the safe working load at **any** operating radius or inclination of the jib at which the crane may be working at the time.

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- 49.** Safe working loads and a means of identification must also be marked on winches, pulleys and fork lift trucks.
- 50.** The safe working loads of fork lift trucks are usually marked as a capacity at defined load centres. These safe working loads must always be related to the specification contained in the manufacturers handbook.
- 51.** Safe working loads of cranes and lifting appliances are the maximum loads UNDER SPECIFIED CONDITIONS for which the crane or lifting appliance may be used. In relation to cranes, S.W.L.'s are generally calculated as a percentage of the maximum lifting capacity of the crane. This load will be the tipping load for certain cranes but for others, as structural failure may occur before the crane reaches a tipping condition in these circumstances, the ultimate load will relate to the manufacturers designed capacity of the crane. The margin between the safe working load and the ultimate load is a safety margin which allows for the various forces which will act on the crane under operational circumstances. It is therefore important to avoid sudden snatching or stopping of suspended loads and also to prevent pendulum swinging of the load whilst suspended.

Regulation 11 - Automatic Safe Load Indicators (A.S.L.I.)

- 52.** Every crane of a type prescribed by order of the Minister for Social Security must be fitted with an automatic safe load indicator (A.S.L.I.) of an approved type.
- An A.S.L.I. is a technical device which measures the load being carried by a crane and provides the operator of the crane with warning signals when the load approaches the safe working load of the crane and also when the safe working load is exceeded. It is the principle safety device for protecting the crane against overloading and the resultant risks of severely straining structural and/or mechanical parts.
- 53.** The following types of crane have been prescribed in an Order dated 22nd March, 1979 (Cranes (Automatic Safe Load Indicators) (Jersey) Order, 1979, R & O 6632), as being the kind to which an approved indicator must be fitted -
- Mobile Cranes
 - Tower Cranes which have:
 - i) a jib;
 - ii) a safe working load of at least 1000 k.g.;
 - iii) a safe working load which varies according to the operating radius or inclination of the jib.

- 54.** This Order does not apply to hydraulically operated jib cranes which are fitted to goods vehicles (lorries) and which are designed solely for the purpose of loading and unloading goods and materials from the platform of the vehicle.
- 55.** A.S.L.I.'s must be of a type approved by the Minister for Social Security. An approval has been issued for A.S.L.I.'s of the electro-mechanical type which sense the load on a crane by monitoring any one or combination of the following -
- Deflections of part or parts of the crane structure
 - Tensions of the crane's rope systems
 - Pressures in the crane's hydraulic circuits
- and which conform to British Standard 7262:1990 "Specification for automatic safe load indicators".
- 56.** A.S.L.I.'s of types which are not within the scope of the British Standard specification are required to be submitted to the Minister for approval. The criteria for such approval is as follows -
- The approving authority must specify that the indicator is:-
 - i) right in concept;
 - ii) robust in construction; and
 - iii) capable of sustaining an acceptable standard of performance.
 - All indicators must give two distinct warnings:-
 - i) a clear, continuous visual warning to the crane operator whenever the load being lifted is between 90% and 97% of the safe working load;
 - ii) a clear and continuous sound warning to the crane operator and anyone else in the vicinity whenever the load being lifted is between 102½% and 110% and above, of the safe working load.
 - The indicator must be permanently and plainly marked with the following information:-
 - i) the name of the maker and trade name;
 - ii) the date of manufacture;
 - ii) serial number or other means of identification;
 - iv) the number and date of the certificate of approval.
- 57.** Automatic safe load indicators must be tested and thoroughly examined by a competent person once in every period of six months.
- 58.** A.S.L.I.'s must also be tested when the crane to which the indicator is fitted has:-
- been wholly or partly dismantled; and
 - after any erection, alteration or removal of the crane which is likely to have affected the proper operation of the indicator. A report of the results of these tests must be made on the form provided for this purpose by the Minister for Social Security, see Appendix I, form number CLA.4.
- 59.** One of the tests required is the suspension of a known weight at the appropriate radius of inclination of the crane jib, so that the appropriate margins of tolerance can be assessed as specified in the Certificate of Approval of the indicator, and also to check that the settings of the indicator have not altered.

