

ECLA EUROPEAN CLASSIFICATION

D01H **SPINNING OR TWISTING** (unwinding, paying-out, forwarding, winding or coiling filamentary material not intimately associated with spinning or twisting B65H; cores, formers, supports or holders for coiled or wound material, e.g. bobbins B65H; twisting oakum [D01G35/00](#); crimping or curling of fibres, filaments or yarns [D02G1/00](#); making chenille D03D, [D04D3/00](#); testing yarns, rovings, slivers, fibres, or fibre webs G01)

Guide heading: **Kinds or types of spinning or twisting machines; Drafting machines or arrangements; Twisting arrangements**

- D01H1/00** **Spinning or twisting machines in which the product is wound-up continuously** (open-end spinning machines [D01H4/00](#); [N: doubling of yarns [B65H54/00+T](#); doubled, plied or cabled threads [D02G3/28](#), e.g. using hollow spindles [D02G3/28B](#); spin-twisting [D02G3/28A](#); threads with alternately "S" and "Z" direction of twist, e.g. self-twist process, [D02G3/28D](#); wrapping strands of filaments or staple fibres by a binder yarn [D02G3/38](#)])
- D01H1/00B** . [N: Twisting machines in which twist is imparted from the supply packages, e.g. uptwist]
- D01H1/00C** . [N: Twisting machines in which twist is imparted at the paying-out and take-up stations]
- D01H1/02** . ring type [N: (arrangements with two or more spinning or twisting devices in combination D01H/90)]
- D01H1/02B** . . [N: with a condensing device between drafting system and spinning unit] [N9911]
- D01H1/04** . flyer type
- D01H1/06** . cap type
- D01H1/08** . cup, pot or disc type, in which annular masses of yarn are formed by centrifugal action
- D01H1/10** . for imparting multiple twist, e.g. two-for-one twisting
- D01H1/10B** . . [N: in which multiple twist is imparted at the take-up stations]
- D01H1/10B2** . . . [N: Two-for-one twisting]
- D01H1/10C** . . [N: Arrangements using hollow spindles, i.e. the yarns are running through the spindle of the unwound bobbins]
- D01H1/10C2** . . . [N: Two-for-one twisting]
- D01H1/10C2A** [N: for two or more supply bobbins one on top of the other]
- D01H1/11** . Spinning by false-twisting [N: (twisting by false-twisting [D01H7/92](#); [D02G3/28](#); increasing the strength of a roving or sliver by false-twisting [D01H7/92](#), during drafting [D01H5/28](#))] [C9610]
- D01H1/115** . . using pneumatic means
- D01H1/14** . Details (drafting arrangements [D01H5/00](#); twisting arrangements [D01H7/00](#))
- D01H1/16** . . Framework; Casings; Coverings [N: Removal of heat; Means for generating

