INTERNATIONAL STANDARD

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Third edition
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Cranes — Control layout and characteristics —

Part 3: Tower cranes

Appareils de levage à charge suspendue — Disposition et caractéristiques des commandes —
Partie 3: Grues à tour

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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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For an explanation on the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the WTO principles in the Technical Barriers to Trade (TBT) see the following URL: Foreword - Supplementary information

The committee responsible for this document is ISO/TC 96, *Cranes*, Subcommittee SC 7, *Tower cranes*.

This third edition cancels and replaces the second edition (ISO 7752-3:2010), which has been technically revised.

ISO 7752 consists of the following parts, under the general title *Cranes — Controls — Layout and characteristics*:

— *Part 1: General principles*

— *Part 2: Basic arrangement and requirements for mobile cranes*

— *Part 3: Tower cranes*

— *Part 4: Jib cranes*

— *Part 5: Overhead travelling cranes and portal bridge cranes*

Cranes — Control layout and characteristics —

Part 3: Tower cranes

1 Scope

This part of ISO 7752 specifies the particular requirements for controls for tower cranes as defined in ISO 4306-3:2003 and ISO 4306-3:2003/Amd. 1:2011 and the arrangement of basic control used for positioning loads.

NOTE For the general principles and requirements for the controls of cranes, see ISO 7752-1.

2 Normative references

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

ISO 4306-1:2007, *Cranes — Vocabulary — Part 1: General*

ISO 4306-3:2003, *Cranes — Vocabulary — Part 3: Tower cranes*

ISO 4306-3:2003/Amd 1:2011, *Cranes — Vocabulary — Part 3: Tower cranes*

ISO 7752-1:2010, *Cranes — Control layout and characteristics — Part 1: General principles*

IEC 60204-32:2008, *Safety of machinery — Electrical equipment of machines — Part 32: Requirements for hoisting machines*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 4306-1:2007, ISO 4306-3:2003, ISO 4306-3/A1:2011, and ISO 7752-1:2010 apply.

4 Controls

4.1 Requirements

Requirements given in ISO 7752-1:2010 apply.

4.2 Basic control arrangement

4.2.1 General

The basic controls shall be arranged as shown in Figure 1, following the general rules:

— on the right: hoisting and lowering of the load, travelling of the crane;

— on the left: luffing or movement of the crab, slewing of the crane.

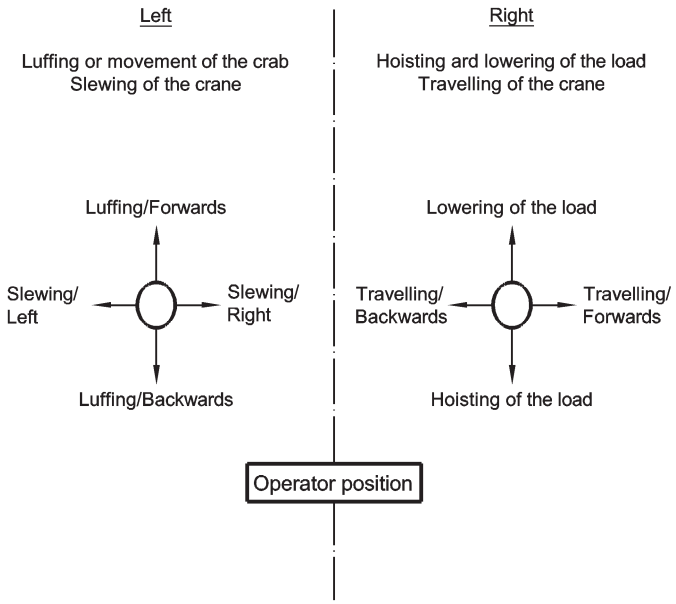

Figure 1 — Layout of controls on tower cranes

4.2.2 Control levers of the ball-and-socket or universal joint type

When control levers of the ball-and-socket or universal joint type are used, the movements of the crane shall correspond to the direction of lever movement shown in Table 1.

Table 1 — Movements of the crane and direction of lever movement

Movement of the crane	Direction of lever movement
Hoisting of the load, luffing in, inward movement of the crab or jib if the latter is capable of moving horizontally	Towards the operator (lever backwards)
Lowering of the load, lowering of the jib, outward movement of the crab or jib if the latter is capable of moving horizontally	Away from the operator (lever forwards)
Slewing to the right	Lever to the operator's right
Slewing to the left	Lever to the operator's left
Travelling of the crane	Lever to the operator's left or right, depending on the position of the operator in relation to the desired direction of travel

5 Consoles

Requirements given in ISO 7752-1:2010 apply.

6 Stop

The requirements of IEC 60204-32:2008, 9.2.7.3, shall be applied. For tower cranes, the time value is 1 s. For radio remote controls, the time is 0,5 s to 2 s.

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