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British Standard

Stitches and seams

Part 1. Classification and terminology of stitch types

[ISO title: Textiles — Stitch types — Classification and terminology]

Points et coutures

Partie 1. Classification et terminologie des types de points

Stiche und Nähte

Teil 1. Einteilung und Begriffe für Stichtypen

British Standards Institution

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Compliance with a British Standard does not of itself confer immunity from legal obligations.

National foreword

This Part of this British Standard was prepared under the direction of the Clothing Standards Committee and is identical with ISO 4915-1981 'Textiles — Stitch types — Classification and terminology' published by the International Organization for Standardization (ISO).

BS 3870 : 1965 will run concurrently with this standard until the revision of BS 3870 : 1965 is completed. It is anticipated that the revision will be completed by the implementation of ISO/DIS 4916 'Textiles — Seam types — Classification and terminology' as BS 3870 : Part 2.

Terminology and conventions. The text of the international standard has been approved as suitable for publication as a British Standard without deviation. Some terminology and

certain conventions are not identical with those used in British Standards. Wherever the words 'International Standard' appear, referring to this standard, they should be read as 'British Standard'.

Textual error. When adopting the text of the international standard, the textual error given below was discovered. It has been marked in the text and has been reported to ISO in a proposal to amend the text of the international standard.

The diagram relating to stitch type 512 appears under stitch type 514.

The diagram relating to stitch type 514 appears under stitch type 512.

British Standard

Stitches and seams

Part 1. Classification and terminology of stitch types

0 Introduction

For the analysis of stitch types used in the fabrication of sewn articles, a clear understanding of the terms employed is essential. The following standard nomenclature, descriptions of stitch types and the system of identifying symbols should provide valuable information for purchasing officers, garment manufacturers, machine manufacturers, students and others, who require a reference book on this subject. This International Standard is not intended to be a specification but primarily a descriptive guide for purposes of identification and ease of reference. A separate International Standard is being prepared on the classification of stitched seams.

NOTE — Further stitch types which may be developed in future should be notified to the secretariat of ISO/TC 38 in order to obtain the correct classification.

1 Scope and field of application

This International Standard classifies, designates, describes and illustrates the various kinds of stitch types used in hand- and machine-sewn seams.

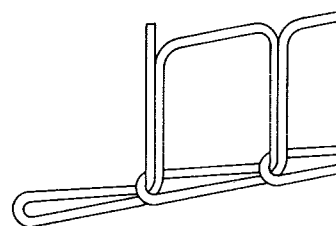
2 Definitions

2.1 stitch : One unit of conformation resulting from one or more strands or loops of thread intralooping, interlooping or passing into or through material.

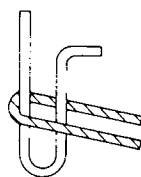
A stitch may be formed

- without material;
- inside material;
- through material;
- on material.

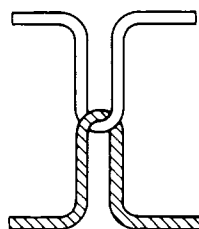
2.1.1 intralooping : The passing of a loop of thread through another loop by the same thread.



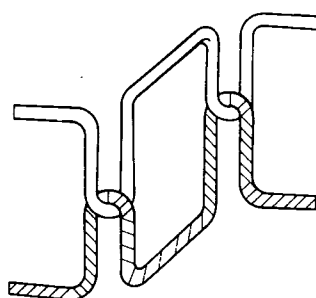
2.1.2 interlooping : The passing of a loop of thread through another loop formed by a different thread.



2.1.3 interlacing : The passing of a thread over or around another thread or loop of another thread.



2.2 stitch type : An assembly of recurring stitches, relating to the material and which may be characterized by a change in direction. The minimum number of stitches that describe a stitch type are indicated.



2.3 group of threads : A number of threads fulfilling an identical function, for example needle or loopers.

3 Classification

Stitch types are divided into six classes. The characteristics of these classes are indicated below.

3.1 Class 100 — Chain stitches

In this class, stitch types are formed with one or more needle threads, and are characterized by intralooping. One or more loops of thread are passed through the material and secured by intralooping with a succeeding loop or loops after they are passed through the material.

