



# ACCREDITATION REQUIREMENTS OF INSPECTION BODIES FOR LIFTING EQUIPMENT

**(ALL TYPES OF CRANES, HOISTS, SUSPENDED EQUIPMENT,  
ESCALATORS, ELEVATORS AND OTHER LIFTING EQUIPMENT USED  
IN CONSTRUCTION SITES AND INDUSTRY)**

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## 1 DEFINITIONS

### 1.1 Lifting Equipment

Any lifting machine, driven by manual or mechanical power that is able to raise, lower or suspend loads, and includes the supporting structure and all plant, equipment and gear used in connection with such a machine, but excludes continuous mechanical handling devices (i.e. conveyors), such as but not limited to: -

- i. Cranes (tower, mobile etc),
- ii. Wall / Pillar Cranes, Derricks, Swing Jibs and Davits,
- iii. Runway Beams, Monorails, All Pad Eyes, Gin Poles and Gin Wheels,
- iv. Winches, Hoists (air and electric), Crabs, Telfer Hoists,
- v. Chain Blocks, Wire Rope Pulling Machines, Pull Lifts, Trolleys,
- vi. Powered working Platforms,
- vii. Elevators and Lifts,
- viii. Forklifts, Self Loader and Side Booms,
- ix. Lifting Jacks (pneumatic or hydraulic).

### 1.2 Lifting Accessories or Loose Gear

Any item used to connect a load to the lifting equipment but which is not in itself a part of the load or the equipment, such as:

- i. Chains and Wire Ropes,
- ii. Chain, Wire Rope and Webbing Slings,
- iii. Rings, Links, Hooks, Shackles, Eye Bolts, Swivels, Blocks, Snatch Blocks,
- iv. Beam Clamps and Plate Clamps,
- v. Lifting Beams / Spreader Beams.

### 1.3 Substantial / Major Alteration

*Alteration to* either the quantum of the load lifting capacity, or changes to its function or methods of controlling those functions, *such as but not limited to the followings:*

Increase of the safe working load or an increase in performance,

- i. Increase of the rated speeds,
- ii. Increase of the reach (outreach, lifting height, etc),
- iii. Alteration to safety devices,
- iv. Alteration to load carrying parts (e.g. anchorages, spelter sockets, primary structures etc),
- v. Alteration to driving mechanisms and controls,
- vi. Repair or alteration that affects strength and / or stability,
- vii. Alteration of kind of current or voltage,
- viii. Alteration of kind of guiding rails,
- ix. Alteration of kind of number of landing doors.

## 1.4 Repair

*Restoring* the original state of equipment by rebuilding or exchanging parts or units. If essential parts with safety functions are to be rebuilt or exchanged, this is considered to be a “Major Repair”. This is the case particularly in respect of the exchange of the following:

- i. Brakes,
- ii. Safety Gear or catching devices,
- iii. Over-Speed Governors,
- iv. Load carrying parts (e.g. anchorages, open or closed spelters sockets, primary structures etc),
- v. Driving mechanisms and controls.

## 1.5 Inspection

Any physical activity, related to ensuring that an item of “Lifting Equipment”, in its entirety and at a given location or environment, meets the specified design and operating Standards and is safe to operate for a specified period.

### 1.6 *In-service Inspection*

*In-service inspection of lifting equipment undertaken onshore after installation of the Lifting Equipment and prior to being put into service*

## 1.7 Load

Means any material, persons, or any combination of these that are lifted, lowered or suspended by the Lifting Equipment.

## 1.8 Working Load Limit (WLL)

Maximum load (mass), lifting equipment may lift safely in the most efficient configuration. For wire rope, chain and fiber rope slings this is in direct lift i.e. eye to eye in a straight vertical line.

## 1.9 Safe Working Limit (SWL)

Maximum load (mass), lifting equipment may lift safely in a particular configuration,. e.g. a sling used in a choked condition its safe working load is approximately 0.8 of its WLL.

## 1.10 Proof Load Test

The application of a predetermined load excess of SWL to assess the ability of the equipment to withstand operation requirements. This applied proof load shall never exceed the elastic limit of the item being tested.

## 1.11 The Minimum Breaking (or Failure) Load (MBL)

Theoretical load which a sample of the item will not break or fail.

## 1.12 Factor of Safety (FOS) or Coefficient of Utilization or Working Coefficient

It is a factor that is applied to the MBL to determine the WLL. It varies with the product to take account of the susceptibility to damage and considers the type of stresses the item will withstand in normal use. Where the conditions of use are more severe than those

considered by the product standard, the user would apply an increased FOS, so reducing the value of the SWL from that of the WLL.

