

© British Standards Institution. No part of this publication may be photocopied or otherwise reproduced without the prior permission in writing of BSI.

The preparation of British Standards for building and civil engineering

Part 2. Guide to presentation

Elaboration des Normes Britanniques de construction et de génie civil
Partie 2. Présentation-type

Erstellung von britischen Normen für das Bauwesen
Teil 2. Leitfaden für Aufbau und Gliederung

Contents

	Page
Foreword	2
Committees responsible	Back cover
Guide	
0 Introduction	3
1 Scope	4
2 Users and uses of British Standards for building and civil engineering	4
3 What goes into which document	5
4 Length of documents	8
5 Structuring a document	8
6 Language, tables and illustrations	12
7 Document design	26
Appendix	
A Related standards	31
Index	32

COMMENTARY ON CONTENTS. *It is recommended that the contents list should preferably have the first right-hand page to itself. It should also show the structure of the document but should not be a detailed guide to the clauses (see 7.2).*

Foreword

PD 6501 : Part 1 'Guide to the types of British Standard, their aims, relationship, content and application' was published in August 1982. At that time, work was in progress on Part 2, to give further guidance on structure and format.

The draft for public comment for Part 2 was circulated in March 1982. It covered a wide range of topics such as improving methods of retrieval of information, typography and length of British Standards, and guidance to writers of British Standards for building and civil engineering.

The background documents on which this was based are listed on pages 178 to 180 of document 82/10796.

BSI has agreed that a new layout can be adopted as an experiment for a limited number of British Standards and this document embraces many of the principles agreed and is printed in the agreed new layout.

The advice in this Part of PD 6501 is directed largely at the construction industry, which is accustomed to using drawings and illustrations, but it may be equally applicable elsewhere for use within the framework of the guidance given in the three Parts of the 1981 revision of BS 0.

Appendix A gives some information on related standards, as recommended in 5.2.1.

COMMENTARY ON FOREWORD. *It is recommended that the foreword should normally be on the inside of the front cover. However, as this document has a blue cover it is not practical to print the foreword on it and it has therefore been placed after the contents.*

Guide

0 Introduction

The stimulus for the study on which this document is based arose out of complaints about the increase in length and complexity of some British Standards. These complaints were made by practitioners who felt that the writers were getting out of touch with their needs. With this in mind, this document starts from the premise that documents should be produced for the reader, not the writer.

BS 0 emphasizes that standards should be wanted and that standards should be used. The intended application of a standard should be clearly understood at the start and borne in mind throughout its preparation. This document strongly agrees with that view. Many existing standards are inconvenient to use because they contain information for several different types of reader. A committee may therefore need to prepare separate documents for different users or uses.

For the typical practitioner, time is money. So most of the recommendations aim to save the reader time. If the recommendations are followed, standards should be better understood and more widely used.

Writers tend to feel that the more information they give the reader the better. But a busy practitioner is unlikely to agree. Given a choice between a concise source and a more detailed one, he will often wish to use the concise one, even if it is less comprehensive. Writers can cater for this by writing precisely, by highlighting key information, and by providing versions of different lengths.

Poor sequence of content may be more significant than length in deterring and delaying readers. Once a standard is agreed, it still needs to be arranged to suit the reader's convenience.

Many of the recommendations are about the form of standards, i.e. clearer language, tables, and illustrations (and a greater use of illustrations for an industry which already thinks and communicates graphically). Some writers may feel that form is a trivial cosmetic matter and that content alone is important. But research suggests that poor comprehension of texts may be due more to complex presentation than to the inherent complexity of the content. Furthermore, clearer form leads to better content because it calls for clearer thought by the writer.

It is emphasized that the illustrations are intended to exemplify the points made in this Published Document. Where they include pages reproduced from British Standards, these should not be used or regarded as authoritative texts for the particular subjects they refer to.

1 Scope

This Part of PD 6501 gives recommendations and examples to writers of British Standards for building and civil engineering on their structure and format. It is supplementary to the 1981 revision of BS 0, which has been published in three separate Parts, and should be read in conjunction with that standard.

