



Notification Number: 2016/532/UK

## Manual of Contract Documents for Highways Works - Series 400 Road Restraint Systems

Date received : 10/10/2016

End of Standstill : 11/01/2017

Issue of comments by : Commission

### Message

Message 001

Communication from the Commission - TRIS/(2016) 03104

Directive (EU) 2015/1535

Notificación - Oznámení - Notifikation - Notifizierung - Teavitamine - Γνωστοποίηση - Notification - Notification - Notifica - Pieteikums - Pranešimas - Bejelentés - Notifika - Kennisgeving - Zawiadomienie - Notificação - Hlásenie-Obvestilo - Ilmoitus - Anmälan - Нотификация : 2016/0532/UK - Notificare.

No abre el plazo - Nezahtuje odklady - Fristerne indledes ikke - Kein Fristbeginn - Viivituste perioodi ei avata - Καμία έναρξη προθεσμίας - Does not open the delays - N'ouvre pas de délais - Non fa decorrere la mora - Neietekmē atlikšanu - Atidėjimai nepradedami - Nem nyitja meg a késések - Ma' jiftaħ il-perijodi ta' dawmien - Geen termijnbegin - Nie otwiera opóźnień - Não inicia o prazo - Neotvorí oneskorenia - Ne uvaja zamud - Määräaika ei ala tästä - Inleder ingen frist - Не се предвижда период на прекъсване - Nu deschide perioadele de stagnare - Nu deschide perioadele de stagnare.

(MSG: 201603104.EN)

#### 1. Structured Information Line

MSG 001 IND 2016 0532 UK EN 10-10-2016 UK NOTIF

#### 2. Member State

UK

#### 3. Department Responsible

Department for Business, Energy & Industrial Strategy  
Europe Directorate  
1 Victoria Street  
London, SW1H 0ET

Email: [technicalregulations@bis.gsi.gov.uk](mailto:technicalregulations@bis.gsi.gov.uk)

#### 3. Originating Department



Highways England  
Woodlands  
Manton Lane Industrial Estate  
Bedford  
MK41 7LW

#### **4. Notification Number**

2016/0532/UK - B00

#### **5. Title**

Manual of Contract Documents for Highways Works - Series 400 Road Restraint Systems

#### **6. Products Concerned**

All products and services that are normally used for the construction of highways and ancillary structures on the UK Motorway and Trunk Road Network.

This Requirements and Advice Document provides requirements for the construction and installation of new and legacy road restraint systems on trunk roads and motorways.

#### **7. Notification Under Another Act**

-

#### **8. Main Content**

The Design Manual for Roads and Bridges is the basis of the requirements used by the Highways Agency for the design of new highway construction works and maintenance on the UK Strategic Trunk Road Network.

This Document provides requirements for road restraint systems.

#### **9. Brief Statement of Grounds**

The use of these documents is mandatory for all trunk roads, including motorways, in England and enforced under contract. Other UK Overseeing Departments incorporate certain amendments to take account of local conditions.

This document replaces and enhances the existing specifications to align them with the requirements of the Construction Products Regulations (305/2011)) and the Construction Products Regulations 2013 with respect to design, delivery and introduction into service of road restraint systems.

#### **10. Reference Documents - Basic Texts**

References of the Basic Texts: BS 1449-1 Steel plate, sheet and strip.. Specification for carbon and carbon-manganese plate, sheet and strip  
BS 1449-2 Steel plate, sheet and strip. Specification for stainless and heat-resisting steel plate, sheet and strip.  
BS 4320 Specification for metal washers for general engineering purposes. Metric series.  
BS 4872-1. Specification for approval testing of welders when welding procedure approval is not required.  
Fusion welding of steel  
BS 5080-1 Structural fixings in concrete and masonry. Method of test for tensile loading



BS 6399-1 Loading for buildings. Code of practice for dead and imposed loads

BS 6779-1: 1998 Highway parapets for bridges and other structures. Specification for vehicle containment parapets of metal construction

BS 6779-2: 1991 Highway parapets for bridges and other structures. Specification for vehicle containment parapets of concrete construction

BS 7818. Specification for pedestrian restraint systems in metal.

BS 8500-1. Concrete. Complementary British Standard to BS EN 206. Method of specifying and guidance for the specifier

BS 8500-2 Concrete. Complementary British Standard to BS EN 206. Specification for constituent materials and concrete

BS EN 10025-1, Hot rolled products of structural steels. General technical delivery conditions

BS EN 10025-3 Hot rolled products of structural steels. Technical delivery conditions for normalized/normalized rolled weldable fine grain structural steels

BS EN 10025-4 Hot rolled products of structural steels. Technical delivery conditions for thermomechanical rolled weldable fine grain structural steels

BS EN 10029, Hot-rolled steel plates 3 mm thick or above. Tolerances on dimensions and shape.

