

BS 7121-2-1:2012



BSI Standards Publication

# Code of practice for the safe use of cranes

Part 2-1: Inspection, maintenance and thorough examination – General

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### Summary of pages

This document comprises a front cover, an inside front cover, pages i to iv, pages 1 to 42, an inside back cover and a back cover.

## Foreword

### Publishing information

This sub-part of BS 7121-2 is published by BSI Standards Limited, under license from the British Standards Institution and came into effect on 30 November 2012. It was prepared by Subcommittee MHE/3/11, *Crane safety and testing*, under the authority of Technical Committee MHE/3, *Cranes and derricks*. A list of organizations represented on these committees can be obtained on request to their secretary.

### Supersession

Together with BS 7121-2-3, BS 7121-2-4, BS 7121-2-5 and BS 7121-2-7, this sub-part of BS 7121-2 supersedes BS 7121-2:2003, which will be withdrawn when all these sub-parts have been published.

### Relationship with other publications

The BS 7121 series is being revised. The following new sub-parts of BS 7121-2 have been published or are in preparation:

- Part 2-1: *Inspection, maintenance and thorough examination – General;*
- Part 2-3: *Inspection, maintenance and thorough examination – Mobile cranes;*
- Part 2-4: *Inspection, maintenance and thorough examination – Loader cranes;*
- Part 2-5: *Inspection, maintenance and thorough examination – Tower cranes;*
- Part 2-7: *Inspection, maintenance and thorough examination – Overhead travelling cranes including portal and semi-portal cranes, hoists, and their supporting structures;*
- Part 2-9: *Inspection, maintenance and thorough examination – Cargo handling and container cranes.*

When all sub-parts of BS 7121-2 have been published, it is intended that CP 3010 will be withdrawn and BS 5744 will be revised to cover manually operated and light cranes only.

This sub-part of BS 7121-2 is intended to be read in conjunction with the appropriate sub-part(s) of BS 7121-2 dealing with the relevant crane type(s).

### Information about this document

The Health and Safety Executive (HSE) commends the use of this British Standard to those who have duties under the Health and Safety at Work etc. Act 1974 [1]. This standard was drawn up with the participation of HSE representatives and it will be referred to in the relevant HSE publications.

The BS 7121 series has been accepted by the HSE as representing the consensus of opinion based on practical experience for safety of cranes.

### Hazard warnings

**WARNING.** This British Standard calls for the use of procedures that can be injurious to health if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety at any stage.

## Use of this document

As a code of practice, this sub-part of BS 7121-2 takes the form of guidance and recommendations. It should not be quoted as if it were a specification and particular care should be taken to ensure that claims of compliance are not misleading.

Any user claiming compliance with this sub-part of BS 7121-2 is expected to be able to justify any course of action that deviates from its recommendations.

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

## Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its recommendations are expressed in sentences in which the principal auxiliary verb is "should".

*Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.*

## Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

### **Compliance with a British Standard cannot confer immunity from legal obligations.**

Particular attention is drawn to the following specific regulations:

- Health and Safety at Work etc. Act 1974 [1];
- Lifting Operations and Lifting Equipment Regulations (LOLER) 1998 [2];
- Provision and Use of Work Equipment Regulations (PUWER) 1998 [3];
- Supply of Machinery (Safety) Regulations 2008 (as amended) [4];
- Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997 [5];
- Merchant Shipping and Fishing Vessels (Lifting Operations and Lifting Equipment) Regulations (MCA LOLER) 2006 [6];
- Merchant Shipping and Fishing Vessels (Provision and Use of Work Equipment) Regulations (MCA PUWER) 2006 [7];
- Road Vehicles (Construction and Use) Regulations 1986 (as amended) [8].

*NOTE 1 Details of the Lifting Operations and Lifting Equipment Regulations 1998 [2] and the Provision and Use of Work Equipment Regulations 1998 [3], together with an HSE Approved Code of Practice and HSE Guidance, are given in HSE publications Safe use of lifting equipment [9] and Safe use of work equipment [10].*

*NOTE 2 Details of the Merchant Shipping and Fishing Vessels Regulations [5], [6] and [7] are given in Maritime and Coastguard Agency Marine Guidance Notes MGN 20 (M+F) The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997 [11], MGN 331 (M+F) The Merchant Shipping and Fishing Vessels (Provision and Use of Work Equipment) Regulations 2006 [12] and MGN 332 (M+F) The Merchant Shipping and Fishing Vessels (Lifting Operations and Lifting Equipment) Regulations 2006 [13].*

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## 1 Scope

This sub-part of BS 7121-2 gives general recommendations for the pre-use checks, in-service inspection, maintenance, thorough examination (following installation, in service and following exceptional circumstances) and supplementary testing of cranes and associated equipment, including gantries, runways and other supporting structures.

This sub-part of BS 7121-2 is also applicable to hoists, derricks, telehandlers, fork lift trucks and excavators when used to lift suspended loads. For the purposes of this standard all these are included under the term "cranes".

It is not applicable to construction hoists, mast climbing work platforms, mobile elevating work platforms, jacks and suspended access equipment.

## 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.

BS 7121-1:2006, *Code of practice for safe use of cranes – General*

BS 7262, *Specification of automatic safe load indicators*

BS 7671, *Requirements for electrical installations – IET Wiring Regulations – Seventeenth edition*

BS ISO 4309:2010, *Cranes – Wire ropes – Care and maintenance, inspection and discard*

## 3 Terms and definitions

For the purposes of this sub-part of BS 7121-2, the following terms and definitions apply.

### 3.1 competent person

person who has such practical and theoretical knowledge and experience of the lifting equipment to be thoroughly examined which enables them to detect defects or weaknesses and to assess and report on their importance in relation to the safety and use of the lifting equipment

*NOTE* The competent person may be a member of the organization's staff. See 5.3.

### 3.2 continuing professional development (CPD)

conscious updating of technical knowledge and the improvement of skills throughout a person's working life

### 3.3 crane

lifting machine for suspended loads

### 3.4 crane operator

person who is operating the crane for the purpose of positioning loads or for erection of the crane

### 3.5 inspection body

employer of the competent person(s) who provide examination and testing services

*NOTE* BS EN ISO/IEC 17020 gives definitions of different types of inspection body.