

# CPC COOPERATIVE PATENT CLASSIFICATION

## D TEXTILES; PAPER

### TEXTILES OR FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

#### D04 BRAIDING; LACE-MAKING; KNITTING; TRIMMINGS; NON-WOVEN FABRICS

#### D04B KNITTING

##### NOTES

1. In this subclass, the groups designating machines, apparatus, devices, or implements include processes characterised by, or dependent on, their use and the products of such processes
2. Knitted products, i.e. fabrics, articles, are classified in this subclass only if they have constructional features which are of interest from the knitting aspect
3. In this subclass, further classification in indexing scheme [D10B](#) for aspects relating to textiles is required.

##### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

##### Weft knitting; Machines therefor

##### **1/00 Weft knitting processes for the production of fabrics or articles not dependent on the use of particular machines; Fabrics or articles defined by such processes**

- 1/02 . Pile fabrics or articles having similar surface features
- 1/025 . . {incorporating loose fibres, e.g. high-pile fabrics or artificial fur}
- 1/04 . . characterised by thread material
- 1/06 . Non-run fabrics or articles
- 1/08 . . characterised by thread material
- 1/10 . Patterned fabrics or articles
- 1/102 . . {with stitch pattern ([D04B 1/06](#), [D04B 1/08](#) take precedence)}
- 1/104 . . . {Openwork fabric, e.g. pelerine fabrics}
- 1/106 . . . {at a selvedge, e.g. hems or turned welts}
- 1/108 . . . {Gussets, e.g. pouches or heel or toe portions}
- 1/12 . . characterised by thread material
- 1/123 . . . {with laid-in unlooped yarn, e.g. fleece fabrics (with elastic weft yarn [D04B 1/18](#))}
- 1/126 . . . {with colour pattern, e.g. intarsia fabrics}
- 1/14 . Other fabrics or articles characterised primarily by the use of particular thread materials
- 1/16 . . synthetic threads
- 1/18 . . elastic threads
- 1/20 . . . crimped threads
- 1/22 . specially adapted for knitting goods of particular configuration
- 1/225 . . {Elongated tubular articles of small diameter, e.g. coverings or reinforcements for cables or hoses}
- 1/24 . . wearing apparel
- 1/243 . . . {upper parts of panties; pants}
- 1/246 . . . {Upper torso garments, e.g. sweaters, shirts, leotards}
- 1/26 . . . stockings

- 1/265 . . . . {Surgical stockings (of unspecified knit construction and reinforced [A41B 11/02](#); of unspecified knit construction and elastic [A61F 13/08](#))}
- 1/28 . . . gloves

##### **3/00 Hand tools or implements**

- 3/02 . Needles
- 3/04 . Finger protectors; Thread tensioners
- 3/06 . Ball holders or receptacles

##### **5/00 Knitting apparatus or machines without needles for domestic use (with needles [D04B 7/08](#))**

##### **7/00 Flat-bed knitting machines with independently-movable needles (straight-bar machines with fixed needles [D04B 11/00](#))**

- 7/02 . with one set of needles
- 7/025 . . {with stitch-length regulation (cam systems for stitch-length regulation [D04B 15/327](#))}
- 7/04 . with two sets of needles
- 7/045 . . {with stitch-length regulation (cam systems for stitch-length regulation [D04B 15/327](#))}
- 7/06 . . for purl work or Links-Links loop formation
- 7/08 . for domestic use
- 7/10 . with provision for narrowing or widening to produce fully-fashioned goods
- 7/12 . with provision for incorporating pile threads
- 7/14 . with provision for incorporating internal threads in laid-in fabrics
- 7/16 . for producing fabrics consisting of, or incorporating, elastic threads
- 7/18 . . incorporated as weft or inlaid threads
- 7/20 . with provision for changing the fabric construction, e.g. from plain to rib-loop fabric
- 7/22 . with special provision for commencing goods, e.g. with non-run edges
- 7/24 . for producing patterned fabrics
- 7/26 . . with colour patterns
- 7/28 . . with stitch patterns