- overpressure of air against infiltration of dust; Ducts for electric cables]
- D01H1/16A . . . [N: for ring type]
- D01H1/16B . . . [N: for flyer type]
- D01H1/16C . . . [N: for two-for-one type]
- D01H1/16E . . . [N: Arrangements for the sound-dampening of the machines (in general [G10K11/00](#))]
- D01H1/18 . . Supports for supply packages
- D01H1/18A . . . [N: Overhead suspension devices]
- D01H1/18C . . . [N: for supplying from cans]
- D01H1/20 . . Driving or stopping arrangements (for open-end spinning machines [D01H4/12](#), [D01H4/20](#), [D01H4/42](#); safety devices [D01H13/14](#))
- D01H1/22 . . . for rollers [N: of drafting machines; Roller speed control] (regulating or varying draft [D01H5/32](#))
- D01H1/24 . . . for twisting [N: or spinning] arrangements, e.g. spindles (braking arrangements for spindles [D01H7/22](#); interrelated flyer and bobbin drive mechanisms [D01H7/50](#))
- D01H1/241 driven by belt
- D01H1/242 driven by toothed wheels
- D01H1/243 driven by friction discs
- D01H1/244 each spindle driven by an electric motor
- D01H1/26 with two or more speeds; with variable-speed arrangements
- D01H1/28 . . . for two or more machine elements possessing different characteristics but in operative association
- D01H1/30 with two or more speeds; with variable-speed arrangements
- D01H1/30B [N: Speed control of the spindles in response to the displacements of the ring rail]
- D01H1/32 . . . for complete machines
- D01H1/34 with two or more speeds; with variable-speed arrangements [N: e.g. variation of machine speed according to growing bobbin diameter (responsive to reduction in material tension [D01H13/16](#))]
- D01H1/36 . . Package-shaping arrangements, e.g. building motions [N: e.g. control for the traversing stroke of ring rails; Stopping ring rails in a predetermined position]
- D01H1/36B . . . [N: for flyer type]
- D01H1/38 . . Arrangements for winding reserve lengths of yarn on take-up packages [N: or spindles], e.g. transfer tails [C9602]
- D01H1/38B . . . [N: Removing waste reserve lengths from spindles] [C9602]
- D01H1/40 . . Arrangements for connecting continuously-delivered material to bobbins or the like
- D01H1/42 . . Guards or protectors for yarns or threads, e.g. separator plates, anti-ballooning devices (anti-ballooning devices on spindles [D01H7/18](#))
- D01H1/42A . . . [N: Separator plates]
- D01H1/42B . . . [N: Anti-ballooning rings]
- D01H1/42C . . . [N: Anti-ballooning cylinders, e.g. for two-for-one twist machine (with combined cleaning effect [D01H11/00](#))]
- D01H3/00 Spinning or twisting machines in which the product is wound-up intermittently, e.g. mules**

- D01H3/02 . Details ([drafting arrangements D01H5/00](#); [twisting arrangements D01H7/00](#))
- D01H3/04 . . Carriages; Mechanisms effecting carriage movements
- D01H3/06 . . . Carriages; Carriage rails; Squaring motions
- D01H3/08 . . . Drawing-out or taking-in motions
- D01H3/10 . . . Moving-creel arrangements, e.g. for twiners
- D01H3/12 . . Package-shaping motions; Faller arrangements
- D01H3/14 . . Roller-driving arrangements ([drafting arrangements of general application in spinning machines D01H5/18](#))
- D01H3/16 . . Spindle-driving arrangements ([spindles, spindle bearings, spindle supports D01H7/04](#))
- D01H3/18 . . . Tin rollers; Driving arrangements intimately associated with tin rollers
- D01H3/20 . . . Spindle-driving arrangements during drawing-out or backing-off
- D01H3/22 . . . Spindle-driving arrangements during taking-in
- D01H3/24 Quadrant motions; Nosing motions
- D01H3/26 . . Driving or stopping arrangements not otherwise provided for; Locking motions ([safety devices D01H13/14](#)) [N: [Control of machines](#)]

D01H4/00 **Open-end spinning machines or arrangements for imparting twist to independently moving fibres separated from slivers; Piecing arrangements therefor; Covering endless core threads with fibres by open-end spinning techniques** [N: ([arrangements with two or more spinning or twisting devices of different types in combination D01H7/90](#))]

Note

In this group, the expression "open-end spinning" covers such expressions as "break spinning", "ringless spinning", "rotor spinning" and "friction spinning", but does not cover the expression "spinning by false-twisting"

- D01H4/02 . imparting twist by a fluid, e.g. air vortex
- D01H4/04 . imparting twist by contact of fibres with a running surface
- D01H4/06 . . co-operating with suction means ([D01H4/08, D01H4/16 take precedence](#))
- D01H4/08 . . Rotor spinning, i.e. the running surface being provided by a rotor
- D01H4/10 . . . Rotors
- D01H4/12 . . . Rotor bearings; Arrangements for driving or stopping ([control therefor D01H4/42](#))
- D01H4/14 Rotor driven by an electric motor
- D01H4/16 . . Friction spinning, i.e. the running surface being provided by a pair of closely spaced friction drums, e.g. at least one suction drum [N: ([false twisting with friction drums D01H1/11](#))]
- D01H4/18 . . . Friction drums, e.g. arrangement of suction holes
- D01H4/20 . . . Drum bearings; Arrangements for driving or stopping ([control therefor 4/42](#))
- D01H4/22 . . Cleaning of running surfaces
- D01H4/24 . . . in rotor spinning
- D01H4/26 . . . in friction spinning
- D01H4/28 . using electrostatic fields

