

## CPC

## COOPERATIVE PATENT CLASSIFICATION

## D07B

**ROPES OR CABLES IN GENERAL** (joining ropes or cables to one another or to other objects [B65H 69/00](#), [F16G 11/00](#); {mountaineering ropes [A63B 29/02](#)}; mechanical finishing or dressing of ropes [D02J](#); {braiding [D04C](#)}; decorative ropes or cords [D04D](#); suspension cables for bridges [E01D 19/16](#); specially adapted for driving, or for being driven by, pulleys or other gearing elements [F16G 9/00](#); electric cables or joints insofar as electrical aspects are essential [H01B](#), [H01R](#))

## D07B 1/00

## Constructional features of ropes or cables

## D07B 1/005

- . {Composite ropes, i.e. ropes built-up from fibrous or filamentary material and metal wires}

## D07B 1/02

- . Ropes built-up from fibrous or filamentary material, e.g. of vegetable origin, of animal origin, regenerated cellulose, plastics

## D07B 1/025

- . . {comprising high modulus, or high tenacity, polymer filaments or fibres, e.g. liquid-crystal polymers}

## D07B 1/04

- . . with a core of fibres or filaments arranged parallel to the centre line

## D07B 1/06

- . Ropes or cables built-up from metal wires, e.g. of section wires around a hemp core

## D07B 1/0606

- . . {Reinforcing cords for rubber or plastic articles}

## D07B 1/0613

- . . . {the reinforcing cords being characterised by the rope configuration}

## D07B 1/062

- . . . {the reinforcing cords being characterised by the strand configuration}

## D07B 1/0626

- . . . . {the reinforcing cords consisting of three core wires or filaments and at least one layer of outer wires or filaments, i.e. a 3+N configuration}

## D07B 1/0633

- . . . . {having a multiple-layer configuration}

## D07B 1/064

- . . . . {the reinforcing cords being twisted and with at least one wire exchanging place with another wire}

## D07B 1/0646

- . . . {comprising longitudinally preformed wires}

## D07B 1/0653

- . . . . {in the core}

## D07B 1/066

- . . . {the wires being made from special alloy or special steel composition}

## D07B 1/0666

- . . . {the wires being characterised by an anti-corrosive or adhesion promoting coating}

## D07B 1/0673

- . . {having a rope configuration}

## D07B 1/068

- . . . {characterised by the strand design}

## D07B 1/0686

- . . . {characterised by the core design}

## D07B 1/0693

- . . {having a strand configuration}

## D07B 1/08

- . . the layers of which are formed of profiled interlocking wires, i.e. the strands forming concentric layers {(D07B 1/0606 takes precedence)}

## D07B 1/10

- . . . with a core of wires arranged parallel to the centre line

## D07B 1/12

- . Ropes or cables with a hollow core

## D07B 1/14

- . Ropes or cables with incorporated auxiliary elements, e.g. for marking, extending throughout the length of the rope or cable

## D07B 1/141

- . . {comprising liquid, pasty or powder agents, e.g. lubricants or anti-corrosive oils or greases}

- D07B 1/142 . . . {for ropes or rope components built-up from fibrous or filamentary material}
- D07B 1/144 . . . {for cables or cable components built-up from metal wires}
- D07B 1/145 . . {comprising elements for indicating or detecting the rope or cable status}
- D07B 1/147 . . {comprising electric conductors or elements for information transfer ([D07B 1/145](#) takes precedence)}
- D07B 1/148 . . {comprising marks or luminous elements}
- D07B 1/16 . . Ropes or cables with an enveloping sheathing or inlays of rubber or plastics ([D07B 1/04](#), [D07B 1/10](#) take precedence)
- D07B 1/162 . . {characterised by a plastic or rubber enveloping sheathing}
- D07B 1/165 . . {characterised by a plastic or rubber inlay}
- D07B 1/167 . . . {having a predetermined shape}
- D07B 1/18 . . Grommets {(slings [B66C 1/12](#))}
- D07B 1/185 . . {characterised by the eye construction}
- D07B 1/20 . . Buoyant ropes, e.g. with air-filled cellular cores; Accessories therefor
- D07B 1/22 . . Flat or flat-sided ropes; Sets of ropes consisting of a series of parallel ropes

