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IS 9152 (1979): Glossary of terms and identification symbols relating to classification of industrial sewing machines [MED 29: Sewing Machines]



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Indian Standard

GLOSSARY OF TERMS AND IDENTIFICATION SYMBOLS RELATING TO CLASSIFICATION OF INDUSTRIAL SEWING MACHINES

1. Scope — Covers glossary of terms and identification symbols relating to three classes of industrial sewing machines.

2. Classes

2.1 Principal Class — The sewing machines shall be classified into principal class according to the stitch form.

2.2 Secondary Class — The sewing machines in principal class shall be classified into secondary class according to their use.

2.3 Tertiary Class — The sewing machines in secondary class shall be further classified into tertiary class according to the shape of the bed.

3. Terminology and Identification Symbols

3.1 Principal Class

Term	Definition	Identification Symbol	Figures
Lock stitch	Refers to the stitch form whereby the needle thread is made to circle around the bobbin containing the bobbin thread to interlace the needle and bobbin threads.	L	1, 2, 3, 4, 5, 6, and 7
Chain stitch	Refers to the stitch form wherein the thread is passed through only from one side of material to form a chain like intralooped stitched.	C	8, 9 and 10
Multi-thread chain stitch or double locked stitch	Refers to the stitch form wherein interlaced and inter-looped with looper thread handled by the looper.	D	11, 12, 13, 14, 15, 16, and 17
Flat seam stitch	Refers to the stitch form wherein three or more threads are used, one or more of which are used for cross-stitching between other two or more, while the lower threads interloop with two respective upper threads.	F	18, 19, 20, 21, and 22
Overedge stitch	Refers to the stitch form wherein the thread or threads are intralooped and/or interlooped at the top and/or underside of the edge of material by the action of the looper*.	E	23, 24, 25, 26, 27, 28, and 29
Combination stitch	Refers to the stitch form wherein two or more different stitch forms are used in combination.	M†	—
Special stitch	Refers to all stitch forms using thread and not belonging to the principal class given above.	S	30
Heat sealing	Refers to the stitch form whereby the material is welded while being fed by roller type electrode.	W	—

*The looper is a part of a mechanism which forms a loop on the looper thread necessary for stitching, and it makes up a stitch by acting on the loop of needle thread either with or without the looper thread.

†In the case of identification symbol 'M' for combination stitches, symbol representing stitch forms combined therein as listed under principal class may be indicated after 'M' in parentheses when required.

Example : M (ED)

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3.2 Secondary Class

Term	Definition	Identification Symbol
Straight stitch	Refers to the method of sewing wherein the material is fed mechanically to stitch a straight line continuously. Reverse sewing shall be included in this straight line sewing.	S
Double or multiple straight stitch	Refers to the method of sewing two more straight parallel lines.	T
Zigzag stitch	Refers to the method of sewing wherein the material is sewn continuously mechanically in staggered fashion. It is also called zigzag sewing.	Z
Embroidery stitching	Refers to the method of sewing wherein any pattern or design can be sewn manually or mechanically.	E
Button sewing	Refers to the mechanical process or sewing on buttons or snaps on clothing, etc, by holding them in position and perform the operation in a single cycle, and stop automatically after completing each cycle.	B
Button hole sewing	Refers to the method of mechanically cutting and stitching the button hole in one operating cycle and stop automatically after completing each cycle.	H
Bar tacking	Refers to the method of mechanical operation wherein the bar tacking of clothing, etc, and also sewing on the accessories, etc, are performed in one operating cycle and stop automatically after completing each cycle.	K
Ornamental stitching	Refers to the method of sewing wherein the stitch formation is mainly ornamental such as the shell stitched hem. Also includes ornamental stitching, as incidental object as in the case of sewing with two needles.	D
Blind stitch	Refers to the method of sewing wherein a thick material is sewn by passing the thread through the top ply and horizontally out penetrating it the full depth. Since seams are not visible on the surface, it is called 'blind stitching' or 'felling.' It is applicable for sewing coat lapels or where ordinary blind stitching and edge finishing are required.	M
Hem stitch	Refers to the method of sewing wherein the edge of material is sewn with the primary object of preventing fraying, or providing ornamental effect.	F
Reinforcing stitch	Refers to the method of sewing wherein an independent seam is sewn simultaneously as the hemming for the purpose of strengthening.	A
Sewing in every direction	Refers to the method of sewing wherein the universal feed mechanism permits stitching in every direction from the centre of needle*.	J
Bag closing	Refers to the method of sewing whereby the mouth of a bag is sewn in a manner capable of being opened readily in reverse direction to the stitching without using any implement.	P

Note — The sewing methods which do not fall under the secondary classification above, shall be designated by identification symbol X.

*Universal feed mechanism is a device built into the arm whereby it permits stitching in every direction.

