

76 Spinning

76a	Washing of wool
76b	Preparation for spinning
76c	Spinning and twisting
76d	Winding, making-up and packing of yarns

76a	Washing of wool
76a-1	Circular washing machines for wool
76a-2	Longitudinal washing machines for wool
76a-3	Equipment for dry cleaning of wool (feeding of fibre materials in general into liquids 8a-3; chemical laundry 8a-5; passing of fibre materials through liquids in general 8a-7; treatment in open or closed vessels, and in centrifugal apparatus 8a-17 – 8a-19)
76a-4	Details of wool washing, except 76a-1 – 76a-3
76b	Preparation for spinning (hackling machines 29a)
	Tearing and opening machines
76b-1/01	Rag tearing machines and rag cutters, cleaning machines for fabric waste (55a-7)
76b-1/02	Details of rag tearing machines, etc., e.g. lagging
76b-2/01	Openers: drum, beater and disk openers, cleaning machines for spun fibres and fibre waste (56a-2)
76b-2/02	Shaking machines
76b-3/01	Scutchers
76b-3/02	Rapid-operation cards
76b-4	Burr crushers and other burr removing devices
76b-5	Carding willows
76b-6/01	Softening and weighting of spun fibres, mechanical section (spinning oils 23c-1; chemical treatment 29b-5)
76b-6/02	Roughening of spinnable fibres, mechanical section (chemical treatment 29b-5)
76b-7/01	Feeding devices for spinnable fibres in machines for preparation for spinning
76b-7/02	Automatic feeders
	Carding engines and accessories
76b-8	Carding engines of special construction
76b-9	Roller cards
76b-10	Flat cards
76b-11	Spinning cards
76b-12	Special cards for fancy fabrics, flake yarns, etc.
76b-13	Fleece folders and ribbon folders
76b-14/01	Fleece winder and lap breakers
76b-14/02	Preparation of wadding, also from paper stuff by means of carding machines (55f-12/20)
76b-15/01	Card clothing for carding machines (manufacture 7d-9; hardening 18c-2/22)
76b-15/02	Card fastening
76b-16/01	Cleaners
76b-16/02	Card grinders for use while working (67a-30)
76b-17	Fancy covers and other card covers
76b-18	Drives and disengaging devices for carding machines
76b-19	Details for carding machines, except 76b-13 – 76b-18
76b-20/01	Delivery devices for slivers in machines for preparation for spinning

- 76b-20/02 Spinning boxes
- Web dividers and rubbing apparatus**
- 76b-21 Web dividers for carding machines, general
- 76b-22 Steel tape dividers for carding machines
- 76b-23 Leather tape dividers for carding machines
- 76b-24 Rubbing apparatus for web dividers and drawing frames
- 76b-25 Details for web dividers, e.g. roving rolls, bobbin bearings
- Drawing frames** (drawing frames for spinning machines 76c-12/01, 76c-12/02)
- 76b-26 Gill boxes for wool and cotton
- 76b-27/01 Drawing rollers, also with guide bands, for wool and cotton (76c-12/01, 76c-12/02)
- 76b-27/02 Porcupine drawing frames
- 76b-28 Drawing frames for bast fibres
- 76b-29/01 General details of drawing frames, e.g. sliver funnels (76c-12/10), fallers, porcupine rollers
- 76b-29/02 Rollers and their manufacture, also weighting devices for pressure rollers of drawing frames (76c-12/05; 76c-12/08)
- 76b-29/03 Adjustment devices for drawing frames (76c-17/01; 76c-17/11)
- 76b-29/04 Measuring devices, e.g. for measuring the roller gap and the length of staple (76c-30/10)
- 76b-29/10 Backwashers
- Combers**
- 76b-30 Rectilinear combers, Heilman, Nasmith types
- 76b-31 Circular combers, Noble type, etc.
- 76b-32 Multiple head combers
- 76b-33 Special combers
- 76b-34 Details of combers
- 76b-35/01 Cleaning of spinning-preparation machines, e.g. cleaner rollers, waste removal (76c-30/04)
- 76b-35/05 Mechanical and pneumatic card clothing strippers
- 76b-36/01 Feeding devices for fibres
- 76b-36/02 Grates and dust boxes for openers, cards, etc.
- 76b-37 Special spinning-preparation processes and manufacturing products of spinning preparation from special fibre material, e.g. peat, nettles and mixtures
- 76c Spinning and twisting**
- 76c-1 Roving frames [flyers]
- 76c-2/01 Flyer spinning frames and fly twisters, general
- 76c-2/03 Flyer frames and fly twisters of special construction, e.g. flyer ring spinning frames and fly twisters
- 76c-3/01 Flyers, in general, for spinning and twisting machines
- 76c-3/02 Suspended flyers for spinning and twisting machines
- 76c-3/03 Flyers for spinning preparation
- 76c-4/01 Doubling and twisting spindles in general (76c-25)
- 76c-4/02 Double-twist and multiple-twist twisting spindles
- 76c-5 Ring spinning frames and ring twisters in general
- 76c-6/01 Rings and travellers for spinning and twisting frames, in general
- 76c-6/04 Rings and travellers with lubricating devices
- 76c-6/05 Devices for mounting and dismantling of travellers; receptacles for travellers
- 76c-7/01 Spinning frames for carded yarns, revolving tubes
- 76c-7/02 Rotary heads for spinning and twisting frames

