

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 THERETO

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 THERETO

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
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bobbin winding or changing

Lubricating, waxing, or colouring thread	67/00
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OTHER ELEMENTS OF SEWING MACHINES; ACCESSORIES

Driving or control; lubricating or cooling; lighting equipment	69/00; 71/00; 79/00
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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	85/00; 87/00; 89/00
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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)

25/00 Sewing units consisting of combinations of several sewing machines

Sewing-machine elements for feeding, positioning, handling, or treating the work

- 27/00 Work-feeding means**
- 27/02 . with feed dogs having horizontal and vertical movements
- 27/04 . . arranged above the workpieces
- 27/06 . . arranged above and below the workpieces
- 27/08 . . with differential feed motions
- 27/10 . with rotary circular feed members
- 27/12 . . rotating continuously
- 27/14 . . rotating discontinuously
- 27/16 . . with differential feed motions
- 27/18 . . Feed cups
- 27/20 . constituted by sewing needles
- 27/22 . with means for setting length of stitch
- 27/24 . Feed-dog lifting and lowering devices
- 27/26 . in machines for sewing leather
- 29/00 Pressers; Presser feet** (for feeding D05B 27/04)
- 29/02 . Presser-control devices
- 29/04 . Pressers in machines for sewing leather
- 29/06 . Presser feet
- 29/08 . . comprising relatively-movable parts
- 29/10 . . with rollers
- 29/12 . Presser-foot attachment
- 31/00 Workpiece holders or hold-downs in machines for sewing leather**
- 31/02 . Welt guides
- 33/00 Devices incorporated in sewing machines for supplying or removing the work**
- 33/02 . and connected, for synchronous operation, with the work-feeding devices of the sewing machine
- 35/00 Work-feeding or -handling elements not otherwise provided for**
- 35/02 . for facilitating seaming; Hem-turning elements; Hemmers
- 35/04 . . with movable tools
- 35/06 . for attaching bands, ribbons, strips, or tapes or for binding
- 35/08 . for ruching, gathering, casing, or filling lace, ribbons, or bindings; Pleating devices; Cuttlers; Gathering feet; Crimpers; Curlers; Rufflers
- 35/10 . Edge guides
- 35/12 . Indicators for positioning work, e.g. with graduated scales

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

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

Subclass Index

HAND EMBROIDERY	1/00	Details	9/00, 11/00, 13/00
EMBROIDERING MACHINES		Auxiliary devices	13/00
General types of machines	3/00	MAKING PILE FABRICS BY INSERTING	
Machines with automatic control or		LOOPS	15/00
for special kinds of embroidery	5/00, 7/00	EMBROIDERED OR TUFTED PRODUCTS	17/00

- 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

Embroidering machines (programme-controlled sewing machines with embroidering 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

- 5/04 . by input of recorded information, e.g. on perforated tape
- 5/06 . . with means for recording the information
- 7/00 Special-purpose or automatic embroidering machines**
- 7/02 . with accessories for peculiar kinds of embroidery
- 7/04 . for boring or jogging
- 7/06 . for embroidering festoons
- 7/08 . for attaching cords, tapes, bands, or the like
- 7/10 . for separating and burning-off parts of the base fabric (making patterns or designs on fabrics by singeing or etching D06C 23/02)
- 7/12 . for making cotton buttons
- 9/00 Appliances for holding or feeding the base fabric in embroidering machines**
- 9/02 . in machines with vertical needles
- 9/04 . . Work holders, e.g. frames
- 9/06 . . . Feeding arrangements therefor, e.g. influenced by patterns, operated by pantographs
- 9/08 . in machines with horizontal needles
- 9/10 . . Work holders or carriers
- 9/12 . . . Holding or stretching arrangements for the base fabric in embroidery work holders
- 9/14 . . . Suspension or balancing arrangements therefor
- 9/16 . . . Feeding arrangements therefor
- 9/18 . Movement of the base fabric in one of the two directions controlled by embroidering needles
- 9/20 . Movement of the base fabric controlled by the presser feet; Driving arrangements therefor
- 9/22 . Adjusting or registering devices for the base fabric, e.g. for alignment with respect to the needles
- 11/00 Devices for guiding, feeding, handling, or treating the threads in embroidering machines; Machine needles; Operating or control mechanisms therefor**
- 11/02 . Machine needles
- 11/04 . . Arrangements for fastening or inserting in bars or carriers
- 11/06 . . Needle-driving or control mechanisms
- 11/08 . Thread-tensioning arrangements
- 11/10 . . Guides, e.g. resilient
- 11/12 . . Rollers
- 11/14 . . Stop motions responsive to thread tension or breakage
- 11/16 . Arrangements for repeating thread patterns or for changing threads
- 11/18 . Shuttles
- 11/20 . Arrangements for cutting the needle or lower threads
- 11/22 . Arrangements for cutting-out broken threads
- 11/24 . incorporating devices for dyeing or impregnating the threads
- 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