

Lifting slings —

Part 2: Specification for marking

UDC 621.86.065

Committees responsible for this British Standard

The preparation of this British Standard was entrusted by the Mechanical Handling Standards Committee (MHE/-) to Technical Committee MHE/11, upon which the following bodies were represented:

British Ports Association and the National Association of Ports Employers
Chain Testers' Association of Great Britain
Engineering Equipment and Materials Users' Association
Health and Safety Executive
Ministry of Defence

The following bodies were also represented in the drafting of the standard, through subcommittees and panels:

British Chain Manufacturers' Association
National Coal Board

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Foreword

This Part of BS 6166 has been prepared under the direction of the Mechanical Handling Standards Committee.

This revised edition of BS 6166 is published in the following three Parts.

- *Part 1: Methods of rating;*
- *Part 2: Specification for marking;*
- *Part 3: Guide to selection and safe use¹⁾.*

With Part 1 this Part supersedes BS 6166:1981 which is withdrawn.

Reference should be made to the foreword of BS 6166-1:1986 which includes a commentary on legal requirements and covers the subject of marking.

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, pages 1 and 2, an inside back cover and a back cover.

This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

¹⁾ In preparation.

1 Scope

This Part of BS 6166 specifies requirements for the marking of lifting slings rated by the uniform load method or the trigonometrical method.

NOTE The title of the publication referred to in this standard is given on the inside back page.

2 Definitions

For the purposes of this Part of BS 6166, the definitions given in BS 6166-1 apply.

3 General

3.1 Before being used, lifting slings shall be marked directly and/or by means of a firmly attached tag, with the following data:

- such figures and/or letters as enable the lifting sling to be identified with its relevant certificate of test and examination;
- the quality mark of the material if relevant, e.g. T(8) in accordance with the relevant British Standard;
- the safe working load (SWL) in accordance with either clause 4 or 5.

3.2 Markings shall be readily visible, durable, legible and maintained as far as reasonably practicable. If markings are on the lifting sling itself, they shall not be applied in a manner liable to affect the safety of the sling. The size of characters for marking shall be in accordance with the relevant British Standard.

4 Single leg and endless slings

4.1 Single leg slings

Single leg slings shall be marked for in-line mode, i.e. straight pull, as follows:

- “SWL 6.3 t” (for non-textile slings); or
 “SWL 6.3 t in straight pull” (for textile slings).

4.2 Endless slings

Endless slings shall be marked in accordance with their particular method of rating (see 1.4.4 of BS 6166-1:1986), e.g.:

- “SWL 6.3 t” (for non-textile slings), or
 “SWL 6.3 t in straight pull” (for textile slings).

5 Multi-legged slings

5.1 Uniform load method

NOTE The uniform load method is used to rate lifting slings for multi-purposes and those used for a single purpose (see BS 6166-1).

Multi-legged lifting slings for multi-purposes or lifting slings for a single purpose rated by the uniform load method shall be marked with their SWL as follows.

- a) *Two-legged slings*: the SWL when used at an included angle between sling legs not exceeding 90°, e.g.:

“SWL 6.3 t 0 – 90”

NOTE Additionally it is permissible for two-legged slings to be marked, preferably on a supplementary tag, with the SWL for angles between the sling legs of 90° to 120°, e.g.:

“SWL 4 t 90 – 120”

- b) *Three-legged slings*: the SWL when used at an angle between any sling leg and the vertical not exceeding 45°, e.g.:

“SWL 6.3 t 0 – 90”

NOTE Although three-legged slings are marked with the SWL “0° – 90°”, this should not be taken as referring to the included angle between sling legs. The marking is a convention implying that the maximum angle of any one leg to the vertical does not exceed 45°. Slings should be trained to understand this convention (see Figure 1).

- c) *Four-legged slings*: the SWL when used at an angle between diagonally opposite sling legs not exceeding 90°, e.g.:

“SWL 6.3 t 0 – 90”

NOTE Additionally, it is permissible for four-legged slings to be marked, preferably on a supplementary tag, with the SWL for angles between diagonally opposite sling legs of 90° to 120°, e.g.:

“SWL 4 t 90 – 120”

5.2 Trigonometrical method

NOTE The trigonometrical method is used to rate lifting slings used for a single purpose only (see BS 6166-1).

Multi-legged lifting slings used for a single purpose rated by the trigonometrical method shall be marked with their SWL as follows.

- a) *Two-legged slings*: the SWL when used at a specified included angle between sling legs, e.g.:

“SWL 6.3 t at 60”

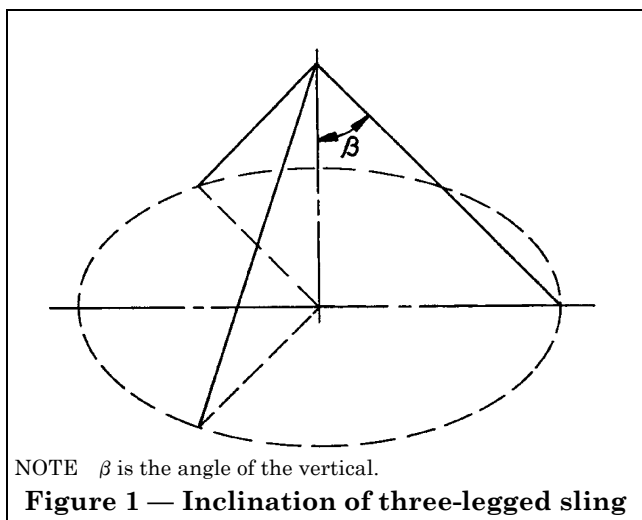
- b) *Three-legged slings*: the SWL when used at an angle between any sling leg and the vertical of 45°, e.g.:

“SWL 6.3 t at 90”

NOTE Although three-legged slings are marked with their SWL “at 90°” this should not be taken as referring to the included angle between sling legs. The marking is a convention implying that the maximum angle of any one leg to the vertical does not exceed 45°. Slings should be trained to understand this convention (see Figure 1).

- c) *Four-legged slings*: the SWL when used at an angle between diagonally opposite sling legs of 90°, e.g.:

“SWL 6.3 t at 90”



Publication referred to

BS 6166, *Lifting slings*.

BS 6166-1, *Methods for rating*.

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