3.2 Class 200 (originated as hand stitches)

In this class, stitch types which originated as hand stitches are characterized by a single thread, which is passed through the material as a single line of thread and the stitch is secured by the single line of thread passing in and out of the material.

3.3 Class 300 — Lockstitches

In this class, stitch types are formed with two or more groups of threads, and have for a general characteristic the interlacing of the two or more groups. Loops of one group are passed through the material and are secured by the thread or threads of a second group.

3.4 Class 400 — Multi-thread chain stitches

In this class, stitch types are formed with two or more groups of threads, and have for a general characteristic the interlooping of the two groups. Loops of one group of threads are passed through the material and are secured by interlacing and interlooping with loops of another group.

3.5 Class 500 — Overedge chain stitches

In this class, stitch types are formed with one or more groups of threads, and have for a general characteristic that loops from at least one group of thread pass around the edge of the material. Loops of one group of threads are passed through the material and are secured by intralooping before succeeding loops are passed through the material, or secured by interlooping with loops of one or more interlooped groups of threads before succeeding groups of the first group are again passed through the material.

3.6 Class 600 — Covering chain stitches

In this class, stitch types are formed with two or more groups of threads, and have for a general characteristic that two of the groups cover both surfaces of the material. Loops of the first group of thread are passed through loops of the third group already cast on the surface of the material and then through the material where they are interlooped with loops of the second group of thread on the underside of the material. The one exception to this procedure is stitch type 601 where only two groups of threads are used and the function of the third group is performed by one of the threads in the first group.

4 Designation

4.1 Stitch types

Stitch type classes are designated and identified by the first digit of 3-digit numerals.

Stitch types within each class are designated and identified by the second and third digits.

4.2 Combination stitch type

The combination of stitch types shall be represented by the designation of the individual stitch types separated by a full stop, for example 401.502. If the combination stitch type is achieved in one operation, it is to be enclosed in brackets, for example (401.502).

5 Conventions used in the illustrations

The drawing conventions used in the stitch type illustrations (see clause 6) are as follows :

5.1 All the illustrations are in perspective for clarity and at an angle chosen to show all threads as clearly as possible.

5.2 The direction of successive stitch formation is from right to left.

5.3 Each stitch type starts and finishes with only one end of each thread shown, and with the needle threads leaving the material vertically.

5.4 All needle threads are clear, all other threads hatched.

5.5 All needle threads are numbered **1, 2, 3, . . .**; all under threads, **a, b, c, . . .**, all cover threads **Z, Y, X, . . .**

5.6 The material is shown only where it assists clarity, for example in class 500.

NOTE — In a few cases where the above drawing conventions do not give a clear indication of the stitch, a plan diagram is used.

6 Illustrations

Illustrations are included of the following stitch types :

Class 100

101	105
102	
103	107
104	108

Class 200

201	213
202	214
204	215
205	217
206	219
209	220
211	

Class 300

301	311	321
302	312	322
303	313	323
304	314	324
305	315	325
306	316	326
307	317	327
308	318	
309	319	
310	320	

Class 400

401	406	411	416
402	407	412	417
403	408	413	
404	409	414	
405	410	415	

Class 500

501	508	521
502	509	
503	510	
504	511	
505	512	
506	513	
507	514	

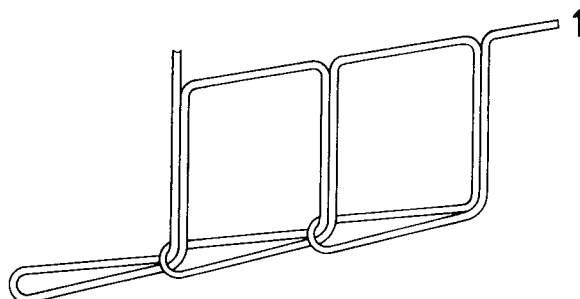
Class 600

601	606
602	607
603	608
604	609
605	

NOTE — Illustrations show a number of needle penetrations the first of which may not produce a stitch of the stitch type. The written descriptions in all cases refer to the stitches of the stitch type.

