

## SECTION D — TEXTILES; PAPER

### D03 WEAVING

#### D03D WOVEN FABRICS; METHODS OF WEAVING; LOOMS

##### Note(s)

1. Class D06 takes precedence over this subclass in respect of processes involving both weaving and finishing steps and in respect of the finished fabrics.
2. A method of weaving is classified in the group designating the fabric woven unless the method is characterised by the operation of a particular loom rather than by the production of a particular fabric. In this case, the method is classified in the group for the loom.
3. In this subclass, if there is any doubt as to which of the essential features is the most important (this is usually the most restrictive feature), the groups designating woven fabrics should be considered in the order in which they appear at each level of indentation, except that groups designating woven pile fabrics are to be considered as taking precedence over groups designating other woven fabrics.

##### Subclass index

##### WOVEN FABRICS OR CORRESPONDING WEAVING METHODS

Characterised by: the construction of the yarn or the material; their shape; their resiliency; their elasticity.....	15/00, 3/00, 7/00, 17/00
Kinds of woven fabrics	
open-work fabrics; woven pile fabrics; gauze; lappet- or swivel-woven.....	9/00, 27/00, 19/00, 21/00
with special disposition of warp or weft threads; multi-ply fabrics not otherwise provided for.....	13/00, 11/00
for specified articles.....	1/00
other kinds.....	25/00
Selvages.....	5/00, 47/40
General weaving methods not special to a particular fabric or loom.....	23/00

##### LOOMS OR CORRESPONDING METHODS OF WEAVING

Hand looms.....	29/00
Characterised by the article to be woven: lappet or swivel type for embroidery-like decoration; for narrow ribbon-like fabrics; for pile fabric; other types for other kinds of fabrics.....	31/00, 35/00, 39/00, 41/00
Characterised by their construction: circular; with change-boxes; with automatic weft replenishment; of shuttleless type.....	37/00, 43/00, 45/00, 47/00
Multiple looms.....	33/00
General details and constructional features.....	49/00
Driving; starting, stopping the loom.....	51/00

##### Woven fabrics; Methods of weaving other than those characterised by the operation of a particular loom

##### **1/00 Woven fabrics designed to make specified articles**

- 1/02 • Inflatable articles
- 1/04 • Sack- or bag-like articles
- 1/06 • Curtain heading tapes
- 1/08 • Ladder tapes (ladder tapes for venetian blinds E06B 9/382)

##### **3/00 Woven fabrics characterised by their shape**

- 3/02 • Tubular fabrics
- 3/04 • Endless fabrics
- 3/06 • Fabrics of varying width
- 3/08 • Arched, corrugated, or like fabrics

##### **5/00 Selvages**

##### **7/00 Woven fabrics designed to be resilient, i.e. to recover from compressive stress**

##### **9/00 Open-work fabrics** (ladder-tape fabrics D03D 1/08)

##### **11/00 Double or multi-ply fabrics not otherwise provided for**

- 11/02 • Fabrics formed with pockets, tubes, loops, folds, tucks, or flaps (fabrics for curtain heading tapes D03D 1/06; fabrics consisting of a single tube D03D 3/02)

##### **13/00 Woven fabrics characterised by the special disposition of the warp or weft threads, e.g. with curved weft threads, with discontinuous warp threads, with diagonal warp or weft**

##### **15/00 Woven fabrics characterised by the material or construction of the yarn or other warp or weft elements used**