Most of the proposals aim to make it easier and quicker for the reader to find and absorb information. The document gives maxims to help writers decide what should go in which document, and it suggests ways of making information available at different lengths. It discusses how to structure a document to make it convenient for the reader, and it gives examples of clearer language, tables and illustrations.

The decision on the method of presentation of information is a matter for the technical committee responsible for the preparation of a British Standard and will vary with the type of document and the probable readership. A decision on these matters should be made when the initial drafting is undertaken prior to the circulation of the draft for public comment, so that the draft for public comment is issued in the form which the final British Standard will take.

NOTE. The titles of the publications referred to in this document are listed on the inside back cover. Related standards are listed in appendix A.

COMMENTARY ON CLAUSE 1. *The scope is an expansion of the title of the document (see 4.3.2 of BS 0 : Part 3). Related documents cover other documents to which a reader can refer if the information he requires is not covered by the standard (see 5.2.1).*

2 Users and uses of British Standards for building and civil engineering

Table 1 lists the activities in the construction process. Technical committees could find it useful to fill in the appropriate boxes. The use of the table can only be subjective and its chief value is as a checklist of headings for writers of British Standards.

COMMENTARY ON CLAUSE 2

WHO USES BRITISH STANDARDS AND HOW?

Architects need to refer to many British Standards briefly: easy retrieval is therefore important for them. Many architects rarely use British Standards: some never use them. Younger architects use them more, generally in the later stages of design. Very senior staff rarely see British Standards (yet it is they who tend to sit on BSI committees). QSs' needs seem to be satisfied by Handbook 3.

Small builders have little knowledge of British Standards, even when referred to them in specifications.

Civil engineers have little difficulty with material specifications and use fewer codes than architects. They need to comprehend fully those codes which they use.

Building sites almost never hold any British Standards. On the rare occasions when they use them they have difficulty in reading them.

Manufacturers are very familiar with the few British Standards which refer to their products. They do not appear to have particular problems with British Standards.

Table 1. Users and uses of British Standards in the construction industry

Users \ Uses	Brief	Design	Manufacture	Product test	Construction	Certification	Public control	Operation/ maintenance
Client								
Architect								
Civil/Structural engineer								
M and E engineer								
Quantity Surveyor (QS)								
Manufacturer								
Builders' merchants								
Test house								
Contractor								
Clerk of works/Resident engineer								
Building control officer								
Owner/User/Occupier								
Regulatory authority								

3 What goes into which document

3.1 A masterplan for British Standards

Ideally there should be a masterplan so that committees can decide what a particular British Standard should cover. Related documents should form a complete, integrated compatible whole (see 5.3 of BS 0 : Part 3 : 1981). Each document could have a small matrix showing its position in the overall plan.

COMMENTARY ON 3.1. *In a case study to identify related sets of British Standards, it was difficult to find clearly defined sets. Many areas are either indifferently covered or not covered at all and there are also some cases of duplication.*

There seems to be a dearth of information about the selection of the correct technique or product from an available range, probably for historical reasons. A case in point concerns the standards for road surfaces for lightly trafficked areas. The permutations of finish and base can reach several hundreds, but there appears to be no guidance on what solution to specify for particular

conditions. Nor, for that matter, did a search of alternative, non-BSI documents reveal the information.

Other examples of omission include joist shoes, lintels, fire stops and cavity barriers, masonry roof straps, and siphonic action WC pans. The first four of these items are at the head of the list of faults in low-rise housing in the study undertaken recently by Building Research Establishment (BRE). An example of duplication which came to light has been in the sections on joints in the draft for comment on external cladding and similar material within the code of practice on joints.

3.2 Relationships between different types of British Standards

PD 6501 : Part 1 covers, in general terms, the relationship between codes of practice, practice specifications and product specifications.

3.3 Content of individual British Standards

Table 2 gives some maxims which should be considered in deciding the content of an individual British Standard.

