

CP 489 Instructions for specifiers for CC 489 Bridge bearings

(formerly)

Version LIVE_2024-11-04

The 'SUMMARY' field is missing from the Document Information. Please populate this field before publication.

Feedback and Enquiries

Users of this document are encouraged to raise any enquiries and/or provide feedback on the content and usage of this document to the dedicated National Highways team. The online feedback form for all enquiries and feedback can be accessed at:

www.standardsforhighways.co.uk/feedback.

This is a controlled document.

Contents

1. [Release Notes](#)
2. [Foreword](#)
3. [1. General requirements for bridge bearings](#)
 1. [Product requirements for bridge bearings](#)
 2. [Installation, storage and transportation requirements for bridge bearings](#)
 3. [Documentation requirements for bridge bearings](#)
 4. [Verification requirements for bridge bearings installation](#)
 5. [Documentation requirements for bridge bearings installation](#)
4. [2. Surface preparation and protection against corrosion for bridge bearings](#)
 1. [Surface preparation and corrosion protection on existing structures where new bearings are to be installed](#)
 2. [Verification of surface preparation and protection against corrosion for bridge bearings](#)
 3. [Documentation requirements for surface preparation for protection of steelwork against corrosion](#)
5. [3. Bedding mortars for bridge bearings](#)
6. [4. Normative references](#)

Latest release notes

Docume nt Code	Version number	Date of publication of relevant change	Changes made to	Type of change
CP 489	LIVE_2024-11-04	Not available	Core document	Change to policy, major revision, new document development
This document replaces Series NG 2100 Bridge Bearings				

Previous versions

Docume nt Code	Version number	Date of publication of relevant change	Changes made to	Type of change
-------------------	-------------------	---	-----------------	----------------

Foreword

This document provides specifier instructions for the production of the works specific requirements for CC 489 Bridge bearings.

This document does not form part of the works specification.

The works specification is made up of both the Specification for Highway Works and the works specific requirements completed by the Specifier.

This document is applicable for contracts throughout the UK, complemented by the additional specification requirements and contractual changes of each Overseeing Organisation.

Users are responsible for applying all appropriate documents applicable to their contract.

Users are responsible for archiving contract documentation in accordance with the user's quality management system.

1. General requirements for bridge bearings

1.1 Bridge bearings shall be Contractor design items.

1.2 The design of bridge bearings shall be in accordance with BS EN 1337-1 [Ref 9.N] and CD 350 [Ref 19.N].

1.3 The requirements for "Contractor design" in Section 17 of GC 101 [Ref 1.N] shall apply to bridge bearings.

1.4 Bridge bearings shall be as specified in CC 489/WSR/001.

Bridge bearings			
Structure reference	Bearing reference	Bearing schedule reference	Drawing / model reference
(a)	(b)	(c)	(d)

- a) Enter a unique reference, to define the structure for which the bearing(s) is(are) proposed.
- b) Enter a unique reference, to define each bridge bearing.
- c) Enter text, to define the drawing or document that contains the bridge bearing schedule.
- d) Enter text, to define the drawing / model that shows the bridge bearing location.

Product requirements for bridge bearings

1.5 All bridge bearings shall be in accordance with BS EN 1337-1 [Ref 9.N], supplemented by PD 6703 [Ref 7.N] and the applicable standards listed in table 1.5

Table 1.5 Bridge bearings and their applicable standards	
Type of bridge bearings	Standard
Sliding elements	BS EN 1337-2 [Ref 16.N]
Elastomeric bearings	BS EN 1337-3 [Ref 8.N]
Roller bearings	BS EN 1337-4 [Ref 15.N]
Pot bearings	BS EN 1337-5 [Ref 12.N]
Rocker bearings	BS EN 1337-6 [Ref 14.N]
Spherical and cylindrical PTFE bearings	BS EN 1337-7 [Ref 17.N]
Guided bearings	BS EN 1337-8 [Ref 10.N]

1.6 Bridge bearings shall meet the performance characteristics listed in the bearing schedule referenced in WSR 489/001 and in the standard applicable for the type of bridge bearing listed in table 1.5.

1.7 The requirements for Designated standards in Section 10 of GC 101 [Ref 1.N] shall apply to bridge bearings.

Installation, storage and transportation requirements for bridge bearings

1.8 The transportation, storage and installation of bridge bearings shall be in accordance with BS EN 1337-1 [Ref 9.N], BS EN 1337-11 [Ref 18.N], PD 6703 [Ref 7.N] and the manufacturer's instructions.

Documentation requirements for bridge bearings

1.9 The following Documentation shall be submitted for bridge bearings prior to the commencement of bearing installation: completed bridge bearing schedule.

1.10 The requirements for "Documentation" in Section 2 of GC 101 [Ref 1.N] shall apply to the completed bridge bearing schedule.

Verification requirements for bridge bearings installation

1.11 Verification shall be undertaken for bridge bearing installation by inspection in accordance with BS EN 1337-10 [Ref 11.N], CS 450 [Ref 2.N] and the bridge bearing manufacturer's requirements.

1.12 The frequency of bridge bearing installation inspection shall be once upon completion of bridge bearing installation.

1.13 The requirements for "Verification" in Section 14 of GC 101 [Ref 1.N] shall apply to bridge bearing installation inspection.