- 7/30 . specially adapted for knitting goods of particular configuration
- 7/32 . . tubular goods
- 7/34 . . . gloves
- 9/00 Circular knitting machines with independently-movable needles (with fixed spring or bearded needles [D04B 13/00](#))**
- 9/02 . with one set of needles
- 9/025 . . {with stitch-length regulation (cam systems for stitch-length regulation [D04B 15/327](#))}
- 9/04 . . with spring or bearded needles
- 9/06 . with needle cylinder and dial for ribbed goods
- 9/065 . . {with stitch-length regulation (cam systems for stitch-length regulation [D04B 15/327](#))}
- 9/08 . . for interlock goods
- 9/10 . with two needle cylinders for purl work or for Links-Links loop formation
- 9/12 . with provision for incorporating pile threads
- 9/14 . with provision for incorporating loose fibres, e.g. in high-pile fabrics
- 9/16 . with provision for incorporating internal threads in laid-in fabrics
- 9/18 . with provision for splicing by incorporating reinforcing threads
- 9/20 . with provision for narrowing or widening; with reciprocatory action, e.g. for knitting of flat portions
- 9/22 . with provision for changing the fabric construction, e.g. from plain to rib-loop fabric
- 9/24 . with special provision for commencing goods, e.g. with non-run edges
- 9/26 . for producing patterned fabrics
- 9/28 . . with colour patterns
- 9/30 . . . by striping
- 9/32 . . . . by wrap striping
- 9/34 . . . by plating
- 9/36 . . . Intarsia work obtained by reciprocatory action
- 9/38 . . with stitch patterns
- 9/40 . with provision for transfer of knitted goods from one machine to another
- 9/42 . specially adapted for producing goods of particular configuration
- 9/44 . . elongated tubular articles of small diameter, e.g. coverings for cables ([sheathing electric cables H01B 13/22](#))
- 9/46 . . stockings, or portions thereof
- 9/48 . . . non-run stockings
- 9/50 . . . . micromesh stockings
- 9/52 . . . surgical stockings
- 9/54 . . . welts, e.g. double or turned welts
- 9/56 . . . heel or toe portions
- 9/58 . . gloves
- 11/00 Straight-bar knitting machines with fixed needles (flat-bed machines with independently-movable needles [D04B 7/00](#))**
- 11/02 . with one set of needles
- 11/025 . . {with stitch-length-regulating mechanism}
- 11/04 . with two sets of needles
- 11/06 . with provision for narrowing or widening to produce fully-fashioned goods
- 11/08 . with provision for incorporating pile threads
- 11/10 . with provision for incorporating internal threads in laid-in fabrics
- 11/12 . for producing fabrics from, or incorporating, elastic threads
- 11/14 . with provision for changing the fabric construction, e.g. from plain to rib-loop fabric
- 11/16 . with special provision for commencing goods, e.g. with non-run edges
- 11/18 . for producing patterned fabrics
- 11/20 . . with colour patterns
- 11/22 . . with stitch patterns
- 11/24 . with provision for transfer of knitted goods from one machine to another
- 11/26 . specially adapted for producing goods of particular configuration
- 11/28 . . stockings, or portions thereof
- 11/30 . . . non-run stockings
- 11/32 . . . welts, e.g. double or turned welts
- 11/34 . . . heel or toe portions
- 11/36 . . other wearing apparel
- 13/00 Circular knitting machines with fixed spring or bearded needles, e.g. loop-wheel machines (with independently-movable needles [D04B 9/00](#))**
- 13/02 . with horizontal needles
- 15/00 Details of, or auxiliary devices incorporated in, weft knitting machines, restricted to machines of this kind (details or auxiliary devices not so restricted [D04B 35/00](#))**
- 15/02 . Loop-transfer points
- 15/04 . . for straight-bar knitting machines
- 15/06 . Sinkers
- 15/08 . Needle latch openers; Brushes
- 15/10 . Needle beds
- 15/12 . . Shogging devices therefor
- 15/14 . Needle cylinders
- 15/16 . . Driving devices for reciprocatory action
- 15/18 . Dials
- 15/20 . Needle bars
- 15/22 . . Driving devices therefor
- 15/24 . Sinker heads; Sinker bars
- 15/26 . Slurcocks
- 15/28 . Needle pressers
- 15/30 . Driving devices for thread-carrier rods
- 15/32 . Cam systems or assemblies for operating knitting instruments
- 15/322 . . {in circular knitting machines with needle cylinder and dial (cam systems specially provided for dials [D04B 15/34](#))}
- 15/325 . . {in circular knitting machines with two opposed needle cylinders}
- 15/327 . . {for stitch-length regulation}
- 15/34 . . for dials
- 15/36 . . for flat-bed knitting machines
- 15/362 . . . {with two needle beds in V-formation}
- 15/365 . . . . {with provision for loop transfer from one needle bed to the other}
- 15/367 . . . {with two opposed needle beds}
- 15/38 . Devices for supplying, feeding, or guiding threads to needles
- 15/40 . . Holders or supports for thread packages
- 15/42 . . . Frames for assemblies of two or more reels
- 15/44 . . Tensioning devices for individual threads
- 15/46 . . . for elastic threads
- 15/48 . . Thread-feeding devices

