INTERNATIONAL STANDARD

ISO 7752-4

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Cranes — Controls — Layout and characteristics —

Part 4 :
Jib cranes

Appareils de levage à charge suspendue — Organes de service — Disposition et caractéristiques —

Partie 4 : Grues à flèche

Reference number
ISO 7752-4 : 1989 (E)

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council. They are approved in accordance with ISO procedures requiring at least 75 % approval by the member bodies voting.

International Standard ISO 7752-4 was prepared by Technical Committee ISO/TC 96, *Cranes, lifting appliances and related equipment.*

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

— *Part 1: General principles*

— *Part 2: Mobile cranes*

— *Part 3: Tower cranes*

— *Part 4: Jib cranes*

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

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Introduction

Jib crane drivers frequently transfer from one crane to another of different model or manufacturer. This part of ISO 7752 establishes a consistent arrangement and movement for the basic controls used during the crane-operating cycle, to reduce operator confusion or incorrect control in an emergency.

ISO 7752-1 establishes the general principles for all types of cranes.

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Cranes — Controls — Layout and characteristics —

Part 4 :
Jib cranes

1 Scope

This part of ISO 7752 establishes the arrangement, requirements and direction of movement of the basic controls for travelling, slewing, lifting, hoisting and lowering operations for jib cranes defined in ISO 4306-1 as jib-type cranes, other than tower cranes, mobile cranes and railway cranes.

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this part of ISO 7752. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 7752 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 4306-1 : 1985, *Lifting appliances — Vocabulary — Part 1: General.*

ISO 7752-1 : 1983, *Lifting appliances — Controls — Layout and characteristics — Part 1: General principles.*

3 General requirements

The basic controls for jib cranes shall comply with ISO 7752-1 with the exception that the force necessary to move controls shall not exceed :

— 100 N for handles and control levers;

— 200 N for foot pedals.

4 Basic control arrangement

4.1 Fixed length or articulated jib crane with bi-directional control levers

The basic controls shall be arranged as shown in figure 1 for bi-directional control levers.

4.1.1 Travel control — Hand lever 1

4.1.1.1 Levers that move in same direction as crane travel

Move lever in direction of crane travel required.

Centre lever to stop travel and apply brake.

4.1.1.2 Levers that do not move in same direction as crane travel

Move lever in direction identified at the control lever position as applying to the direction of crane travel required.

Centre lever to stop travel and apply brake.

NOTE — Attention is drawn to ISO 7752-1 which requires the direction of movement of the appliance to be identified at each control position. This is particularly important where the lever movement is not related logically to the direction of movement of the appliance.

4.1.2 Slewing control — Hand lever 2

4.1.2.1 For levers moving fore and aft

Move lever forward to slew toward jib (slew left for operator position on right side; slew right for operator position on left side or middle of crane).

4.1.2.2 For levers moving from side to side

Move the lever to the left to slew left and move the lever to the right to slew right.

4.1.2.3 For both 4.1.2.1 and 4.1.2.2, centre the lever to allow the crane to slew freely or where applicable to hold position.

Depress pedal 6 (when provided) to slew or hold position.

4.1.3 Hoist control — Hand lever 3 and foot pedal 7 (when provided), **hand lever 4 and foot pedal 8** (when provided)

Move the lever rearward to raise the load.

Centre the lever to release the power and apply the brake. Where automatic brakes are not provided, depress the pedal to apply the brake.

Move the lever forward to lower the load when the crane is equipped for power lowering.

Use lever 4 to control the main hoist. Use lever 3 (when provided) to control the auxiliary hoist or other crane function.

4.1.4 Luff control — Hand lever 5

Move the lever rearward to luff in.

Centre the lever to stop luffing.

Move the lever forward to luff out.

NOTE — Attention is drawn to ISO 7752-1 which requires the direction of movement of the appliance to be identified at each control position. This is particularly important where the lever movement is not related logically to the direction of movement of the appliance.

4.2 Fixed length or articulated jib crane with multi-directional control levers

Multi-directional controls shall be arranged as shown in figure 2.