Class 100

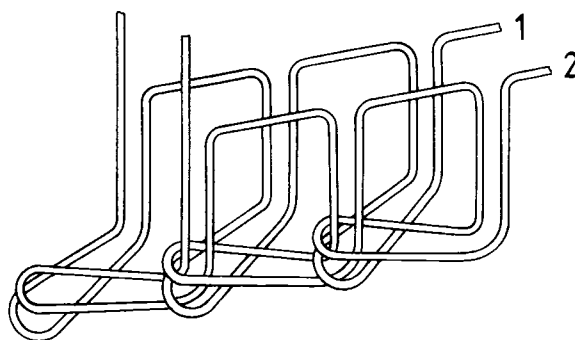
101



This stitch type is formed with one needle thread (1), a loop of which is passed through the material from the needle side and intralooped in the other side.

A minimum of two stitches describes this stitch type.

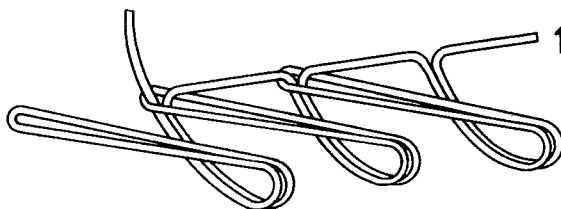
102



This stitch type is formed with two needle threads (1 and 2), loops of which are passed through the material from the needle side. Thread 2 is intralooped with thread 1 on the other side of the material.

A minimum of two stitches describes this stitch type.

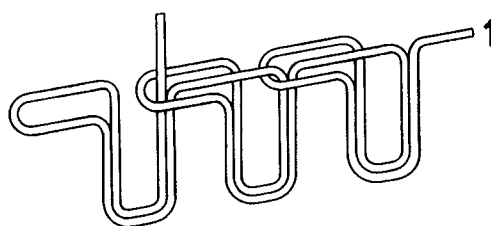
103



This stitch type is formed with one needle thread (1), a loop of which is passed into the material from the needle side, through portions of the material, emerging on the needle side where it is intralooped at the next point of needle penetration.

A minimum of two stitches describes this stitch type.

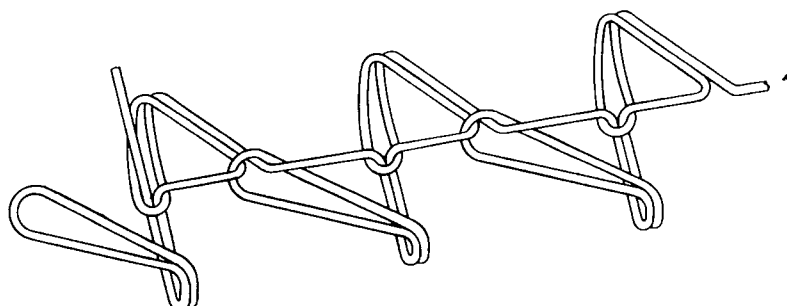
104



This stitch type is formed with one needle thread (1), a loop of which is passed through the material from the needle side, passed back through the material to the needle side at a distance, and intralooped on the needle side of the material at the next point of needle penetration.

A minimum of two stitches describes this stitch type.

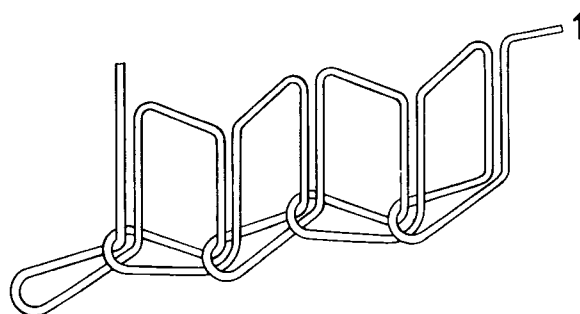
105



This stitch type is formed with one needle thread (1), a loop of which is passed into the material from the needle side, through portions of the material, emerging on the needle side where it is intralooped at the next point of needle penetration on the axis of stitch formation.

A minimum of two stitches describes this stitch type.