- D01H4/30 . Arrangements for separating slivers into fibres; Orienting or straightening fibres, [N: e.g. using guide-rolls]
- D01H4/32 . . using opening rollers [N: (stopping of rovings or slivers [D01H13/18](#))] [C9610]
- D01H4/34 . . using air-jet streams
- D01H4/36 . . with means for taking away impurities
- D01H4/38 . Channels for feeding fibres to the yarn forming region
- D01H4/40 . Removing running yarn from the yarn forming region, e.g. using tubes
- D01H4/42 . Control of driving or stopping
- D01H4/44 . . in rotor spinning
- D01H4/46 . . in friction spinning
- D01H4/48 . Piecing arrangements; Control therefor [N: (stopping roving [D01H13/18](#))]
- D01H4/50 . . for rotor spinning
- D01H4/52 . . for friction spinning
- D01H5/00** **Drafting machines or arrangements** [N: Threading of roving into drafting machine] (arrangements in which draft is dependent on linear movement of take-up spindles, e.g. in mules, [D01H3/00](#); devices for combing or orienting fibres for open-end spinning machines [D01H4/30](#); [N: increasing the strength of a roving or sliver by false-twisting [D01H7/92](#), during drafting [D01H5/28](#), after drafting and before spinning according to groups [D01H1/02](#) to [D01H1/08](#), [D01H7/90](#); depositing materials in cans after drafting [B65H54/76](#) + T])
- D01H5/00B . [N: Arrangements for feeding or conveying the slivers to the drafting machine]
- D01H5/02 . Gill boxes or other drafting machines employing fallers or like pinned bars (lubricating fibres in gill boxes [D01G29/00](#))
- D01H5/04 . . with pinned bars actuated by screw members
- D01H5/06 . . . Intersecting gill boxes
- D01H5/08 . . with bars connected by links, chains, or the like
- D01H5/10 . . with pinned bars unconnected with each other but actuated through pressure of one against another
- D01H5/12 . . Details
- D01H5/14 . . . Pinned bars [C9610]
- D01H5/16 . . . Framework; Casings; Coverings
- D01H5/18 . Drafting machines or arrangements without fallers or like pinned bars
- D01H5/20 . . in which fibres are controlled by contact with stationary or reciprocating surfaces
- D01H5/22 . . in which fibres are controlled by rollers only
- D01H5/24 . . . with porcupines or like pinned rotary members
- D01H5/26 . . in which fibres are controlled by one or more endless aprons
- D01H5/28 . . in which fibres are controlled by inserting twist during drafting ([N: spinning by false-twisting [D01H1/11](#)]; mules [D01H3/00](#); [N: twisting by false-twisting [D01H7/92](#)]; constructions of false-twist devices [D02G1/04](#)) [C9809]