3.3 Tertiary Class

Term	Definition	Identification Symbol
Short flat bed machine	Refers to the type of machine with flat rectangular bed less than 420 mm in length and which is set almost flush with the table surface when mounted on the table.	1
Long flat bed machine	Refers to the type of machine with flat rectangular bed more than 420 mm in length and which is set almost flush with the table surface when mounted on the table.	2
Cylinder bed machine	Refers to the type of machine with arm-like bed projecting almost parallel to the arm. Normally, the material is fed at right angle or parallel to this arm, and is used for sewing cuffs on sleeves. The type having a separate feed mechanism and automatic stop is used for tacking or button sewing.	3
Box type bed machine	Refers to the type of machine having a box shaped bed which completely covers the internal mechanism, and which is placed on top of the table for operation.	4
Post bed machine	Refers to the type of machine having an upright bed convenient for hemming edge of bags and gloves, etc.	5
Cylinder bed, feed-off arm machine	Refers to the type of machine having an arm-like bed projecting horizontally at right angle to the arm wherein the work is automatically fed parallel to the feed-off arm, and is used for sewing sleeves, trouser legs, etc, in a cylindrical form.	6
Note — Identification symbol 9 shall be applied to sewing machines with unusual shaped bed which does not fall under tertiary classification given above.		

4. Stitch Forms — The stitch forms are closely related to identification symbols and terms for principal class and secondary class.

4.1 The stitch forms shall be divided into 30 classes (see Fig. 1 to 30) according to the stitched form and the number of needles and threads used in sewing, and shall be identified in the order given in 4. When identifying 'multiple stitch,' 'one sided ornamental stitch' and 'blind hemming', etc, these shall be entered next to the form of stitch (see Fig. 5 and 16).

4.2 Symbols — The symbols for stitch forms shall be as given below and be identified in the order of stitch form, number of needles and number of threads:

Stitch forms	{ L (Lock stitch) C (Single chain stitch) D (Multi-thread chain stitch) F (Flat seam stitch) E (Overedge stitch) S (Special stitch)
Number of needles*	{ 1 (1 needle) 2 (2 needles) 3 (3 needles) 4 (4 needles)

*Only the threaded needle shall be included in the number of needles.

Number of threads

- 1 (1 thread)
- 2 (2 threads)
- 3 (3 threads)
- 4 (4 threads)
- 5 (5 threads)
- 6 (6 threads)
- 9 (9 threads)

4.2.1 The symbol Z as for 'zigzag stitch' and M as for 'blind stitch' shall be entered next to the stitch form. To identify 'multiple stitch,' 'one sided ornamental stitch' and 'blind hemming', symbol A or B shall be entered in the last place (see Fig. 25 and 28).

5. Marking — The marking of sewing machine shall be made by combining the identification symbols of each class in the order of principal, secondary and tertiary class. In case of combined or ambiguous classifications in the secondary or tertiary classes, marking shall be based on the major classification. If it becomes necessary to indicate both in particular, the symbols identifying the combination shall be indicated in parentheses after the major identification symbol.

Examples:

Principal	Secondary	Tertiary	Identification Symbol
Lock stitch	Straight stitch	Short flat bed	LS 1
Multi-thread chain stitch	Hem stitch	Box type bed	DF 4
Overedge stitch	Hem stitch	Box type bed	EF 4
Lock stitch	Bar tacking	Cylinder bed	LK 3
Multi-thread chain stitch	Double or multiple	Cylinder bed, feed-off arm	DT 6
Single chain stitch	Blind stitch	Cylinder bed	CM 3
Combination stitch (over-edge stitch, multi-thread chain stitch)	Reinforcing stitch	Box type bed	M(ED) A 4

Figure Number	Stitch Formation	Designation	Symbol
1		Lock stitch 1 needle . 2 threads	L 12
2		Lock stitch 2 needles . 3 threads	L 23
3		Lock stitch 3 needles . 4 threads	L 34
4		Lock stitch, zigzag 1 needle . 2 threads	LZ 12
5		Lock stitch Multiple stitch, Zigzag 1 needle . 2 threads	LZ 12A
6		Lock stitch, Zigzag 2 needles . 3 threads	LZ 23
7		Lock stitch, Blind 1 needle . 2 threads	LM 12
8		Single chain stitch 1 needle . 1 thread	C 11

