



***Certification Scheme – Mobile Crane Operator  
Document Reference: IVS/PCS/CSMC, Rev 4***

***Bureau Veritas International Doha – IVS Department***

***- ISO/IEC 17024***

*July 01, 2021*

***Move Forward with Confidence***



## **1.0 Purpose**

Purpose of the scheme is to document competence and other requirements related to Mobile Crane operator.

## **2.0 Scope**

This Scheme covers the following.

- a) Scope of Certification
- b) Job and Task Description
- c) Required competence
- d) Abilities (when applicable).
- e) Pre-requisites (when applicable).
- f) Code of conduct (when applicable).
- g) Criteria for initial and re-certification.
- h) Assessment methods for initial and re-certification.
- i) Surveillance methods and criteria (if applicable).
- j) Criteria for suspending and withdrawing certification.
- k) Criteria for changing the scope or level of certification (if applicable).

## **3.0 Responsibility**

3.1 **Technical Manager** is responsible for development, review and implementation of Certification scheme.

## **4.0 Scope of Certification**

Certified Mobile Crane Operator for Onshore Lifting activities.

Limitation: Crane Operator will be certified to the Specific make, model and capacity to which the operator is assessed.

## **5.0 Job and Task Description for Certified Mobile Crane Operator**

Certified Mobile Crane Operator would be able to successfully perform the following tasks.

- a) Perform the assessment of the area where the crane is to be positioned which includes ensuring the lifting route is free from any obstacles, live electrical cable, sudden & hidden threat from other activities around, weather / wind speed and visibility.
- b) Verify the load handling parameters (position and height of load from the ground, Operating radius, Boom length, rated capacity of the crane) as per applicable load chart.
- c) Preparation of crane and lifting gears for the testing.
- d) Review the certification validity of the selected Lifting equipment.
- e) Perform pre-use inspection of Mobile Crane and report any defects to the Maintenance team.
- f) Follow the hand and radio signalling.
- g) Perform the crane operation safely.
- h) Maintain log book for reporting defects.
- i) Reporting incidents to the Job Supervisor.
- j) Carryout Housekeeping within the confines of Crane.

## **6.0 Required Competence for Certified Mobile Crane Operator**

- a) Knowledge on applicable regulations.
- b) Knowledge on site safety requirements to execute safe Rigging operation.
- c) Knowledge on basic instruments used for measurement.
- d) Competent to perform basic mathematical calculations. Example: Weight calculation – Calculating volume of standard shapes, calculating volume of complex shaped loads, Density / Approximate weight of common materials.
- e) Understanding of Colour-coding system of lifting gears.
- f) Knowledge of Lifting gears (Wire rope slings, Chain slings, Webbing sling, Round slings, Shackles, Eye bolts, plate clamps, Chain blocks, Lever hoists, Jaw winches etc.) construction, classification, Safe Working load and Coefficient of utilization or Safety factor and working temperature range, special features such as length adjustments where applicable.
- g) Knowledge of Upper Working Temperature, special care for storage- away from chemicals, ultra-violet rays of sun-light & Arc-welding-booths, etc., for the soft slings (Webbing sling, round sling etc.)
- h) Knowledge of defects and rejection criteria of Crane and wire ropes.
- i) Knowledge of application and safe use of Safety Harnesses, tag lines etc.,
- j) Knowledge of selection criteria for the suitable lifting gears.
- k) Knowledge of hand signals and radio communication used in lifting operation.
- l) Knowledge of different hitches and their corresponding effect on mode factors with respect to single and multi-leg slings.
- m) Knowledge of different angles (0, 30, 45, 60 degrees) which influences the capacity of Lifting gears.
- n) Knowledge of Safe working load chart for different type of single and multi-leg slings.
- o) Knowledge of calculation for the length required for the specific mode of lifting.
- p) Knowledge of working Principle, use, maintenance, pre-use inspection of Chain blocks, Lever Hoist, Jaw winches and Pulley blocks.
- q) Knowledge on different type of cranes and its latest technologies.
- r) Knowledge on manufacturer recommendation on maintenance and safe use of cranes.
- s) Knowledge of crane terminology, Load charts, Operating radius, Boom length, Line pull, counter weights, outriggers and Boom etc.,
- t) Knowledge of conducting Load-test and thorough examination of mobile cranes.
- u) Knowledge on Daily Pre-checks (Visual & functional test) to be carried out prior to operating a crane.
- v) Knowledge on Safety features in a mobile crane such as Over-load limit switch, Hoisting limit switches, warning lights, horn / alarm, Load moment indicator etc.,
- w) Knowledge on understanding the Lifting plan.
- x) Knowledge on Work site Hazards.- Crane-traveling and lifting Route, traffic rule, parking area, weather, working near live line, wind speed, visibility , etc. in lifting-operation

- y) Knowledge on probable accidents that would happen if crane is overloaded or crane is operated with limit switches by passed.

## **7.0 Abilities of Certified Mobile Crane operators**

- a) Working at height.

## **8.0 Pre-requisites for Certified Mobile Crane Operator**

- a) Mobile Crane operator shall be of minimum 21 years of age.
- b) Shall be experienced in Mobile Crane operation for a minimum of 3 years.
- c) Shall be capable of reading and understanding of English language sufficient for the fulfilment of their function in a safe manner.
- d) Mobile Crane operator shall be certified physically and medically fit, including eye sight, colour blindness, hearing and reflexes by a Qatar registered medical practitioner.
- e) Shall hold the appropriate and valid Qatari driving license.
- f) Shall hold a valid 3 days training certificate (for initial certification) and 2 days training certificate (for re-certification) which clearly identifies make, model and capacity for which the operator has undergone training along with Photo identification card issued by QP Accepted LE Personnel Training and Certification Providers (QLTP's). The validity of QLTP issued certificate shall not exceed 3 years.

