D05 SEWING; EMBROIDERING; TUFTING

D05B SEWING (appliances for the tailoring trade A41H; sewing tables A47B 29/00; sewing in bookbinding B42B 2/00; sewing machines modified for knitting D04B 39/08)

Note
In this subclass, the groups designating sewing apparatus or machines cover also sewing processes dependent on their use, and the thread seams produced thereby.

Subclass Index
TYPES OF MACHINES
General types for making thread seams without lateral movement ........................................ 1/00
Special-purpose or automatic machines
with lateral movement of needle or work ........................................ 3/00
for sewing quilts or mattresses, sacks, leather goods .......... 11/00, 13/00, 15/00
for temporarily connecting articles ........................................ 5/00
linking machines; hem-stitch machines; for making thread and welded seams ...................... 7/00; 9/00; 17/00
programme-controlled ........................................ 19/00, 21/00
Other types of sewing machines .......................... 23/00
Combination of machines; machines incorporating devices for other purposes than sewing .......... 25/00; 81/00
THE WORK; MACHINE ELEMENTS RELATING THEREETO
For feeding, pressing, holding, supplying, or removing the work ........................................ 27/00, 29/00, 31/00, 33/00
Devices for slitting, grooving, or cutting the work ........................................ 37/00
Work-piece carriers, work-collecting devices .......... 39/00, 41/00
Other elements relating to the work .......................... 35/00
SEWING-THREAD; MACHINE ELEMENTS RELATING THEREETO
Needle thread spool-pin assemblies ........................................ 43/00
measuring length of thread used; regulating tension; severing thread ........................................ 45/00; 47/00; 65/00
take-up, needle-thread guard, break detectors, thread laying; needle holders .... 49/00, 51/00, 53/00; 55/00
Lower thread loop takers; loop manipulators; tension; severing thread ........................................ 57/00; 61/00; 63/00; 65/00
bobbin winding or changing ........................................ 59/00
Lubricating, waxing, or colouring thread ........................................ 67/00
OTHER ELEMENTS OF SEWING MACHINES; ACCESSORIES
Driving or control; lubricating or cooling; lighting equipment ........................................ 69/00; 71/00; 79/00
Accessories guards for operator ........................................ 83/00
casings; frames or tables; covers or portable enclosures ........................................ 73/00; 75/00; 77/00
HAND SEWING
Tools and accessories; stitches or stitch seams ........................................ 91/00; 93/00
Preparatory or finishing operations ........................................ 95/00
Hand-sewing processes and apparatus for other special work, or not otherwise provided for ........................................ 97/00
NEEDLES; NEEDLE-THREADING DEVICES; SEAM-RIPPING
DEVICES ........................................ 85/00; 87/00; 89/00

1/00 General types of sewing apparatus or machines without mechanism for lateral movement of the needle or the work or both
1/02 . for making single-thread seams
1/04 . Running-stitch seams
1/06 . Single chain-stitch seams
1/08 . for making multi-thread seams
1/10 . Double chain-stitch seams
1/12 . Lock-stitch seams
1/14 . Combined or alternative chain-stitch and lock-stitch seams
1/16 . Pseudo-lock-stitch seams in which the thread loops do not positively interlock (shoe or welt sewing machines D05B 15/02)

1/18 . Seams for protecting or securing edges (zig-zag sewing machines D05B 3/02, D05B 3/04)
1/20 . Overedge seams
1/22 . Combined with joining or securing seams
1/24 . for making blind-stitch seams
1/26 . for making fluid-tight seams (sewing machines for concurrently making thread and welded seams D05B 17/00)
Special-purpose or automatic sewing apparatus or machines

3/00 Sewing apparatus or machines with mechanism for lateral movement of the needle or the work or both for making ornamental pattern seams, for sewing buttonholes, for reinforcing openings, or for fastening articles, e.g. buttons, by sewing (programme-controlled sewing machines D05B 19/00; with devices for automatically controlling movement of work-carrier D05B 21/00) [6]

3/02 . with mechanisms for needle-bar movement
3/04 . with mechanisms for work feed
3/06 . for sewing buttonholes (buttonholes A41F 1/02)
3/08 . for buttonholes with eyelet ends
3/10 . for making piped openings
3/12 . for fastening articles by sewing
3/14 . perforated or press buttons
3/16 . shank buttons
3/18 . hooks or eyelets
3/20 . labels (labelling fabrics otherwise than by sewing B65C 5/00; labels or securing means therefor, in general G09F 3/00)
3/22 . Article-, e.g. button-, feed mechanisms therefor
3/24 . formed by general-purpose sewing machines modified by attachments, e.g. by detachable devices