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60. Many A.S.L.I.'s are provided with a test button and this button **only** checks one part of the indicator, i.e. the electrical circuit - it does not check the whole system. It does not confirm that the automatic safe load indicator has been properly assembled or that the correct cam has been fitted for the appropriate duty of the crane.
61. Provided that he has been fully instructed and also possesses the necessary practical and theoretical knowledge, the crane operator may be competent to carry out the task of testing the automatic safe load indicator. This would include the setting up of the automatic safe load indicator for the appropriate crane assembly. On some cranes, A.S.L.I.'s must be set up so that they receive the correct information on jib length, jib angle, load weight, and the amount of rope falls used, before the indicator will function accurately.

Regulation 12 - Safe Access To, and Egress From, Cranes or Lifting Appliances

62. Safe means of access and egress must be provided for operators of cranes and lifting appliances. The equivalent standard of safety must also be provided for persons carrying out work on the crane or lifting appliance particularly work involving the examination, lubrication or repair where the person carrying out the work can fall a distance of more than 6'6" (1980mm).
63. Where a vertical run of ladders is attached to a crane or lifting appliance which exceeds 30' (9140mm) in height, suitable landing places must be provided at every 30' wherever possible. These landing places must have secure fencing to a height of at least 3' (920mm) which should consist of upper and lower guard rails.
64. Suitable guard hoops must also be fitted at regular intervals on the ladder.

Regulation 13 - Brakes, Controls and Other Safety Devices

65. Every crane or lifting appliance must be provided with an efficient braking system. The system must be capable of sustaining any load to be raised, lowered or suspended within its capacity. This requirement does not apply to self-sustaining cranes or hand operated machines where the operator can sustain the load.
66. Each control on the crane or lifting appliance should be clearly identified to show the amount and direction of movement and where practicable controls should be so arranged that inadvertent operation can be prevented.

Regulation 14 - Cranes with Derricking Jibs

67. Cranes, fitted with derricking jibs, which are driven through a clutch from the same source of power which drives the hoisting mechanism, must be fitted with an interlocking arrangement which prevents the free fall of the jib when the derricking clutch is disengaged.

Regulation 15 - Precautions where Crane or Lifting Appliance has Travelling Slewing Motion

68. Precautions must be taken to prevent persons from being trapped between any moving part of a crane or lifting appliance and any fixed object. These precautions must include -
- An unobstructed passageway not less than two feet wide (610mm)
 - If this is not possible or practicable, steps must be taken to prevent persons from gaining access to the place where they are liable to be trapped

Regulation 16 - Cabins for Operators of Cranes

69. Where cranes are exposed to the weather, and where they are used for long periods, a suitable cabin must be provided for the operator which should -
- Protect him from the weather, and
 - Where reasonably practicable, be provided with suitable means of heating
- Any means provided for heating must not be of a type where offensive or injurious fumes may be given off.

Regulation 17 - Powers of Inspectors to Require Cranes and Lifting Appliances To Be Tested

70. In cases where a Health and Safety Inspector, appointed under Article 12 of the Health and Safety at Work (Jersey) Law, 1989, has reasonable grounds for considering that a crane or lifting appliance is unsafe, the following action may be taken -
- The Inspector may, by written notice, require a test and thorough examination to be carried out by a competent person of his choice
 - Once the notice is served, the crane or lifting appliance must not be used until the test and thorough examination has been carried out and the competent person who carries out the test and examination has issued a certificate and has specified that the crane or lifting appliance is safe for further use
71. The test and thorough examination should be identical to the requirements contained in Regulation 5 of these Regulations, see page 10.