## D03D

15/02	<ul style="list-style-type: none"><li>the warp or weft elements being of stiff material, e.g. wire, cane, slat</li></ul>	39/14	<ul style="list-style-type: none"><li>Construction of the pile wires, e.g. pile wires which cut</li></ul>
15/04	<ul style="list-style-type: none"><li>woven to produce shapes or effects upon differential shrinkage</li></ul>	39/16	<ul style="list-style-type: none"><li>Double-plush looms, i.e. for weaving two pile fabrics face-to-face</li></ul>
15/06	<ul style="list-style-type: none"><li>using scaffolding threads, i.e. threads removed after weaving</li></ul>	39/18	<ul style="list-style-type: none"><li>Separating the two plush layers, e.g. by cutting</li></ul>
15/08	<ul style="list-style-type: none"><li>using stretchable or elastic threads (woven fabrics whose elastic or stretch properties are due to the manner of weaving D03D 17/00)</li></ul>	39/20	<ul style="list-style-type: none"><li>Looms forming pile over warpwise wires</li></ul>
15/10	<ul style="list-style-type: none"><li>using threads having high or low coefficients of friction</li></ul>	39/22	<ul style="list-style-type: none"><li>Terry looms</li></ul>
15/12	<ul style="list-style-type: none"><li>using heat-resistant or fireproof threads</li></ul>	39/24	<ul style="list-style-type: none"><li>Devices for cutting the pile on the loom (pile wires which cut D03D 39/14; separating two plush layers D03D 39/18)</li></ul>
17/00	<b>Woven fabrics having elastic or stretch properties due to manner of weaving</b> (fabrics using stretchable or elastic threads D03D 15/08)	41/00	<b>Looms not otherwise provided for, e.g. for weaving chenille yarn; Details peculiar to these looms</b>
19/00	<b>Gauze or leno-woven fabrics</b>	43/00	<b>Looms with change-boxes</b>
21/00	<b>Lappet- or swivel-woven fabrics</b>	43/02	<ul style="list-style-type: none"><li>with drop boxes</li></ul>
23/00	<b>General weaving methods not special to the production of any particular woven fabric or the use of any particular loom; Weaves not provided for in any other single group</b>	43/04	<ul style="list-style-type: none"><li>Operating mechanisms</li></ul>
25/00	<b>Woven fabrics not otherwise provided for</b>	43/06	<ul style="list-style-type: none"><li>with rotary boxes</li></ul>
27/00	<b>Woven pile fabrics</b>	43/08	<ul style="list-style-type: none"><li>Operating mechanisms</li></ul>
27/02	<ul style="list-style-type: none"><li>wherein the pile is formed by warp or weft</li></ul>	43/10	<ul style="list-style-type: none"><li>Weft catchers, i.e. means for preventing entanglement of wefts</li></ul>
27/04	<ul style="list-style-type: none"><li>Weft pile fabrics</li></ul>	45/00	<b>Looms with automatic weft replenishment</b> (automatic replenishment in smallware looms D03D 35/00, in circular looms D03D 37/00; bobbins rewound on loom D03J 1/12)
27/06	<ul style="list-style-type: none"><li>Warp pile fabrics</li></ul>	45/02	<ul style="list-style-type: none"><li>Controlling replenishment</li></ul>
27/08	<ul style="list-style-type: none"><li>Terry fabrics</li></ul>	45/04	<ul style="list-style-type: none"><li>Pirn feelers or other detectors for initiating replenishment (weft stop motions D03D 51/34)</li></ul>
27/10	<ul style="list-style-type: none"><li>Fabrics woven face-to-face, e.g. double velvet</li></ul>	45/06	<ul style="list-style-type: none"><li>mechanical</li></ul>
27/12	<ul style="list-style-type: none"><li>wherein pile tufts are inserted during weaving</li></ul>	45/08	<ul style="list-style-type: none"><li>of the side-slip type</li></ul>
27/14	<ul style="list-style-type: none"><li>with tufts around warps</li></ul>	45/10	<ul style="list-style-type: none"><li>electrical</li></ul>