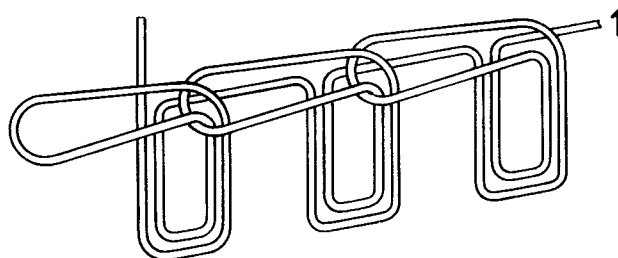
107



This stitch type is formed with one needle thread (1), a loop of which is passed through the material from the needle side and intralooped on the other side. This stitch type is the same as 101 except that successive single stitches form a symmetrical zigzag pattern.

A minimum of two stitches describes this stitch type.

108

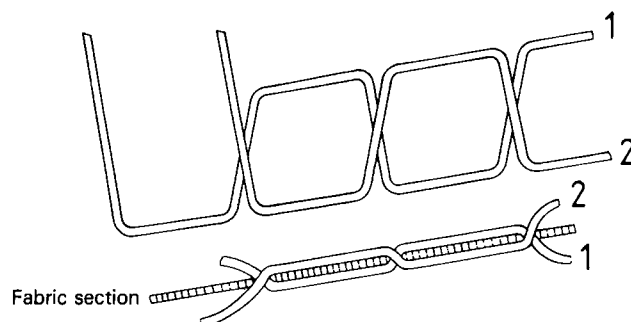


This stitch type is formed with one needle thread (1), a loop of which is passed through the material from the needle side to the other side and passed back through the material to the needle side at a distance. The thread is intralooped where the next loop is passed through the material.

A minimum of two stitches describes this stitch type.

Class 200

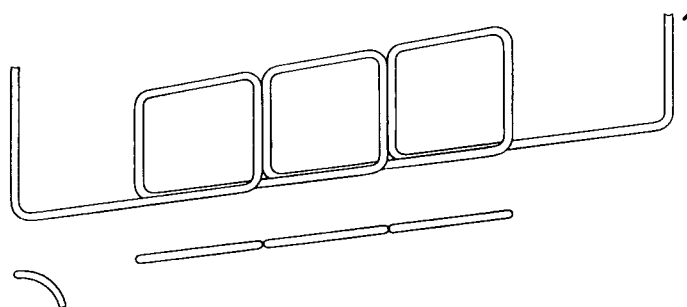
201



This stitch type is formed with two needle threads (1 and 2), which are passed through the material, through the same perforation from opposite directions, without interlacing or interlooping. They are then brought forward a suitable length and passed back through the material, from opposite directions, through another perforation without interlacing or interlooping.

A minimum of two stitches describes this stitch type.

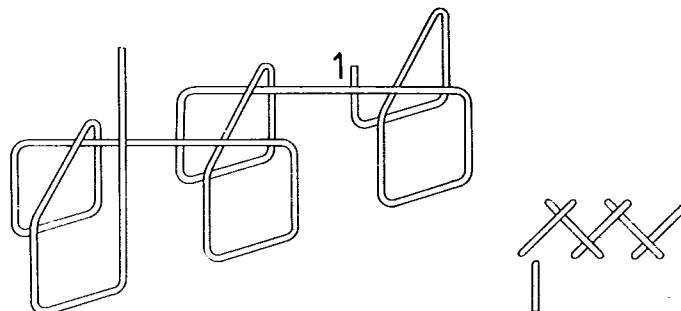
202



This stitch type is formed with one needle thread (1), which is passed through the material, brought forward a suitable length, passed back through the material, and, brought back half the initial length before passing back through the material at the point of emergence of the previous thread. This stitch type is often used at the beginning or end of other stitch formations.

A minimum of two stitches describes this stitch type.

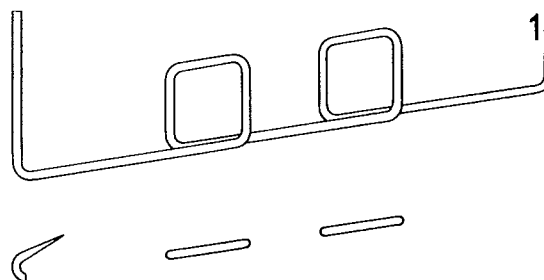
204



This stitch type is formed with one needle thread (1), which is passed through the material, moved diagonally across the material the width of the stitch, passed back through the material and brought back a suitable length before passing again through the material. It is then returned diagonally across the material the width of the stitch, passed through the material and back through the material a similar length behind. This process is repeated to form parallel rows of separated and offset stitches on the needle side and a criss-cross pattern on the other side. (When done by hand, this stitch type is normally worked from left to right.)

