

**86 Weaving industry**

- 
- 86a Preparatory machines for the weaving industry**
- 86b Shedding apparatus, dobby and Jacquard machines**
- 86c Weaving of cloth without pile**
- 86d Pile, velvet, plush, and chenille weaving**
- 86e Reed weaving, straw and wood weaving**
- 86f Wire weaving**
- 86g Weaving tools and implements**
- 86h Auxiliary machines for the weaving industry: pattern and card manufacturing, etc., reading-in devices, twisting and warp drawing-in devices**
- 
- 86a Preparatory machines for the weaving industry**
- Preparation of the warp**
- 86a-1/01 Warping machines, warpers and beam warping machines (disk winding machines 76d-1)
- 86a-1/02 Thread separators: wraiths, expanding combs, wraith driving devices (reeds 86g-1)
- 86a-1/03 Devices for thread tensioning, and for stopping of the machine during warping and beaming (76d-7/01; 76d-7/02)
- 86a-1/04 Bobbin frames for warping and beaming machines (76d-18)
- 86a-2 Cleaning and dressing of the warp (76d-20/01)
- Preparation of the weft**
- 86a-3 Wetting of the weft, pressing and mounting of the weft bobbins, cleaning of the weft tubes and other preparatory processes (weft-bobbin winding machines 76d-4/01)
- 86b Shedding apparatus, dobby and Jacquard machines**
- 86b-1 Shedding means of miscellaneous kinds, excluding dobby and Jacquard machines, return motions (heddle left motions 86g-4)
- Dobby machines: arrangement of looms, drives, structures, e.g. open shed, closed shed, gear dobby machines**
- 86b-2 Single lift dobby machines, gear dobby machines
- 86b-3 Double lift dobby machines
- Components of dobby machines**
- 86b-4/01 Knives, knife motions, griffs
- 86b-4/02 Hooks, shed levelling machines
- 86b-4/03 Needles, needle devices, needle boards
- 86b-4/04 Cylinders, cylinder supports, cylinder motions, card motion reversing, card saving motions
- 86b-4/10 Harness and heddle stop motions
- Jacquard machines: arrangement of loom, drives, structures**
- 86b-5 Single lift Jacquard machines
- 86b-6 Double lift Jacquard machines
- 86b-7 Damask Jacquard machines
- 86b-8 Double shed Jacquard machines
- 86b-9 Double velvet Jacquard machines

**Components of jacquard machines**

86b-10/01	Knives, griffs, griff motions, knife turning devices
86b-10/02	Hooks, bottom boards, stripper grids
86b-10/03	Needles, needle boards
86b-10/04	Cylinders, cylinder drives, cylinder supports, multiple cylinders
86b-10/05	Card saving motions, card motion reversing
86b-10/06	Card chains, card stop motions
86b-10/07	Comber boards
86b-10/08	Harnesses, lingoos, hooking devices, cross hooks
86b-11	Electrically controlled dobby and Jacquard machines
86b-12	Dobby and Jacquard machines with vertical needle apparatus

**86c Weaving of cloth without pile****General**

86c-1/01	Fabrics: Bead cloth, moiré, gobelin; weaving processes of general character; weaves: double weave, reinforced weave
86c-1/10	Double weave
86c-1/15	Ribbon (25c-5)
86c-1/20	Weaving material for warp and weft: asbestos, artificial silk, cloth strips, braided fabrics, quill, etc.

**Special fabrics, processes and devices for their production**

86c-1/30	Figured fabrics
86c-1/31	Fabrics for linen, e.g.: collars, cuffs (3a-4; 3a1-3/00; 3a1-7/00)
86c-1/32	Paper yarn fabrics
86c-1/33	Elastic fabrics: rubber fabrics, naturally elastic fabrics
86c-1/34	Reinforcing fabrics (horsehair weaving looms 86c-15)
86c-2	Belt fabrics (86c-14; of wire 86f, 47d-3, 47d-4)
86c-3/01	Hose and sack fabrics, temples for fabrics, multiple width fabrics
86c-3/05	Endless fabrics
86c-4	Fabrics for wheel tyres (63e-4)
86c-5	Fabrics with curvilinear warp threads
86c-6	Gobelin weaving
86c-7	Gauze and leno weaves: harnesses, reeds, standards and doups