27/16	<ul style="list-style-type: none"><li>with tufts around wefts</li></ul>	45/12	<ul style="list-style-type: none"><li>optical</li></ul>
27/18	<ul style="list-style-type: none"><li>Chenille fabrics</li></ul>	45/14	<ul style="list-style-type: none"><li>Storing the need for replenishment or the colour required until the spent shuttle returns to the replenishing end of the loom</li></ul>
<b><u>Looms; Methods of weaving characterised by the operation of particular looms</u></b>		45/16	<ul style="list-style-type: none"><li>selecting thereby weft of correct colour</li></ul>
29/00	<b>Hand looms</b>	45/18	<ul style="list-style-type: none"><li>Shuttle feelers or other devices for preventing replenishment if shuttle is incorrectly positioned in shuttle box (shuttle stop motions D03D 51/40)</li></ul>
31/00	<b>Lappet, swivel or other looms for forming embroidery-like decoration on fabrics</b>	45/20	<ul style="list-style-type: none"><li>Changing bobbins, cops, or other shuttle stock</li></ul>
33/00	<b>Multiple looms, i.e. two or more looms assembled together, whether or not they have mechanisms in common</b> (D03D 35/00 takes precedence)	45/22	<ul style="list-style-type: none"><li>effected with shuttle in normal shuttle box</li></ul>
35/00	<b>Smallware looms, i.e. looms for weaving ribbons or other narrow fabrics</b> (D03D 47/00 takes precedence)	45/24	<ul style="list-style-type: none"><li>effected otherwise than in normal box</li></ul>
37/00	<b>Circular looms</b> (looms for weaving separate fabrics disposed in a circle or polygon D03D 33/00)	45/26	<ul style="list-style-type: none"><li>Magazines</li></ul>
39/00	<b>Pile-fabric looms</b>	45/28	<ul style="list-style-type: none"><li>for one type of thread, e.g. same colour</li></ul>
39/02	<ul style="list-style-type: none"><li>Axminster looms, i.e. wherein pile tufts are inserted during weaving</li></ul>	45/30	<ul style="list-style-type: none"><li>rotary</li></ul>
39/04	<ul style="list-style-type: none"><li>Spool Axminster looms</li></ul>	45/32	<ul style="list-style-type: none"><li>for several types of thread, e.g. multicolour</li></ul>
39/06	<ul style="list-style-type: none"><li>Tuft yarn tube or spool frames</li></ul>	45/34	<ul style="list-style-type: none"><li>Shuttle changing</li></ul>
39/08	<ul style="list-style-type: none"><li>Gripper Axminster looms</li></ul>	45/36	<ul style="list-style-type: none"><li>fresh shuttle being substituted for spent shuttle in the same cell of shuttle box</li></ul>
39/10	<ul style="list-style-type: none"><li>Wire-tapestry looms, e.g. for weaving velvet or Brussels or Wilton carpets, the pile being formed over weftwise wires</li></ul>	45/38	<ul style="list-style-type: none"><li>Shuttle box with an extra cell which is used only during replenishment</li></ul>
39/12	<ul style="list-style-type: none"><li>Mechanisms for operating the pile wires</li></ul>	45/40	<ul style="list-style-type: none"><li>the spent shuttle being received in the normal cell and the fresh shuttle being picked from the extra cell</li></ul>
		45/42	<ul style="list-style-type: none"><li>the spent shuttle being received in the extra cell and the fresh shuttle being picked from the normal cell</li></ul>
		45/44	<ul style="list-style-type: none"><li>Magazines</li></ul>
		45/46	<ul style="list-style-type: none"><li>for one type of thread, e.g. single colour</li></ul>
		45/48	<ul style="list-style-type: none"><li>for several types of threads, e.g. multicolour</li></ul>
		45/50	<ul style="list-style-type: none"><li>Cutting, holding, manipulating, or disposing of, weft ends</li></ul>
		45/52	<ul style="list-style-type: none"><li>Cutting weft of depleted shuttle near shuttle and holding the piece attached to the fabric</li></ul>

