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**BS 7121-5:2019**



**BSI Standards Publication**

## **Code of practice for safe use of cranes**

Part 5: Tower cranes

**bsi.**

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## Foreword

### Publishing information

This part of BS 7121 is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 30 September 2019. 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

This part of BS 7121 supersedes BS 7121-5:2006, which is withdrawn.

### Relationship with other publications

The Lifting Operations and Lifting Equipment Regulations (LOLER) [1] and the Provision and Use of Work Equipment Regulations (PUWER) [2] came into force on 5 December 1998. Details of the Regulations, an Approved Code of Practice plus HSE guidance can be found in the HSE Approved Codes of Practice *Safe use of lifting equipment* [3] and *Safe use of work equipment* [4].

This part of BS 7121 is intended to be read in conjunction with BS 7121-1, which provides general recommendations for crane types not covered in an additional part of BS 7121. BS 7121-2 covers in-service inspection, thorough examination and, where appropriate, testing for the safe use of all types of crane. Subsequent parts of BS 7121 deal (or will eventually deal) with the specific crane types as follows:

- Part 3: Mobile cranes;
- Part 4: Lorry loaders;
- Part 5: Tower cranes;
- Part 6: Derrick cranes;
- Part 7: Bridge and gantry cranes, including light crane systems;
- Part 8: High pedestal and portal jib dockside cranes;
- Part 9: Container handling cranes;
- Part 10: Rail-mounted cranes;
- Part 11: Offshore cranes;
- Part 12: Recovery vehicles and equipment;
- Part 13: Hydraulic gantry lifting systems;
- Part 14: Side boom pipe layers.

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

### Information about this document

This is a full revision of the standard, and introduces the following principal changes:

- alignment with BS 7121-1:2016; and
- addition of recommendations from CPA Technical Information Notes.

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practicable, that lifting operations are carried out safely.

This publication can be withdrawn, revised, partially superseded or superseded. Information regarding the status of this publication can be found in the Standards Catalogue on the BSI website at [bsigroup.com/standards](https://bsigroup.com/standards), or by contacting the Customer Services team.

Where websites and webpages have been cited, they are provided for ease of reference and are correct at the time of publication. The location of a webpage or website, or its contents, cannot be guaranteed.

### **Use of this document**

As a code of practice, this part of BS 7121 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 part of BS 7121 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.*

Where words have alternative spellings, the preferred spelling of the Shorter Oxford English Dictionary is used (e.g. "organization" rather than "organisation").

### **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.**



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## 1 Scope

This part of BS 7121 gives recommendations for the safe use of tower cranes, including self-erecting tower cranes other than mobile self-erecting tower cranes (which are covered in BS 7121-3).

*NOTE* The types of tower crane are set out in [Annex A](#).

Subjects covered include safe systems of work, selection, erection, extension (including climbing), dismantling, maintenance, inspection, thorough examination (including testing), operation, and the planning and management of lifting operations. It also covers the appropriate selection and training of personnel involved in the safe installation and use of tower cranes.

This part of BS 7121 is intended to be read in conjunction with BS 7121-1.

## 2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes provisions of this document<sup>1</sup>. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 5975:2008+A1:2011, *Code of practice for temporary works procedures and the permissible stress design of falsework*

BS 7121 (all parts), *Code of practice for the safe use of cranes*

BS 7121-1:2016, *Code of practice for safe use of cranes – Part 1: General*

BS 7121-2 (all parts), *Code of practice for the safe use of cranes*

BS 7121-2-1:2012, *Code of practice for the safe use of cranes – Part 2-1: Inspection, maintenance and thorough examination – General*

BS 7121-2-3, *Code of practice for the safe use of cranes – Part 2-3: Inspection, maintenance and thorough examination – Mobile cranes*<sup>2</sup>

BS 7121-2-5:2012, *Code of practice for the safe use of cranes – Part 2-5: Inspection, maintenance and thorough examination – Tower cranes*

BS 7375, *Distribution of electricity on construction and demolition sites – Code of practice*

BS 7671, *Requirements for Electrical Installations – IET Wiring Regulations*

BS 8454, *Code of practice for the delivery of training and education for work at height and rescue*

BS EN 13586, *Cranes – Access*

BS EN 14399-1, *High-strength structural bolting assemblies for preloading – Part 1: General requirements*

BS EN 15048-1, *Non-preloaded structural bolting assemblies – Part 1: General requirements*

BS EN ISO 148-1, *Metallic materials – Charpy pendulum impact test – Part 1: Test method*

BS EN ISO 898-1:2013, *Mechanical properties of fasteners made of carbon steel and alloy steel – Part 1: Bolts, screws and studs with specified property classes – Coarse thread and fine pitch thread*

BS EN ISO 898-2, *Mechanical properties of fasteners made of carbon steel and alloy steel – Part 2: Nuts with specified property classes – Coarse thread and fine pitch thread*

<sup>1</sup> Documents that are referred to solely in an informative manner are listed in the Bibliography.

<sup>2</sup> This standard also gives an informative reference to BS 7121-2-3:2012.