

BS 7121-2-7:2012+A2:2022



BSI Standards Publication

BS 7121-2-7:2012+A2:2022 – Code of practice for the safe use of cranes

Part 2-7: Inspection, maintenance and thorough examination –
Bridge and gantry cranes, including light crane systems

bsi.

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Summary of pages

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Foreword

Publishing information

This sub-part of BS 7121-2 is published by BSI Standards Limited, under licence 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 the committee manager.

Supersession

Together with [BS 7121-2-1](#), [BS 7121-2-3](#), [BS 7121-2-4](#) and [BS 7121-2-5](#), this sub-part of BS 7121-2 superseded [BS 7121-2:2003](#), which has been withdrawn.

BS 7121-2-7:2012+A2:2022 supersedes BS 7121-2-7:2012+A1:2015, which is withdrawn.

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When all sub-parts of BS 7121-2 have been published, it is intended that CP 3010 will be withdrawn and [BS 5744](#) will be revised to cover manually operated and light cranes only.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 [BS 7121-2-1](#).

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 7121-2 series has been accepted by the HSE as representing the consensus of opinion based on practical experience for safety of cranes.

Text introduced or altered by Amendments No. 1 and No. 2 respectively is indicated in the text by tags [A1](#) [A1](#) and [A2](#) [A2](#). Minor editorial changes are not tagged.

The principal changes introduced by Amendment A1 are to remove conflict with BS EN 15011 with regard to load testing.

The principal changes introduced by Amendment A2 are in relation to the testing requirements. The traditional industry practice of testing cranes through the drive train of the hoisting mechanism using the static overload value can be detrimental in modern cranes designed to the EN 13001 series. The maximum permissible deflection limit is now a variable due to the EN 13001 series of design codes.

To take account of the requirements for modern cranes, new testing requirements have been added to BS 7121-2-7 for the overload test and verification following first installation.

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.

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

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This publication is not intended to constitute 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].

NOTE 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* [5] and *Safe use of work equipment* [6].

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1 Scope

This sub-part of BS 7121-2 gives recommendations for the pre-use checks, in-service inspection, maintenance, thorough examination (A2) after installation, (A2) in service and following exceptional circumstances) and supplementary testing of (A2) bridge and gantry cranes, including light crane systems (A2).

(A2) text deleted (A2)

For the purposes of this standard (A2) bridge and gantry cranes, including light crane systems, are (A2) included under the term “cranes”.

This sub-part of BS 7121-2 is not applicable to permanently installed cranes on marine and other water-borne vessels.

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

(A2) [BS 7127-7:2019](#), *Code of practice for safe use of cranes – Bridge and gantry cranes, including light crane systems* (A2)

BS EN 15011, *Cranes – Bridge and gantry cranes*

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 terms and definitions given in [BS 7121-2-1:2012](#) apply.

4 General

Regular pre-use checking, in-service inspection, maintenance and thorough examination of cranes are essential if cranes are to function safely and reliably. The nature of these activities can be summarized as follows.

- Pre-use checks are visual checks which are carried out to ensure that the crane has not suffered any damage or failure, and is safe to use.
- In-service inspections and maintenance are carried out to ensure that components are repaired or replaced before they deteriorate to a point at which they would become unsafe.
- Thorough examinations are carried out at specified intervals, after installation on a new site, after major alteration or repair or after the occurrence of exceptional circumstances which could jeopardize the safety of the crane.
- Supplementary testing is carried out in support of thorough examination and the extent and nature of any testing are specified by the competent person carrying out the thorough examination.