Table 2. List of maxims for deciding what goes in which documents

- 1 Ideally a BSI document should contain the information one group of users needs to carry out one activity. In particular, a small amount of information for one group of users should not be buried in a large document mainly for other users (see 5.1 of BS 0 : Part 3 : 1981).
- 2 Duplication (i.e. including information from one document in another) is desirable if the user would otherwise be unlikely to read the source document or if it greatly increases his convenience.
- 3 Where information is published in separate documents, these will take less time to prepare and can be updated more easily.
- 4 Where part of the information may have to be updated more frequently than the rest, it may be practicable to publish it separately.
- 5 If a document is so large and clumsy that it is physically a nuisance to use, this may be a sufficient reason for dividing it into separate documents.
- 6 If there are only a few pages of information on a subject, the benefits of dividing it into separate documents for different users may not be worth the cost. Also, unnecessary multiplication of documents inflates the retrieval system.

COMMENTARY ON TABLE 2

MAXIM 1. *British Standards too often contain everything the writer could think of including. Maxim 1 makes it clear that documents should be produced for the reader, not the writer. Applying it may mean having two or more documents where there was only one previously. The following examples taken from existing British Standards suggest how information might be arranged for different users.*

EXAMPLE 1. *CP 202 (Tiling) contains some information on the maintenance of clay floor tiling. This type of information could be produced separately as British Standard Recommendations (see figure 1).*

EXAMPLE 2. *Documents for designers often contain some 10 % to 30 % of information for contractors. Though the headings under which this information comes suggests it is for contractors (e.g. 'Workmanship'), it often has advice for the designer intertwined with it.*

BS 5400 (Bridges) has pioneered a useful improvement here. The specification for materials and workmanship for concrete bridges is published as a separate Part (Part 7), and the designer has a companion volume (Part 8) of commentary on this specification. Design methods are in separate documents again.

MAXIM 2. *Basic data is an example of a type of information which is more likely to need duplication. For example, a standard on the design of a particular kind of roof might usefully include sections from a document on loading which apply specifically to that kind of structure. But duplication should be used with restraint; unless retrieval information is very good, it can lead to confusion and duplicated information has to be updated whenever the source document is amended.*

MAXIMS 3, 4 AND 5. *These maxims give a number of practical reasons which tend to favour separate documents.*

MAXIM 6. *This maxim argues against going too far in this direction.*

This is an example of a standard which gathers into one publication, the information that a building owner would need to know about the maintenance of clay floor tiles. Such information is currently to be found scattered throughout a variety of British Standards (e.g. CP 202), which makes it difficult to find and to use.