### 1.13 Inspection Certificates

Certificates issued by a DAC accredited IB, to indicate compliance of lifting equipment with safety requirements and its fitness for use,

### 1.14 Inspection Report

When the lifting equipment does not comply with the requirements of the relevant standards, an Inspection Report shall be issued, the full description as to why the lifting equipment failed the inspection.

### 1.16 Critical Components and Areas

Components and areas that if failure occurs the lifting equipment may become unstable and/or cause the load to fall.

### 1.17 Thorough Inspection

*Inspection for compliance* with manufacturers' specifications and safe operation, as a minimum:

- Oil, fuel level and lubrication.
  - Ropes, rope terminal fittings and anchorages, rope drums and sheaves for any damage and wear.
  - Water *draining* from air reservoirs.
  - Crane for any loose, *cracks* or damaged structural component including supports and outriggers where fitted.
  - Security of the counterweight, checking the *correspondence of the removable weights* to those shown on the counterweight chart.
  - Load moment system where fitted is correctly set or fitted (or both) with the program appropriate to the boom or jib length, and fly-jib lengths and falls or parts of rope.
  - Indicator appropriate to the boom, jib or fly-jib length is fitted.
  - *The condition of the* Crane cabin (tidy condition and free from grease and oil, rags, tools and materials other than those for which storage provision is made).
  - Pneumatic systems and hydraulic systems including their safety devices.
  - Operation of the crane through all motions with particular attention to brakes.
  - Operation of all limit switches or cut-outs and safety devices (*the checks to be made in non-operation status*).
  - *While using* telephone or radio communications (*checks for functioning of the call signal and clearly hearing the messages*).
  - Fire extinguishers are in place and satisfactory for use.
- \* while undertaking the inspection, in case of suspecting indications like noise, remove covers or open gearboxes

### 1.18 Periodic inspections

*Periodic Examination carried out based on equipment condition especially before put into service, the working environment, the frequency and severity of use of the lifting equipment. The inspection shall also include the manufactures items, and if the manufacturer's recommendations are not available a competent person must specify, in writing, all the items/components to be inspected together with the acceptance/rejection criteria to be applied by the inspector.*

Note 1: The inspection period is based on a normal working day of up to 8 hrs and a 5/6-day working week (2400 hours). When usage of the lifting equipment exceeds these figures a competent person must specify exactly, in writing, what the period of these inspections is. Factors such as the environment, frequency and type of usage, quality of maintenance shall be taken into account prior to establishing the period of the inspection

Note 2: As the result of a periodic inspection, a competent person may recommend a major inspection.

### 1.19 Major inspection

*Inspection to assess the suitability of the Lifting Equipment for continued safe operation.*

The following cranes shall be subjected to a major inspection:

- (a) Cranes that have reached the end of their design life or, where this is unknown, after 25 years for the structure and 10 years for the mechanical components.

Notes:

1. A crane's design life may not be the same as its actual life and depends on such factors as its classification, usage and its operating environment.
2. Devices are available to record the actual usage of a crane to enable assessment of its remaining design life. Guidance on condition monitoring is given in ISO 12482-1.
- (b) Old cranes that are to be re-commissioned and that do not have previous operating records or that were designed and built to unknown Standards.
- (c) Cranes that are to be upgraded or modified.

*The following items shall be considered for major inspection:*

- (i) Structural, mechanical, electrical, instrumentation, control and operational anomalies.
- (ii) Non-destructive examination to an appropriate Standard.
- (iii) Controls and emergency stop.
- (iv) Braking systems.
- (v) Manufacturer's safety upgrades.
- (vi) Adequacy of safety instructions and manuals.
- (vii) The capacity and viability of upgrading the crane to the requirements of the latest Standard.

### 1.20 Related Authority

*Regulatory bodies in Dubai Municipality (DM) such as (Public Health and Safety Department, Building Department, Environmental Department) Department of Civil Aviation, Dubai Ports Authority-Ports Customs & Free zone Corporation, Jebel Ali Free Zone Authority (JAFZA), Dubai Civil Defense.*

### 1.21 Shall

The word Shall is used when stating a mandatory requirement.

## 1.22 **Should**

The word Should is used when the statement is advisory.