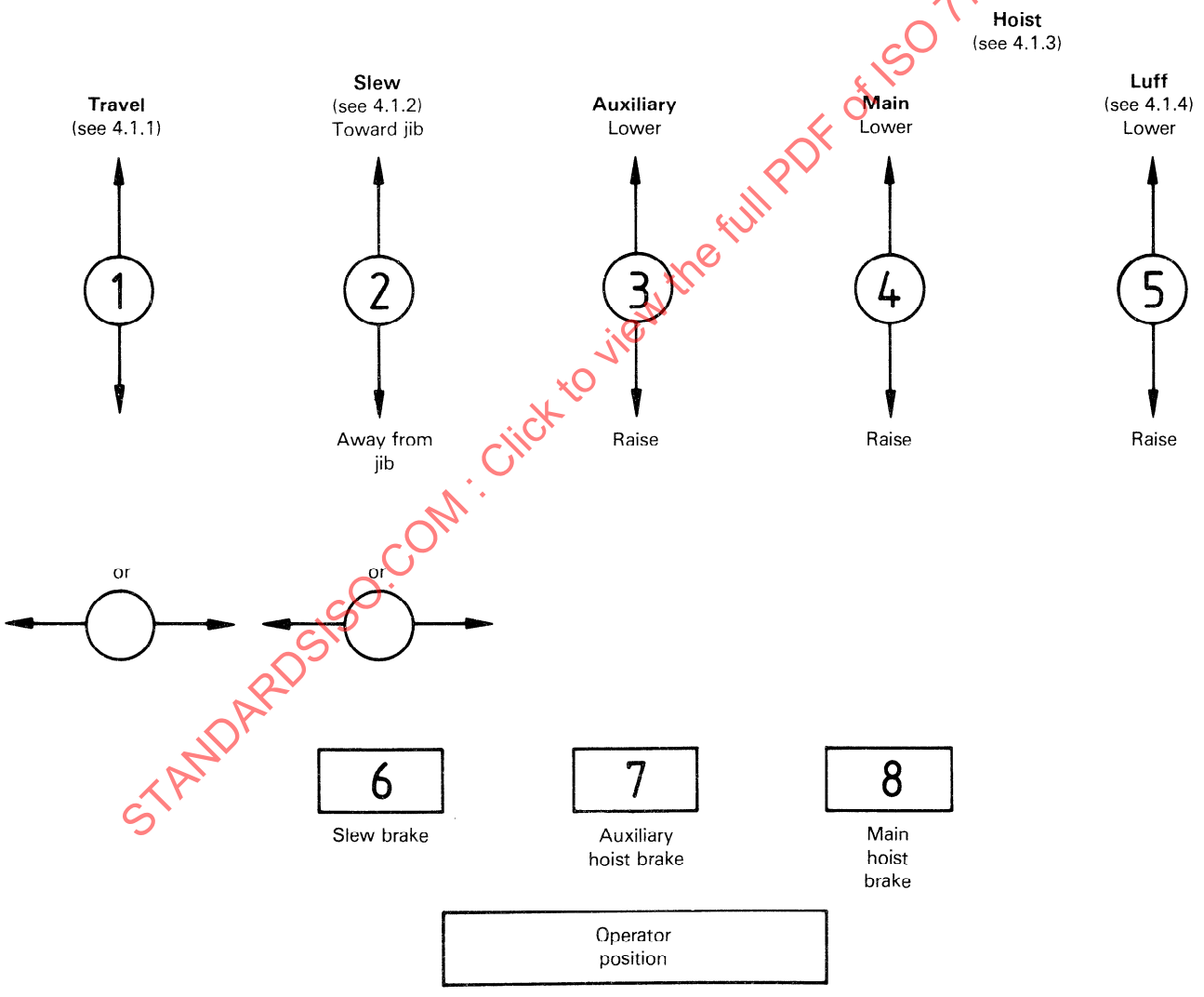

Figure 1 — Crane control diagram for crane fitted with a fixed or articulated jib and bi-directional controls