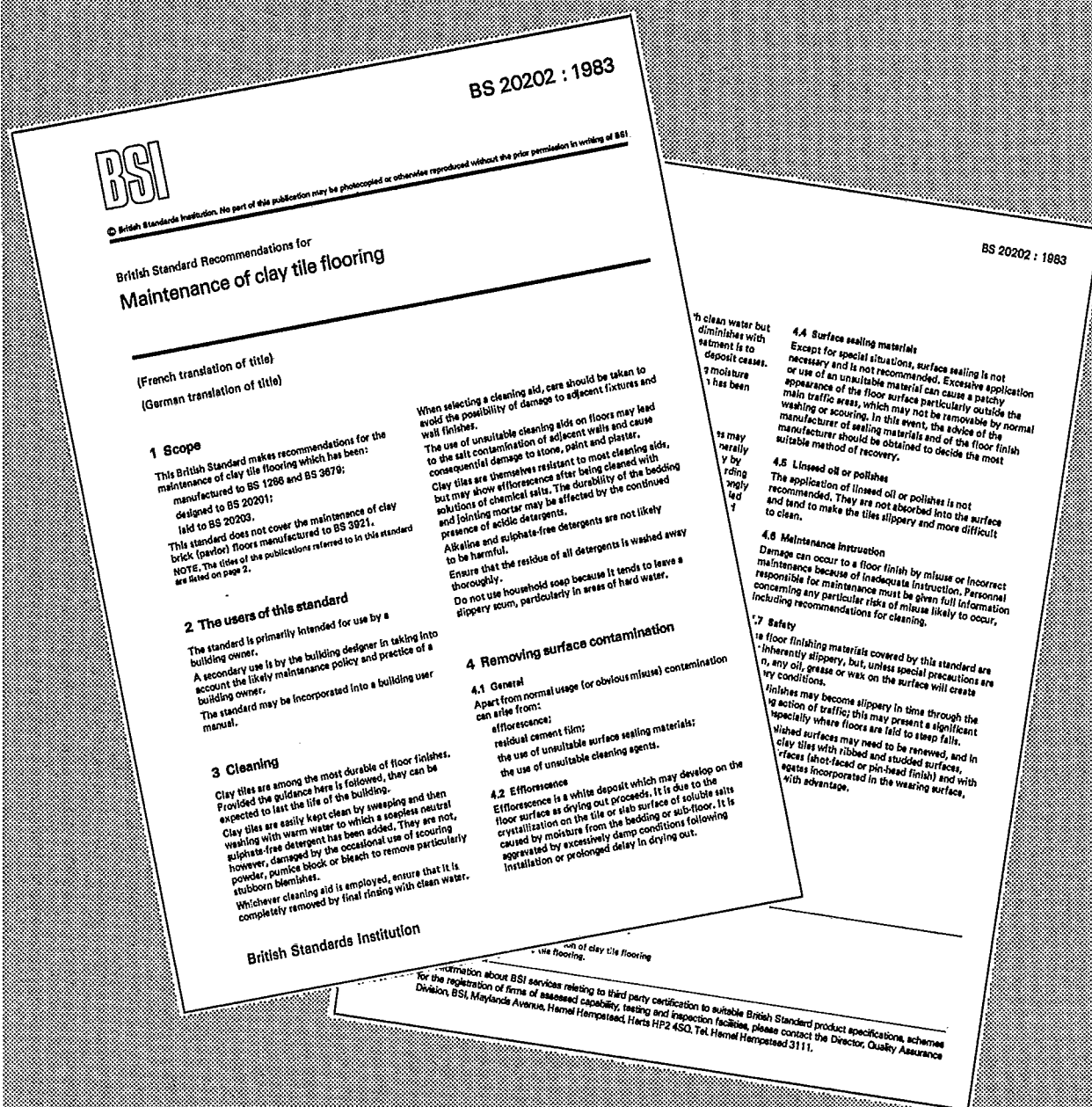


Figure 1. Example of how a standard could be devised to provide information in a more accessible form (see table 2)

4 Length of documents

There have been frequent complaints over the length and complexity of documents. Poor sequence of content, lack of direction in the structure and layout and lack of an index may account for some of these. Although length may deter readers, shorter documents may not necessarily be the correct answer.

Where a document would contain a large amount of information, consider its production in separate Parts, particularly where these cover different aspects or are for different users.

Alternatively, consider preparing documents at different levels of complexity, e.g.:

- a simple self-contained design code;
- more complex or specialized methods;
- technical information sheets, possibly published as Drafts for Development.

COMMENTARY ON CLAUSE 4. *It may be possible to provide, in addition (or as a supplement) to the standard, alternative paths or short cuts for experienced users such as:*

- (a) *limited information in the form of wall charts;*
- (b) *extracts, for example in the form of the present Handbook 3, although as they do not give the full details their purpose has to be clearly defined;*
- (c) *a way of making key information memorable, e.g. to express it in the form of a diagram, or to summarize it in tabular form;*
- (d) *the creation of parallel paths through a single document.*

5 Structuring a document

5.1 Arranging information to suit the reader

Information needs to be in the sequence in which the user will use it. After all the information has been collected, the best sequence of the information to suit the users still has to be planned. This should be done at an early stage of drafting.