## 2 **SCOPE**

### 2.1 ***Inspection Services:***

*This document is applicable to inspection bodies that are certifying the lifting equipments (cranes, hoists, suspended equipment, escalators, elevators & other lifting equipment used in construction industry & sites). This document is used as accreditation criteria along with ISO 17020 standard*

### 2.2 ***Lifting Equipments Classes:***

#### 2.2.1 Class 1: Powered Lifting Equipment

Powered lifting Equipment cover a wide range of Equipment used for lifting load either vertically or horizontally or both and mean any stationary or mobile Equipment including attachments for anchoring, fixing or supporting that Equipment, which is operated by means of motive power e.g. electric, hydraulic or pneumatic or other powered means.

Examples are like: Mobile Cranes, Overhead Cranes, Tower Cranes, Crawler Cranes, Gantry Cranes, Jib Cranes, Slewing Jib Cranes, Derrick Cranes, Construction Hoists, Cradles, Elevators, Escalators, etc.

#### 2.2.2 Class 2: Manual Lifting Equipment

Manual lifting appliances cover a wide range of Equipment used for lifting and mean any stationary or mobile Equipment including attachments for anchoring, fixing or supporting that Equipment which is operated solely by means of the operator without any powered assistance.

#### 2.2.3 Class 3: Lifting Accessories or Loose Gear *attaching loads to Lifting Appliances* (Attachments or Lifting Gear, also known as Lifting Jackets).

Examples are like Runway Shackles, Slings, Rings, etc.

### 2.3 **Subcontracting:**

2.3.1 Where the inspection body subcontracts certain specialized activities temporarily for part or all of its inspection activities for unforeseen extra work load or any other reasons there must be identifiable member(s) of the management personnel sufficiently knowledgeable in those technical activities being subcontracted, to be able to:

- (a) Define the problem adequately to enable the subcontractor to offer appropriate services, personnel and equipment;
- (b) Choose an appropriate subcontractor and to assess its technical competence (e.g. methods, personnel and facilities);
- (c) Interpret the results supplied by the subcontractor and relate those results properly to the service originally requested or problem originally defined.

2.3.2 If the inspection body subcontracts any part of its DAC accredited activities covered in the scope of this document, the subcontractor must be accredited by DAC.

### 3 GENERAL REQUIREMENTS

- 3.1 The Inspection Body applying for accreditation as per this program must have a management system, which includes the following as minimum:
- 3.1.1 Proper Documentation of its policies, procedures and operations in accordance with the documentation requirements of ISO/ IEC 17020:1998 “*General criteria for the operation of various types of bodies performing inspections*”, *the relevant standard of inspection and test methods according to which it is to be accredited as well as* any additional requirements set by DAC here within this document and other related documents.
- 3.1.2 Facilities properly equipped with the equipment and instruments appropriate for the type and range of inspections under accreditation as minimum.
- 3.1.3 Suitable and qualified technical and administrative staff in the inspection body (see 4.1 also).
- 3.2 Legal Identification for commercial private inspection bodies shall be clearly identified (see the Law no.2: 2010 regarding the organizing the work of the Accreditation Bodies working in the Emirates of Dubai) ,
- 3.3 The Inspection Methods *within accreditation program* must be included in the official list of tests submitted by the inspection body (*see Law no.2: 2010*).
- 3.4 The Inspection Body shall prepare work program/*plan* for its activities with a frequency suitable to its nature of work.
- 3.5 The Inspection Body shall have clear rules for the fees charged for the Inspection Services and for the issuance of the Certificate; and the terms of payments for each. Fees charged by Inspection Body shall be for the Inspection Services and not for the sake of issuing a Certificate; the fee shall be chargeable even if a certificate is withheld.

### 4 SPECIFIC CRITERIA OF COMPETENCE

#### 4.1 Requirements for Technical Competence of Staff

- 4.1.1 *The inspection body shall assess the competence of all categories of persons involved in inspection process. No under-training-inspector shall be allowed to perform inspection activities independently under any circumstances. And also, the inspection body shall maintain training and experience, records and authorization details including; the scope with the class indication the lifting equipment, the date of authorization and a sample of the authorized inspectors signature*
- 4.1.2 Where the personnel of the Inspection Body carry out in-house calibrations of inspection, measuring and test equipment, the records of their training, qualifications and experience shall be maintained together with details of who is authorized to perform specific calibrations.
- 4.1.3 Educational Background and Qualifications:  
Inspection Body shall ensure that the competent personnel carrying out a thorough examination has such appropriate practical and theoretical knowledge and experience of the lifting equipment to be thoroughly examined as will enable them to detect defects or

weaknesses and to assess their importance in relation to the safety and continued use of the lifting equipment.