A minimum of two stitches describes this stitch type.

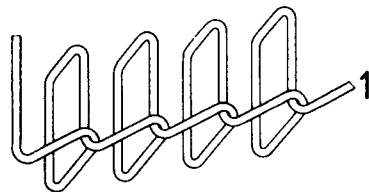
205



This stitch type is formed with one needle thread (1), which is passed through the material, brought forward a suitable length, passed back through the material, and brought back one-third of the initial length before passing again through the material.

A minimum of two stitches describes this stitch type.

206

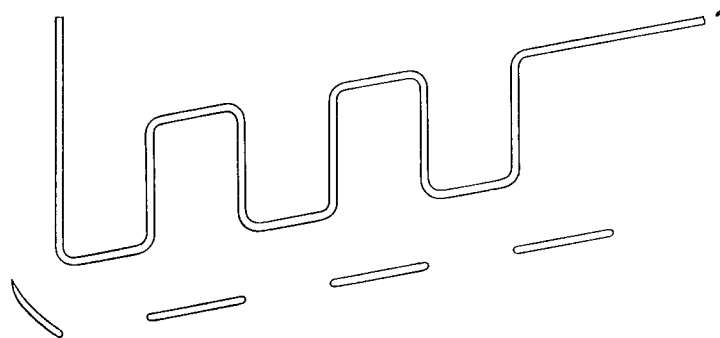


This stitch type is formed with one needle thread (1), which is passed through the material twice, emerging in a position at right-angles to the direction of successive stitch formation, and passing over the thread from the previous stitch forming a loop.

Successive stitches are spaced at chosen intervals, and can be worked open or close. (When done by hand, this stitch type is normally worked from left to right.)

A minimum of two stitches describes this stitch type.

209

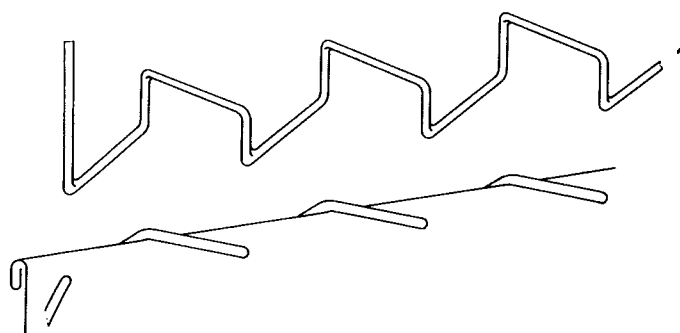


This stitch type is formed with one needle thread (1), which is passed through the material, brought forward a suitable length and passed back through the material.

The points of needle penetration may be close together and used for gathering material or gauging, or widely spaced, or alternatively with varied spacing.

A minimum of two stitches describes this stitch type.

211



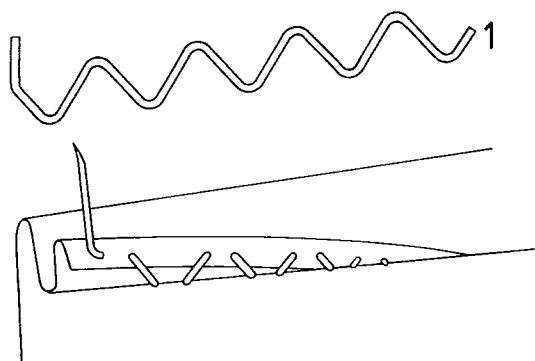
This stitch type is formed with one needle thread (1), which is passed through the material, cast over the rolled edge of the material and brought forward through the material, in line with the previous thread emergence.

This stitch type is used as an edge finish, usually on fine material; when worked from left to right, the main use of the stitch is for neatening edges, seams, etc.

The stitch type can be worked with variable spacing.

A minimum of two stitches describes this stitch type.