Part 3 - Lifting Operations

Regulation 18 - Operators of Cranes and Certain Lifting Appliances

- 72.** A certificate of competence must exist for every operator of a crane, excavator, fork lift truck, mechanical grab, mechanical shovel and piling machine. An example of a suggested format for such a certificate is shown in Appendix I.
- 73.** The certificate must be issued by -
- The employer of the operator; or
 - The owner of the equipment which the operator is using
- 74.** An operator who has not been certificated may operate such a machine for training purposes provided he is under the direct and constant supervision of a person who has been so certificated.
- 75.** It does not follow that a competent operator of say a tower crane, will automatically be competent to drive a mobile jib crane. The competency of a driver will depend on his ability to handle the particular machine which he is operating.
- 76.** The following are some of the factors which should be considered before an operator is certificated -
- Be at least 18 years of age
 - Be medically fit with particular emphasis on eye-sight, hearing and reflexes
 - Fully understand the duties of a slinger and/or banksman and be familiar with the signalling methods, including the recognised code of manual signals
 - Have a good judgement of distances, heights and clearances
 - Possess sufficient working knowledge of the crane so that he will be capable of carrying out routine checks, recognise faults etc., and be able to interpret the manufacturers instructions
 - Have the stature and physique, if necessary, to enable him to operate the crane safely
- 77.** The certification of fork lift truck operators is equally as important. A competent fork lift truck operator should possess the following qualities -
- Ensure so far as possible the safe condition of the truck
 - Be aware of all factors that can affect the stability of a fork lift truck and be able to recognise hazards which are likely to affect the safe use and working of the truck
 - Manoeuvre the truck with skill in conditions where there may be little room available
 - Stack and de-stack loads safely whether from racks, vehicles or otherwise
 - Re-fuel or re-charge the truck safely
 - Take into consideration the safety of other persons in the vicinity at all times



Regulation 19 - Signalling

78. Where the load is not clearly visible or the hook of the crane or lifting appliance is not clearly visible to the operator, a signaller (banksman) must be used to transmit the slingers instructions to the operator.
79. All signals must be clear and concise and should, if they are visual signals, conform to the recognised code of manual signals.
80. The operator must take notice of only the signals of the person appointed, however, he must obey a signal for "emergency stop" if it is given by any person employed on site.

Regulation 20 - Safe Means of Access and Egress and Safe Place of Work for Persons Engaged in Lifting Operations

81. This requirement, involving the provision of safe means of access and egress, is directed towards the employees who are involved in lifting operations. This means the work involved in lifting operations, which includes the attaching of loads, using lifting gear, to cranes and lifting appliances prior to the loads being raised, lowered or suspended.
82. Where dock workers need to board vessels to carry out lifting operations, the following specific requirements apply -
 - Where it is reasonably practicable to do so, suitable and sufficient gangways or ships accommodation ladders must be provided
 - If it is not reasonably practicable to provide these means, then one or more ladders of adequate strength must be provided
83. Whatever is provided must comply with the following requirements -
 - It must be properly constructed, be of good design, be made from sound materials, be of adequate strength and free from patent defect
 - It must be properly "maintained", as defined in Regulation 1, see page 9, paragraph 17
 - Adequately secured
 - Adjusted at regular intervals to ensure a safe angle of inclination to the horizontal
84. Ships gangway and accommodation ladders must not be less than 22" wide (560mm) and be provided with guard rails or ropes or chains at a height of at least 3' (920mm). All places of work where persons are engaged in lifting operations must, at all times, be safe.



Regulation 21 - Load Not To Exceed Safe Working Load

- 85.** The safe working load of a crane or a lifting appliance must never be exceeded under normal operating conditions.
- 86.** There are only two exceptions to this requirement -
- Where a proof load test is being carried out on a crane or lifting appliance under the supervision of a competent person for the purpose of Regulation 5, see page 10
 - When the settings of an automatic safe load indicator are being tested as required by Regulation 11, see page 16
- 87.** The requirements of this Regulation do not apply to the following lifting appliances -
- Excavators
 - Mechanical Grabs
- 88.** Grabs and excavator bucket sizes are determined by the capacity of the machine. This naturally limits the load which these machines can carry. The possibility of overturning is not as easily achieved as that on conventional cranes, when the machine is being used as an excavator.

Regulation 22 - Attendance at Suspended Loads

- 89.** The temporary suspension of a load from a crane or lifting appliance must only be carried out whilst a competent person is seated at the controls.