COMMENTARY ON 5.1

EXAMPLE FROM CP 110 : 1972. For the convenience of the designer, put all the information needed to solve a particular problem (say, a beam design) together at one place in the design document. Otherwise the designer has to turn pages continuously and search in different clauses

for requirements covering different aspects. In CP 110 the section on fire resistance is separated from all the other design sections to which it belongs. It has a general introduction followed by clauses dealing with beams (reinforced and prestressed), floors, columns and walls. Consider moving these separate clauses to the corresponding design sections.

EXAMPLE FROM CP 112 : Part 2 : 1971. A similar example concerns CP 112 where the tables on toothed plate connectors each cover all diameters of connector. To calculate a 51 mm connector, separate tables have to be used for end distance, edge distance, spacing, etc. In the Timber Designer's Handbook, published by Granada Publishing Ltd, all these factors for one diameter of connector are given in a single table; the other tables each give the full information for a connector of a different diameter. This arrangement matches the way a designer works. From past experience he is fairly sure he will use a 51 mm connector, though he has to check this. He will usually get the right page first and the job can be completed without turning the page. This example is illustrated in figure 2.

5.2 Introductory elements

5.2.1 General. Details of introductory elements are given in clause 4 of BS 0 : Part 3 : 1981.

5.2.2 Related standards. In existing British Standards, information on related standards sometimes appears in the foreword, sometimes under 'Scope' and sometimes as a long list of references without an indication of their relative importance (e.g. 50 are listed in the early pages of BS 5572). There should be an appendix called 'Related standards'. It should be an annotated list which briefly tells readers where to go for closely related information. The full lists of standards to which reference is made should continue to appear at the back of British Standards.

COMMENTARY ON 5.2.2. *Appendix A of this document gives an example of 'Related standards'.*

5.2.3 Guides. 'Use of this British Standard' and 'Guide to the use of this British Standard' are items which can be helpful to the reader. Another possibility is the inclusion in a product standard of a list of choices. All such information should, however, be outside the main body of the standard, in the form of an appendix.

5.3 Number of levels of headings

There should be a limit to the number of free-standing headings. Four is the recommended maximum and whenever possible, fewer should be used.

Table 3 lists some ways of reducing the number of free-standing headings. But where the use of tables, figures and appendices is advocated, account should be taken of 4.4 and 4.6 in BS 0 : Part 3 : 1981 concerning the status of these elements and the means of referring to them.

COMMENTARY ON 5.3. *The limit of four free-standing headings does not in fact limit the writer to four levels of headings altogether. Methods 1 and 2 in table 3 show*

with reservations, that two further levels can be used within the text. The reader can tolerate a few extra headings of this kind because (provided they are not bold) they do not compete with the free-standing headings.

Methods 3 and 4 (removing text to figures or tables) allows an extra level of information by placing it in parallel with the text. Table 3 is itself an application of method 4.

Method 5 (appendices) permits an extra level by removing it to a remote spot where it does not interfere with the main message. Method 6 is a subtle device which is more difficult to use than the others.

Table 3. Ways of reducing the number of levels of headings

- 1 A paragraph can have a heading within the first line.
- 2 A group of headed paragraphs can be down-graded to become inset sub-paragraphs, with the headings within the first line of each. (Insets should be less than one column long. Consider using method 4 as an alternative.)
- 3 Text containing detail commentary on figures (or tables) can sometimes be incorporated into the figure. This is convenient for the reader as it saves him looking back and forth between the text and the figure.
- 4 Detailed information, such as calculation methods, data, sets of definitions or criteria, can be boxed in as tables. A short clause or subclause needs to remain in the main text to outline the contents of the tables.
- 5 Detailed information which not all readers will need can be dealt with either by a short reference in the main text with the details in appendices, or by publication as a separate document.
- 6 A subdivision of text can sometimes be raised by one level without damaging the structure of the document. This removes the lowest level of headings. For example, if one clause of a section has an extra level of headings, it may be possible to make that clause into a separate section. But care needs to be taken not to destroy the balance within the standard.

