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Introduction

This draft standard is based on national and international discussions. Your comments on this draft are invited and will assist in the preparation of the consequent standard.

For international standards, comments will be reviewed by the relevant UK national committee before sending the consensus UK vote and comments to the international committee, which will then decide appropriate action. If the international standard is approved, it is usual for the text to be published as a British Standard.

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UK Vote

Please indicate whether you consider the UK should submit a negative (with supporting technical reasons) or positive vote on this draft. Please indicate if you are aware of any reason why this draft standard should not be published as a British Standard.

Submission of Comments

- **Annotated drafts are not acceptable and will be rejected.**
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Template for comments and secretariat observations

Date: xx/xx/20xx	Document: ISO/DIS xxxx
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1	2	(3)	4	5	(6)	7
MB	Clause No./ Subclause No./Annex (e.g. 3.1)	Paragraph/ Figure/Table/Note	Type of comment	Comment (justification for change) by the MB	Proposed change by the MB	Secretariat observations on each comment submitted
	3.1	Definition 1	ed	Definition is ambiguous and needs clarifying.	Amend to read '...so that the mains connector to which no connection...'	
	6.4	Paragraph 2	te	The use of the UV photometer as an alternative cannot be supported as serious problems have been encountered in its use in the UK.	Delete reference to UV photometer.	



DRAFT International Standard

ISO/DIS 15513

Cranes — Competency requirements for crane operators (drivers), slingers, signallers and assessors

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ISO/TC 96/SC 5

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This document is circulated as received from the committee secretariat.

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular, the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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This document was prepared by Technical Committee *[or Project Committee]* ISO/TC *[or ISO/PC]* ###, *[name of committee]*, Subcommittee SC ##, *[name of subcommittee]*.

This second/third/... edition cancels and replaces the first/second/... edition (ISO #####:#####), which has been technically revised.

The main changes are as follows:

— xxx xxxxxxxx xxx xxxx

A list of all parts in the ISO ##### series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

Cranes — Competency requirements for crane operators (drivers), slingers, signallers and assessors

1 Scope

This International Standard gives competency requirements applicable for the selection, training, assessment and verification of crane operators, slingers, signallers and their assessors.

This International Standard does not cover additional competency requirements needed for special operations, e.g. man-lifting, pile-driving or pile-pulling.

NOTE 1 Responsibilities for the performance of tasks are given in ISO 12480-1. Personnel need to be aware of the responsibilities of others. Training content informing of other responsibilities does not transfer any responsibilities.

NOTE 2 For training of operators, see ISO 9926.

2 Normative references

The following normative documents contain provisions which, through reference in this text, constitute provisions of this International Standard. For dated references, subsequent amendments to, or revisions of, any of these publications do not apply. However, parties to agreements based on this International Standard are encouraged to investigate the possibility of applying the most recent editions of the normative documents indicated below. For undated references, the latest edition of the normative document referred to applies. Members of ISO and IEC maintain registers of currently valid International Standards.

ISO 4306-1, *Cranes — Vocabulary — Part 1: General*

ISO 4306-2, *Cranes — Vocabulary — Part 2: Mobile cranes*

ISO 4306-3, *Cranes — Vocabulary — Part 3: Tower cranes*

ISO 9926 (all parts), *Cranes — Training of drivers*

ISO 12480-1, *Cranes — Safe use — Part 1: General*

3 Terms and definitions

For the purposes of this International Standard, the definitions given in ISO 4306 and ISO 12480-1 apply, together with the following definitions.

3.1

assessment process

process of determining competency against prescribed standards of performance

3.2

assessor

person who makes judgements of skills and knowledge of a crane operator, slinger and/or signaller

3.3

certification

process of granting a time-limited recognition to individuals that have met established criteria for proficiency or competency by a certification body.

3.4

certification body

organization that meets credentialing standards. It will certify assessors, slingers, crane operators, and signallers to this Standard, and may certify other occupations as it sees fit.

Note 1 to entry: Appointment of a certification body may be subject to national or regional regulation.

3.5

certificate program

program that is an educational or training program which awards a certificate after a course of study has been successfully completed

3.6

competency

ability to perform the activities within an occupation or function to the standard expected in the task

Note 1 to entry: Competent use and operation of industrial equipment is defined in terms of core knowledge and skills and applications required for particular types of work associated with the use and application of different classes of equipment. It covers demonstrated knowledge and skills in identifying hazards and eliminating or minimizing risks arising from hazards, safe and healthy work practices, and employer and employee responsibilities as defined in the general duties of care, occupational health and safety legislation.

3.6.1

competency standard

standard which reflects the specification of knowledge and skill, and the application of that knowledge and skill to the standard of performance required in the task

Note 1 to entry: Competency standards are developed by the interested parties, based upon the organization of work, expressed in terms of workplace results, and should be regularly reviewed to ensure their continuing relevance to the workplace.