- 45/54 • • Cutting fresh weft and holding the piece attached to the fabric
- 45/56 • • Cutting depleted and fresh wefts at selvedge
- 45/58 • • Removing tip bunch or fresh weft end from fresh bobbin
- 45/60 • • • substantially by air stream or suction
- 45/62 • • Disposing of waste pieces of cut weft end (D03D 45/58 takes precedence)
- 47/00 Looms in which bulk supply of weft does not pass through shed, e.g. shuttleless looms, gripper shuttle looms, dummy shuttle looms (circular looms D03D 37/00)**
- 47/02 • wherein loops of continuous weft thread are inserted, i.e. double picks (D03D 47/27 takes precedence) [3]
- 47/04 • • by a reciprocating needle having a permanently-threaded eye
- 47/06 • • by a pivoted having a permanently-threaded eye
- 47/08 • • • the path of the needle being modified by cams, linkages, or other means
- 47/10 • • by a forked needle pushing loop of weft through shed
- 47/12 • wherein single picks of weft thread are inserted, i.e. with shedding between each pick (D03D 47/27 takes precedence) [3]
- 47/14 • • by a gripper needle taking the end of the weft through the shed
- 47/16 • • by a gripper needle entering the shed empty and drawing the weft as it retracts
- 47/18 • • two weft inserters meeting at or near the middle of the shed and transferring the weft from one to the other
- 47/20 • • Constructional features of the thread-engaging device on the inserters
- 47/22 • • • adapted for working a loop of weft part-way inserted in the shed and then straightened-out
- 47/23 • • • Thread grippers (in dummy or gripper shuttles D03J 5/06) [3]
- 47/24 • • by gripper or dummy shuttle (travelling-wave-shed looms D03D 47/26; inserting mechanisms for shuttles D03D 49/24; gripper or dummy shuttles per se D03J 5/06)
- 47/25 • • • inserted from only one side of loom [3]
- 47/26 • • Travelling-wave-shed looms
- 47/27 • Drive or guide mechanisms for weft inserting [3]
- 47/28 • wherein the weft itself is projected into the shed
- 47/30 • • by gas jet
- 47/32 • • by liquid jet
- 47/34 • Handling the weft between bulk storage and weft-inserting means
- 47/36 • • Measuring and cutting the weft
- 47/38 • • Weft pattern mechanisms
- 47/39 • wherein cane, straw, slats, material for hair-cloth or similar material is handled [3]
- 47/40 • Forming selvedges
- 47/42 • • by knitting or interlacing loops of weft
- 47/44 • • • with additional selvedge thread
- 47/46 • • by selvedge shuttle or other device passing selvedge thread through loop of weft (by knitting D03D 47/44)
- 47/48 • • by inserting cut end of weft in next shed, e.g. by tucking, by blowing
- 47/50 • • by adhesion
- 49/00 Details or constructional features not peculiar to looms of a particular type (temples D03J 1/22)**
- 49/02 • Construction of loom framework
- 49/04 • Control of the tension in warp or cloth
- 49/06 • • Warp let-off mechanisms (construction of warp beam D02H)
- 49/08 • • • Warp beam brakes
- 49/10 • • • Driving the warp beam to let the warp off
- 49/12 • • Controlling warp tension by means other than let-off mechanisms
- 49/14 • • • Compensating for tension differences during shedding
- 49/16 • • • Warp supplied by creel
- 49/18 • • Devices for indicating warp tension (measuring tension of threads in general G01L 5/04)
- 49/20 • • Take-up motions; Cloth beams (storage racks for beams D02H)
- 49/22 • • Back rests; Lease rods; Brest beams
- 49/24 • Mechanisms for inserting shuttle in shed (shuttles per se D03J 5/00)
- 49/26 • • Picking mechanisms, e.g. for propelling gripper shuttles or dummy shuttles
- 49/28 • • • Driving mechanisms for the picker stick
- 49/30 • • • • operated by cam
- 49/32 • • • • operated by previously-loaded spring or equivalent
- 49/34 • • • • operated by liquid or gas pressure
- 49/36 • • • Pickers; Arresting means therefor (check straps D03D 49/40)
- 49/38 • • • Picking sticks; Arresting means therefor (check straps D03D 49/40)
- 49/40 • • • Check straps; Lug straps; Similar strap components
- 49/42 • • whereby the shuttle is propelled by liquid or gas pressure
- 49/44 • • whereby the shuttle is propelled by electric or magnetic means
- 49/46 • • wherein the shuttle is pushed or pulled positively (travelling-wave-shed type looms D03D 47/26)
- 49/48 • • positioning shuttle in readiness for picking
- 49/50 • • Devices or arrangements concerning insertion of the weft, not otherwise provided for
- 49/52 • Shuttle boxes (change-boxes D03D 43/00)
- 49/54 • • Braking means; Swells
- 49/56 • • • Shuttle relief mechanisms, i.e. reducing shuttle swell pressure before picking
- 49/58 • Shuttle guards
- 49/60 • Construction or operation of slay
- 49/62 • • Reeds mounted on slay
- 49/64 • • wherein the slay dwells or moves slowly while the weft is being inserted
- 49/66 • • Shuttle races
- 49/68 • Reeds or beat-up combs not mounted on the slay (loose reed stop motion D03D 51/42)
- 49/70 • Devices for cutting weft threads (cutting weft in looms with automatic weft replenishment D03D 45/50; apparatus for slitting fabric D03J 1/08)
- 51/00 Driving, starting, or stopping arrangements; Automatic stop motions**
- 51/02 • General arrangements of driving mechanism
- 51/04 • Manual controls
- 51/06 • using particular methods of stopping
- 51/08 • • stopping at definite point in weaving cycle, or moving to such point after stopping
- 51/10 • • stopping suddenly
- 51/12 • for adjusting speed
- 51/14 • for reducing speed temporarily
- 51/16 • for varying speed cyclically

## D03D

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|-------|--|-------|--|
| 51/18 | • Automatic stop motions   | 51/32 | • • • • Detector healds                              |
| 51/20 | • • Warp stop motions  | 51/34 | • • Weft stop motions                                |
| 51/22 | • • • mechanical   | 51/36 | • • • Centre weft forks                              |
| 51/24 | • • • • wherein droppers are suspended on individual warp threads or small groups of threads | 51/38 | • • • Side weft forks                                |
| 51/26 | • • • • Detector healds  | 51/40 | • • Shuttle stop motions                             |
| 51/28 | • • • electrical   | 51/42 | • • • Loose reed mechanisms                          |
| 51/30 | • • • • wherein droppers are suspended on individual warp threads or small groups of threads | 51/44 | • • acting on defective operation of loom mechanisms |
|       |  | 51/46 | • • • of shedding mechanisms                         |