

# New and revised codes & standards

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## BRITISH STANDARDS

### BS 7910:2019

Guide to methods for assessing the acceptability of flaws in metallic structures  
*Supersedes BS 7910:2013+A1:2015*

### BS EN ISO 6892-1:2019

Metallic materials. Tensile testing. Method of test at room temperature  
*Supersedes BS EN ISO 6892-1:2016*

### BS EN ISO 8504-1:2019

Preparation of steel substrates before application of paints and related products. Surface preparation methods. General principles  
*Supersedes BS EN ISO 8504-1:2001*

### BS EN ISO 15614-7:2019

Specification and qualification of welding procedures for metallic materials. Welding procedure test. Overlay welding  
*Supersedes BS EN ISO 15614-7:2016*

## BRITISH STANDARDS CONFIRMED

### BS ISO 14347:2008

Fatigue. Design procedure for welded hollow-section joints. Recommendations

## BRITISH STANDARDS WITHDRAWN

### BS 7910:2013+A1:2015

Guide to methods for assessing the acceptability of flaws in metallic structures  
*Superseded by BS 7910:2019*

### BS EN ISO 6892-1:2016

Metallic materials. Tensile testing. Method of test at room temperature  
*Superseded by BS EN ISO 6892-1:2019*

### BS EN ISO 8504-1:2001

(**BS 7079-D1:2000**)  
Preparation of steel substrates before application of paints and related products. Surface preparation methods. General principles  
*Also numbered BS 7079-D1:2000. Superseded by BS EN ISO 8504-1:2019*

### BS EN ISO 15614-7:2016

Specification and qualification of welding procedures for metallic materials. Welding procedure test. Overlay welding  
*Superseded by BS EN ISO 15614-7:2019*

## BRITISH STANDARDS UNDER REVIEW

### BS EN ISO 1461:2009

Hot dip galvanized coatings on fabricated iron and steel articles. Specifications and test methods

### BS EN 1559-2:2014

Founding. Technical conditions of delivery. Additional requirements for steel castings

### BS EN ISO 9018:2015

Destructive tests on welds in metallic materials. Tensile test on cruciform and lapped joints

### BS EN 10088-1:2014

Stainless steels. List of stainless steels

### BS EN 10088-2:2014

Stainless steels. Technical delivery conditions for sheet/plate and strip of corrosion resisting steels for general purposes

### BS EN 10088-3:2014

Stainless steels. Technical delivery conditions for semi-finished products, bars, rods, wire, sections and bright products of corrosion resisting steels for general purposes

### BS EN ISO 23277:2015

Non-destructive testing of welds. Penetrant testing. Acceptance levels

### BS EN ISO 23278:2015

Non-destructive testing of welds. Magnetic particle testing. Acceptance levels

### BS 131-4:1972

Notched bar tests. Calibration of pendulum impact testing machines for metals.

### BS 131-6:1998

Notched bar tests. Method for precision determination of Charpy V-notch impact energies for metals

### BS 131-7:1998

Notched bar tests. Specification for verification of the test machine used for precision determination of Charpy V-notch impact energies for metals

### BS 2573-1:1983

Rules for the design of cranes. Specification for classification, stress calculations and design criteria for structures

### BS 2573-2:1980

Rules for the design of cranes. Specification for classification, stress calculations and design of mechanisms

### BS 4570:1985

Specification for fusion welding of steel castings

### BS 4933:2010

Specification for ISO metric black cup and countersunk head bolts and screws with hexagon nuts

### BS 5493:1977

Code of practice for protective coating of iron and steel structures against corrosion

### BS 5744:1979

Code of practice for safe use of cranes (overhead/underhung travelling and goliath cranes, high pedestal and portal jib dockside cranes, manually-operated and light cranes, container handling cranes and rail-mounted low carriage cranes)

### BS 7121-2-7:2012+A1:2015

Code of practice for the safe use of cranes. Inspection, maintenance and thorough examination. Overhead travelling cranes, including portal and semi-portal cranes, hoists, and their supporting structures

### BS 7608:2014+A1:2015

Guide to fatigue design and assessment of steel products

### BS ISO 9018:2015

Destructive tests on welds in metallic materials. Tensile test on cruciform and lapped joints

## NEW WORK STARTED

### EN 1993-1-4:2006/A2

Eurocode 3. Design of steel structures. General rules. Supplementary rules for stainless steels  
*Will supersede None*

## CEN EUROPEAN STANDARDS

### EN ISO 15614-7:2019

Specification and qualification of welding procedures for metallic materials. Welding procedure test. Overlay welding (ISO 15614-7:2016)

## ISO PUBLICATIONS

### ISO 11971:2020

Steel and iron castings. Visual testing of surface quality  
*Will be implemented as an identical British Standard*

# AD 438: Non-slip connections to BS 5950

This AD deals with the BS 5950 provisions for connections designed to be non-slip in service, as described in clause 6.4.1(b).

Designers now using the Eurocodes will be familiar with Category B, slip-resistant at serviceability and Category C, slip-resistant at ultimate, as set out in Table 3.2 of BS EN 1993-1-8. In the Eurocodes, it is also clear that for Category B connections, the design slip resistance is compared to the serviceability loads.

Turning back to BS 5950 may lead to some uncertainty about which loads to use when calculating slip resistance, particularly for connections designed to be non-slip in service. Clause 6.4.2 specifies the slip resistance  $P_{sl}$  as:

- For connections designed to be non-slip in service:

$$P_{sl} = 1.1K_s\mu P_0$$

- For connections designed to be non-slip under factored loads:

$$P_{sl} = 0.9K_s\mu P_0$$

In both cases, the resistance should be compared to the ultimate loads. This is made clear by the note at the end of clause 6.4.1: **NOTE The resistance of a friction grip connection to slip in service is a serviceability criterion, but for ease of use is presented in a modified form, suitable for checking under factored loads.**

For connections which are designed to be non-slip in service, BS 5950 does not reduce the loads, but rather increases the calculated resistance of the bolts (compare the 1.1 factor with 0.9 in the above expressions) to give an equivalent result.

AD 274 gives advice on the capacity after slipping, covered in clause 6.4.4 of BS 5950. This is an important check for connections designed to be non-slip in service and is designed to ensure that if it slips, the connection does not fail at ultimate loads.

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