Regulation 23 - Secureness of Loads

- 90.** Loads must be secured whilst being raised, lowered or suspended - they must not be capable of being easily displaced. Loads must be properly secured to the hook or other device of the crane or lifting appliance and where the load comprises a number of parts, the load must be so constructed that each part is stable and not likely to become loose.
- 91.** Preventative measures must be taken to ensure that extraneous objects do not become displaced during lifting operations.
- 92.** Some loads are assembled with securing straps which are only designed to hold the load together, for example bricks and packaged materials. In these circumstances the securing straps must not be used to connect the load to the crane or lifting appliance unless the strap is especially designed for this purpose, for example, man made fibre slings used for handling cement cargos.

Regulation 24 - Teagle Openings and Similar Doorways

93. A teagle opening is an opening in the side of a building, usually above ground level through which goods and materials are raised, lowered or suspended.
94. When not in use, the opening must be securely fenced in at all times. When the fencing is removed for use, the opening must be provided with a secure hand hold on each side.

Regulation 25 - The Carrying of Persons

General

95. This Regulation contains the requirements for ensuring safety in relation to the carriage of persons by means of power driven lifting appliances and cranes. It should be noted that this Regulation does **not** apply to the carriage of persons in lifts.
96. The only person who may be carried by means of a power driven lifting appliance is the person actually operating the crane or appliance.

Fork Lift Trucks

97. A certificate of exemption to this requirement has been issued to allow the carriage of persons on the forks of fork lift trucks under certain circumstances. The conditions which must exist are as follows -
- Persons shall only be carried on the forks of a fork lift truck, on a stage or platform, which complies with the following requirements:-
 - i) The stage or platform must be effectively secured to the forks.
 - ii) The edge of the stage or platform must be provided with secure fencing at least 3 feet (920mm) in height consisting at least of upper and lower guard rails and toe boards not less than 6 inches (155mm).
 - iii) The weight of the stage or platform and the total load carried in it shall not exceed half the safe working load of the fork lift truck.
 - iv) The stage or platform must be plainly marked with its own weight.
 - All dangerous parts of the fork lift truck shall be securely fenced to protect persons carried on the stage or platform from coming into contact with those parts
 - A suitable locking device shall be fitted to the fork lift truck to ensure that the mast of the truck remains substantially vertical

- No person shall remain on the stage or platform whilst the whole fork lift truck is in motion
- No person shall remain on the stage or platform if the fork lift truck is used on an uneven base or floor
- Where reasonably practicable the fork lift truck lifting mechanism should be fitted with at least two suspension ropes or chains

Skips, Appliances, Stagings, Chairs etc. Suspended from Cranes

- 98.** Where persons are to be carried by any of the above equipment from a crane, the following measures must be taken -
- The appliance used to carry the person must be at least 3 feet (920mm) deep
 - If a platform or stage is to be used, then guard rails consisting of upper and lower rails must be provided rising to a height of at least 3 feet (920mm) and toe boards must be provided at least 6 inches (155mm) deep
- 99.** All the above equipment used for the carriage of persons must also comply with the following requirements -
- Steps must be taken to prevent the appliance from spinning or tipping in a manner which would be dangerous to the occupants
 - The attachment of the device to the crane hook must be designed in such a way that it cannot be accidentally displaced
 - The whole arrangement for the carriage of persons must:-
 - i) be a good design;
 - ii) be properly made from sound material;
 - iii) be of adequate strength; and
 - iv) be maintained.

Inspection, Examination, Testing

- 100.** All equipment used to carry persons in the manner discussed in this Regulation must be inspected by a competent person on each day before it is used.
- 101.** A test of any equipment used for the purposes of carrying persons must be carried out under the following circumstances -
- Before it is taken into use for the first time after manufacture
 - After it has undergone substantial alterations or repairs
- 102.** A certificate must be issued by the competent person which contains certain approved particulars (see Appendix I). The safe working must be specified on the certificate.

Method of Use

- 103.** The safe working load of the equipment and the maximum number of persons permitted to be carried must be clearly marked.