### **Manufacture of ropes or cables**

- D07B 3/00** **General-purpose machines or apparatus for producing twisted ropes or cables from component strands of the same or different material**
- D07B 3/005 . {with alternating twist directions}
- D07B 3/02 . . in which the supply reels rotate about the axis of the rope or cable {or in which a guide member rotates about the axis of the rope or cable to guide the component strands away from the supply reels in fixed position}
- D07B 3/04 . . . and are arranged in tandem along the axis of the machine, {e.g. tubular or high-speed type stranding machine}
- D07B 3/045 . . . {with the reels axially aligned, their common axis coinciding with the axis of the machine}
- D07B 3/06 . . . and are spaced radially from the axis of the machine, {i.e. basket or planetary-type stranding machine}
- D07B 3/08 . . in which the take-up reel rotates about the axis of the rope or cable {or in which a guide member rotates about the axis of the rope or cable to guide the rope or cable on the take-up reel in fixed position} and the supply reels are fixed in position
- D07B 3/085 . . {in which a guide member rotates about the axis of the rope or cable to guide the rope or cable on the take-up reel in fixed position}
- D07B 3/10 . . . with provision for imparting more than one complete twist to the ropes or cables for each revolution of the take-up reel {or of the guide member}
- D07B 3/103 . . . {characterised by the bow construction}
- D07B 3/106 . . . {characterised by comprising two bows, both guiding the same bundle to impart a twist}
- D07B 3/12 . . operating with rotating loops of filaments
- D07B 3/14 . . hand-operated
- D07B 5/00** **Making ropes or cables from special materials or of particular form**

- D07B 5/002 . {Making parallel wire strands}
- D07B 5/005 . {characterised by their outer shape or surface properties}

**WARNING**

Group [D07B 5/005](#) is impacted by reclassification into group [D07B 5/006](#).  
Groups [D07B 5/005](#) and [D07B 5/006](#) should be considered in order to perform a complete search.

- D07B 5/006 . . {by the properties of an outer surface polymeric coating}

**WARNING**

Group [D07B 5/006](#) is incomplete pending reclassification of documents from group [D07B 5/005](#).  
Groups [D07B 5/005](#) and [D07B 5/006](#) should be considered in order to perform a complete search.

- D07B 5/007 . {comprising postformed and thereby radially plastically deformed elements}
- D07B 5/02 . from straw or like vegetable material
- D07B 5/04 . Rope bands
- D07B 5/06 . from natural or artificial staple fibres
- D07B 5/08 . . agglutinated by adhesives
- D07B 5/10 . from strands of non-circular cross-section
- D07B 5/12 . of low twist or low tension by processes comprising setting or straightening treatments

**D07B 7/00**      **Details of, or auxiliary devices incorporated in, rope- or cable-making machines; Auxiliary apparatus associated with such machines**

- D07B 7/02 . Machine details; Auxiliary devices
- D07B 7/022 . . {Measuring or adjusting the lay or torque in the rope}
- D07B 7/025 . . {Preforming the wires or strands prior to closing}
- D07B 7/027 . . {Postforming of ropes or strands}
- D07B 7/04 . . Devices for imparting reverse rotation to bobbin- or reel cages
- D07B 7/06 . . Bearing supports or brakes for supply bobbins or reels
- D07B 7/08 . . Alarms or stop motions responsive to exhaustion or breakage of filamentary material fed from supply reels or bobbins
- D07B 7/10 . . Devices for taking-up or winding the finished rope or cable
- D07B 7/12 . . for softening, lubricating or impregnating ropes, cables, or component strands thereof
- D07B 7/14 . . for coating or wrapping ropes, cables, or component strands thereof ([applying liquids or other fluent materials to surfaces in general B05](#); [wrapping elongated cores in general B65H 81/06](#))
- D07B 7/145 . . . {Coating or filling-up interstices}
- D07B 7/16 . Auxiliary apparatus

**WARNING**

Group [D07B 7/16](#) is impacted by reclassification into group [D07B 7/169](#).

D07B 7/16  
(continued)

Groups [D07B 7/16](#) and [D07B 7/169](#) should be considered in order to perform a complete search.