The inspection body shall have at least one or two senior permanent staff as follows:

- Chief/ Senior Inspector (or however named): at least 15 years of hands-on experience within a relevant engineering discipline of which at least 10 years shall have been spent working within an engineering discipline related to lifting equipment, or, if he holds B.Sc. Engineering Degree, shall have at least 8 years experience with minimum 4 years working within an engineering discipline related to lifting equipment.
- Inspectors: at least 3 years hands-on experience spent working within an engineering discipline related to lifting equipment, or if he holds B.Sc. Engineering Degree, shall have at least 1 years experience working within an engineering discipline related to lifting equipment.

#### 4.1.4 Levels of Supervision and Requirements for Technical Support:

Following are the classified levels of supervision that must be exerted by the inspection bodies and circumstances under which they shall be exerted:

- *Occasional (on Senior Inspectors)*

If the senior inspector is the highest level of competence in the IB then he/*she* is responsible for holding sufficient records that review of his work has been done as per this requirement either by him or by any of his peers. Direct contact to review work with Supervisor at least annually may be necessary. Technical support from persons qualified to peer senior inspector to be readily available.

- *Frequent (on inspectors)*

Direct contact with Supervisor at least weekly. Technical support from persons qualified to senior inspector.

- *Constant (on inspectors under-training)*

Direct daily contact with Supervisor. Technical support from persons qualified to senior inspector or inspector to be readily available.

#### 4.1.5 Training and further development:

4.1.5.1 The training provided by the Inspection Body to its staff shall provide a working knowledge of the plants or construction sites or other locations (where equipment are used), equipment and systems including design construction, operation, maintenance, significance of defects, typical problem areas and associated method of rectification. DAC recognizes training provided by world reputable training organizations like (but not limited to) Lifting Equipment Engineers Association (LEEA).

4.1.5.2 The training shall include the safe conduct of the inspectors' duties, in particular safe practices applicable to lifting equipment, risk assessment, knowledge of applicable statutory requirements, codes of practice and standards.

#### 4.1.6 Assessment of inspectors for the purpose of accreditation:

Inspectors will be assessed by witnessing their performance in the field. Not all inspectors may be assessed during the first visit but all inspectors will be assessed within the 3-year validity period of the accreditation.

## 4.2 Requirements for Site<sup>1</sup> Work

### 4.2.1 Preparation for Site work:

(a) Prior to going to site, the Inspection Body must ensure the following:

- All needed Personnel Protective Equipment that ensure safety of personnel on site are taken to site;
- Critical test equipment must be checked prior to leaving secure storage before inspection;

(b) The Inspection Body shall allocate inspection activities based from the work program for each inspector in the form of Work Orders. Work Orders to be used by inspectors on site shall contain the following information as minimum:

- Identifiable number traceable to the client request/ contract;
- Type of the equipment and related information about critical items to be inspected.
- Site Location (site map is recommended to be provided)
- Instructions for inspections
- Contact person on behalf of the IB's client

(c) Upon arriving at any inspection site, there shall also be an obligation from the IB for the inspector to enquire the following information:

- Information about previous inspections.
- If the Inspector cannot obtain sufficient information the inspection must be treated like a first inspection and therefore proceed with the 'normal' inspections.
- Manufacturing Operations Manual, Operator or Maintenance Manuals of the equipment, safe working load charts in English and/or Arabic language and in case not available and not possible to provide, the IB shall ensure that an independent competent person be engaged by the owner to provide advice and documentation to support the continued use of the lifting equipment, foundations, building ties, engineering drawings, Installation procedures, Inspection procedures, Bolt sizes, grades and torque, Wire rope size, grade and instruction, Markings etc.
- *The inspector shall ensure that the Wire rope terminations formed by means of metal filled socket, self-tightening wedge type sockets, hand spliced eyes, and ferrule secured eyes or any other system with equivalent safety. Also, U-bolt grips shall not be used **except** for elevators.*

The inspector must then, before issuing any Inspection Certificate, address every issue raised in the previous Inspection Report, if any.

<sup>1</sup> Site: Place at which inspection is being undertaken.

- (d) The IB shall verify the competency<sup>2</sup> of the operator of the lifting equipment to carry out all operations required by the relevant standards, if applicable; i.e. for some overload tests, the competence of the operator is critical to the safety of the lifting equipment and personnel in the vicinity, according to the applicable standards. The IB shall document the result of verifying the operator competency of the lifting equipment at the time of the inspection, either within the same inspection certificate/report or in a separate report; specifying the operator name, the equipment for which his competence was checked, the criteria used for verifying his competence and date of inspection.