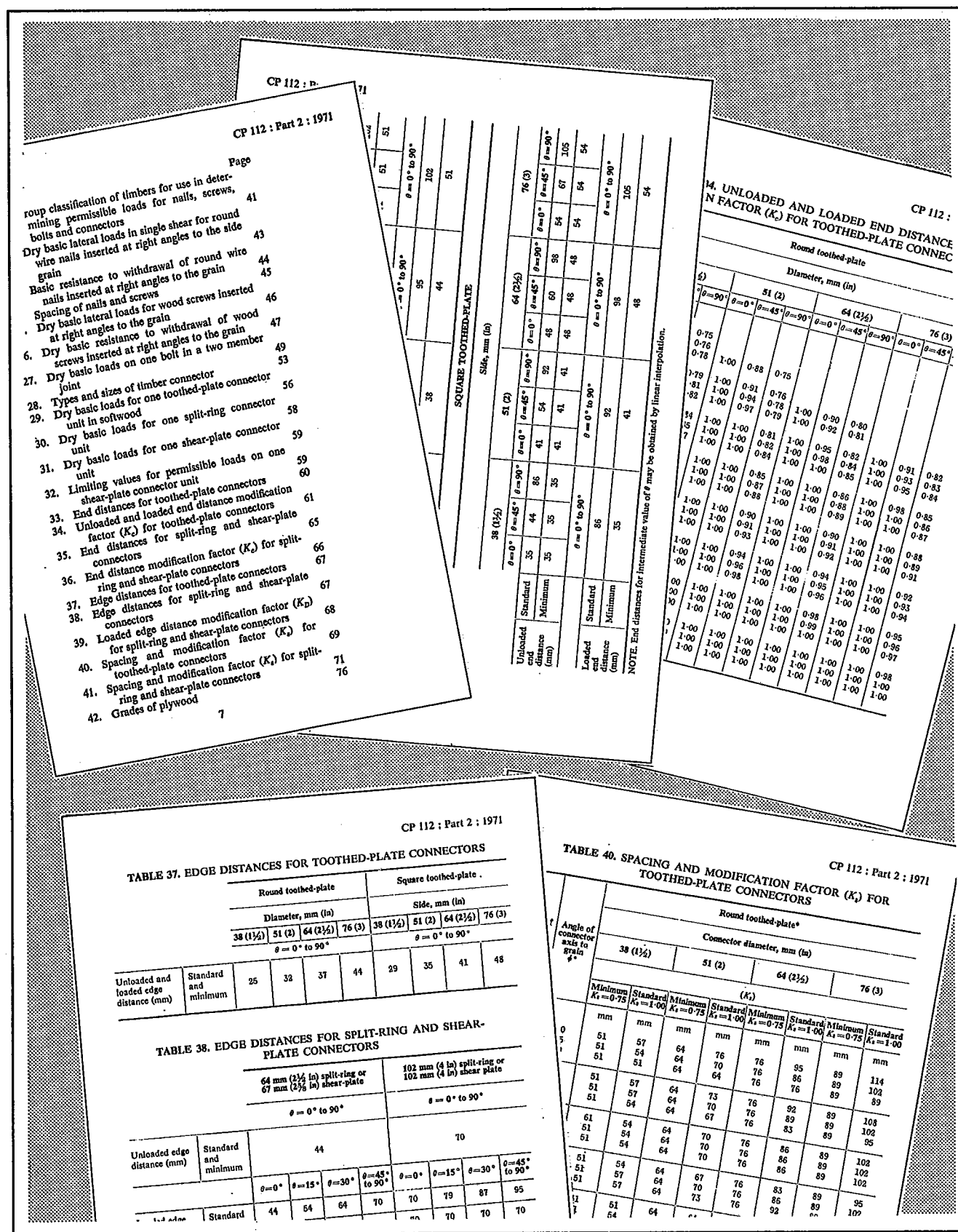


Figure 2. Arrangement of information to suit the reader (see 5.1)