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Webbing slings for lifting purposes

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Foreword

This translation has been made based on the original Japanese Industrial Standard revised by the Minister of Health, Labour and Welfare and the Minister of Economy, Trade and Industry, through deliberations at the Japanese Industrial Standards Committee as the result of proposal for revision of Japanese Industrial Standard submitted by The Japan Society of Industrial Machinery Manufacturers (JSIM)/Japanese Standards Association (JSA) with the draft being attached, based on the provision of Article 12 Clause 1 of the Industrial Standardization Law applicable to the case of revision by the provision of Article 14.

Consequently, **JIS B 8818:2007** is replaced with this Standard.

However, **JIS B 8818:2007** may be applied in the **JIS** mark certification based on the relevant provisions of Article 19 Clause 1, etc. of the Industrial Standardization Law until February 24, 2016.

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Webbing slings for lifting purposes

1 Scope

This Japanese Industrial Standard specifies the webbing slings for lifting purposes intended for crane work of cranes and winches (hoisting machines).

2 Normative references

The following standards contain provisions which, through reference in this text, constitute provisions of this Standard. The most recent editions of the standards (including amendments) listed below shall be applied.

JIS B 0148 *Lifting equipment—Terminology*

JIS B 2803 *Hooks*

JIS L 0105 *General principles of physical testing methods for textiles*

JIS L 0204-2 *Glossary of terms used in fibre—Part 2: Man-made fibres*

JIS L 0205 *Glossary of terms used in yarn*

JIS L 0208 *Glossary of terms used in textile industry—Testing*

JIS Z 2320-1 *Non-destructive testing—Magnetic particle testing—Part 1: General principles*

JIS Z 2343-1 *Non-destructive testing—Penetrant testing—Part 1: General principles—Method for liquid penetrant testing and classification of the penetrant indication*

JIS Z 2343-5 *Non-destructive testing—Penetrant testing—Part 5: Penetrant testing at temperatures higher than 50 °C*

JIS Z 2343-6 *Non-destructive testing—Penetrant testing—Part 6: Penetrant testing at temperatures lower than 10 °C*

3 Terms and definitions

For the purpose of this Standard, the terms and definitions given in **JIS B 0148**, **JIS L 0105**, **JIS L 0204-2**, **JIS L 0205** and **JIS L 0208** and the following apply.

3.1 working load limit

maximum mass of load which a single webbing sling is designed to sustain

It is also referred to as WLL.

3.2 working load

maximum mass of load which can be used on the webbing sling, specified factoring in the suspension angle, service environment or other matters

It is also referred to as WL.

3.3 eye

a loop formed by folding back the webbing, in eye and eye webbing slings and the webbing slings with metal fittings

In endless webbing slings, it is a part sewn up into a shape convenient for hanging on a hook or the like (see figures 1 to 3)

3.4 eye and eye

type of webbing slings having eyes at both ends (see figure 1)

3.5 with metal fittings

type of webbing slings having metal fittings such as rings, master links or hooks attached to eyes at both ends or an eye at one end (see figure 2)

3.6 endless

type of webbing slings that are in an endless loop (see figure 3)

3.7 stitched part

part of a webbing sling stitched for reinforcement (see figures 1 to 3)

3.8 main body

part of a webbing sling excluding stitched parts, eye(s), covers and metal fittings (see figures 1 to 3)

3.9 length

effective length of a webbing sling (see figures 1 to 3)

3.10 eye length

length between the inside edge of an eye and the end of stitched parts on the eye side (see figures 1 to 3)

3.11 stitched part length

length of the part stitched together over the whole width of the webbing sling (see figures 1 to 3)

3.12 width

width of the main body of the webbing sling (see figures 1 to 3)