BS EN 10048, Hot rolled narrow steel strip. Tolerances on dimensions and shape.

BS EN 10051 Continuously hot-rolled strip and plate/sheet cut from wide strip of non-alloy and alloy steels. Tolerances on dimensions and shape.

BS EN 10056-1 Specification for structural steel equal and unequal angles. Dimensions

BS EN 10087 Free cutting steels. Technical delivery conditions for semi-finished products, hot rolled bars and rods.

BS EN 10088-1. Stainless steels. List of stainless steels

BS EN 1011-1 Welding. Recommendations for welding of metallic materials. General guidance for arc welding

BS EN 1011-2. Welding. Recommendations for welding of metallic materials. Arc welding of ferritic steels

BS EN 1011-3. Welding. Recommendations for welding of metallic materials. Arc welding of stainless steels

BS EN 1011-4. Welding. Recommendations for welding of metallic materials. Arc welding of aluminium and aluminium alloys

BS EN 10210-2 Hot finished structural hollow sections of non-alloy and fine grain steels. Tolerances, dimensions and sectional properties

BS EN 10219-2 Cold formed welded structural hollow sections of non-alloy and fine grain steels. Tolerances, dimensions and sectional properties

BS EN 10255 Non-alloy steel tubes suitable for welding and threading. Technical delivery conditions.

BS EN 10277-1 Bright steel products. Technical delivery conditions. General

BS EN 10277-5 Bright steel products. Technical delivery conditions. Steels for quenching and tempering

BS EN 10278 Dimensions and tolerances of bright steel products.

BS EN 12020-1 Aluminium and aluminium alloys. Extruded precision profiles in alloys EN AW-6060 and EN AW-6063. Technical conditions for inspection and delivery

BS EN 12020-2 Aluminium and aluminium alloys. Extruded precision profiles in alloys EN AW-6060 and EN AW-6063. Tolerances on dimensions and form

BS EN 12676-1 Anti-glare systems for roads. Performance and characteristics

BS EN 12676-2 Anti-glare systems for roads. Test methods

BS EN 1317-1 Road restraint systems. Terminology and general criteria for test methods

BS EN 1317-2 Road restraint systems. Performance classes, impact test acceptance criteria and test methods for safety barriers including vehicle parapets

BS EN 1317-3 Road restraint systems. Performance classes, impact test acceptance criteria and test methods for crash cushions

BS EN 1317-5 Road restraint systems. Product requirements and evaluation of conformity for vehicle restraint systems

BS EN 1418 Welding personnel. Approval testing of welding operators for fusion welding and resistance weld setters for fully mechanized and automatic welding of metallic materials.



BS EN 14399 High-strength structural bolting assemblies for preloading. General requirements

BS EN 1559-1, Founding. Technical conditions of delivery. General

BS EN 1559-4, Founding. Technical conditions of delivery. Additional requirements for aluminium alloy castings

BS EN 1592-1 Aluminium and aluminium alloys. HF seam welded tubes. Technical conditions for inspection and delivery

BS EN 1592-4 Aluminium and aluminium alloys. HF seam welded tubes. Tolerances on dimensions and form for square, rectangular and shaped tubes

BS EN 1676 Aluminium and aluminium alloys. Alloyed ingots for remelting. Specifications.

BS EN 1706 Aluminium and aluminium alloys. Castings. Chemical composition and mechanical properties.

BS EN 1990 Eurocode. Basis of structural design.

BS EN 1991-1-5:2003 UK National Annex to Eurocode 1. Actions on structures. General actions

BS EN 1991-1-7 Eurocode 1. Actions on structures. General actions

BS EN 1991-2 Eurocode 1. Actions on structures. Traffic loads on bridges

BS EN 1993-1-1:2005, Eurocode 3. Design of steel structures. General rules and rules for buildings

BS EN 1993-1-10 Eurocode 3. Design of steel structures. Material toughness and through-thickness properties

BS EN 1993-1-5:2006, Eurocode 3. Design of steel structures. Plated structural elements

BS EN 1993-1-8, Eurocode 3. Design of steel structures. Design of joints

BS EN 1993-2"; Eurocode 3. Design of steel structures. Steel bridges

BS EN 22553. Welded, brazed and soldered joints. Symbolic representation on drawings.

BS EN 287-1 qualification test of welders. Fusion welding. Steels

BS EN 485-1 Aluminium and aluminium alloys. Sheet, strip and plate. Technical conditions for inspection and delivery

BS EN 515, Aluminium and aluminium alloys. Wrought products. Temper designations.