**Weaving looms and components, except 86c-2 – 86c-7**

86c-8/01	Hand looms
86c-8/05	Darning apparatus, when means for shedding and weft insertion are provided (by sewing, 52a-30; by adhesive bouching 3d-8/09)
86c-9	Semi-mechanical looms
86c-10/01	Ribbon looms, general batten drives and structures (ribbon loom shuttles 86g-8/01), processes
86c-10/02	Shuttle drives, stick shuttles, warp protectors, shuttle detectors
86c-10/05	Bobbin change
86c-10/10	Shedding devices, warp stop motions
86c-10/20	Fabric winding devices, warp tensioning devices, stripping devices
86c-11	Swivel looms
86c-12	Looms for simultaneous weaving of adjacent or superposed fabrics
86c-13/01	Listing [selvage] devices, edging-off devices, weft thread tensioning devices
86c-13/05	Devices for manufacturing of woven fringes: weft fringes, warp fringes, and loom-stranded fringes
86c-14/01	Weaving looms with picking up the thread from fixed bobbins
86c-14/05	Weft thread feeding, tensioning, measuring, and cutting devices
86c-14/10	Weft thread changing devices

86c-14/15	Devices for making closed edges
86c-15	Horsehair looms (horsehair weaves 86c-1/34)
86c-16/01	Circular mechanical looms
86c-16/02	Circular electric looms (86c-21/07)
86c-17	Weaving looms of special structure, excluding those in 86c-8/01 – 86c-16/02; vertical looms, loom frames double looms
	Warp unwinding devices
86c-18/01	Positively driven warp beams
86c-18/10	Warp beam brakes
86c-18/11	Tensioning rollers, tensioning rods, back rest
86c-18/12	Warp beams, joining devices
86c-19	Fabric winding devices (regulators) devices for changing the number of picks (86c-20)
86c-20	Measuring and counting devices for looms
	Shuttle drives
86c-21/01	by picker sticks
86c-21/05	for stick shuttles and for positively driven shuttles (stick shuttles 86g-8/02)
86c-21/06	Pneumatic drives
86c-21/07	Electric drives (86c-16/02)
86c-21/08	by accelerating rolls
86c-21/10	Lay components
	Shuttle changing
86c-22/01	Drop box changing motions, swivel lay changing motions
86c-22/02	Circular [revolving] box changing motions
86c-22/05	Devices for separation of the weft threads
86c-23/01	Shuttle changing devices
86c-23/10	Shuttle changing devices for circular box looms
	Weft bobbin changing devices
86c-24/01	with single colour supply
86c-24/05	with multiple colour supply
86c-24/10	Control and guidance of the thread ends during change
	Disengaging devices
86c-25/01	for shuttle changing devices
86c-25/02	for weft bobbin changing devices
86c-26/01	Loom drives and disengaging devices
86c-26/05	Weft finding devices
86c-26/06	Drives with eccentric gears or the like
86c-27/01	Loom lay arrangement
86c-27/02	Loom lay motion: drive rods, movable and adjustable reeds, weft beating-up devices, etc.
86c-27/10	Shuttle protectors, shuttle box swells
86c-27/11	Picker arm catches
86c-27/12	Picker checks
86c-28/01	Shuttle guard, knockoffs
86c-28/02	Shuttle adjustment for changing devices
86c-29	Reed ejectors
	Warp thread stop motions (warp guards 86g-8/05)
86c-30/01	Mechanical, with hooks
86c-30/02	Electrical, with hooks
86c-30/10	Mechanical, in needle shaft, or combined with Jacquard harness

86c-30/15	Electrical in needle or combined with Jacquard harness
86c-30/20	Of different types
	Weft control devices (weft motion shuttles 86g-8/10)
86c-31/01	Weft forks
86c-31/02	Wire pick stop motion
86c-31/05	Mechanical bobbin feelers
86c-31/06	Differential feelers, feelers simultaneously for bobbins and shuttle
86c-31/10	Electric bobbin feelers
86c-31/15	Weft stop motions for multiple superposed shuttles
86c-31/20	Combined weft and warp stop motions
86c-31/25	Stop motions responsive to thin fabric areas
86c-32	Weft thread cutting devices
86c-33	Cutting of the fabric on the loom (8f-8/01 – 8f-10/03)
86c-34/01	Finishing devices on the loom
86c-34/02	Wetting devices on the loom