- D07B 7/162 . . {Vices or clamps for bending or holding the rope or cable during splicing}
- D07B 7/165 . . {for making slings}
- D07B 7/167 . . {for joining rope components}
- D07B 7/169 . . {for interconnecting two cable or rope ends, e.g. by splicing or sewing (fixation or holding of the ends prior to or during splicing [D07B 7/162](#); joining the rope or cable components individually or joining the rope ends by permanent means such as welding, gluing or crimp sleeve [D07B 7/167](#); preparing the splice by opening the ends [D07B 7/18](#))}

#### **WARNING**

Group [D07B 7/169](#) is incomplete pending reclassification of documents from group [D07B 7/16](#).

Groups [D07B 7/16](#) and [D07B 7/169](#) should be considered in order to perform a complete search.

- D07B 7/18 . . for spreading or untwisting ropes or cables into constituent parts for treatment or splicing purposes

#### **WARNING**

Group [D07B 7/18](#) is impacted by reclassification into groups [D07B 7/182](#), [D07B 7/185](#), and [D07B 7/187](#).

All groups listed in this Warning should be considered in order to perform a complete search.

- D07B 7/182 . . . {for spreading ropes or cables by hand-operated tools for splicing purposes, e.g. needles or spikes}

#### **WARNING**

Group [D07B 7/182](#) is incomplete pending reclassification of documents from groups [D07B 7/18](#).

Groups [D07B 7/18](#) and [D07B 7/182](#) should be considered in order to perform a complete search.

- D07B 7/185 . . . {for temporarily untwisting ropes or cables into constituent parts for applying a coating}

#### **WARNING**

Group [D07B 7/185](#) is incomplete pending reclassification of documents from group [D07B 7/18](#).

Groups [D07B 7/18](#) and [D07B 7/185](#) should be considered in order to perform a complete search.

- D07B 7/187 . . . {for forming bulbs in ropes or cables}

#### **WARNING**

## D07B 7/187

(continued)

Group [D07B 7/187](#) is incomplete pending reclassification of documents from group [D07B 7/18](#).

Groups [D07B 7/18](#) and [D07B 7/187](#) should be considered in order to perform a complete search.

## D07B 9/00

## Binding or sealing ends, e.g. to prevent unravelling

## D07B 2201/00

## Ropes or cables

## D07B 2201/10

- . Rope or cable structures

## D07B 2201/1004

- . . General structure or appearance

## D07B 2201/1008

- . . . Several parallel ropes

## D07B 2201/1012

- . . characterised by their internal structure

**WARNING**

Group [D07B 2201/1012](#) is impacted by reclassification into group [D07B 2201/1014](#).

Groups [D07B 7/18](#) and [D07B 7/187](#) should be considered in order to perform a complete search.

## D07B 2201/1014

- . . . characterised by being laid or braided from several sub-ropes or sub-cables, e.g. hawsers

**WARNING**

Group [D07B 2201/1014](#) is incomplete pending reclassification of documents from group [D07B 2201/1012](#).

Groups [D07B 2201/1012](#) and [D07B 2201/1014](#) should be considered in order to perform a complete search.

## D07B 2201/1016

- . . . characterised by the use of different strands

## D07B 2201/102

- . . . including a core

## D07B 2201/1024

- . . Structures that change the cross-sectional shape

## D07B 2201/1028

- . . characterised by the number of strands

## D07B 2201/1032

- . . . three to eight strands respectively forming a single layer

## D07B 2201/1036

- . . . nine or more strands respectively forming multiple layers

## D07B 2201/104

- . . twisted

## D07B 2201/1044

- . . . characterised by a value or range of the pitch parameter given

## D07B 2201/1048

- . . . using regular lay, i.e. the wires or filaments being parallel to rope axis

## D07B 2201/1052

- . . . using lang lay, i.e. the wires or filaments being inclined relative to the rope axis

## D07B 2201/1056

- . . . using alternate lay, i.e. the wires or filaments in the strands being oppositely inclined relative to the rope axis

## D07B 2201/106

- . . . Pitch changing over length

## D07B 2201/1064

- . . . characterised by lay direction of the strand compared to the lay direction of the wires in the strand