- 
- 104.** The equipment shall not be used to carry loads other than for the immediate use of persons using it, and the combined weight of persons and loads must not, under any circumstances, exceed the safe working load.
- 105.** Where the equipment is suspended from a crane, the crane must be fitted with devices which automatically stop the hoisting and, where appropriate, the derricking motion of the crane, particularly when the hook or jib of the crane reaches the upper and lower safe limits of movement. Any device provided for this purpose must allow movement of the crane to be reversed after the devices have actuated.

Signalling

- 106.** Where more than one person is carried, one of these persons must be detailed to give signals for the safe movement of both the crane and the appliance. The operator must obey only the signals of the person so appointed except that he will obey the signal for an emergency stop if it is given by any person.
- 107.** Except for the purpose of testing, skips and other devices used for the carriage of persons must not, under any circumstances, be loaded beyond the safe working load except under the supervision of a competent person for the purpose of proof load testing the appliance.

Regulation 26 - Cranes and Cargo Winches Forming Part of the Permanent Equipment of Vessels

- 108.** The International Labour Organisation, which is a United Nations agency, formulates international labour standards in the form of Conventions and Recommendations setting minimum standards of workers' health and safety. Standards relating to cranes and other lifting appliances forming part of a ship, are set out in Conventions made to ensure the health and safety of dockworkers.
- 109.** All equipment on ships visiting Jersey must normally comply with the requirements of these Conventions.



Part 4 – Miscellaneous

Regulation 27 – Certificates of Exemption

- 110.** The Minister for Social Security can issue exemption certificates from all or any of the requirements of these Regulations. These will be issued only under the following circumstances -
- If the Committee is satisfied that the requirements in respect of which the exemption is granted are not necessary for the protection of persons employed, or
 - The requirements are not reasonably practicable
- 111.** The Minister can impose any conditions attaching to the exemption certificate.
- 112.** General exemption certificates have been issued which deal with the carriage of persons on fork lift trucks, the use of hydraulic hand operated cranes used in garages and the use of break-down vehicles.
- 113.** Copies of these certificates are shown as Appendix II.

Regulation 28 – Reports and Other Documents

- 114.** All certificates and reports which are required to be made under these Regulations must be kept available for inspection at any reasonable time by a Health and Safety Inspector.
- 115.** It is recommended that these documents should be filed safely so that they can be easily and quickly referred to in cases where accidents have occurred or where a particular request has been received from an Inspector to examine the form. It is a requirement of this Regulation that all documents issued as a result of these Regulations must be kept for a period of at least four years from the original date of the report or certificate.



Appendix 1

Form No. CLA. 1

Health & Safety at Work (Jersey) Law, 1989
Safeguarding of Workers (Cranes and Lifting Appliances) (Jersey) Regulations, 1978

Approved particulars which must be included in every Certificate of Test and Thorough Examination of a Crane or Prescribed Lifting Appliance as required by Regulation 5

Certificate No.

(1) Name and address of owner of crane or lifting appliance
.....
.....

(2) Name and address of crane manufacturer - where known
.....
.....

(3) Type of crane Nature of power

(4) Date of manufacture

(5) Identification: Makers model and serial number
Owners distinguishing number

(6) Automatic Safe Load Indicator - where required
Trade Name Serial No

(7) Date of last previous test of the crane or lifting appliance

(8) Date of last previous thorough examination of crane or lifting appliance

(9) Test loads applied and safe working loads of crane or lifting appliance

	Test Load (tonnes)		Safe Working Load (tonnes)			
Main Hoist		
Auxiliary Hoist (1)		
Auxiliary Hoist (2)		
Length of Jib		
	BLOCKED		FREE ON WHEELS			
	Radius	Test Load	Safe Working Load	Radius	Test Load	Safe Working Load





(10) Details of ropes fitted to the crane or lifting appliance at the time of test -

- (a) Description of use
- (b) Type of rope
- (c) Type of construction
- (d) Size (diameter)
- (e) Minimum breaking load or breaking strength
- (f) Length

(11) Particulars of any defect found in the crane or lifting appliance or Automatic Safe Load Indicator which affects or may affect the safety of the crane -

.....
.....
.....

