

BS 7121-1:2016



BSI Standards Publication

Code of practice for safe use of cranes – Part 1: 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 96, an inside back cover and a back cover.

Foreword

Publishing information

This British Standard is published by BSI Standards Limited, under licence from The British Standards Institution, and came into effect on 31 January 2016. 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This British Standard supersedes BS 7121-1:2006, which is withdrawn.

Relationship with other publications

BS 7121-1 provides general recommendations for crane types. BS 7121-2 covers in-service inspection, maintenance, thorough examination and testing for the safe use of all types of crane. Other parts of BS 7121 deal with the specific crane types as follows:

- Part 3: Mobile cranes;
- Part 4: Lorry loaders;
- Part 5: Tower cranes;
- Part 11: Offshore cranes;
- Part 12: Recovery vehicles and equipment;
- Part 13: Hydraulic gantry lifting systems;
- Part 14: Side boom pipelayers.

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

Information about this document

This is a full revision of the standard. It is intended to be used in conjunction with other parts of BS 7121 to ensure, so far as is reasonably practicable, that lifting operations are carried out safely.

Use of this document

As a code of practice, this British Standard 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 British Standard 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.

In particular, attention is drawn to the following statutory regulations:

- The Health and Safety at Work etc. Act 1974 [1];
- The Lifting Operations and Lifting Equipment Regulations (LOLER) 1998 [2];
- The Provision and Use of Work Equipment Regulations (PUWER) 1998 [3];
- The Supply of Machinery (Safety) Regulations 2008, as amended [4];
- The Merchant Shipping and Fishing Vessels (Health and Safety at Work) Regulations 1997 [5];
- The Merchant Shipping and Fishing Vessels (Lifting Operations and Lifting Equipment) Regulations (MCA LOLER) 2006 [6];
- The Merchant Shipping and Fishing Vessels (Provision and Use of Work Equipment) Regulations (MCA PUWER) 2006 [7];
- The Road Vehicles (Construction and Use) Regulations 1986, as amended [8];
- The Manual Handling Operations Regulations 1992, as amended [9].

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 [N2] 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].

1 Scope

This part of BS 7121 gives recommendations for the safe use of cranes permanently or temporarily installed in a work environment. Subjects covered include safe systems of work, selection, erection and dismantling, maintenance, inspection, thorough examination, operation, and the planning and management of lifting operations.

This standard is not applicable to the use of cranes:

- a) for bungee jumping or similar entertainment activities; or
- b) as part of a fully automated storage or production system.

NOTE Annex A and Annex B give recommendations for the training of appointed persons, crane supervisors, crane operators and slinger-signallers. Annex C outlines the features of contract lifts and crane hires. Information on the effect of wind and down-rating of the in-service lifting capacity is given in Annex D. Additional recommendations for the operation of cranes on or adjacent to sites of exceptional hazards are given in Annex E. Additional information on radio communication for lifting operations is given in Annex F.

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.

Standards publications

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 safe use of cranes*

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

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

BS 7121-3:2000, *Code of practice for safe use of cranes – Part 3: Mobile cranes*¹⁾

BS 7121-4, *Code of practice for safe use of cranes – Part 4: Lorry loaders*

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

BS EN 14439, *Cranes – Safety – Tower cranes*

BS EN 14502-1, *Cranes – Equipment for the lifting of persons – Part 1: Suspended baskets*

Other publications

[N1] HEALTH AND SAFETY EXECUTIVE (HSE). *Guidance Note GS6, Avoiding danger from overhead power lines*. Sudbury: HSE Books, 2013.

[N2] HEALTH AND SAFETY EXECUTIVE (HSE). *Safe use of lifting equipment. Lifting Operations and Lifting Equipment Regulations 1998*. Approved Code of Practice and guidance. L113 (Second edition). Sudbury: HSE Books, 2014.

[N3] HEALTH AND SAFETY EXECUTIVE (HSE). *Guidance Note HSG 141, Electrical installations on construction sites*. Sudbury: HSE Books, 1995.

¹⁾ Revision in preparation.