### **86d Pile, velvet, plush, and chenille weaving**

86d-1	Manufacturing of weft pile fabric
86d-2/01	Manufacturing of pile fabric with chenille filling, e.g. Axminster carpets
86d-2/02	Manufacturing of tufted pile fabric, e.g. knotted carpets, Royal Axminster carpets
86d-2/04	Bobbins for carpet knotting machines and tube carpet looms
86d-3	Manufacturing of chenille cloth or of flat chenille on the chenille cloth loom (86c-14; chenille cutting machines 8f-9/01)
86d-4	Manufacturing of warp pile fabrics
86d-5	Manufacturing of double warp pile fabrics
86d-6	Manufacturing of terry cloth [Turkish towelling]
86d-7/01	Manufacturing of warp pile fabrics with gauze-type interweave of the pile warp thread
86d-7/02	Manufacturing of warp pile fabrics with hook-drawn pile tufts
86d-8/01	Pile warp regulator
86d-8/02	Creel frames for pile weaving loom (76d-18; 86a-1/04)
86d-8/03	Pile thread stop motions (warp and weft stop motion 86c-30/01 – 86c-31/25)
86d-9/01	Velvet-cutting devices on looms (cutting of velvet outside the loom 8b-28)
86d-9/03	Cutting wires
86d-10/01	Pile weaving in general, except 86d-1 – 86d-9/03
86d-10/05	Manufacture of fur imitations in the form of pile fabrics
86d-10/10	Weaving materials [yarns] for pile weaving

### **86e Reed weaving, straw and wood weaving**

86e-1	Reed weaving
86e-2	Straw weaving
86e-3	Wood weaving

### **86f Wire weaving**

86f-1	Weaving processes, wire fabrics, connecting of the ends of wire fabrics
86f-2	Looms for fabrics with perpendicularly intersecting weft and warp wires
86f-3	Looms for fabrics with wires arranged at an angle to the longitudinal direction
86f-4	Looms with rotating heads

### **86g Weaving tools and implements**

86g-1	Reeds, manufacturing and cleaning (86c-7)
86g-2	Weaving heddles (7d-8; 86c-7)
86g-3/01	Heddle shafts (86c-7)

86g-3/05	Harness manufacturing
86g-4	Shaft motions, heddle levelling motions, heddle suspension devices
86g-5	Temples (86c-3/01)
86g-6	Shuttle deflectors
86g-7/01	Shuttles with fixed or oscillating spindle
86g-7/05	Shuttles without spindle: automatic loom shuttles, solid cop shuttles
86g-7/10	Weft thread tensioning devices in shuttles
86g-7/15	Weft bobbins and shuttle spindles
86g-7/20	Weft bobbins for shuttles with automatic shuttle change (automatic shuttles)
86g-8/01	Ribbon loom shuttles
86g-8/02	Stick and looping shuttles
86g-8/05	Warp stop motion shuttles
86g-8/10	Weft stop motion shuttles
86g-9/01	Shuttle with threading slot for automatic weft threading
86g-9/05	Auxiliary mechanical devices for threading of the weft, separately or combined with the shuttle
86g-9/10	Suction threading devices
86g-10	Pickers
86g-11	Auxiliary devices, mounted on or cooperating with the loom: adjusting devices for the beating up line, observation mirrors, lubricating devices, warp thread dividers, warp thread checking devices, removal of yarn waste from automatic loom bobbins, illumination
86g-12	Auxiliary devices separate from loom: devices for repairing and adjusting shuttles, warp beam frames, shuttle replenishing devices
86g-13	Hand knitting devices
86g-14	Miscellaneous

**86h            Auxiliary machines for the weaving industry: pattern and card manufacturing, etc., reading-in devices, twisting and warp drawing-in devices**

86h-1	Pattern manufacturing
86h-2	Jacquard and dobby cards, nap forming and removing
86h-3	Reading-in devices
86h-4/01	Mechanical card punching devices
86h-4/05	Electric card punching devices
86h-5	Card lacing machines
86h-6/01	Warp thread dividing
86h-6/02	Cross reading-in devices
86h-6/05	Twisting of warp threads
86h-6/10	Knotting of warp threads, (knotting devices for separate threads 86g-13)
86h-6/15	Binding of warp threads by other methods
86h-7	Devices for feeding the warp threads to the harness and reed: reeding machines, drawing tools; devices for the drawing of pile threads into bobbin frames
86h-8	Miscellaneous, e.g. reeling of threads from a fabric, checking of Jacquard cards, etc. (checking of strength of fabrics 42k-50; checking of density, optical thread counters 42h-34/07; checking tables 8f-3)