- D01H5/30 . . incorporating arrangements for severing continuous filaments, e.g. in direct spinning ([converting tows to slivers or yarns D01G 1/06](#))
- D01H5/32 . . Regulating or varying draft [[C9610](#)]
- D01H5/34 . . . by manual adjustments
- D01H5/36 . . . according to a pre-arranged pattern, e.g. to produce slubs
- D01H5/38 . . . in response to irregularities in material; [[N: Measuring irregularities](#)] [[C9610](#)]
- D01H5/38B [[N: employing hydraulic or pneumatic time-delay devices](#)]
- D01H5/40 employing mechanical time-delay devices
- D01H5/42 employing electrical time-delay devices
- D01H5/44 . . Adjusting drafting elements, e.g. altering ratch
- D01H5/46 . . Loading arrangements
- D01H5/48 . . . using weights
- D01H5/50 . . . using springs
- D01H5/50B [[N: for top roller arms](#)]
- D01H5/52 . . . using fluid pressure
- D01H5/52B [[N: for top roller arms](#)]
- D01H5/54 . . . using magnetic arrangements
- D01H5/56 . . Supports for drafting elements ([saddles or top roller arms forming essential components of weighting arrangements D01H5/48](#))
- D01H5/56B . . . [[N: Top roller arms](#)]
- D01H5/58 . . Arrangements for traversing drafting elements ([traversing arrangements for roving guides D01H13/06](#))
- D01H5/60 . . Arrangements maintaining drafting elements free of fibre accumulations
- D01H5/62 . . . Non-rotary cleaning pads or plates; Scrapers
- D01H5/62A [[N: in cooperation with suction or blowing means](#)]
- D01H5/64 . . . Rollers or aprons with cleaning surfaces
- D01H5/64A [[N: in cooperation with suction or blowing means](#)]
- D01H5/66 . . . Suction devices [[N: exclusively; \(D01H5/62A and D01H5/64A take precedence; in cooperation with thread breakage detecting means D01H13/16C\)](#)]
- D01H5/68 Suction end-catchers
- D01H5/70 . . Constructional features of drafting elements
- D01H5/72 . . . Fibre-condensing guides ([guides for slivers, rovings, or yarns applicable solely for spinning, twisting, curling, or crimping purposes D01H13/04; \[N: combined with false twisting before drafting or before spinning according to groups D01H1/02 to D01H1/08 : D01H7/92\]](#))
- D01H5/74 . . . Rollers [[N: or roller bearings](#)] [[C9911](#)]
- D01H5/76 Loose-boss assemblies
- D01H5/78 with flutes or other integral surface characteristics
- D01H5/80 with covers; Cots or covers
- D01H5/82 Arrangements for coupling roller sections
- D01H5/84 Porcupines
- D01H5/86 . . . Aprons; Apron supports; Apron tensioning arrangements
- D01H5/88 Cradles; Tensors
- D01H7/00** . . **Spinning or twisting arrangements** ([for open-end spinning D01H4/00](#))

- D01H7/02 . . . for imparting permanent twist
- D01H7/04 . . . Spindles ([N: bearings for hollow spindles [D01H7/88](#)]; spindle bearings, supports therefor, in general [F16C](#))
- D01H7/04A [N: Spindles with sliding contact bearings ([D01H7/04D](#) takes precedence)]
- D01H7/04B [N: Spindles with rolling contact bearings ([D01H7/04D](#) takes precedence)]
- D01H7/04C [N: Spindles with fluid bearings]
- D01H7/04D [N: Spindles provided with flexible mounting elements for damping vibration or noise, or for avoiding or reducing out-of-balance forces due to rotation (in general [F16F15/00](#))]
- D01H7/04D2 [N: with springs]
- D01H7/04D4 [N: with means using plastic deformation of members]
- D01H7/06 Stationary spindles with package-holding sleeves
- D01H7/08 Mounting arrangements
- D01H7/10 Spindle supports; Rails; Rail supports, e.g. poker guides
- D01H7/12 Bolsters; Bearings
- D01H7/14 Holding-down arrangements
- D01H7/16 Arrangements for coupling bobbins or like to spindles
- D01H7/18 Arrangements on spindles for suppressing yarn balloons ([thread guards or protectors](#) [D01H1/42](#))
- D01H7/20 Lubricating arrangements
- D01H7/22 Braking arrangements
- D01H7/22A [N: using mechanical means]
- D01H7/22A2 [N: with one or two manually actuated shoe-brakes acting on a part of the whorl]
- D01H7/22A4 [N: the braking means surrounding nearly the whole periphery of the whorl]
- D01H7/22A6 [N: by suppressing the driving means, e.g. by declutching]
- D01H7/22A6A [N: the belt being moved off the driven whorl]
- D01H7/22A6A2 {7 dots} [N: and the spindle being braked simultaneously]
- D01H7/22A6B [N: the pivoted spindle being pulled off the belt]
- D01H7/22A6B2 {7 dots} [N: and braked simultaneously]
- D01H7/22C [N: using hydraulically or pneumatically operated brakes]
- D01H7/22D [N: using electromagnetically operated brakes]
- D01H7/22E [N: characterised by the control of braking means, e.g. operated by a yarn break-detector or tension device]
- D01H7/24 Flyer or like arrangements ([multiple-twist arrangements](#) [D01H7/86](#))
- D01H7/26 Flyer constructions
- D01H7/28 arranged to guide material over exterior of legs
- D01H7/30 with guide channels formed in legs, e.g. slubbing flyers
- D01H7/32 with pressing devices
- D01H7/34 with haul pulleys or like arrangements
- D01H7/36 with traversing devices
- D01H7/38 Ring flyers
- D01H7/40 Flyer supports, e.g. rails