213

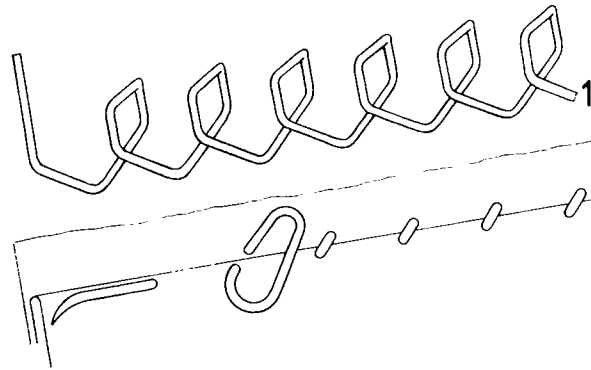


This stitch type is formed with one needle thread (1), which is passed through the single material, passed forward through the turned over edge of the hem (turned back for the purpose), emerging slightly in front, in line with the previous thread penetration and taking up a very small amount of the material; the thread is then brought forward and through the material below the hem to repeat the stitch. Very small amounts of material are taken up.

This stitch type is used when it is particularly desirable that no stitch should finally be visible.

A minimum of two stitches describes this stitch type.

214

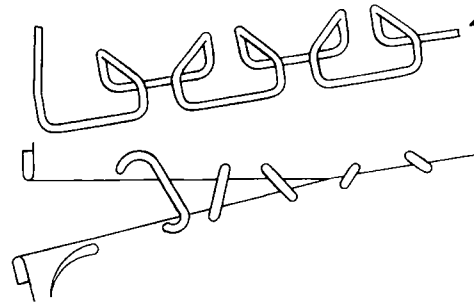


This stitch type is formed with one needle thread (1), which is passed through the fold of material and into the single material a short distance above and slightly to the right. The thread is then passed diagonally back through both material layers to a point in line with the previous point of thread emergence.

This stitch type is used for sewing one material to another such as linings to garments, etc.

A minimum of two stitches describes this stitch type.

215

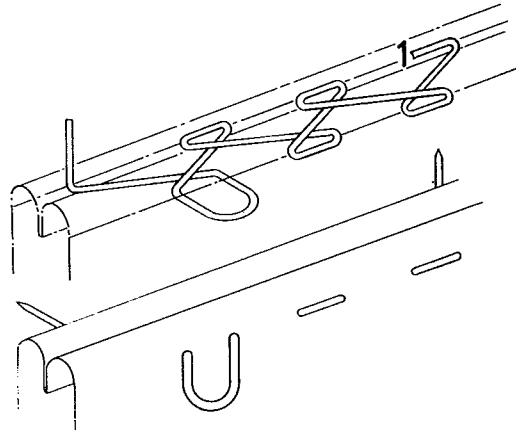


This stitch type is formed with one needle thread (1), which is passed through the folded edge of a material and brought forward a suitable length in the fold before emerging from the material. It is then passed through an opposite folded edge of material at a point slightly behind the point of thread emergence.

It is brought forward a suitable length in the fold, before emerging from the material. The thread is drawn rather taut.

This is a stitch type which is used by tailors to draw together two folded edges, for example collar and lapel.

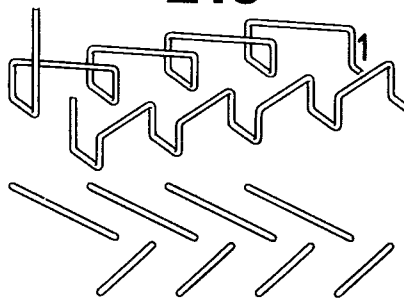
A minimum of two stitches describes this stitch type.

217

This stitch type is formed with one needle thread (1), which is passed diagonally through the material layers, brought back a suitable length behind the point of emergence, and passed diagonally back through the material, crossing the first diagonal.

This stitch type is seen only as small dints on both sides, and is used for securing edges in tailored garments.

A minimum of two stitches describes this stitch type.

219

This stitch type is formed with one needle thread (1), which is passed horizontally through the material or through portions of the material and emerges on the same side. All passes of the thread are at an acute angle to the direction of successive needle penetrations, which are in line with the direction of stitching.

Alternate rows of stitches are formed in opposite directions and staggered.

This stitch type is used to attach interlinings to the outer materials of collars and lapels in the process of shaping them by the manipulation of these two materials. It is also used to fasten chest canvas to the interlining, the thread always passing completely through the two materials.

A minimum of two stitches describes this stitch type.