

D02 YARNS; MECHANICAL FINISHING OF YARNS OR ROPES; WARPING OR BEAMING**Note**

In this class, the following terms are used with the meanings indicated:

- “fibre” means a relatively-short, elongated member of natural or artificial material;
- “filament” means an endless or quasi-endless, elongated member of natural or artificial material;
- “yarn” means a unitary assembly of fibres, usually produced by spinning;
- “thread” means an assembly of yarns or filaments, usually produced by twisting.

D02G CRIMPING OR CURLING FIBRES, FILAMENTS, YARNS, OR THREADS; YARNS OR THREADS**Note**

Attention is drawn to the Note following the title of class D02.

1/00	Producing crimped or curled fibres, filaments, yarns, or threads, giving them latent characteristics (yarns <i>per se</i> D02G 3/00; during formation of artificial filaments, threads, or the like D01D 5/22; general aspects of chemical treatment D06M)	3/10	. . Yarns or threads formed from collagenous materials, e.g. catgut
		3/12	. . Threads containing metallic filaments or strips
		3/14	. . Horse-hair threads
1/02	. by twisting, fixing the twist and backtwisting, i.e. by imparting false twist	3/16	. . Yarns or threads made from mineral substances
1/04	. . Devices for imparting false twist	3/18	. . . from glass or the like
1/06	. . . Spindles	3/20	. . . from asbestos
1/08	. . . Rollers	3/22	. Yarns or threads characterised by constructional features
1/10	. using knife edges, e.g. heated knife edges, for edge crimping	3/24	. . Bulkied yarns or threads, e.g. formed from staple fibre components with different relaxation characteristics
1/12	. using stuffer boxes	3/26	. . with characteristics dependent on the amount or direction of twist
1/14	. using grooved rollers or gear-wheel-type members	3/28	. . . Doubled, plied, or cabled threads
1/16	. using jets or streams of turbulent gases, e.g. air, steam	3/30	. . . Crêped or other highly-twisted yarns or threads
1/18	. by combining fibres, filaments, or yarns, having different shrinkage characteristics	3/32	. . Elastic yarns or threads
1/20	. Combinations of two or more of the above-mentioned operations or devices; After-treatments for fixing crimp or curl	3/34	. . Yarns or threads having slubs, knops, spirals, loops, tufts, or other irregular or decorative effects, i.e. effect yarns
3/00	Yarns or threads, e.g. fancy yarns; Processes or apparatus for the production thereof, not otherwise provided for (for producing crimped or curled yarns D02G 1/00)	3/36	. . Cored or coated yarns or threads (elastic yarns or threads D02G 3/32)
3/02	. Yarns or threads characterised by the material or by the materials from which they are made	3/38	. . Threads in which fibres, filaments, or yarns are wound with other yarns or filaments (covering endless core threads with fibres by using open-end spinning techniques D01H 4/00)
3/04	. . Blended or other yarns or threads containing components made from different materials	3/40	. . Yarns in which fibres are united by adhesives; Impregnated yarns or threads
3/06	. . Threads formed from strip material other than paper	3/42	. . Chenille threads
3/08	. . Paper yarns or threads	3/44	. Yarns or threads characterised by the purpose for which they are designed
		3/46	. . Sewing-cottons or the like
		3/48	. . Tyre cords

D02H WARPING, BEAMING, OR LEASING**Note**

Attention is drawn to the Note following the title of class D02.

Subclass index

CREELS	1/00	LEASING	9/00
WARPING; BEAMING; WARPING AND		OTHER MACHINES AND METHODS.....	11/00
BEAMING COMBINED	3/00; 5/00; 7/00	DETAILS OF MACHINES	13/00

