New and revised codes & standards

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BS EN PUBLICATIONS

BS EN 1563:2018
Founding. Spheroidal graphite cast irons.
Supersedes BS EN 1563:2011

BS EN 14399-7:2018
High-strength structural bolting assemblies for preloading. System HR. Countersunk head bolt and nut assemblies.
Supersedes BS EN 14399-7:2007

BS EN 14399-8:2018
High-strength structural bolting assemblies for preloading. System HV. Hexagon fit bolt and nut assemblies.
Supersedes BS EN 14399-8:2007

BS EN ISO 15612:2018
Specification and qualification of welding procedures for metallic materials. Qualification by adoption of a standard welding procedure specification.
Supersedes BS EN ISO 15612:2004

BS EN ISO 16151:2018
Corrosion of metals and alloys. Accelerated cyclic test with exposure to acidified salt spray, dry and wet conditions.
Supersedes BS EN ISO 16151:2008

BS EN 17119:2018
Non-destructive testing. Thermographic testing. Active thermography.
No current standard is superseded

BS IMPLEMENTATIONS

BS ISO 12108:2018
Metallic materials. Fatigue testing. Fatigue crack growth method.
Supersedes BS ISO 12108:2012

BS ISO 14993:2018
Corrosion of metals and alloys. Accelerated testing involving cyclic exposure to salt mist, dry and wet conditions.
No current standard is superseded

PUBLISHED DOCUMENTS

PD CEN/TR 17231:2018
Eurocode 1: Actions on Structures. Traffic Loads on Bridges. Track-Bridge Interaction.
No current standard is superseded

CORRIGENDA TO BRITISH STANDARDS

BS EN 10152:2017
Electrolytically zinc coated cold rolled steel flat products for cold forming. Technical delivery conditions.
Corrigendum, July 2018

BS EN ISO 13918:2017
Welding. Studs and ceramic ferrules for arc stud welding.
Corrigendum, August 2018

BS EN ISO 16371-2:2017
Non-destructive testing. Industrial computed radiography with storage phosphor imaging plates. General principles for testing of metallic materials using X-rays and gamma rays.
Corrigendum, July 2018

BS EN 16991:2018
Risk-based inspection framework.
Corrigendum, August 2018

BRITISH STANDARDS REVIEWED AND CONFIRMED

BS 7079:2009
General introduction to standards for preparation of steel substrates before application of paints and related products.

BS EN ISO 15012-1:2013
Health and safety in welding and allied processes. Equipment for capture and separation of welding fume. Requirements for testing and marking of separation efficiency.

BS EN ISO 15065:2005
Countersinks for countersunk head screws with head configuration in accordance with ISO 7721.

PD 6634-2:1999
Vehicle restraint systems. Fundamentals of highway restraint systems.

PD 6634-3:1999
Vehicle restraint systems. Development of vehicle highway barriers in the United Kingdom.

PD 6634-4:1999
Vehicle restraint systems. Development of bridge parapets in the United Kingdom.

BRITISH STANDARDS WITHDRAWN

BS EN 1563:2011
Founding. Spheroidal graphite cast irons.
Superseded by BS EN 1563:2018

BS EN 14399-7:2007
High-strength structural bolting assemblies for preloading. System HR. Countersunk head bolt and nut assemblies.
Superseded by BS EN 14399-7:2018

BS EN 14399-8:2007
High-strength structural bolting assemblies for preloading. System HV. Hexagon fit bolt and nut assemblies.
Superseded by BS EN 14399-8:2018

BS EN ISO 15612:2004
Specification and qualification of welding procedures for metallic materials. Qualification by adoption of a standard welding procedure.
Superseded by BS EN ISO 15612:2018

BS EN ISO 16151:2008
Corrosion of metals and alloys. Accelerated cyclic tests with exposure to acidified salt spray, "dry" and "wet" conditions.
BS ISO 16151:2005. Superseded by BS EN ISO 16151:2018

BS ISO 12108:2012
Metallic materials. Fatigue testing. Fatigue crack growth method.
Superseded by BS ISO 12108:2018

AD 423:
Reduction in bending resistance due to high shear

When considering the resistance of cross sections under combined bending and high shear, (where the shear is equal to or exceeds half the plastic shear resistance), the resistance moment of the section should be reduced: see BS EN 1993-1-1 cl. 6.2.8(3). A reduced yield strength $(1-\rho)f_y$ where

$$\rho = \left(\frac{2V_{Ed}}{V_{pl,Rd}} - 1\right)^2$$

should be used to calculate the contribution of the shear area to the resistance moment of the section. For an I section, the shear resistance is mainly provided by the web. In cl. 6.2.8(5) the alternative approach calculates the bending resistance by deducting ρ times the plastic modulus of the web from the full plastic modulus of the section, equivalent to using a reduced web thickness.

Similarly, a reduced yield strength $(1-\rho)f_y$ applied to the shear area should be used when considering combined bending, shear and axial force, when the design shear exceeds half the plastic shear resistance of the section. A reduced plate thickness for the relevant part of the cross section may be used as an alternative. Clause 6.2.10(3) of BS EN 1993-1-1 refers.

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