15/482	. . . {comprising a rotatable or stationary intermediate storage drum from which the thread is axially and intermittently pulled off; Devices which can be switched between positive feed and intermittent feed}	21/08	. . characterised by thread material
15/484	. . . . {Yarn braking means acting on the drum}	21/10	. Open-work fabrics
15/486	. . . . {Monitoring reserve quantity}	21/12	. . characterised by thread material
15/488	. . . {in co-operation with stitch-length-regulating mechanism}	21/14	. Fabrics characterised by the incorporation by knitting, in one or more thread, fleece, or fabric layers, of reinforcing, binding, or decorative threads; Fabrics incorporating small auxiliary elements, e.g. for decorative purposes ( <a href="#">pile fabrics D04B 21/02</a> ; <a href="#">non-woven fabrics in general D04H</a> )
15/50	. . . for elastic threads	21/145	. . {with stitches drawn from loose fibres, e.g. web-knitted fabrics}
15/52	. . . for straight-bar knitting machines	21/16	. . incorporating synthetic threads
15/54	. . Thread guides	21/165	. . . {with yarns stitched through one or more layers or tows, e.g. stitch-bonded fabrics ( <a href="#">layered products not united by stitch loops B32B 5/22</a> )}
15/56	. . . for flat-bed knitting machines	21/18	. . incorporating elastic threads
15/565	. . . . {Associated thread-clamping or thread-severing devices}	21/20	. specially adapted for knitting articles of particular configuration
15/58	. . . for circular knitting machines; Thread-changing devices	21/202	. . {warp knitted yarns}
15/60	. . . . with thread-clamping or -severing devices	21/205	. . {Elongated tubular articles of small diameter, e.g. coverings or reinforcements for cables or hoses}
15/61	. . . . . arranged within needle circle	21/207	. . {Wearing apparel or garment blanks}
15/62	. . . . with thread knotters	23/00	<b>Flat warp knitting machines</b>
15/64	. . . for straight-bar knitting machines	23/02	. with two sets of needles
15/66	. Devices for determining or controlling patterns {; Programme-control arrangements}	23/04	. with independently-movable knitting needles
15/665	. . {Driving-gear for programme or pattern devices}	23/06	. for producing fabrics consisting of, or incorporating, elastic threads
15/68	. . characterised by the knitting instruments used	23/08	. with provision for incorporating pile threads
15/70	. . . in flat-bed knitting machines	23/10	. for knitting through thread, fleece, or fabric layers, or around elongated core material
15/72	. . . in straight-bar knitting machines	23/12	. with provision for incorporating unlooped wefts extending from selvedge to selvedge
15/74	. . . Pattern drums {( <a href="#">driving-gear therefor D04B 15/665</a> )}	23/14	. with provision for incorporating small auxiliary elements, e.g. for decorative purposes
15/76	. . . Pattern wheels	23/16	. specially adapted for producing fabrics, or article blanks, of particular form or configuration
15/78	. . . Electrical devices	23/18	. . with provision for narrowing or widening
15/80	. . characterised by the thread guides used	23/20	. . for producing stocking blanks
15/82	. . characterised by the needle cams used	23/22	. with special thread-guiding means
15/84	. . Jacquard cards or mechanisms ( <a href="#">stamping apparatus therefor D03C</a> )	23/24	. with cut needle presser arrangements to produce patterns
15/86	. . . in flat-bed knitting machines	25/00	<b>Warp knitting machines not otherwise provided for</b>
15/88	. Take-up or draw-off devices for knitting products	25/02	. Tubular machines
15/885	. . {for straight-bar knitting machines}	25/04	. Milanese machines
15/90	. . for flat-bed knitting machines	25/06	. Galloon crocheting machines
15/92	. . pneumatic	25/08	. . for producing pile fabrics
15/94	. Driving-gear not otherwise provided for	25/10	. . for producing patterned fabrics
15/96	. . in flat-bed knitting machines	25/12	. . . with independently-movable weft-thread guides controlled by Jacquard mechanisms
15/98	. . in straight-bar knitting machines	25/14	. . specially adapted for producing articles of particular configuration
15/99	. . electrically controlled	27/00	<b>Details of, or auxiliary devices incorporated in, warp knitting machines, restricted to machines of this kind (details or auxiliary devices not so restricted <a href="#">D04B 35/00</a>)</b>
<b>Repairing or unravelling knitted fabrics</b>		27/02	. Warp-thread guides
17/00	<b>Repairing knitted fabrics by knitting operations</b>	27/04	. Sinkers
17/02	. by darning	27/06	. Needle bars; Sinker bars
17/04	. by picking-up dropped stitches	27/08	. . Driving devices therefor
19/00	<b>Unravelling knitted fabrics</b>		
<b>Warp knitting; Machines therefor</b>			
21/00	<b>Warp knitting processes for the production of fabrics or articles not dependent on the use of particular machines; Fabrics or articles defined by such processes</b>		
21/02	. Pile fabrics or articles having similar surface features		
21/04	. . characterised by thread material		
21/06	. Patterned fabrics or articles ( <a href="#">open-work fabrics D04B 21/10</a> )		