3.6.2

element of competency

basic building block of the unit of competency which describes an action or outcome which is demonstrable and assessable

3.6.3

unit of competency

discrete product comprising a title, a short description of purpose where appropriate, and the elements of competency, together with their associated performance criteria

Note 1 to entry: Elements of competency describe the lowest logical, identifiable and discrete subgrouping of actions and knowledge which contribute to and build a unit of competency.

3.6.4

verification of competency

employer evaluation of competency of personnel for use of equipment by type, configuration and lifting application in the environment that the task will be performed.

Note 1 to entry: The evaluation should include past experiences and changes to the type, configuration, and lifting application that will be encountered in the specific work environment.

3.7

content domain

a subsection of an assessment that defines a body of knowledge, skills or abilities being measured.

3.8

credentialing standard

the standard that defines the process that a certification body follows to certify personnel

3.9

performance criterion

evaluative statement which specifies what is to be assessed and the required level of performance

Note 1 to entry: The performance criteria specify the activities, skills, knowledge and understanding which are evidenced by competent performance.

Note 2 to entry: The table below shows various credential types for individuals.

Credential Type	Certification (3.3)	Certificate	License
Results from	An assessment process (3.1)	An educational process	A legal process sometimes involving assessment
Awarded by	Certification body (3.4)	Certificate program (3.5)	Governmental agency
Indicates	Demonstration of required competencies (3.6) to practice	Completion of a course(s)	Compliance with the legal requirements
Design	Competency Standard (3.6.1)	Course content designed by trainers / faculty	Content developed and maintained by governmental agency or delegate
Ongoing requirements	Holder must demonstrate they continue to meet	No ongoing requirements	Typically involves time-based renewal of license
Owner of the credential	Certification body (3.4)	Certificate holder (person)	Governmental agency
Removal of credential	can be taken away from person	cannot be taken away from person	can be taken away from person

4 Assessment

4.1 General

4.1.1 An assessment shall be made of the following persons:

- a) assessor;
- b) operator;
- c) slinger

NOTE In some countries this role is included in the role of a rigger or dogger;

- d) signaller.

4.1.2 The competencies which an assessor shall possess before being authorized as an assessor for the purposes of this International Standard are:

- a) technical knowledge relating to the operation and management of the particular type of crane or slinging techniques for which the person is to be authorized to assess applicants; and
- b) ability to judge competencies against prescribed standards.

4.1.3 The competencies which an operator shall possess before being authorized to operate a crane or hoist are a technical knowledge and practical capability relating to the correct and safe operation of the particular type of crane (see ISO 12480).

4.1.4 The competencies which a slinger shall possess before being authorized as a slinger(rigger) are:

- a) the application of slinging techniques, accounting for load stability, mass, and centre of gravity; and
- b) the capability to communicate with the signaller.

NOTE The slinger may be certified to also be a signaller.

4.1.5 The competency which a signaller shall possess before being authorized as a signaller is the application of understanding and relaying directions regarding movement of the crane and load to the crane operator.

4.2 Written assessment

Where the assessment process includes a written assessment, the following criteria shall be observed.

- a) Sufficient time shall be given to a candidate to complete the test;

NOTE If the assessor becomes aware the candidate has a written-language deficiency, additional time may be permitted to complete the assessment.

The candidate shall be suitably proficient in the language to read the questions set in the assessment without assistance. Where medical conditions exist, accommodations may be given to the candidate with a written-language deficiency. Any person rendering such assistance shall not prompt the candidate nor help the candidate in any other way.

- b) The candidate shall express the technical requirements for the assessment in a manner in which they can be correctly interpreted. Incorrect spelling or grammar shall not prejudice the result of the assessment;
- c) If additional time or assistance has been permitted, this shall be clearly stated, with the reason, on the Assessment Report.

4.3 Oral assessment

Where the candidate has limited spoken ability of the language of the assessment, the assessor should provide additional explanation, without compromising the assessment, at a level appropriate to the work and equipment.

4.4 Results

In order to be considered "Competent", the candidates shall achieve sufficient marks in every area and section to demonstrate competence. A candidate who does not attain such a result shall be considered "Not Yet Competent" and marked accordingly.

4.5 Reassessment

Where an assessment indicates, "Not Yet Competent", in an area or section of the paper, the candidate may be reassessed for that area or section only after additional training in that area or section.

5 Competency requirements

5.1 General

[Clauses 5.2, 5.3](#) and [5.4](#) detail the parameters for assessing the skills and knowledge of the crane operator, slinger and signaller.

5.2 Competency requirements for the crane operator

5.2.1 General

The requirements are subdivided into the following competency units:

- a) Competency unit 1 — Access and secure equipment and work area