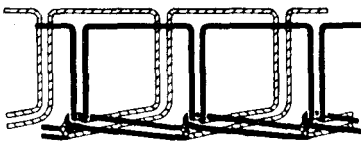

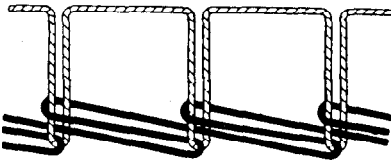
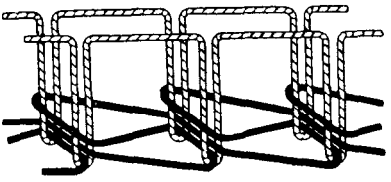
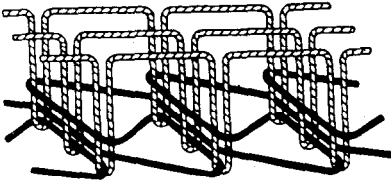
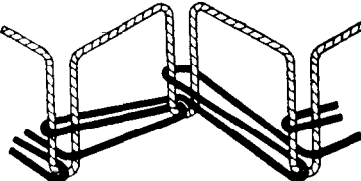
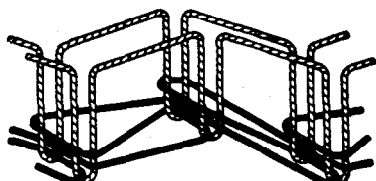
Figure Number	Stitch Formation	Designation	Symbol
9		Single chain stitch 2 needles . 2 threads	C 22
10		Single chain stitch Blind 1 needle . 1 thread	CM 11
11		Multi-thread chain stitch 1 needle . 2 threads	D 12
12		Multi-thread chain stitch 2 needles . 3 threads	D 23
13		Multi-thread chain stitch 3 needles . 4 threads	D 34
14		Multi-thread chain stitch Zigzag 1 needle . 2 threads	DZ 12
15		Multi-thread chain stitch Zigzag 2 needles . 3 threads	DZ 23

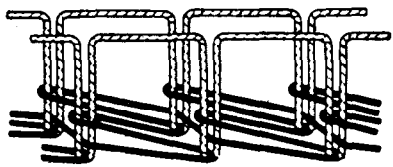
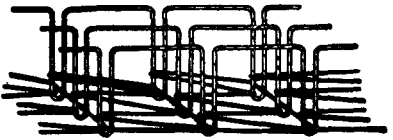
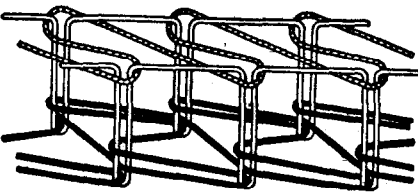
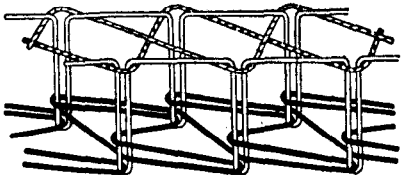
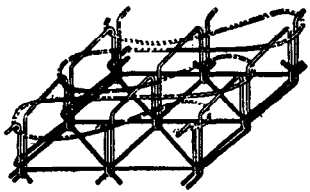
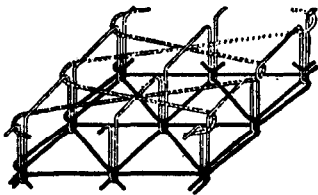
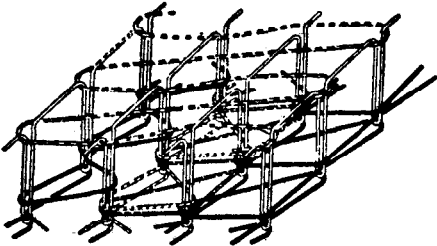
Figure Number	Stitch Formation	Designation	Symbol
16		Multi-thread chain stitch One sided ornamental stitch 2 needles . 3 threads	D 23 A
17		Multi-thread chain stitch One sided ornamental stitch 3 needles . 4 threads	D 34 A
18		Flat seam stitch One cover thread Double sided ornamental stitch 2 needles . 4 threads	F 24
19		Flat seam stitch Two cover threads Double sided ornamental stitch 2 needles . 5 threads	F 25
20		Flat seam stitch One cover thread Double sided ornamental stitch 3 needles . 5 threads	F 35
21		Flat seam stitch Two cover threads Double sided ornamental stitch 3 needles . 6 threads	F 36
22		Flat seam stitch 4 needles . 9 threads	F 49

Figure Number	Stitch Formation	Designation	Symbol
23		Overedge stitch 1 needle . 1 thread	E 11
24		Overedge stitch 1 needle . 2 thread	E 12
25		Overedge stitch Blind hemming 1 needle . 2 threads	E 12 A
26		Overedge stitch 1 needle . 3 threads	E 13
27		Overedge stitch Blind hemming 1 needle . 3 threads	E 13 A
28		Overedge stitch Multi-thread chain stitch 1 needle . 3 threads	E 13 B
29		Overedge stitch 2 needles . 4 threads	E 24
30		Special stitch 1 needle . 1 thread	S 11

EXPLANATORY NOTE

While preparing this standard assistance has been derived from JIS B 9070-1962 'Identification symbols and terms on classification of sewing machine heads for industrial use' issued by Japanese Industrial Standards Committee.