5/00 Sewing machines for temporarily connecting articles, e.g. pairs of socks
7/00 Linking machines, e.g. for joining knitted fabrics
9/00 Hem-stitch sewing machines
11/00 Machines for sewing quilts or mattresses (control of workpiece-holding frames, or of sewing machines, in order to obtain particular seam configuration D05B 21/00)
13/00 Machines for sewing sacks
13/02 . for closing filled bags or sacks (combined with bag- or sack-filling apparatus B65B)
15/00 Machines for sewing leather goods (making pseudo-lock-stitch seams D05B 1/16)
15/02 . Shoe sewing machines
15/04 . for lock-stitch work (D05B 15/08 takes precedence).
15/06 . Welt sewing machines
15/08 . for lock-stitch work
15/10 . Lining sewing machines
17/00 Sewing machines for concurrently making thread and welded seams (for making non-welded fluid-tight seams D05B 1/26)
19/00 Programme-controlled sewing machines (with devices for automatically controlling movement of work-carrier D05B 21/00; devices for stopping drive when sewing tools have reached a predetermined position D05B 69/22)
19/02 . Sewing machines having electronic memory or micro-processor control unit [6]
19/04 . characterised by memory aspects [6]
19/06 . Physical exchange of memory [6]
19/08 . Arrangements for inputting stitch or pattern data to memory [6]
19/10 . Arrangements for selecting combinations of stitch or pattern data from memory [6]
19/12 . characterised by control of operation of machine [6]
19/14 . . . Control of needle movement, e.g. varying amplitude or period of needle movement [6]
19/16 . . . Control of workpiece movement, e.g. modulation of travel of feed dog [6]
21/00 Sewing machines with devices for automatically controlling movement of work-carrier relative to stitch-forming mechanism in order to obtain particular configuration of seam, e.g. programme-controlled for sewing collars, for attaching pockets
23/00 Sewing apparatus or machines not otherwise provided for (for making zip closures A44B 19/00)

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23/00 Sewing apparatus or machines not otherwise provided for (for making zip closures A44B 19/00)
37/00 Devices incorporated in sewing machines for slitting, grooving, or cutting (severing sewing-threads D05B 65/00)
37/02 . Slitting or grooving devices
37/04 . Cutting devices
37/06 . . with oscillating tools
37/08 . . with rotatable tools
37/10 . . with heated tools
39/00 Workpiece carriers (for automatically controlling movement of work-carrier to obtain particular configuration of seam D05B 21/00; in general A41H 15/00)
41/00 Work-collecting devices

Sewing-machine elements for supplying, handling, or treating thread material

43/00 Spool-pin assemblies incorporated in sewing machines
45/00 Applications of measuring devices for determining the length of threads used in sewing machines (measuring devices in embroidery machines D05C, in general G01B)
47/00 Needle-thread tensioning devices; Applications of tensometers
47/02 . Manually-controlled tensioning devices
47/04 . Automatically-controlled tensioning devices
47/06 . Applications of tensometers (application of tension indicators in handling thin or filamentary material B65H 59/40; for embroidery machines D05C 11/08; tensometers in general G01L)
49/00 Take-up devices, e.g. levers, for the needle thread
49/02 . operated by cams or linkages
49/04 . rotary
49/06 . for machines for sewing leather
51/00 Applications of needle-thread guards; Thread-break detectors (for embroidery machines D05C 11/00)
53/00 Thread- or cord-laying mechanisms; Thread fingers
55/00 Needle holders; Needle bars (needles D05B 85/00)
55/02 . Devices for fastening needles to needle bars
55/04 . Devices for inserting needles
55/06 . Needle guides; Needle protectors (finger-protecting devices D05B 83/00)
55/08 . Driving arrangements for curved needles
55/10 . Needle bars for multiple-needle sewing machines
55/12 . . with provision for varying the distance between the needles
55/14 . Needle-bar drives
55/16 . . with provision for disengaging individual needle bars
57/00 Loop takers, e.g. loopers
57/02 . for chain-stitch sewing machines, e.g. oscillating
57/04 . . rotary
57/06 . for overedge-stitch sewing machines
57/08 . for lock-stitch sewing machines
57/10 . . Shuttles
57/12 . . . oscillating
57/14 . . . with rotary hooks
57/16 . . . with bobbin casings guided in tracks
57/18 . . . with bobbin casings held by removable caps
57/20 . . . with bobbin casings held by magnetic forces
57/22 . . with spool-size bobbin for lower thread
57/24 . . . with lower-thread packages mounted for controlled sliding movements
57/26 . Bobbin holders or casings; Bobbin holder or case guards; Bobbin discharge devices
57/28 . Applications of bobbins for storing the lower thread
57/30 . Driving-gear for loop takers
57/32 . . in chain-stitch sewing machines
57/34 . . in overedge-stitch sewing machines
57/36 . . in lock-stitch sewing machines
57/38 . . . Shuttle drives
59/00 Applications of bobbin-winding or -changing devices; Indicating or control devices associated therewith
59/02 . Devices for determining or indicating the length of thread still on the bobbin
59/04 . Devices for changing the bobbin
61/00 Loop holders; Loop spreaders; Stitch-forming fingers
63/00 Devices associated with the loop-taker thread, e.g. for tensioning
63/02 . Loop-taker thread take-up levers
63/04 . Loop-taker thread guards
65/00 Devices for severing the needle or lower thread
65/02 . controlled by the sewing mechanisms
65/04 . controlled by the workpieces
65/06 . and for disposing of the severed thread end
67/00 Devices incorporated in sewing machines for lubricating, waxing, or colouring the threads

