

BS 6187:2011



BSI Standards Publication

# Code of practice for full and partial demolition

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#### Summary of pages

This document comprises a front cover, an inside front cover, pages i to vi, pages 1 to 158, an inside back cover and a back cover.

## Foreword

### Publishing information

This British Standard is published by BSI and came into effect on 31 December 2011. It was prepared by BSI Panel B/513/-/9, under the authority of Technical Committee B/513, *Construction equipment and plant and site safety*. A list of organizations represented on this committee can be obtained on request to its secretary.

### Supersession

BS 6187:2011 supersedes BS 6187:2000, which is withdrawn.

### Information about this document

This standard has been revised to reflect advances in technology and equipment in the demolition industry, and to give recommendations on the following principal areas.

- a) Project development and management, site assessments, risk assessments, decommissioning procedures, environmental provisions and facade retention.
- b) Deconstruction techniques, including activities for reuse and recycling.
- c) Exclusion zones and safe working spaces, including their design and application.

Recommendations for methods of, and techniques for, demolition and partial demolition, including for structural refurbishment, have been retained, with consideration of specific types of structure, but the text has been significantly updated to reflect current and developing good practices. By being less prescriptive, this edition also allows for innovative techniques and methods to be employed.

### Use of this document

As a code of practice, this British Standard 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 British Standard 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 in 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.*

### Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

**Compliance with a British Standard cannot confer immunity from legal obligations.**



## Introduction

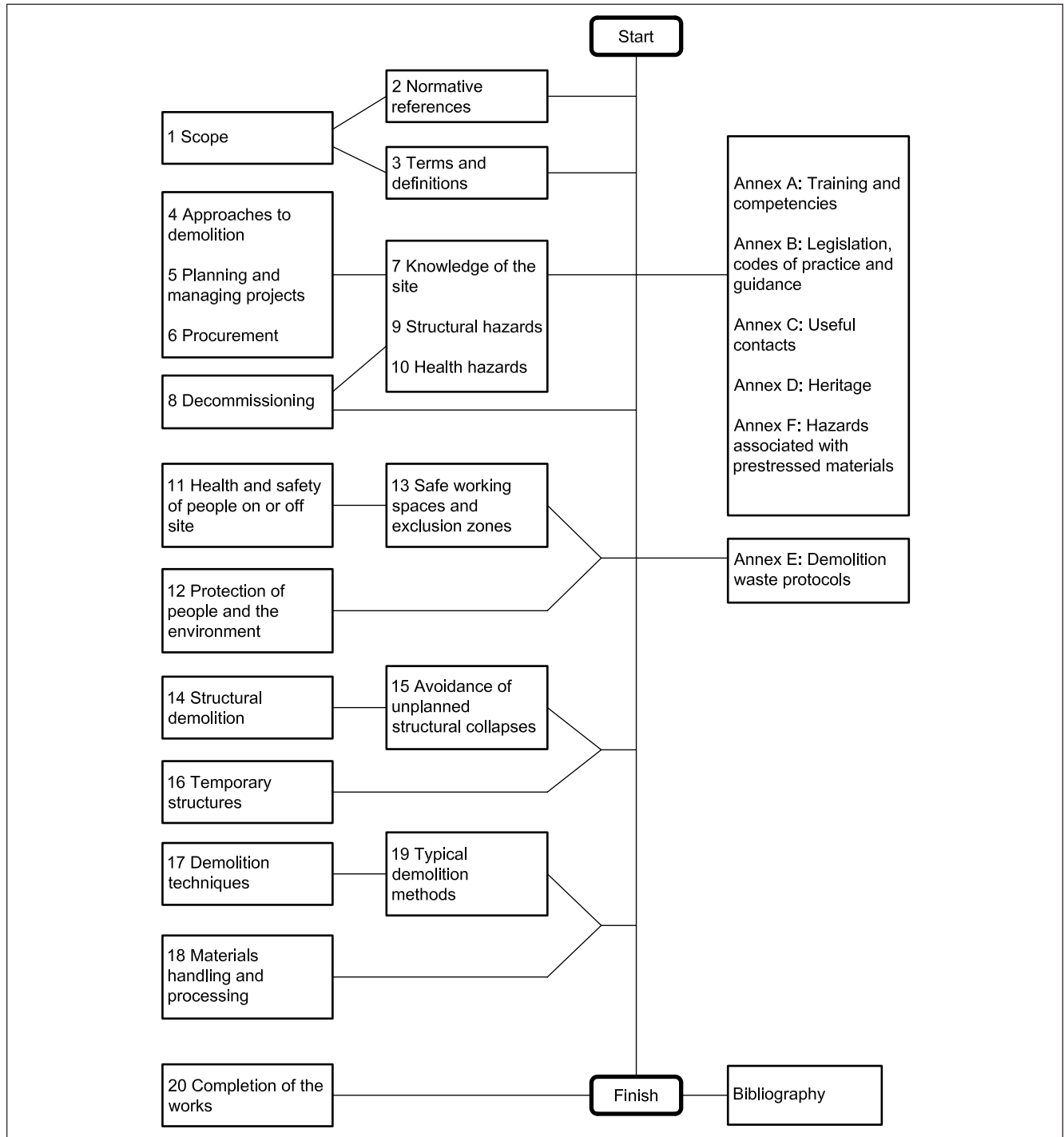
This code of practice concerns the process of demolition, including demolition as part of structural refurbishment, from initial considerations, through planning and design to the execution stages (see Figure 1).