(12) Repairs required to remedy the above defects which must be done -

- (1) Immediately
 - (2) Within a specified time, to enable the crane or lifting appliance to continue to be used with safety
- If no repairs are required state "NONE"

(13) Observations

(14) Declaration:

I/We hereby certify that the crane/lifting appliance described in this Certificate was tested and thoroughly examined on and the particulars given above and on continuation sheets numbered are correct.

(15) Signature(s):
Occupation(s):

(16) Name of the firm or association or person by whom the person(s) conducting the test was employed:

(17) Date of Certificate:



Appendix I

Form No. CLA. 2

Health & Safety at Work (Jersey) Law, 1989
Safeguarding of Workers (Cranes and Lifting Appliances) (Jersey) Regulations, 1978

Approved particulars which must be contained in the Report of the Results of every thorough examination as required by Regulation 5(2) of a Crane or Prescribed Lifting Appliance

Name or Title of Owner of Crane or Lifting Appliance
Address

Signature of Person Making Examination and Date of Examination	Defects noted and alterations or repairs required to the crane or lifting appliance and the automatic safe load indicator before the crane or lifting appliance is put into service	Date of Last Previous Thorough Examination	Identification
.....	Make & Type
.....	Makers No.
.....	Owners Name
.....	Owners No.
.....	Make & Type
.....	Makers No.
.....	Owners Name
.....	Owners No.
.....	Make & Type
.....	Makers No.
.....	Owners Name
.....	Owners No.



Appendix I

Form No. CLA. 5

Health & Safety at Work (Jersey) Law, 1989

Safeguarding of Workers (Cranes and Lifting Appliances) (Jersey) Regulations, 1978

Approved particulars which must be included in every Certificate of Test and Thorough Examination of a Chair, Skip or Other Receptacle as required by Regulation 25(C)

Certificate No.

(1) Name and address of owner of Chair, Skip or Receptacle
.....

(2) Description of Chair, Skip or Receptacle

(3) Distinguishing number or mark

(4) Weight of Chair, Skip or Receptaclekgstonnes

(5) Date of test and thorough examination

(6) Test load applied

(7) Safe working load of the Chair, Skip or Appliance

(8) Number of persons permitted to be carried

(9) Names and address of maker, supplier or repairer (specify which)
.....

(10) Name and address of firm or organisation carrying out the test and examination
.....

(11) Name of person of firm or organisation in (10) responsible for carrying out the test and thorough examination

(12) Declaration:
I/We hereby certify that the Chair, Skip or Receptacle described in this Certificate was tested and thoroughly examined on and found to be free from any defect liable to affect its safe working.

(13) Signature(s):
Occupation(s):

(14) Date of Certificate:

Notes:

Appendix II - Certificates of Exemption

Health & Safety at Work (Jersey) Law, 1989

Safeguarding of Workers (Cranes and Lifting Appliances) (Jersey) Regulations, 1978

Certificate of Exemption No. 6587/1 - issued 5th March, 1979

In pursuance of the powers conferred by Regulation 27 of the Safeguarding of Workers (Cranes and Lifting Appliances) (Jersey) Regulations, 1978, the Social Security Committee hereby exempts fork lift trucks from the requirements of Regulation 25(1) of the said Regulations subject to the conditions specified in the Schedule to this Certificate. Expressions used in this Certificate shall have the same respective meanings as in the Regulations. This Certificate shall remain in force until revoked by the Social Security Committee.

The Schedule

- 1) Persons shall only be carried on the forks of a fork lift truck on a stage or platform which complies with the following requirements:-
 - a) The stage or platform must be effectively secured to the forks.
 - b) The edges of the stage or platform must be provided with secure fencing at least 3 feet (920 mm) in height consisting at least of upper and lower guard rails and toe boards not less than 6 inches (155mm) in depth, all of which are an integral part of the stage or platform.
 - c) The weight of the stage or platform and the total load carried in it shall not exceed half the safe working load of the fork lift truck.
 - d) The stage or platform must be plainly marked with its own weight.
- 2) All dangerous parts of the fork lift truck shall be securely fenced to protect persons carried on the stage or platform from coming into contact with those parts.
- 3) A suitable locking device shall be fitted to the fork lift truck to ensure that the mast of the truck remains substantially vertical.
- 4) No person shall remain on the stage or platform whilst the whole fork lift truck is in motion.
- 5) No person shall remain on the stage or platform if the fork lift truck is used on an uneven base or floor.
- 6) Where reasonably practicable the fork lift truck lifting mechanism should be fitted with at least two suspension ropes or chains.