Driving-gear, control, lubricating, or cooling devices for sewing machines
69/00 Driving-gear; Control devices
69/02 . Mechanical drives
69/04 . . Manual drives
69/06 . . Pedal drives
69/08 . Fluid drives, e.g. pneumatic
69/10 . Electrical or electromagnetic drives
69/12 . . using rotary electric motors
69/14 . . Devices for changing speed or for reversing direction of rotation
69/16 . . . mechanical
69/18 . . . electric
69/20 . Control devices responsive to the number of stitches made
69/22 . Devices for stopping drive when sewing tools have reached a predetermined position (electric motor control systems in general H02P)
69/24 . . Applications of devices for indicating or ascertaining sewing-tool position
69/26 . . . with automatic means to reduce speed of drive, e.g. in one or more steps
69/28 . . Applications of servo devices for tool-positioning purposes
69/30 . . Details (work-feeding drives D05B 27/00; needle-bar drives D05B 55/14; loop-taker drives D05B 57/30)
69/32 . . Vibration-minimising devices
69/34 . . . Hand-wheel clutches
69/36 . . Devices for stopping drive when abnormal conditions occur, e.g. thread breakage
71/00 Lubricating or cooling devices
71/02 . Loop-taker lubricating devices
71/04 . Needle cooling devices
Casings, supports, covers, or accessories for sewing machines; Sewing machines combined with auxiliary devices serving purposes other than sewing

73 / 00 Casings
  73 / 02 . Upper casings
  73 / 04 . Lower casings
  73 / 06 . for free-arm sewing machines
  73 / 08 . for column-type sewing machines
  73 / 10 . Devices for converting free-arm sewing machines into flat-bed machines

73 / 12 . Slides; Needle plates

75 / 00 Frames, stands, tables, or other furniture adapted to carry sewing machines (furniture aspects A47B, A47C)
  75 / 02 . for drop-head sewing machines
  75 / 04 . with noise-suppressing devices
  75 / 06 . Arrangements, e.g. hinges, for mounting sewing-machine casings to frames, stands, or tables

77 / 00 Covers, or portable enclosures, for sewing machines

79 / 00 Incorporations or adaptations of lighting equipment

81 / 00 Sewing machines incorporating devices serving purposes other than sewing, e.g. for blowing air, for grinding

83 / 00 Guards or like devices for preventing injury to operator (machine safety devices in general F16P)

Needles: Needle threaders; Seam-ripping devices

85 / 00 Needles (surgical needles A61B 17/06; manufacture of needles B21G 1/00)
  85 / 02 . with slotted eyes
  85 / 04 . Spring or bearded needles
  85 / 06 . Curved needles
  85 / 08 . Flexible needles
  85 / 10 . Hollow needles
  85 / 12 . Coated needles
  85 / 14 . Latch needles

87 / 00 Needle-threading devices
  87 / 02 . with mechanical means for moving thread through needle eye
  87 / 04 . with optical devices to assist threading