The word “demolition” is often misconstrued to mean “large scale” or to involve the complete removal of a structure or building. However, the removal of a single element or the part removal of a structure or building also constitutes demolition. This standard is therefore intended to be applicable to those involved with all demolition activities, however large or small, including those undertaking partial demolition, which might be for structural refurbishment projects. Trade contractors unfamiliar with the vagaries of demolition activities required for structural refurbishment are advised to seek the advice of a competent practitioner. It is important to note that this standard does not cover all aspects of structural refurbishment; rather it is applicable only to those activities involving partial demolition.

Route maps have been included at the beginning of most clauses. These are not intended to be process flowcharts, but to guide the user through the information in the text. This is particularly in respect of the hierarchy and interdependence of use of the clauses and subclauses, which might not always be obvious because of the complexity of the demolition processes and the wide coverage of this document. Such projects, from inception to completion, include numerous activities, many of which are iterative and which require revisiting. For example, as the project moves through the tender process to contract acceptance and on to site operations, planned methods of work will be developed and augmented further at each stage.

This code of practice has been written on the understanding that the execution of its provisions is entrusted to appropriately qualified and competent people and organizations. Competence is about being able to do the work safely, without endangering others, and meeting the legal health and safety requirements. Clients and procurers of demolition works have a key role and have to take reasonable steps to ensure that those appointed or engaged by them are competent for what they are expected to do. Similarly, those accepting such appointments ought only to do so if they are competent to undertake the demolition or partial demolition activity.

Figure 1 Outline route map



## 1 Scope

This British Standard gives good practice recommendations for the demolition (both full and partial) of facilities, including buildings and structures. This standard is therefore applicable to demolition activities undertaken as part of structural refurbishment. It also covers decommissioning.

In particular, the standard gives recommendations for:

- a) the proper and effective management of demolition processes, including those forming part of structural refurbishment;
- b) maintaining structural stability, including through the provision of temporary structural support, where necessary;
- c) managing deliberate structural collapse;
- d) identifying and establishing responsibilities during all phases of the demolition processes;
- e) acquiring a knowledge of the site, including its former uses;
- f) managing environmental issues;
- g) managing health and safety hazards;
- h) carrying out risk assessments and planning the work accordingly;
- i) establishing and managing procedures effectively;
- j) determining and managing safe exclusion zones.

The standard takes into account safety, health and issues that affect the protection of the environment.

For the purposes of this standard, demolition activities include, for example, activities that might be known as dismantling, disassembling, demounting, partial demolition, removal, decommissioning, deconstruction and soft stripping, and structural refurbishment, including renovation, rehabilitation, rebuilding, remodelling, reconstruction, redevelopment, restoration, renewal, replanting, development, enlargement, extending, augmenting, conservation, modifications, alterations, structural alterations, upgrading and reroofing.

This standard is not applicable to all structural refurbishment activities; only those involving partial demolition.

It is essential that those carrying out demolition activities possess the necessary levels of competence. Clients or procurers of demolition works need to ensure that all contractors, designers and other team members that they propose to engage or appoint are competent to comply with the health and safety requirements necessary to undertake demolition activities. Annex A gives guidance on the training and competence required for the activities covered by this standard.

## 2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

BS 5228-1, *Code of practice for noise and vibration control on construction and open sites – Part 1: Noise*

BS 5228-2, *Code of practice for noise and vibration control on construction and open sites – Part 2: Vibration*

BS 5607:1998, *Code of practice for safe use of explosives in the construction industry*

BS 5837, *Trees in relation to construction – Recommendations*

BS 5930:1999+A2:2010, *Code of practice for site investigations*

BS 5975, *Code of practice for temporary works procedures and the permissible stress design of falsework*

BS 6100, *Building and civil engineering – Vocabulary*

BS 6164, *Code of practice for health and safety in tunnelling in the construction industry*

BS 7121-1, *Code of practice for safe use of cranes – Part 1: General*

BS 7121-2, *Code of practice for safe use of cranes – Part 2: Inspection, testing and examination*

BS 7121-3, *Code of practice for safe use of cranes – Part 3: Mobile cranes*

BS 7121-4, *Code of practice for safe use of cranes – Part 4: Lorry loaders*

BS 7121-5, *Code of practice for safe use of cranes – Part 5: Tower cranes*

BS 10175, *Investigation of potentially contaminated sites – Code of practice*

BS EN 1991-1-6, *Eurocode 1 – Actions on structures – Part 1-6: General actions – Actions during execution*

BS EN 12811-1, *Temporary works equipment – Part 1: Scaffolds – Performance requirements and general design*

### 3 Terms and definitions

For the purposes of this British Standard, the terms and definitions given in BS 6100 and the following apply.