1/00	Creels, i.e. apparatus for supplying a multiplicity of individual threads	13/08	. . . electrical
		13/10	. . responsive to thread-measuring devices, e.g. stopping the machine when required length of warp has been wound
3/00	Warping machines		
5/00	Beaming machines	13/12	. Variable-speed driving mechanisms
5/02	. combined with apparatus for sizing or other treatment of warps (sizing <u>per se</u> D06B)	13/14	. . controlled automatically by tension in the warp
		13/16	. Reeds, combs, or other devices for determining the spacing of threads
7/00	Combined warping and beaming machines	13/18	. . with adjustable spacing
9/00	Leasing	13/20	. . with fixed spacing
9/02	. Lease rods or bands	13/22	. Tensioning devices
		13/24	. . for individual threads
11/00	Methods or apparatus not provided for in groups D02H 1/00 to D02H 9/00, e.g. for cleaning the warp	13/26	. . for threads in warp form (controlling the driving of beams, or the like, to keep tension constant D02H 13/14)
13/00	Details of machines of the other groups of this subclass	13/28	. Warp beams (cloth beams D03D 49/20)
13/02	. Stop motions	13/30	. . with flanges
13/04	. . responsive to breakage, slackness, or excessive tension of threads, with detectors for individual threads or small groups of threads	13/32	. . . adjustable
		13/34	. . sectional
		13/36	. . Means for attaching warp to beam
13/06	. . . mechanical	13/38	. Storage racks for beams

D02J FINISHING OR DRESSING OF FILAMENTS, YARNS, THREADS, CORDS, ROPES, OR THE LIKE (curling or crimping D02G; by treatment with liquids, gases or vapours D06B; finishing other than by liquid treatment, of yarns in warp or sheet form D06C; for chemical matters, see D06L, D06M, D06P, D06Q; treatment during rope-making, apparatus for treating ropes auxiliary to rope-making D07B)

Note

Attention is drawn to the Note following the title of class D02.

Subclass index

MODIFYING THE STRUCTURE, FORM, OR SURFACE	1/00, 3/00	COMBINATIONS OF ABOVE PROCESSES NOT COVERED BY ONE SINGLE GROUP	11/00
REMOVING UNDESIRABLE BODIES	7/00	HEATING OR COOLING OPERATIONS NOT SPECIFIC TO ONE OF THE ABOVE PROCESSES	13/00

1/00	Modifying the structure or properties resulting from a particular structure; Modifying, retaining, or restoring the physical form or cross-sectional shape, e.g. by use of dies or squeeze rollers (modifying only the surface D02J 3/00)	1/06	. Imparting irregularity, e.g. slubbing or other non-uniform features, e.g. high- and low-shrinkage or strengthened and weakened sections
		1/08	. Interlacing constituent filaments without breakage thereof, e.g. by use of turbulent air streams
1/02	. Bulking, e.g. looping (by crimping, by curling D02G)	1/12	. Modifying stretch/bulk properties of textured yarns or the like by after-treatment
1/04	. Compacting	1/14	. Rendering uniform or evening non-uniform features

1/16	• Rubbing or similar working, e.g. to redistribute or remove fibres	3/16	• . . by singeing
1/18	• Separating or spreading	3/18	• Treating with particulate, semi-solid, or solid substances, e.g. wax (during package formation B65H 71/00; waxing yarns or the like as incidental measures during spinning or twisting D01H 13/30)
1/20	• Stressing or stress-relieving, e.g. by vibration or subjection to electrostatic stress or electric discharge		
1/22	• Stretching or tensioning, shrinking or relaxing, e.g. by use of overfeed and underfeed apparatus, or preventing stretch (stretch spinning D01D 5/12)	7/00	Cleaning, e.g. removing dust, loose fibres, charred ends (in combination with the shearing, singeing, or otherwise removing of projecting fibre ends D02J 3/12, D02J 3/14, D02J 3/16)
3/00	Modifying the surface	11/00	Combinations, not covered by any one of groups D02J 1/00 to D02J 7/00, of processes provided for in such groups; Plant for carrying-out such combinations of processes
3/02	• by abrading, scraping, scuffing, cutting, or nicking (preliminary roughening of fibres, e.g. for spinning, D01G 3/00)	13/00	Heating or cooling the yarn, thread, cord, rope, or the like, not specific to any one of the processes provided for in this subclass (heating, cooling, or drying during spinning or twisting D01H; drying of yarns, or the like, in general F26B)
3/04	• by brushing		
3/06	• by polishing, e.g. glazing, glossing		
3/08	• . . by compressing, e.g. by calendering or ironing		
3/10	• by indenting		
3/12	• by removing projecting ends of fibres		
3/14	• . . by shearing		