#### 4.2.2 Inspectors Checklists:

- The Inspection Body shall use Checklist forms containing all the requirements of relevant BS/ EN inspection standards prepared internally and approved by DAC. The checklist forms shall contain sufficient space to indicate the results of evaluating the inspection methods. The Inspector must sign in the checklist after recording all necessary information.
- The Chief or senior Inspector/ Engineer must co-sign the checklist whenever he makes verification visits to the site.

#### 4.2.3 Reporting Defects in equipment under inspection:

- a) Inspectors are required to be capable of making identification of all types of defects found in equipment under inspection; if the equipment is found unsafe and represents an imminent danger the IB must advise the owner to cease use of the equipment and report this incident immediately to the *related authority in Dubai*.
- b) Lifting Equipment Identification: The IB's must ensure the ability to identify lifting equipment by say Serial Number and Model Number, or some form of Registration Number. If the lifting equipment (and some of their critical components) cannot be identified (even by location in the case of fixed cranes) the IB shall consider this as a defect in the crane which must be reported immediately to related authority in Dubai.

### 4.3 Inspection Methods and Procedures

#### 4.3.1 Methods and Procedures to be used:

The Inspection Body shall use the relevant up-to-date BS and/or BS EN standards in the field of inspection of lifting equipment for performing inspection.

In addition to the relevant BS and/or BS EN standards, the manufacturer's technical literature applicable to the equipment shall also be part of the inspection methods.

#### 4.3.2 Inspection Frequencies:

The mandatory inspection frequency intervals pertaining to all Contractors' "Lifting Equipment" are summarized in Annex 2.

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<sup>2</sup> "Competency of Operator" means in this context that the person who is required to operate the controls of the lifting equipment understands what movement of the lifting equipment will follow when each control is moved and the consequence of each movement of the lifting equipment.

#### General Requirements:

- a) For all lifting Equipment the first and all subsequent inspections shall include all functional tests, overload and safety tests.
  - A ‘Periodic Inspection’, includes *the following*:
    - (i) Identification of all critical components and areas;
    - (ii) Detailed visual inspection of all structural and critical components;
    - (ii) Tolerance checking where any wear is observed;
    - (iv) Checking of tolerances for wear limit on critical components; and
    - (v) Checks for corrosion.
- b) In the event of a ‘major repair’ the lifting equipment shall be subjected to a “Periodic inspection” and ‘Proof Load Test” or other inspections specified by a competent person, prior to being returned to normal service.

#### 4.4 Internal Quality Audits

- 4.4.1 The internal quality audit program shall include the on-site assessment of inspection personnel carrying out inspections.
- 4.4.2 The Inspection Body’s internal quality audit program for on-site audit of inspectors shall be designed so that within each cycle of the program at least one inspector is assessed thoroughly on site. The program shall also ensure that each of the inspectors engaged in inspection is assessed at least once within a period of 3 years for each of the fields in which they are active.
- 4.4.3 The audit program shall ensure that where inspections are managed from locations other than a central location e.g. Branch Offices, including those located overseas, the audit program encompasses these different locations in a systematic way over the 3 year period of validity of accreditation.
- 4.4.4 The records of the internal quality audits produced must be in such a way that will enable the IB to verify the previous inspection works. IBs must describe this point in their Quality Management System Documentation.

#### 4.5 Inspection Certificate/Report

- 4.5.1 After an Inspection Body has completed an inspection of lifting equipment and found no significant issues the inspection body must issue an Inspection Certificate for Lifting Equipment.

The Inspection Body shall produce an Inspection Certificate for lifting Equipment on the inspection to fulfill the client’s needs, the related authority requirements and the applicable clauses of BS/ BS EN standards. *The certificate shall be signed by the authorized Inspector who has performed the inspection, or by any other appropriate authority assigned by the IB. Computer-generated or rubber stamped signatures are not allowed on the certificates. Certificates not conforming to the above requirements shall be rejected.*
- 4.5.2 The certificate shall include the following information as a minimum; (\*) mandatory for compliance with ISO/IEC 17020 are marked with an asterisk:



- 1\* Designation of the document, i.e. as an inspection report or an inspection certificate, as appropriate,
- 2\* Identification of the document, i.e. date of issue and unique identification,
- 3\* Identification of the issuing inspection body Name and address of the IB issuing / endorsing the certificate,
- 4\* Identification of the client Lifting equipments Owner's/ Contractor's name and address,
- 5\* Description of the inspection work ordered,
- 6\* Date(s) of inspection and Type of Inspection,
- 7 Information on where the inspection was carried out, The address of the premises at which the Inspection was made,
- 8 Manufacturer or Supplier of equipment name and address,
- 9\* Identification of the object(s) inspected and, where applicable, identification of the specific components that have been inspected and identification of locations,
- 10 Unique Identification Numbers, brief description and SWL of the equipment,
- 11 Any reservations or restrictions on the use or Maximum Capacity of the equipment,
- 12\* Information on what has been omitted from the original scope of work,
- 13\* Identification or brief description of the inspection method(s) and procedure(s) used, mentioning the deviations from, additions to or exclusions from the agreed methods and procedures,
- 14 Identification of equipment used for measuring/testing,
- 15 Where applicable, and if not specified in the inspection method or procedure, reference to or description of the sampling method and information on where, when, how and by whom the samples were taken,
- 16\* If any part of the inspection work has been subcontracted, the results of this work shall be clearly identified,
- 17 The Due date of next Thorough Inspection,
- 18 The Due date of next Proof Load Test, if applicable,
- 19 Applicable Reference Standard / Code,
- 20 Details of any major Repairs / Alterations carried out on the equipment, provided that the clients inform IB's inspector of any modifications or structural repairs,
- 21 Details of latest Inspection / Tests previously performed including any NDT if possible,
- 22 Measuring units (for Loads / Weights) shall be in either/both Metric kilograms or pounds,
- 23 Information on environmental conditions during the inspection, if relevant,

- 24\* the results of the inspection including a declaration of conformity and any defects or other non-compliances found (results can be supported by tables, graphs, sketches and photographs),
- 25 A statement that the inspection results relate exclusively to the work ordered or the object(s) or the lot inspected,
- 26 A statement that the inspection certificate/report shall not be reproduced except in full without the approval of the inspection body and the client,
- 27 The inspector's mark or seal, if any,
- 28\* Names (or unique identification) of the staff members who have performed the inspection and in cases when secure electronic authentication is not undertaken, their signature, (see also clause 13.3 of ISO/IEC 17020),
- 29 Name, Signature, and Designation of signing Authority of IB, (if different than the inspector who performed the test),
- 30 Clearly defined Liability Clause of the IB,

Certificates issued by third party IBs that fail to give any of the above details will be liable to rejection by the relevant authority in Dubai.

- 4.5.3 Professional Judgment that is included in the certificate will form part of the assessment and will be subject to accreditation.
- 4.5.4 If the inspection commissioned by the client could not be carried out in full or in part, a written notification to that effect shall be given to the client.
- 4.5.5 When an Inspection Body undertakes an inspection of Lifting Equipment and finds items that do not comply with the requirements of the relevant Standards and therefore declines to issue an Inspection Certificate, the IB must issue a separate document called an Inspection Report.<sup>3</sup>

Re-inspection has to be performed by the same IB for equipment that failed the inspection. *In case the client didn't response back for conducting the re-inspection, the related authority in DM shall be immediately informed.*

In the case if there is an accident involving lifting equipment inspected by accredited IBs and as a result of the official investigation it was determined that the accredited IB was responsible, DAC shall immediately suspend the IB's Accredited related scope and exclude the inspector who performed the concerned inspection from the authorization list of approved inspectors. Detailed immediate special assessment will be carried out by DAC related to QMS and technical competence of the IB under suspension and subsequently relevant clauses of DAC-REQ-01 related to suspension & withdrawal of accreditation will be applicable.

In case the accident involved serious injuries or was fatal, DAC Director reserves the right to withdraw the accreditation for the related scope with immediate effect.

<sup>3</sup> Inspection Report shall contain the applicable information referred to in clause 4.6.2 of this document; in addition to the full description as to why the lifting equipment failed the inspection.

4.5.6 Currency of Certificates of Safety: An Inspection Certificate shall be issued with a nominal life as specified in Annex 2 of this document. Each Inspection Certificate may be subject to evaluation as determined by the relevant authority and, whenever the lifting equipment is involved in an accident.

However the validity of this certificate is based on the lifting equipment being maintained and operated in accordance with all of the recommendations made by the manufacturer and not suffering any damage.

Therefore the Inspection Body must only issue an Inspection Certificate when it is satisfied that the lifting equipment is likely to be able to perform all the normal lifts within its capacity in accordance with the relevant load chart.

4.5.7 The designated signatories shall only be authorized by the Inspection Bodies to sign their own Inspection Certificates and Inspection reports. The designated signatory must assume responsibility for the technical validity and accuracy of all information contained in the Inspection Certificate and Inspection Reports.

A designated signatory must have carried out a minimum of inspections for each type of equipment under competent supervision before being authorized to undertake inspections alone.