76c-8	Cap spinning frames, can spinning frames for stretchable slubbing (29a-6/14)
76c-9	Spinning and twisting frames for fancy yarns and fancy twist
76c-10/01	Yarn guides for spinning and twisting frames (29a-6/15; 76d-6)
76c-10/05	Yarn cleaners for spinning and twisting frames (76d-20/01)
76c-10/06	Yarn brakes for spinning and twisting frames (76d-7/01)
76c-11	Yarn catchers and protectors for spinning and twisting frames, anti-ballooning devices
76c-12/01	Clamping drawing frames in general
76c-12/02	Continuous drawing frames in general
76c-12/05	Drawing frame rollers (76b-29/02)
76c-12/08	Drawing frame rollers, weighting: saddles, weighting bars (76b-29/02)
76c-12/10	Traverse guides for drawing frames (76b-29/01)
76c-12/11	Delivery devices for twisters
76c-13/01	Drives for spinning frames and twisters, in general (47d-10; 47d-11; electric drive structures 21c, 21d1, 47)
76c-13/02	Spinning regulators
76c-13/03	Drives for spindles of spinning frames and twisters, in general: belt and band drives including tensioning devices, driving drums, spindle driving bands
76c-13/08	Spinning frame and twister drives through gears and wheel disks
76c-13/09	Individual drives for spindles of spinning frames and twisters
76c-14	Spindle brakes for spinning frames and twisters
76c-15	Bobbin brakes for spinning frames and twisters
76c-16/01	Winding devices and regulators for spinning frames and twisters
76c-16/05	Regulating devices for the tension of yarn in spinning frames and twisters (76d-7/02)
76c-17/01	Devices for stopping spinning frames and twisters, especially in case of yarn breaking (76b-29/03; 76d-8)
76c-17/04	Devices for stopping delivery rolls, especially in case of yarn breaking
76c-17/07	Devices for gripping, tearing or cutting off the yarn or roving, especially in case of yarn breaking
76c-17/10	Devices for lateral guiding of yarn out of delivery rolls, especially in case of yarn breaking
76c-17/11	Electric stopping devices for spinning frames and twisters, especially in case of yarn breaking (76b-29/03)
76c-18	Devices for stopping spindles of spinning frames and twisters, especially in case of yarn breaking (76d-10)
76c-19	Feeding bobbins and spindles for spinning frames and twisters; tension regulators for feeding bobbins (76d-7/02)
76c-20/01	Mules in general
76c-20/04	Carriages and carriage movement
76c-20/05	Spindle drive for mules
76c-20/06	Delivery devices and drawing frames for mules
76c-20/07	Twist control for mules
76c-20/08	Engaging and disengaging devices for mules
76c-21/01	Yarn catchers and protectors for mules
76c-21/02	Yarn cleaners for mules
76c-22	Winding devices for mules
76c-23	Winding control for mules
76c-24/01	Spinning frames and twisters of various types
76c-24/05	Cap spinning frames and twisters
76c-24/06	Double twisters
76c-24/07	Twistors with special winding devices
76c-25	Spindles, spindle bearings, spindle lubrication
76c-26/01	Bobbin changing devices for spinning frames and twisters