BS EN 571-1, Non-destructive testing. Penetrant testing. General principles

BS EN 573-3, Aluminium and aluminium alloys. Chemical composition and form of wrought products. Chemical composition and form of products

BS EN 754-1, Aluminium and aluminium alloys. Cold drawn rod/bar and tube. Technical conditions for inspection and delivery

BS EN 754-2, Aluminium and aluminium alloys. Cold drawn rod/bar and tube. Mechanical properties

BS EN 754-7 Aluminium and aluminium alloys. Cold drawn rod/bar and tube. Seamless tubes, tolerances on dimensions and form

BS EN 754-8 Aluminium and aluminium alloys. Cold drawn rod/bar and tube. Porthole tubes, tolerances on dimensions and form

BS EN 755-1 Aluminium and aluminium alloys. Extruded rod/bar, tube and profiles. Technical conditions for inspection and delivery

BS EN 755-9 Aluminium and aluminium alloys. Extruded rod/bar, tube and profiles. Profiles, tolerances on dimensions and form

BS EN ISO 1461 Hot dip galvanized coatings on fabricated iron and steel articles. Specifications and test methods.

BS EN ISO 15607 Specification and qualification of welding procedures for metallic materials. General rules.

BS EN ISO 15609-1 Specification and qualification of welding procedures for metallic materials. Welding procedure specification. Arc welding

BS EN ISO 15609-2 Specification and qualification of welding procedures for metallic materials. Welding procedure specification. Gas welding

BS EN ISO 15614-1 Specification and qualification of welding procedures for metallic materials. Welding procedure test. Arc and gas welding of steels and arc welding of nickel and nickel alloys

BS EN ISO 17637 Non-destructive testing of welds. Visual testing of fusion-welded joints.

BS EN ISO 17640. Non-destructive testing of welds. Ultrasonic testing. Techniques, testing levels, and assessment.

BS EN ISO 3506-1 Mechanical properties of corrosion-resistant stainless steel fasteners. Bolts, screws and studs

BS EN ISO 3506-2 Mechanical properties of corrosion-resistant stainless steel fasteners. Nuts



BS EN ISO 4014 Hexagon head bolts. Product grades A and B.  
BS EN ISO 4016 Hexagon head bolts. Product grade C.  
BS EN ISO 4017 Fasteners. Hexagon head screws. Product grades A and B.  
BS EN ISO 4018 Hexagon head screws. Product grade C.  
BS EN ISO 4032 Hexagon regular nuts (style 1). Product grades A and B.  
BS EN ISO 4034 Hexagon nuts. Product grade C.  
BS EN ISO 4035 Hexagon thin nuts chamfered (style 0). Product grades A and B.  
BS EN ISO 898-1 Mechanical properties of fasteners made of carbon steel and alloy steel. Bolts, screws and studs with specified property classes. Coarse thread and fine pitch thread  
BS EN ISO 9445 Continuously cold-rolled stainless steel. Tolerances on dimensions and form. Narrow strip and cut lengths  
BS EN ISO 9606 Qualification testing of welders.  
BS EN ISO 9712 Non-destructive testing. Qualification and certification of NDT personnel.  
BS EN ISO 9934-1 Non-destructive testing. Magnetic particle testing. General principles  
DD ENV 1317-4:2002, Road restraint systems. Performance classes, impact test acceptance criteria and test methods for terminals and transitions of safety barriers  
MCHW Series 000 Introduction [ 2013/357/UK]  
MCHW Series 100 Preliminaries [2013/359/UK]  
MCHW Series 1700 Structural concrete [2014/082/UK ]  
MCHW Series 1900 Structural steelwork [ 2013/532/UK]  
TD 19/06 - Requirements for Road Restraint Systems

#### **11. Invocation of the Emergency Procedure**

No

#### **12. Grounds for the Emergency**

-

#### **13. Confidentiality**

No

#### **14. Fiscal measures**

No

#### **15. Impact assessment**

-

#### **16. TBT and SPS aspects**

TBT aspect

No - The draft has no significant impact on international trade

SPS aspect

No - The draft is not a sanitary or phytosanitary measure



**EUROPEAN COMMISSION**  
GROWTH DIRECTORATE-GENERAL

**Single Market for goods**  
Prevention of Technical Barriers

\*\*\*\*\*

European Commission

Contact point Directive (EU) 2015/1535

Fax: +32 229 98043

email: [grow-dir83-189-central@ec.europa.eu](mailto:grow-dir83-189-central@ec.europa.eu)