## 5 REFERENCES

- 5.1 Law No.2 for the year of 2010
- 5.2 ISO/ IEC 17020:1998 General criteria for the operation of various types of inspection bodies.
- 5.3 IAF/ILAC A4: 2004: Guidance on the Application of ISO/IEC 17020.
- 5.4 UKAS RG 0-1999: Accreditation for Inspection.
- 5.5 UKAS RG 6-1999: Accreditation for In-Service Inspection of Lifting Equipment
- 5.6 LOLER-1998: Safe use of Lifting Equipment: Lifting Operations and Lifting Equipment Regulations 1998.
- 5.7 Qatar Petroleum “Lifting Equipment” Technical Regulation QP-REG-Q-001.
- 5.8 DAC-Req-01 Accreditation Requirements.
- 5.9 DAC-Req-05 Conditions for using DAC symbol.
- 5.10 DAC-G2-03 ‘Accreditation Fee Structure’.
- 5.11 DAC- G2-07 ‘Code of Conduct of the Unannounced Surveillance Visits’.
- 5.12 ISO 12482-1: 1995, Cranes- Condition Monitoring – Part1: General,
- 5.13 BS and EN Standards referred to in Annex 1 of this document.

## ANNEX 1

### LIST OF STANDARDS

PRODUCT	TASK NAME	STANDARD
Tower Crane	Code of practice for safe use of cranes Part 2 (Tower)	BS 7121 – 2 Code of practice for safe use of Cranes - Part 2: Inspection, Testing and Examination Sections 5,6,7,9,12,15
Tower Crane	Code of practice for safe use of cranes Part 5 (Tower)	BS 7121:Part 5 Code of practice for safe use of Cranes - Part 5: Tower Cranes Section 14
Mobile Crane	Code of practice for safe use of cranes Part 2 (Mobile)	BS 7121-2 Code of practice for safe use of Cranes - Part 2: Inspection, Testing and Examination Sections 5,6,7,9,12,13
Overhead Crane	Code of practice for safe use of cranes Part 2 (Overhead)	BS 7121-2 Code of practice for safe use of Cranes - Part 2: Inspection, Testing and Examination Sections 5,6,7,9,12,14
Cranes for Lifting Persons & Suspended Baskets	Code of practice for safe use of cranes Part 2 (Lifting Persons & Suspended Baskets)	BS 7121-2 Code of practice for safe use of Cranes - Part 2: Inspection, Testing and Examination Section 11
Construction Hoist	Code of practice for safe use of Construction Hoist	BS 7212 Code of practice for safe use of Construction Hoist Section 10
Construction Hoist	Builders hoists for persons & materials with vertically guided cages	BS EN 12159 Builders hoists for persons & materials with vertically guided cages Sections 5 & 6
Window/Painter's Cradle	Specification for Suspended Access Equipment	BS 2830 Inc Amdt. No.1 Suspended Access Equipment for use in Building, Engineering construction, Steeplejack & Cleaning industries Section 4
Window/Painter's Cradle	Safety requirements on Suspended Access Equipment	BS EN 1808 Safety Requirements on Suspended Access equipment- Design calculations, Stability criteria, Construction - Tests Section 12 & 13

## ANNEX 1

### LIST OF STANDARDS

PRODUCT	TASK NAME	STANDARD
Escalators and passenger conveyors	Safety rules for the construction and installation of escalators and passenger conveyors	BS EN 115 Incorporating Amendment A1 Safety rules for the construction and installation of escalators and passenger conveyors
Elevators/Lifts	Safety rules for the construction and installation of lifts – Part 1: Electric lifts	BS EN 81-1 <i>Incorporating Corrigendum No. 1</i> Safety rules for the construction and installation of lifts – Part 1: Electric lifts
Elevators/Lifts	Safety rules for the construction and installation of lifts – Part 2: Hydraulic lifts	BS EN 81-2 <i>Incorporating Corrigendum No. 1</i> Safety rules for the construction and installation of lifts – Part 2: Hydraulic lifts
Elevators/Lifts	Safety rules for the construction and installation of lifts – Part 3: Electric and hydraulic service lifts	BS EN 81-3 Safety rules for the construction and installation of lifts – Part 3: Electric and hydraulic service lifts
Elevators/Lifts	Safety rules for the construction and installation of lifts — Particular applications for passenger and goods passenger lifts — Part 72: Firefighters lifts	BS EN 81-72 Safety rules for the construction and installation of lifts — Particular applications for passenger and goods passenger lifts — Part 72: Firefighters lifts
Elevators/Lifts	Safety rules for the construction and installation of lifts — Existing lifts — Part 80: Rules for the improvement of safety of existing passenger and goods passenger lifts	BS EN 81-80 Safety rules for the construction and installation of lifts — Existing lifts — Part 80: Rules for the improvement of safety of existing passenger and goods passenger lifts