- 76c-26/05 Bobbin rail changing devices for spinning frames and twisters, e.g. revolving bobbin rails
- 76c-26/08 Bobbin sorting devices
- 76c-27 Devices for moistening and impregnating in spinning frames and twisters, wet spinning
- 76c-28/01 Spinning of horsehair and the like
- 76c-28/50 Formation of silk threads
- 76c-29 Preparation of paper yarn
- 76c-30/01 Bobbins for spinning frames and twisters (29a-6/13; 76d-17; 86g-7)
- 76c-30/02 Bobbin carriers [holders] for spinning frames and twisters (29a-6/13; 76d-18)
- 76c-30/04 Cleaning devices for spinning frames and twisters, e.g. cleaner rollers (76b-35/01)
- 76c-30/10 Special devices for spinning frames and twisters: protective devices, aligning devices, counters, measuring and signalling devices
- 76c-31 Yarn types for spinning and twisting

76d Winding, making-up and packing of yarns

Winding machines, in general

- 76d-1 Disk winders
- 76d-2 Cross winders
- 76d-3/01 Cone winders
- 76d-3/02 Winders for winding bobbins with cone-shaped ends
- 76d-4/01 Cop winders
- 76d-4/02 Bottle bobbin winders
- 76d-5/01 Automatic winders, in general
- 76d-5/02 Automatic winders for winding embroidery machine bobbins and sewing thread bobbins

Winder elements

- 76d-6 Thread guiding for winders (29a-6/15; 76c-10/01)
- 76d-7/01 Thread tensioning device for winders
- 76d-7/02 Adjusting mechanisms for thread tension and winding-off devices in winders (76c-16/05)
- 76d-8 Disengaging devices for bobbins in winders on breakdown in the winding process: yarn breaking, entangling (76c-17/01; 76c-17/11)
- 76d-9 Disengaging devices for wound bobbins in winders (76d-8)
- 76d-10 Disengaging devices for spindles in winders (76d-8)
- 76d-11 Details of winders, except 76d-6 – 76d-10, e.g. frames, bearings, wharves

Special yarn winders

- 76d-12 Winders for winding of star spools
- 76d-13 Balling machines and yarn balls, also for harvester-binders

Yarn reels and swifts

- 76d-14 Yarn reels (29a-6/13)
- 76d-15 Yarn swifts
- 76d-16 Skein winding devices for yarn reels
- 76d-17 Bobbins and tubes for winders (29a-6/13; 76c-30/01; 86g-7/15; 86g-7/20; for wet treatment of yarn 8a-36; manufacture of paper bobbins 54c-4)
- 76d-18 Bobbin holders for winders (76c-30/02; 29a-6/13)
- 76d-19 Measuring devices for winders and reels
- 76d-20/01 Thread cleaners for winders and reels (76c-10/05; 86a-2)
- 76d-20/02 Sizing, paraffining and oiling devices for winders and reels (76c-27; sizing of yarn, general 8a-25, 8a-26)
- 76d-21/01 Miscellaneous winding devices, e.g. for hanks, tatting shuttles
- 76d-21/02 Devices for making up and packing yarns on winders (8f-13/13 – 8f-13/15)