- D01H7/42 . . . Arrangements coupling flyers to spindles
- D01H7/44 . . . Drag arrangements for bobbins or flyers
- D01H7/46 . . . Devices attached to, or integral with, flyers for temporarily increasing twist in material passing to them
- D01H7/48 . . . Eyes or like guiding arrangements ([D01H7/46](#) takes precedence)
- D01H7/50 . . . Interrelated flyer and bobbin drive mechanisms, e.g. winding-on motions for cotton-roving frames ([N: variation of machine speed according to growing bobbin diameter [D01H1/34](#)]; package-building mechanisms [D01H1/36](#))
- D01H7/52 . . . Ring-and-traveller arrangements
- D01H7/54 . . . with fixed rings
- D01H7/56 . . . with freely-rotatable rings; with braked or dragged rings; [N: Lubricating arrangements therefor]
- D01H7/56A [N: with fluid bearings]
- D01H7/58 . . . with driven rings; [N: Bearings or braking arrangements therefor]
- D01H7/58A [N: by fluid driving means]
- D01H7/60 . . . Rings or travellers; Manufacture thereof not otherwise provided for ([hand tools for applying travellers to rings \[D01H17/02\]\(#\)](#)) [N: Cleaning means for rings]
- D01H7/60B [N: Rings]
- D01H7/60C [N: Travellers]
- D01H7/60C2 [N: Driving means for travellers]
- D01H7/60C4 [N: Cleaning means for travellers]
- D01H7/62 . . . Arrangements providing lubricant for travellers
- D01H7/64 . . . Ring supports, e.g. ring rails (poker guides or other rail supports 7/10)
- D01H7/66 . . . Cap arrangements
- D01H7/68 . . . Cap constructions
- D01H7/70 . . . Arrangements for supporting caps on spindles
- D01H7/72 . . . Bobbin-supporting arrangements, e.g. bobbin rails ([poker guides or other rail supports \[D01H7/10\]\(#\)](#))
- D01H7/74 . . . Cup or like arrangements
- D01H7/76 . . . Rotary discs
- D01H7/78 . . . Constructions of cups, e.g. spinning boxes
- D01H7/80 adapted to collect wet yarns
- D01H7/82 . . . Casings or guards for rotary cups or the like
- D01H7/84 . . . Spindles or yarn carriers for co-operation with rotary cups ([removing yarn from centrifugal cups on to yarn carriers \[D01H9/06\]\(#\)](#))
- D01H7/86 . . . Multiple-twist arrangements, e.g. two-for-one twisting devices [N: Threading of yarn; Devices in hollow spindles for imparting false twist] [C9610]
- D01H7/86A [N: Arrangements for holding the bobbin in a fixed position]
- D01H7/86B [N: Coupling devices between the fixed and the rotative parts]
- D01H7/86C [N: Means to facilitate the unwinding of yarn]
- D01H7/86D [N: Yarn guiding means, e.g. guiding tubes]
- D01H7/88 . . . Hollow-spindle arrangements ([D01H7/86](#) takes precedence)
- D01H7/90 . . . Arrangements with two or more [N: spinning or] twisting devices [N: of different types] in combination ([N: [D01H1/00C](#)], [D01H7/86](#), [D01H7/88](#) take precedence)
- D01H7/92 . . . for imparting transient twist [N: i.e. false twist ([D01H1/11](#) takes precedence)]

- D01H7/92B . . [N: by means of rotating devices]
- D01H7/92C . . [N: by means of traversing devices]

Guide heading: **Common features or details of, or accessories for, spinning or twisting machines of various kinds or types** ([drafting arrangements D01H5/00](#); [twisting arrangements D01H7/00](#))