## ANNEX 1

### LIST OF STANDARDS

PRODUCT	TASK NAME	STANDARD
Chain Block	Hand powered lifting equipment	BS EN 13157
Chain Lever	Hand powered lifting equipment	BS EN 13157
Chain Sling	Short link chain for lifting purposes. Safety. Chain slings	BS EN 818 -4,5,6
Shackle	Forged steel shackles for general lifting purposes. Dee shackles and bow shackles	BS EN 13889
Shackle	Specification for alloy steel shackles	BS 3551
Wire Rope Sling	Steel wire rope slings. Safety. Slings for general lifting service	BS EN 13414-1, 3
Hooks	Components for slings. Safety. Forged steel lifting hooks with latch	BS EN 1677 -1,2
Webbing Slings	Textile Slings- flat woven webbing sling, round slings, made of man , made of fibers	BS EN 1492-1, 2

## ANNEX 2

### ONSHORE “LIFTING EQUIPMENT” FREQUENCIES FOR TESTING / INSPECTION

LIFTING EQUIPMENT TYPE	FREQUENCY FOR	
	PROOF LOAD TEST	INSPECTION (SWL)
<b>All Lifting Accessories:</b> <ul style="list-style-type: none"> <li>Chains and wire ropes</li> <li>Rings, links, hooks, shackles, eyebolts, swivels, blocks, snatch blocks</li> <li>Beam and plate clamps, frames, pallets, lifting beams and cargo nets</li> </ul>	<ul style="list-style-type: none"> <li>On initial supply</li> <li>After substantial alteration or major repair</li> <li>At discretion of survey</li> </ul>	<b>Every six (6) months</b>
<b>Lifting Equipments:</b> <ul style="list-style-type: none"> <li>Pedestal cranes, mobile cranes, forklifts, tower cranes</li> <li>Overhead traveling cranes, wall / pillar cranes, derricks</li> <li>Winches, hoist (air and electric), crabs, Telfer hoist, powered working platforms, vehicle lifts or hoists etc.</li> <li>Mobile or movable jacks and associated “Lifting Equipment”</li> </ul>	<ul style="list-style-type: none"> <li>On initial supply</li> <li>Every four (4) years</li> <li>After reinstallation, substantial alteration or major repair</li> <li>At discretion of survey</li> </ul>	<ul style="list-style-type: none"> <li>Every twelve (12) months</li> <li>Completion of Proof Load Test (full inspection)</li> </ul>
<b>Lifting Equipments:</b> <b>Lifting Persons &amp; Suspended Baskets &amp; construction hoist</b>	<ul style="list-style-type: none"> <li>On initial supply</li> <li>Every four (4) years</li> <li>After reinstallation, substantial alteration or major repair</li> <li>At discretion of survey</li> </ul>	<ul style="list-style-type: none"> <li>Every Six (6) months</li> <li>Completion of Proof Load Test (full inspection)</li> </ul>
<ul style="list-style-type: none"> <li>Runaway beams, pad eyes, gin pole and gin wheels</li> </ul>	<ul style="list-style-type: none"> <li>On initial supply</li> <li>After reinstallation, substantial alteration or major repair</li> <li>At discretion of survey</li> </ul>	<b>Every twelve (12) months</b>
<ul style="list-style-type: none"> <li>Chain Blocks, tirsors, pull lifts, trolleys</li> </ul>	<ul style="list-style-type: none"> <li>On initial supply</li> <li>Every four (4) years</li> <li>After substantial alteration or major repair</li> <li>At discretion of survey</li> </ul>	<b>Every six (6) months</b>
<ul style="list-style-type: none"> <li>Elevator– (people or goods)</li> </ul>	<ul style="list-style-type: none"> <li>On initial supply</li> <li>Every four (4) years</li> <li>After substantial alteration or major repair</li> <li>At discretion of survey</li> </ul>	<b>Every six (6) months</b>
<ul style="list-style-type: none"> <li>Escalators And passenger conveyers</li> </ul>	<ul style="list-style-type: none"> <li>On initial supply</li> <li>Every one (1) year</li> <li>After substantial alteration or major repair</li> <li>At discretion of survey</li> </ul>	<b>Every six (6) months</b>