- 27/10 . Devices for supplying, feeding, or guiding threads to needles
- 27/12 . . Tensioning devices for individual threads
- 27/14 . . Thread tensioning rod arrangements
- 27/16 . . Warp beams; Bearings therefor
- 27/18 . . . Warp beam braking devices for thread tensioning
- 27/20 . . . Warp beam driving devices
- 27/22 . . . . electrically controlled
- 27/24 . . Thread guide bar assemblies
- 27/26 . . . Shogging devices therefor
- 27/28 . . . . with arrangements to reduce the number of members of pattern chains
- 27/30 . . . . with driving-gear comprising force-multiplication devices
- 27/32 . . . with independently-movable thread guides controlled by Jacquard mechanisms
- 27/34 . Take-up or draw-off devices for knitted products
- 27/36 . . with temples

- 37/06 . with warp knitting machines

### **39/00 Miscellaneous knitting processes, apparatus, or machines, not otherwise provided for**

- 39/02 . with work carrier in screw form
- 39/04 . adapted for combined weft and warp knitting
- 39/06 . adapted for combined knitting and weaving
- 39/08 . Sewing machines modified for knitting

### **Crocheting; Apparatus therefor** ([galloon crocheting machines for warp knitting D04B 25/06](#))

#### **31/00 Crocheting processes for the production of fabrics or articles**

- 31/02 . Crocheted strips or threads

#### **33/00 Crocheting tools or apparatus**

#### **35/00 Details of, or auxiliary devices incorporated in, knitting machines, not otherwise provided for**

- 35/02 . Knitting tools or instruments not provided for in group [D04B 15/00](#) or [D04B 27/00](#) ([needle manufacture B21G 1/00](#))
- 35/04 . . Latch needles
- 35/06 . . Sliding-tongue needles
- 35/08 . . Spring or bearded needles
- 35/10 . Indicating, warning, or safety devices, e.g. stop motions
- 35/12 . . responsive to thread consumption
- 35/14 . . responsive to thread breakage
- 35/16 . . . with detectors associated with a series of threads
- 35/18 . . responsive to breakage, misplacement, or malfunctioning of knitting instruments
- 35/20 . . responsive to defects, e.g. holes, in knitted products
- 35/22 . Devices for preparatory treatment of threads
- 35/24 . . by moistening or lubricating
- 35/26 . . by heating
- 35/28 . Devices for lubricating machine parts ([in general F16N](#))
- 35/30 . Devices for controlling temperature of machine parts
- 35/32 . Devices for removing lint or fluff
- 35/34 . Devices for cutting knitted fabrics
- 35/36 . Devices for printing, coating, or napping knitted fabrics
- 37/00 Auxiliary apparatus or devices for use with knitting machines** ([Jacquard cards, pattern chains, apparatus for punching same D03C](#))
- 37/02 . with weft knitting machines
- 37/04 . . for inserting or adjusting pattern pins or like elements in pattern drums or wheels