- D01H9/00** **Arrangements for replacing or removing bobbins, cores, receptacles, or completed packages at paying-out or take-up stations** ([arrangements of general interest in the winding of filamentary material \[N: B65H67/00\]](#))[N: ; Combination of spinning-winding machine]
- D01H9/00A . [N: Bobbin-taking arrangements]
 - D01H9/00A2 . . [N: Graspers operating under the action of a fluid]
 - D01H9/00B . [N: for removing empty packages or cans and replacing by completed (full) packages or cans at paying-out stations; also combined with piecing of the roving]
 - D01H9/00B2 . . [N: for two-for-one twist type machines]
 - D01H9/00B4 . . [N: for cans]
 - D01H9/02 . for removing completed take-up packages and replacing by bobbins, cores, or receptacles at take-up stations; Transferring material between adjacent full and empty take-up elements
 - D01H9/04 . . Doffing arrangements integral with spinning or twisting machines
 - D01H9/04B . . . [N: for cap type machines]
 - D01H9/04C . . . [N: for flyer type machines]
 - D01H9/06 . . . Removing yarn from centrifugal cups on to yarn carriers
 - D01H9/08 . . Doffing arrangements independent of spinning or twisting machines
 - D01H9/10 . . . Doffing carriages; [N: Loading carriages with cores]
 - D01H9/12 . . . Manual cop-tube applying apparatus; Stands for cop-tube applying apparatus
 - D01H9/14 . . for preparing machines for doffing of yarns, [N: e.g. raising cops prior to removal] ([stop motions responsive to delivery of a measured length of material D01H13/24](#))
 - D01H9/16 . . Yarn-severing arrangements, [N: e.g. for cutting transfer tails; Separating of roving in flyer] [C9602]
 - D01H9/18 . for supplying bobbins, cores, receptacles, or completed packages to, or transporting from, paying-out or take-up stations ([D01H9/10 takes precedence](#)); [N: Arrangements to prevent unwinding of roving from roving bobbins ([transporting full yarn bobbins to subsequent machines B65H67/06+T](#))]
 - D01H9/18B . . [N: Overhead conveying devices]
 - D01H9/18C . . [N: Transporting cans]
 - D01H9/18D . . [N: on individual supports, e.g. pallets]
- D01H11/00** **Arrangements for confining or removing dust, fly, or the like** ([cleaning of running surfaces in open-end spinning machines D01H4/22](#); [separation in general B01D](#); [cleaning in general B08B](#); [air-conditioning F24F](#), e.g. by filtering [F24F3/16](#))
- D01H11/00A . [N: Hand tools used for cleaning the machines]

- D01H11/00A2 . . [N: with a rotary pin]
- D01H11/00B . [N: with blowing and/or suction devices (in general [A47L7/00](#); in cooperation with thread breakage detecting means [D01H13/16C](#))]
- D01H11/00B2 . . [N: travelling along the machines]
- D01H11/00C . [N: with static field means]
- D01H13/00** **Other common constructional features, details or accessories (for open-end spinning [D01H4/00](#))**
- D01H13/00B . [N: Service carriages travelling along the machines (characteristics relating to the apparatus supported by the carriage, see relevant groups, e.g. [D01H9/00B](#), [D01H9/10](#), [D01H13/14B](#), [D01H15/00](#))]
- D01H13/02 . Roller arrangements not otherwise provided for
- D01H13/04 . Guides for slivers, rovings, or yarns; Smoothing dies (fibre-condensing guides [D01H5/72](#); [N: means to facilitate the unwinding of yarn in multiple-twist arrangements [D01H7/86C](#)])
- D01H13/04A . . [N: Guide tube]
- D01H13/06 . . Traversing arrangements
- D01H13/08 . Twist arresters
- D01H13/10 . Tension devices
- D01H13/10A . . [N: Regulating tension by regulating delivery of yarn from supply package ([D01H13/10C](#) takes precedence)]
- D01H13/10B . . [N: Regulating tension by devices acting on running yarn and not associated with supply or take-up devices]
- D01H13/10B2 . . . [N: for double-twist spindle]
- D01H13/10C . . [N: Regulating tension by regulating speed of driving mechanisms of unwinding, paying-out, forwarding, winding or depositing devices, e.g. automatically in response to variations in tension]
- D01H13/12 . Arrangements preventing snarls or inadvertent doubling of yarns (suction end-catchers [D01H5/68](#))
- D01H13/14 . Warning or safety devices, e.g. automatic fault detectors, stop motions; [N: Monitoring the entanglement of slivers in drafting arrangements]; safety devices of general application F16P; indicating devices of general application G08B)
- D01H13/14B . . [N: set on carriages travelling along the machines; Warning or safety devices pulled along the working unit by a band or the like]
- D01H13/16 . . responsive to reduction in material tension, failure of supply, or breakage, of material
- D01H13/16A . . . [N: where the paying-out and take-up stations are stopped at one and the same time]
- D01H13/16B . . . [N: characterised by the detector]
- D01H13/16B2 [N: Electro-mechanical actuators]
- D01H13/16B4 [N: Electronic actuators]

