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## Cranes — Competency requirements for crane inspectors

*Appareils de levage à charge suspendue — Exigences relatives aux  
compétences pour les inspecteurs d'appareils de levage à charge  
suspendue*

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Tel. + 41 22 749 01 11  
Fax + 41 22 749 09 47  
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ISO 23814 was prepared by Technical Committee ISO/TC 96, *Cranes*, Subcommittee SC 5, *Use, operation and maintenance*.

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## Introduction

The objective of this International Standard is to achieve uniform competency standards for work involving crane inspectors.

In some countries there may be additional authority requirements for the competency of crane inspectors that cannot be ignored.

Typically affected by this are aspects related to accreditation (certification).

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# Cranes — Competency requirements for crane inspectors

## 1 Scope

This International Standard specifies the competency required for persons who carry out periodic, exceptional, alteration and thorough inspections of cranes. It excludes the inspection and checks performed by crane operators and maintenance personnel.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the cited edition applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

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

ISO 4310, *Cranes — Test code and procedures*

ISO 9927 (all parts), *Cranes — Inspections*

ISO/IEC 17020, *General criteria for the operation of various types of bodies performing inspection*

ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

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## 3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4306-1, ISO 4310, ISO/IEC 17020 and ISO/IEC 17025, and the following, apply.

### 3.1

#### **crane inspector**

person with the necessary knowledge and experience to perform the specific crane inspection in accordance with this International Standard

NOTE Annex A recommends categories of crane inspectors.

## 4 Requirements

### 4.1 Independence, impartiality and integrity

Inspectors shall be free from any commercial, financial and other pressures which could affect their findings (see also ISO/IEC 17020 and ISO/IEC 17025).

### 4.2 Technical knowledge

Crane inspectors shall possess the technical knowledge of the following items and practical techniques for crane inspection as applicable (see Annex B for performance criteria):

- a) parts of cranes to be inspected, e.g. structural members and driving mechanism, mechanical elements, safety devices and their accessories, brakes and clutches, wire ropes;
- b) electrical machines, equipment and control system;
- c) internal combustion engine and hydraulic system;
- d) material and strength requirements for parts of cranes and wire ropes;
- e) national legislation related to cranes and of International Standards related to cranes;
- f) inspection techniques, e.g. non-destructive testing;
- g) maintenance requirements;
- h) basic crane operation (driving/operating techniques);
- i) documenting and recording systems and requirements;
- j) safety requirements during inspection;
- k) load test requirements.

### 4.3 Experience requirements

The crane inspector shall possess practical skills to facilitate crane inspection procedures. The skills may be gained from any or a combination of experience with crane design, manufacture, installation, maintenance or operation.

### 4.4 Techniques for crane inspection

Crane inspectors shall be competent in inspecting cranes and crane components in accordance with ISO 9927, as applicable to the type of crane.