## D07B 2201/1068

- . . . . having the same lay direction

D07B 2201/1072	. . .	Compact winding, i.e. S/S or Z/Z
D07B 2201/1076	. . .	Open winding
D07B 2201/108	. . . .	Cylinder winding, i.e. S/Z or Z/S
D07B 2201/1084	. . . .	Different twist pitch
D07B 2201/1088	. .	false twisted
D07B 2201/1092	. .	Parallel strands
D07B 2201/1096	. .	braided
D07B 2201/20	. .	Rope or cable components
D07B 2201/2001	. .	Wires or filaments
D07B 2201/2002	. . .	characterised by their cross-sectional shape
D07B 2201/2003	. . . .	flat
D07B 2201/2004	. . . .	triangular
D07B 2201/2005	. . . .	oval
D07B 2201/2006	. . .	characterised by a value or range of the dimension given
D07B 2201/2007	. . .	characterised by their longitudinal shape
D07B 2201/2008	. . . .	wavy or undulated
D07B 2201/2009	. . .	characterised by the materials used
D07B 2201/201	. . .	characterised by a coating
D07B 2201/2011	. . . .	comprising metals
D07B 2201/2012	. . . .	comprising polymers
D07B 2201/2013	. . . .	comprising multiple layers
D07B 2201/2014	. . .	Compound wires or compound filaments
D07B 2201/2015	. .	Strands
D07B 2201/2016	. . .	characterised by their cross-sectional shape
D07B 2201/2017	. . . .	triangular
D07B 2201/2018	. . . .	oval
D07B 2201/2019	. . .	pressed to shape
D07B 2201/202	. . .	characterised by a value or range of the dimension given
D07B 2201/2021	. . .	characterised by their longitudinal shape
D07B 2201/2022	. . .	coreless
D07B 2201/2023	. . .	with core
D07B 2201/2024	. . .	twisted
D07B 2201/2025	. . . .	characterised by a value or range of the pitch parameter given
D07B 2201/2026	. . . .	Pitch changing over length
D07B 2201/2027	. . . .	Compact winding
D07B 2201/2028	. . . . .	having the same lay direction and lay pitch
D07B 2201/2029	. . . .	Open winding
D07B 2201/203	. . . . .	Cylinder winding, i.e. S/Z or Z/S
D07B 2201/2031	. . . . .	Different twist pitch
D07B 2201/2032	. . . . .	compared with the core

D07B 2201/2033	. . .	Parallel wires
D07B 2201/2034	. . .	comprising crossing wires or filaments in the same layer
D07B 2201/2035	. . .	false twisted
D07B 2201/2036	. . .	characterised by the use of different wires or filaments
D07B 2201/2037	. . . .	regarding the dimension of the wires or filaments
D07B 2201/2038	. . .	characterised by the number of wires or filaments
D07B 2201/2039	. . . .	three to eight wires or filaments respectively forming a single layer
D07B 2201/204	. . . .	nine or more wires or filaments respectively forming multiple layers
D07B 2201/2041	. . .	characterised by the materials used
D07B 2201/2042	. . .	characterised by a coating
D07B 2201/2043	. . . .	comprising metals
D07B 2201/2044	. . . .	comprising polymers
D07B 2201/2045	. . . .	comprising multiple layers
D07B 2201/2046	. . .	comprising fillers
D07B 2201/2047	. .	Cores
D07B 2201/2048	. . .	characterised by their cross-sectional shape
D07B 2201/2049	. . . .	having protrusions extending radially functioning as spacer between strands or wires
D07B 2201/2051	. . .	characterised by a value or range of the dimension given
D07B 2201/2052	. . .	characterised by their structure
D07B 2201/2053	. . . .	being homogeneous
D07B 2201/2054	. . . . .	comprising foam material
D07B 2201/2055	. . . .	comprising filaments or fibers
D07B 2201/2056	. . . . .	arranged parallel to the axis
D07B 2201/2057	. . . . .	resulting in a twisted structure
D07B 2201/2058	. . . . .	comprising fillers
D07B 2201/2059	. . . .	comprising wires
D07B 2201/206	. . . . .	arranged parallel to the axis
D07B 2201/2061	. . . . .	resulting in a twisted structure
D07B 2201/2062	. . . . .	comprising fillers
D07B 2201/2063	. . . . .	being hollow
D07B 2201/2064	. . . . .	being discontinuous in the longitudinal direction
D07B 2201/2065	. . . . .	comprising a coating
D07B 2201/2066	. . .	characterised by the materials used
D07B 2201/2067	. . .	characterised by the elongation or tension behaviour
D07B 2201/2068	. . . .	having a load bearing function
D07B 2201/2069	. . . .	being elastic
D07B 2201/207	. . . .	being viscous
D07B 2201/2071	. .	Spacers
D07B 2201/2072	. . .	characterised by the materials used