- D01H13/16B4B [N: Capacitor sensing means]
- D01H13/16B4C [N: Photo-electric sensing means]
- D01H13/16B6 [N: Associated actuators with mutual actuation, e.g. for two or more running yarns]
- D01H13/16B8 [N: Lighting or luminous devices making easier the setting of the breakage of yarns]
- D01H13/16B8B [N: Pencil of rays on side of machines]
- D01H13/16B10 [N: Pneumatic sensing means]
- D01H13/16C [N: Thread breakage detector means associated with pneumatic cleaning devices, e.g. suction of broken end of yarn]
- D01H13/18 stopping supply only
- D01H13/18B [N: by stopping supply packages]
- D01H13/18C [N: by raising or lifting of one of the drafting cylinders, e.g. by removing of the loading means]
- D01H13/18D [N: the yarn moving out of its normal path, e.g. by lateral diverting]
- D01H13/18F [N: a plate moving in the nip of drafting or guiding cylinders]
- D01H13/18G [N: guiding or drafting cylinders moving by gravity when a yarn breakage occurs]
- D01H13/18H [N: using means stopping the driving of the drafting, guiding cylinders, e.g. friction clutches]
- D01H13/18K [N: by cutting or clamping yarns or rovings]
- D01H13/20 responsive to excessive tension or irregular operation of apparatus
- D01H13/22 responsive to presence of irregularities in running material
- D01H13/24 responsive to delivery of a measured length of material, completion of winding of a package or filling of a receptacle

- D01H13/26 Arrangements facilitating the inspection or testing of yarns or the like in connection with spinning or twisting

- D01H13/28 Heating or cooling arrangements [N: for yarns (removal of heat from machines [D01H1/16](#))]

- D01H13/30 Moistening, sizing, oiling, waxing, colouring, or drying yarns or the like as incidental measures during spinning or twisting [C9610]
- D01H13/30A [N: Moistening, e.g. for wet spinning]
- D01H13/30B [N: Conditioning during spinning or twisting (for carding or combing [D01G99/00B](#)) [C1010]
- D01H13/30C [N: by applying fluids, e.g. steam or oiling liquids]
- D01H13/30D [N: by applying solids, e.g. wax]

- D01H13/32 Counting, measuring, recording or registering devices (in general, see the appropriate subclass of Section G, e.g. [N: [G01B21/12](#), [G01N33/36](#)])

- D01H15/00** **Piecing arrangements** (for open-end spinning machines [D01H4/48](#); in machines for producing textile fabrics, see the appropriate subclasses); [N: Automatic end-finding, e.g. by suction and reverse package rotation; Devices for temporarily storing yarn during piecing (piecing of rovings in combination with replacing of completed packages or cans [D01H9/00B](#)) [C9610]

- D01H15/00B . [N: for false-twisting spinning machines]
- D01H15/00C . [N: for centrifugal spinning machines] [N9603]
- D01H15/007 . for two-for-one twisting machines
- D01H15/013 . Carriages travelling along the machines
- D01H17/00** **Hand tools** (cop-tube applying apparatus [D01H9/12](#))
- D01H17/02 . Arrangements for storing ring travellers; Devices for applying travellers to rings