## **9.0 Code of Conduct for Certified Mobile Crane operator**

- a) Shall adhere to safe working practices and follow site safety requirements.
- b) Responsible attitude.

## **10.0 Criteria for initial and re-Certification for Certified Mobile Crane Operator**

- a) The applicants must complete application form and shall submit the same along with supporting documents to Bureau Veritas International Doha L.L.C.
- b) The submittals shall undergo a document review process (Stage 1) performed by Bureau Veritas International Doha L.L.C to ensure fulfilment of scheme pre-requisites.
- c) Upon successful outcome of the application process, the successful candidates need to undergo further assessments (Stage 2 &3) for the initial certification.
- d) For the recertification, Bureau Veritas International Doha L.L.C will verify authenticity and validity of the initial certification (Stage 1) in addition to process stipulated under a), b) & c) above.

## **11.0 Assessment Methods for Initial and re-certification for Certified Mobile Crane Operator**

### **Initial and re-certification**

- a) The Initial and re-certification comprises of 3 stage assessment that include application review, written examination and practical assessment. The candidates must pass all assessments to be certified as Mobile Crane Operator. This is applicable for the candidates / applicants who approach BVIL with the work performed by other CB for completing the certification as well.

### **Stage 1 – Application review**

Note: For the re-certification, the applicant shall submit the existing certificate for the verification of validity and authenticity. Submission of application is not required.

### **Stage 2 - Written Examination**

- a) Written examination has a mix of True or false, multiple choice and descriptive questions
- b) Shall be written with indelible Ink Pen
- c) It is a closed book exam.
- d) Passing percentage 60%. (1 retake is permitted within 1 month from the date of exam)
- e) Duration of written examination will be maximum 1 Hour.

### **Stage 3 - Practical Assessment**

Practical assessment will involve the following;

- a) Practical demonstration of fulfilling competence requirements as defined under section 6.0 - Required competence of the Certification Scheme.
- b) Practical demonstration will be conducted on client site.
- c) Passing percentage 70%.
- d) Duration of practical assessment will be maximum 2 Hours.

### **Validity of the Certificates**

- a) Validity of the certificates for the initial and re-certification will be Three (3) Years.

## **12.0 Surveillance methods and criteria for Certified Mobile Crane Operator**

- a) The Certified Mobile Crane operator shall maintain a log for his day to day Lifting activities. To remain certified, Mobile Crane Operator must have successfully completed at least Ten (10) Lifting activities per month and the same shall be submitted to Bureau Veritas International Doha L.L.C office every 12 months from the date of certification for review and records.

## **13.0 Criteria for suspending and withdrawing certification for Certified Mobile Crane operators**

Bureau Veritas International Doha L.L.C shall suspend the certification of certified Mobile Crane Operator in following circumstances.

- a) Failure to provide the log of Minimum number of Lifting activities performed by the certified Mobile Crane Operator per year.
- b) Any serious and valid complaints that can lead to safety incidents received from the clients or Employer of certified Mobile Crane Operator.
- c) Misuse of Bureau Veritas International Doha L.L.C logo.

Bureau Veritas International Doha L.L.C shall withdraw the certification of certified Mobile Crane Operator in following circumstances

- a) Any serious and valid complaints that can lead to safety accidents received from the clients or Employer of certified Mobile Crane Operator.
- b) Failure to take timely corrective action on reported safety incidents that led to suspension of Certification.

- c) Any misrepresentation or falsification of documents submitted to Bureau Veritas International Doha L.L.C with the intention to obtain certification / ongoing maintenance / re-certification.
- d) Failure to maintain compliance with pre- requisites.

#### **14.0 Criteria for changing the scope or level of certification**

Change in scope or level of certification may happen under following circumstances.

##### **Upgrading to operate higher capacity.**

- e) If the Certified Mobile crane operator seeks to upgrade his certificate to operate higher capacity cranes, Operator will have to pass the assessment as per the section 8.0 & 11-Stage 3 to get certified.

#### **15.0 References**

**QP-PAI-STD-005 Rev.00**

**BS 7121-2-1**

## Document validation and history

### Validation

	Prepared	Reviewed	Approved
<b>Name</b>	Anil V John	Abraham Vedhamuthu	Hossam Refaey
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<b>Date</b>	July 01, 2021	July 01, 2021	July 01, 2021
<b>Signature</b>			

### History

Revision	Date	Pages changed	Comments	Proposal	Verification	Approval
4	July 01, 2021	Page 3, Para 15	QP regulation reference has been changed	IVS Technical Manager	IVS BL Manager	Country Chief Executive
3	July 01, 2020	Page 3, Para 11	Clarified the criteria when the applicant approaches with the work performed by other CB	IVS Technical Manager	IVS BL Manager	Country Chief Executive
2	December 01, 2018	Page 1, para 4.0, scope of certification – Added “Onshore Locations only)	Revised for making the scope of certification clear for all	IVS Technical Manager	IVS BL Manager	Country Chief Executive
1	October 03, 2018	Page 3, Para 11.0, Stage 2, Page 4,	Included True or false, Describing type questions in addition to the multiple choice questions	IVS Technical Manager	IVS BL Manager	Country Chief Executive
0	July 05, 2018	Not Applicable	Initial preparation	IVS Technical Manager	IVS BL Manager	Country Chief Executive