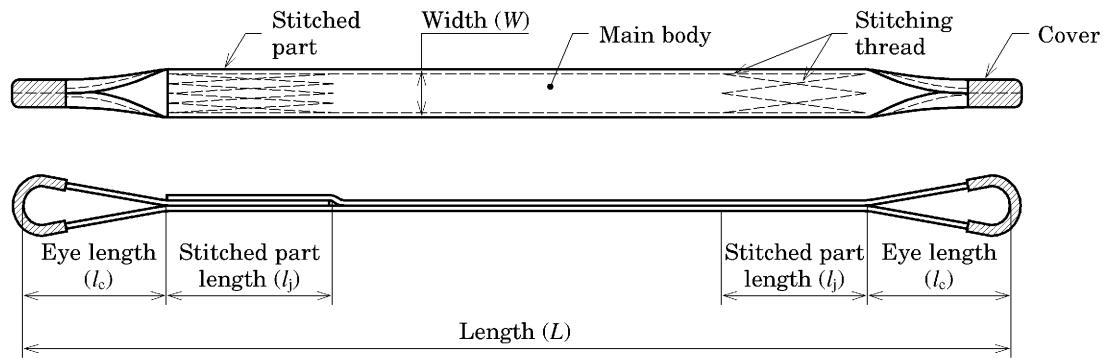


Figure 1 Example of eye and eye webbing sling

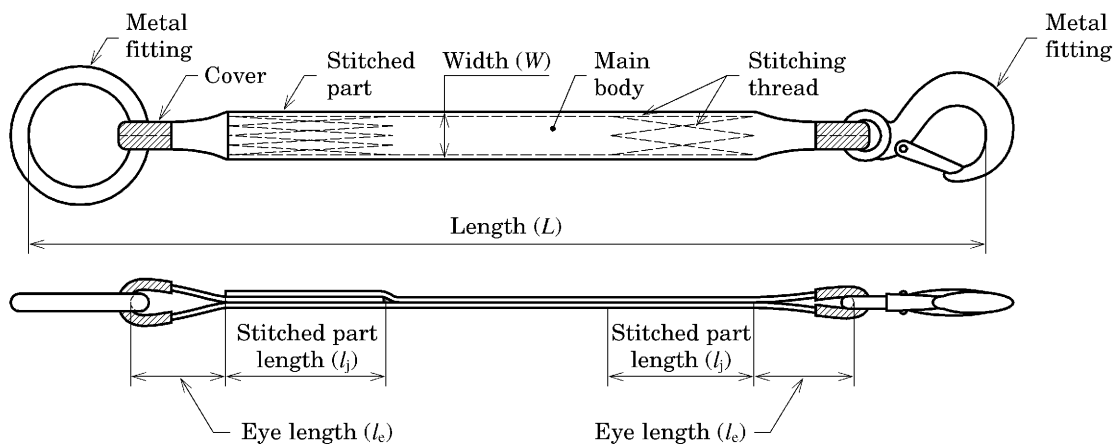


Figure 2 Example of webbing sling with metal fittings

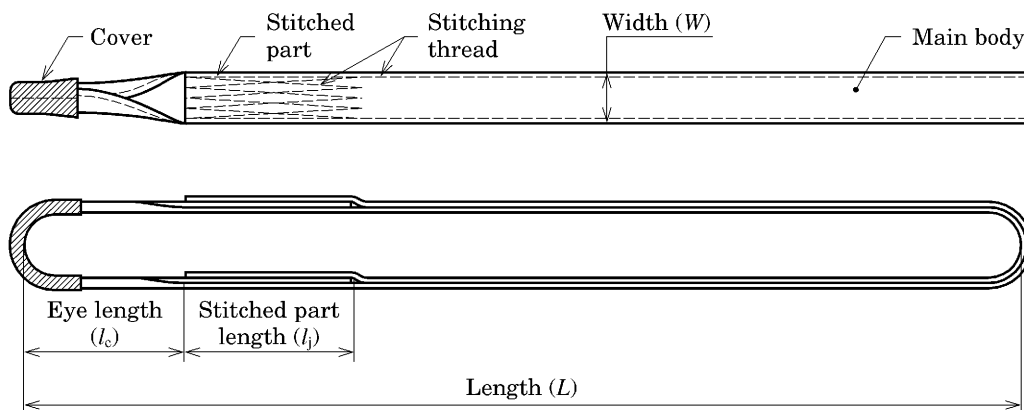


Figure 3 Example of endless webbing sling

3.13 wear limit indicator

indicator for the limit of wear from the outer surface of a webbing, provided by using yarns different in color from other parts of the webbing for distinction

4 Classification and symbols

4.1 Classification

Webbing slings are classified as follows by the use, type, grade and working load limit, proof load and breaking load and width. Those specified in Annex A may be used.

a) Division by use

Division of webbing slings by use is shown in table 1.

Table 1 Division by use

Division	Use
For general use	Those used under ordinary conditions.
For handling chemicals	Those used for applications where they come in contact with chemicals such as acid or alkali.

b) Division by type

Division of webbing slings by type is shown in table 2.

Table 2 Division by type

Division	Symbol of type
Eye and eye	E
With metal fittings	K
Endless	N

c) Division by grade and working load limit

Division of webbing slings by grade and working load limit is shown in table 3. Those specified in Annex A may be used.

Table 3 Division by grade and working load limit

Unit: t

Width W (mm)	Type and symbol							
	Eye and eye, with metal fittings E, K				Endless N			
	Grade and symbol							
	I	II	III	IV	I	II	III	IV
25	0.5	0.63	0.8	1	1	1.25	1.6	2
35	0.8	1	1.25	1.6	1.6	2	2.5	3.2
50	1	1.25	1.6	2	2	2.5	3.2	4
75	1.6	2	2.5	3.2	3.2	4	5	6.3
100	2	2.5	3.2	4	4	5	6.3	8
150	3.2	4	5	6.3	6.3	8	10	12.5
200	4	5	6.3	8	8	10	12.5	16
250	5	6.3	8	10	10	12.5	16	20
300	6.3	8	10	12.5	12.5	16	20	25

d) Division by proof load and breaking load

Division of webbing slings by proof load and breaking load is shown in tables 4 and 5. Those specified in Annex A may be used.

Table 4 Proof load

Unit: kN

Width W (mm)	Type and symbol							
	Eye and eye, with metal fittings E, K				Endless N			
	Grade and symbol							
	I	II	III	IV	I	II	III	IV
25	10	12.5	16	20	20	25	32	40
35	16	20	25	32	32	40	50	63
50	20	25	32	40	40	50	63	80
75	32	40	50	63	63	80	100	125
100	40	50	63	80	80	100	125	160
150	63	80	100	125	125	160	200	250
200	80	100	125	160	160	200	250	315
250	100	125	160	200	200	250	315	400
300	125	160	200	250	250	315	400	500