#### 3.1 adjoining owners

freeholders, owners, lessees, tenants and/or occupiers of a property adjoining the site of work

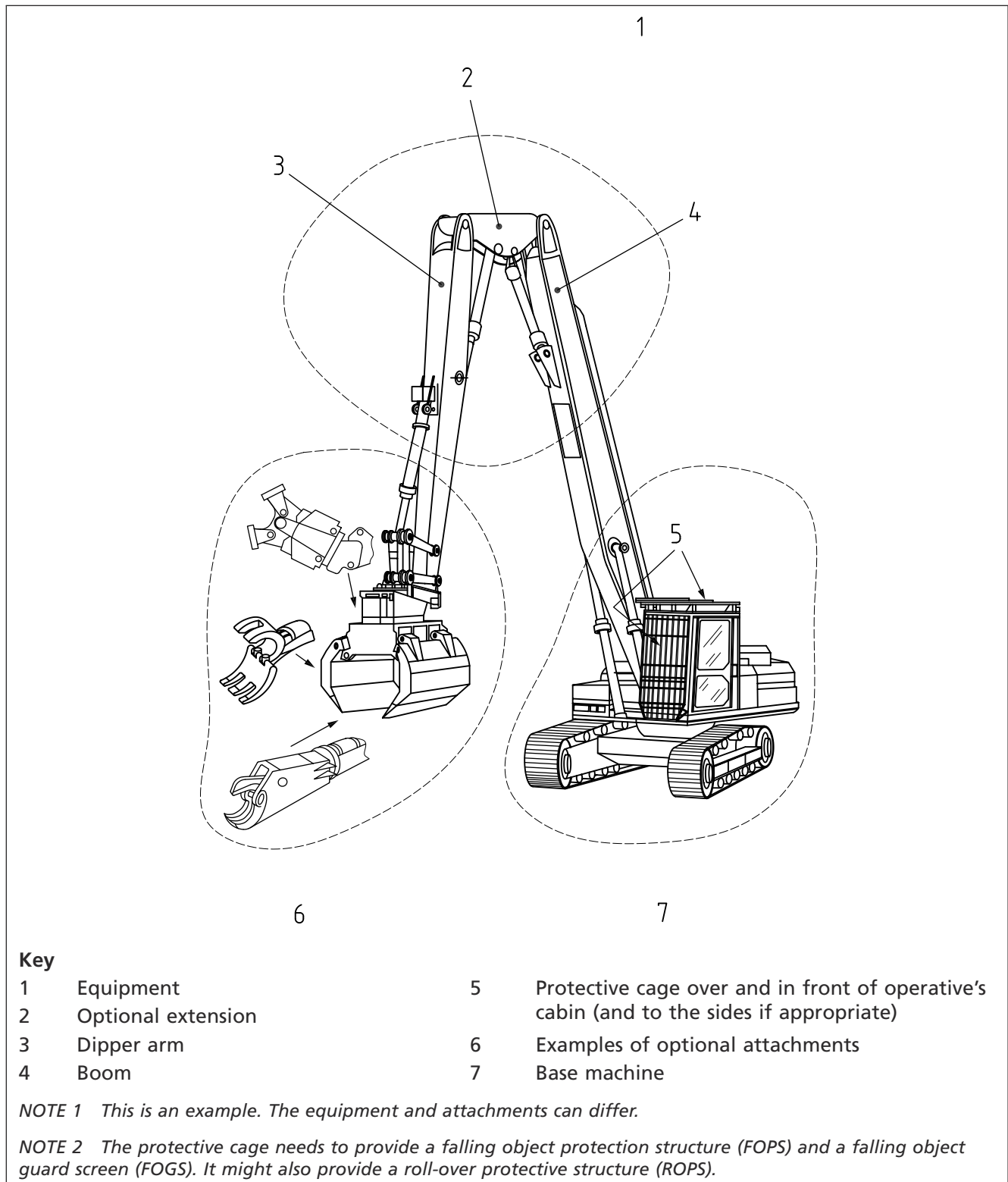
*NOTE* The term “adjoining owners” has a specific meaning under the Party Wall etc. Act 1996 [1].

#### 3.2 attachment

assembly of components forming the working tool that can be mounted onto the base machine or (optional) equipment for specific use

*NOTE* See Figure 2.

Figure 2 Base machine, equipment and attachments



### 3.3 base machine

machine without equipment and attachment that includes the mountings necessary to secure equipment, as required

*NOTE For example, operator protective structures for demolition. See Figure 2.*