89 / 00 Seam-ripping devices

Hand sewing

91 / 00 Tools, implements, or accessories for hand sewing
  (needles, needle threaders D05B 85/00, D05B 87/00; appliances for the tailoring trade A41H)
  91 / 02 . Bodkins
  91 / 04 . Thimbles; Finger shields; Palm protectors
  91 / 06 . Work holders or supports
  91 / 08 . . Mushrooms; Darning eggs
  91 / 10 . . Hoops or frames (for embroidery D05C)
  91 / 12 . . Tool receptacles
  91 / 14 . . Thread-spool pins
  91 / 16 . . Thread-spool receptacles

93 / 00 Stitches; Stitch seams
  93 / 02 . strengthened by auxiliary elements, e.g. rivets, staples

95 / 00 Preparatory or finishing operations in connection with hand sewing
  95 / 04 . Softening material prior to sewing
  95 / 06 . Flattening, pounding, or pressing stitched seams (in shoemaking A43D 8/44)

97 / 00 Hand sewing processes or apparatus for special work or not otherwise provided for
  97 / 02 . Hand-guided apparatus
  97 / 04 . for darning
  97 / 06 . . using apparatus with latch or bearded needles
  97 / 08 . . using special threads or wires
  97 / 10 . . for attaching buttons or fasteners
  97 / 12 . . for attaching patches or like small pieces of fabric

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Embroidering machines (programme-controlled sewing machines with embroidery capability D05B 19/00, D05B 21/00)

3 / 00 General types of embroidering machines
  3 / 02 . with vertical needles
  3 / 04 . with horizontal needles

5 / 00 Embroidering machines with arrangements for automatic control of a series of individual steps
  5 / 02 . by electrical or magnetic control devices

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D05C EMBROIDERING; TUFTING (making non-woven fabrics D04H; sewing D05B)

Subclass Index

HAND EMBROIDERY ..............................................................1/00
EMBROIDERING MACHINES
  General types of machines ........................................3/00
  Machines with automatic control or
  for special kinds of embroidery...........................5/00, 7/00

1 / 00 Apparatus, devices, or tools for hand embroidering
  1 / 02 . Work frames
  1 / 04 . . circular
  1 / 06 . Needles specially adapted for hand embroidering (sewing needles D05B 85/00); Holders for needles or threads
  1 / 08 . Patterns for hand embroidering; Manufacture thereof

Details................................................................. 9/00, 11/00, 13/00
Auxiliary devices.................................................... 13/00
MAKING PILE FABRICS BY INSERTING LOOPS .........................................................15/00
EMBROIDERED OR TUFTED PRODUCTS .........................17/00
13/00 Auxiliary devices incorporated in embroidering machines, not otherwise provided for; Ancillary apparatus for use with embroidering machines

13/02 Counting, measuring, indicating, warning, or safety devices
13/04 Lubricating devices
13/06 Apparatus for filling or threading shuttles

15/00 Making pile fabrics or articles having similar surface features by inserting loops into a base material (layered products B32B; non-woven pile fabrics D04H 11/00)

15/02 Rooting of hair in doll heads or wigs (wigs A41G 3/00; hair or wigs for doll heads A63H 3/44)
15/04 Tufting
15/06 Hand tufting needles
15/08 Tufting machines
15/10 operating with a plurality of needles, e.g. in one row
15/12 in more than one row
15/14 Arrangements or devices for holding or feeding the base material (D05C 15/26 takes precedence)
15/16 Arrangements or devices for manipulating threads (D05C 15/26 takes precedence)
15/18 Thread feeding or tensioning arrangements
15/20 Arrangements or devices, e.g. needles, for inserting loops; Driving mechanisms therefor
15/22 Loop-catching arrangements, e.g. loopers; Driving mechanisms therefor
15/24 Loop cutters; Driving mechanisms therefor
15/26 with provision for producing patterns
15/28 by moving the base material laterally
15/30 by moving the tufting tools laterally
15/32 by altering the loop length
15/34 by inserting loops of different nature or colour
15/36 by selective cutting of loops
15/38 by passing thread material in zig-zag manner through spaced layers of base material and subsequently cutting along a central plane

17/00 Embroidered or tufted products; Base fabrics specially adapted for embroidered work; Inserts for producing surface irregularities in embroidered products (layered products B32B; non-woven pile fabrics D04H 11/00)
17/02 Tufted products