Documentation requirements for bridge bearings installation

1.14 The following Documentation shall be submitted for the installation of each bridge bearing upon completion of the bearing installation: Bridge Bearing Information Pack.

1.15 The requirements for Documentation in Section 2 of GC 101 shall apply to the Bridge Bearing Information Pack.

1.16 The Bridge Bearing Information Pack shall include:

1. reports and records on transportation, storage and installations as required in BS EN 1337-11 [Ref 18.N]; and,

2. information on future maintenance.

1.17 The information on future maintenance of the bridge bearings in the Bearing Information Pack shall include:

1. requirements for the bearings to be replaced in the future;
2. details of how to remove, maintain or replace protection measures for inspection and/or maintenance of the bearing;
3. removal and re-setting methods including sequences and timings;
4. specific maintenance requirements, including cleaning, grease, measurements, and the required intervals.

2. Surface preparation and protection against corrosion for bridge bearings

2.1 The surface preparation and corrosion protection for steel in bridge bearings shall comply with BS EN 1337-9 [Ref 13.N] and CC 486 [Ref 6.N].

2.2 Surface preparation for steel in bridge bearings shall comply with "Protective systems for steel in bridge bearings and metal coated fasteners for protection of steelwork against corrosion" in Section 6 of CC 486 [Ref 6.N].

Surface preparation and corrosion protection on existing structures where new bearings are to be installed

2.3 The surface preparation and corrosion protection for steelwork on existing structures where new bridge bearings are to be installed shall comply with CM 431 [Ref 3.N] and CC 487 [Ref 4.N].

Verification of surface preparation and protection against corrosion for bridge bearings

2.4 Verification shall be undertaken for compliance of the surface preparation through visual inspection by competent person's as given in CC 486 [Ref 6.N].

2.5 The frequency of compliance inspection of the surface preparation shall be prior to application of each coat of the paint system.

2.6 The requirements for "Verification" in Section 14 of GC 101 [Ref 1.N] shall apply to compliance inspections of the standard of surface preparation.

2.7 Verification for testing of corrosion protection coating shall be undertaken by an accredited testing laboratory in compliance with "Accredited laboratory" in Section 16 of GC 101 [Ref 1.N].

2.8 Verification for testing of corrosion protection coating shall comply with CC 486 [Ref 6.N].

Documentation requirements for surface preparation for protection of steelwork against corrosion

2.9 The following Documentation shall be submitted for surface preparation prior to the commencement of the application of paint system: visual inspection report as required in CC 486 [Ref 6.N].

2.10 The requirements for "Documentation" in Section 2 of GC 101 [Ref 1.N] shall apply to reports for the visual inspection of surface preparation.

3. Bedding mortars for bridge bearings

3.1 Bedding mortars for bridge bearings shall comply with "Bedding Mortar" in Section 1 of CC 495 [Ref 5.N].

4. Normative references

The following documents, in whole or in part, are normative references for 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.

Ref.	Document
Ref 1.N	National Highways. GC 101, 'General requirements for the Specification for Highway Works'
Ref 2.N	National Highways. CS 450, 'Inspection of highway structures'
Ref 3.N	National Highways. CM 431, 'Maintenance painting of steelwork'
Ref 4.N	National Highways. CC 487, 'Maintenance painting of steelwork'
Ref 5.N	National Highways. CC 495 'Miscellaneous'
Ref 6.N	National Highways. CC 486, 'Protection of steelwork against corrosion'
Ref 7.N	BSI. PD 6703 , 'Structural bearings - Guidance on the use of structural bearings'
Ref 8.N	BSI. BS EN 1337-3, 'Structural bearings. Elastomeric bearings [Designated Standard - CPR]'
Ref 9.N	BSI. BS EN 1337-1, 'Structural bearings. General design rules'
Ref 10.N	BSI. BS EN 1337-8, 'Structural bearings. Guide bearings and restraint bearings [Designated Standard - CPR]'
Ref 11.N	BSI. BS EN 1337-10, 'Structural bearings. Inspection and maintenance'
Ref 12.N	BSI. BS EN 1337-5, 'Structural bearings. Pot Bearings [Designated Standard - CPR]'
Ref 13.N	BSI. BS EN 1337-9, 'Structural bearings. Protection'
Ref 14.N	BSI. BS EN 1337-6, 'Structural bearings. Rocker bearings [Designated Standard - CPR]'
Ref 15.N	BSI. BS EN 1337-4, 'Structural bearings. Roller Bearings [Designated Standard - CPR]'
Ref 16.N	BSI. BS EN 1337-2, 'Structural bearings. Sliding elements'

Ref 17.N	BSI. BS EN 1337-7, 'Structural bearings. Spherical and cylindrical PTFE bearings [Designated Standard - CPR]'
Ref 18.N	BSI. BS EN 1337-11, 'Structural bearings. Transport, storage and installation'
Ref 19.N	National Highways. CD 350, 'The design of highway structures'

© Crown copyright 2024.

You may re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence:

visit www.nationalarchives.gov.uk/doc/open-government-licence/,
write to the **Information Policy Team, The National Archives, Kew,
London TW9 4DU** ,
or email psi@nationalarchives.gsi.gov.uk.