- D07B 2201/2073 . . . in circumferencial direction
- D07B 2201/2074 . . . in radial direction
- D07B 2201/2075 . . Fillers
- D07B 2201/2076 . . . having a lubricant function
- D07B 2201/2077 . . . having an anti-corrosive function
- D07B 2201/2078 . . . having a load bearing function
- D07B 2201/2079 . . . characterised by the kind or amount of filling
- D07B 2201/208 . . . . having an open structure
- D07B 2201/2081 . . . . having maximum filling
- D07B 2201/2082 . . . characterised by the materials used
- D07B 2201/2083 . . Jackets or coverings

### **WARNING**

Group [D07B 2201/2083](#) is impacted by reclassification into groups [D07B 2201/20903](#) and [D07B 2201/20907](#).

Groups [D07B 2201/2083](#), [D07B 2201/20903](#), and [D07B 2201/20907](#) should be considered in order to perform a complete search.

- D07B 2201/2084 . . . characterised by their shape
- D07B 2201/2085 . . . . concerning the internal shape
- D07B 2201/2086 . . . . concerning the external shape
- D07B 2201/2087 . . . being of the coated type
- D07B 2201/2088 . . . having multiple layers
- D07B 2201/2089 . . . comprising wrapped structures
- D07B 2201/209 . . . comprising braided structures
- D07B 2201/20903 . . . comprising woven structures

### **WARNING**

Group [D07B 2201/20903](#) is incomplete pending reclassification of documents from group [D07B 2201/2083](#).

Groups [D07B 2201/2083](#) and [D07B 2201/20903](#) should be considered in order to perform a complete search.

- D07B 2201/20907 . . . comprising knitted structures

### **WARNING**

Group [D07B 2201/20907](#) is incomplete pending reclassification of documents from group [D07B 2201/2083](#).

Groups [D07B 2201/2083](#) and [D07B 2201/20907](#) should be considered in order to perform a complete search.

- D07B 2201/2091 . . . being movable relative to the internal structure
- D07B 2201/2092 . . . characterised by the materials used
- D07B 2201/2093 . . . . being translucent



D07B 2201/2094	. . . . being luminescent or reflective
D07B 2201/2095	. . Auxiliary components, e.g. electric conductors or light guides
D07B 2201/2096	. . . Light guides
D07B 2201/2097	. . . Binding wires
D07B 2201/2098	. . . . characterized by special properties or the arrangements of the binding wire

**D07B 2205/00****Rope or cable materials**

D07B 2205/10	. Natural organic materials
D07B 2205/103	. . Animal and plant materials
D07B 2205/106	. . . Manila, hemp or sisal
D07B 2205/20	. Organic high polymers
D07B 2205/2003	. . Thermoplastics
D07B 2205/2007	. . Duroplastics
D07B 2205/201	. . Polyolefins
D07B 2205/2014	. . . High performance polyolefins, e.g. Dyneema or Spectra
D07B 2205/2017	. . Polystyrenes
D07B 2205/2021	. . Polyvinyl halides
D07B 2205/2025	. . Polyvinyl acetates
D07B 2205/2028	. . Polyvinyl alcohols
D07B 2205/2032	. . Polyacrylics
D07B 2205/2035	. . Polyacetals
D07B 2205/2039	. . Polyesters
D07B 2205/2042	. . . High performance polyesters, e.g. Vectran
D07B 2205/2046	. . Polyamides, e.g. nylons
D07B 2205/205	. . . Aramides
D07B 2205/2053	. . . . Polybenzimidazol [PBI]
D07B 2205/2057	. . Phenol resins
D07B 2205/206	. . Epoxy resins
D07B 2205/2064	. . Polyurethane resins
D07B 2205/2067	. . Viscose or regenerated cellulose, e.g. Rayon
D07B 2205/2071	. . Fluor resins
D07B 2205/2075	. . Rubbers, i.e. elastomers
D07B 2205/2078	. . . being of natural origin
D07B 2205/2082	. . . being of synthetic nature, e.g. chloroprene
D07B 2205/2085	. . having particular high polymer characteristics
D07B 2205/2089	. . . showing heat contraction
D07B 2205/2092	. . . related to water solubility
D07B 2205/2096	. . Poly-p-phenylenebenzo-bisoxazole [PBO]
D07B 2205/30	. Inorganic materials
D07B 2205/3003	. . Glass