Appendix II - Certificates of Exemption

Health & Safety at Work (Jersey) Law, 1989
Safeguarding of Workers (Cranes and Lifting Appliances) (Jersey) Regulations, 1978

Certificate of Exemption No. 6587/2 - issued 5th March, 1979

In pursuance of the powers conferred by Regulation 27 of the Safeguarding of Workers (Cranes and Lifting Appliances) (Jersey) Regulations, 1978, the Social Security Committee hereby exempts the class of cranes described in The Schedule to this Certificate from the requirements of Regulation 10, paragraphs 2, 3 and 4, and Regulation 18 of the said Regulations.

Expressions used in this Certificate shall have the same respective meanings as in the Regulations. This Certificate shall remain in force until revoked by the Social Security Committee.

The Schedule

Hand operated non-powered cranes, provided that where such a crane has a safe-working load which varies according to the operating radius of the jib, the safe-working load shall be marked at suitable positions on the jib so that the person operating the crane can determine the safe-working load of the crane at the appropriate operating radius of the jib.

Health & Safety at work (Jersey) Law, 1989
Safeguarding of Workers (Cranes and Lifting Appliances) (Jersey) Regulations, 1978

Certificate of Exemption No. 6587/3 - issued 5th March, 1979

In pursuance of the powers conferred by Regulation 27 of the Safeguarding of Workers (Cranes and Lifting Appliances) (Jersey) Regulations, 1978, the Social Security Committee hereby exempts the machine described in The Schedule to this Certificate from the requirements of the above Regulations.

Expressions used in this Certificate shall have the same respective meanings as in the Regulations. This Certificate shall remain in force until revoked by the Social Security Committee.

The Schedule

A mechanical appliance comprising a jib and winch installed on the rear of a vehicle and used solely for the towing of vehicles. These are commonly referred to as "break-down trucks".



Appendix II - Certificates of Exemption

Health & Safety at Work (Jersey) Law, 1989

Safeguarding of Workers (Cranes and Lifting Appliances) (Jersey) Regulations, 1978

Certificate of Exemption No. 6587/4 - issued 21st April, 1980

450 & 600 Series Hydraulic Cranes

In pursuance of the powers conferred by Regulation 27 of the Safeguarding of Workers (Cranes and Lifting Appliances) (Jersey) Regulations, 1978, the Social Security Committee hereby exempts from the requirements of Regulation II of the said Regulations the cranes produced as the 450 and 600 Series Hydraulic Cranes and which are designated by the trade name "Cotil" when installed on a tractor, subject to the conditions specified in the Schedule below.

Unless the context otherwise requires, expressions used in this Certificate have the same respective meanings as in the said Regulations.

This Certificate shall remain in force until revoked by the Social Security Committee.

The Schedule

- 1) There shall be fitted to the hydraulic system of the crane suitable relief valves so adjusted as to prevent the safe working load at the corresponding radius of the jib being exceeded. These valves shall be of sound construction and properly maintained.
- 2) Provided that for the purpose of making tests the relief valves may be adjusted to permit the safe working load to be exceeded by such amount as a competent person appointed to carry out the tests may authorise.
- 3) The hydraulic system shall be fitted with two correct pressure gauges indicating the pressure in suitable units, which shall be of adequate size for the purpose, of sound construction and properly maintained. The gauges shall be in such positions as to be easily visible to the person operating the crane. The gauges shall be connected so that one indicates the pressure in the hydraulic circuit to the hoist winch and the other the pressure in the hydraulic circuit to the derricking cylinders. The gauges shall be clearly marked to show in which circuit they are connected. The pressure at which the relief valve for the circuit operates to prevent the safe working load from being exceeded shall be marked on the dial of the relevant gauge in a distinctive colour.



Notes



Notes



Notes



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