D07B 2205/3007	. . Carbon
D07B 2205/301	. . Ceramics
D07B 2205/3014	. . Asbestos
D07B 2205/3017	. . Silicon carbides
D07B 2205/3021	. . Metals
D07B 2205/3025	. . . Steel
D07B 2205/3028	. . . . Stainless steel
D07B 2205/3032	. . . . Austenite
D07B 2205/3035	. . . . Pearlite
D07B 2205/3039	. . . . Martensite
D07B 2205/3042	. . . . Ferrite
D07B 2205/3046	. . . . characterised by the carbon content
D07B 2205/305	. . . . . having a low carbon content, e.g. below 0,5 percent respectively NT wires
D07B 2205/3053	. . . . . having a medium carbon content, e.g. greater than 0,5 percent and lower than 0.8 percent respectively HT wires
D07B 2205/3057	. . . . . having a high carbon content, e.g. greater than 0,8 percent respectively SHT or UHT wires
D07B 2205/306	. . . Aluminium (Al)
D07B 2205/3064	. . . Chromium (Cr)
D07B 2205/3067	. . . Copper (Cu)
D07B 2205/3071	. . . Zinc (Zn)
D07B 2205/3075	. . . Tin (Sn)
D07B 2205/3078	. . . Lead (Pb)
D07B 2205/3082	. . . Tungsten (W)
D07B 2205/3085	. . . Alloys, i.e. non ferrous
D07B 2205/3089	. . . . Brass, i.e. copper (Cu) and zinc (Zn) alloys
D07B 2205/3092	. . . . Zinc (Zn) and tin (Sn) alloys
D07B 2205/3096	. . . Amorphous metals
D07B 2205/40	. Superconductive materials
D07B 2205/405	. . Ceramic superconductor
D07B 2205/50	. Lubricants
D07B 2205/502	. . Oils
D07B 2205/505	. . Greases
D07B 2205/507	. . Solid lubricants
<b>D07B 2207/00</b>	<b>Rope or cable making machines</b>
D07B 2207/20	. Type of machine
D07B 2207/201	. . Manually operated systems
D07B 2207/202	. . Double twist unwinding
D07B 2207/203	. . . comprising flyer

- D07B 2207/204 . . Double twist winding
- D07B 2207/205 . . . comprising flyer
- D07B 2207/206 . . . with means for providing less than double twist, e. g. counter rotating means
- D07B 2207/207 . . Sequential double twisting devices
- D07B 2207/208 . . . characterised by at least partially unwinding the twist of the upstream double twisting step
- D07B 2207/209 . . Tubular strander
- D07B 2207/40 . Machine components
- D07B 2207/4004 . . Unwinding devices
- D07B 2207/4009 . . . over the head
- D07B 2207/4013 . . . comprising flyer
- D07B 2207/4018 . . Rope twisting devices
- D07B 2207/4022 . . . characterised by twisting die specifics
- D07B 2207/4027 . . . . including a coating die
- D07B 2207/4031 . . Winding device
- D07B 2207/4036 . . . comprising traversing means
- D07B 2207/404 . . Heat treating devices; Corresponding methods
- D07B 2207/4045 . . . to change the crystal structure of the load bearing material
- D07B 2207/405 . . . to heat towards the glass transition temperature of the load bearing material
- D07B 2207/4054 . . . to soften the load bearing material
- D07B 2207/4059 . . . to soften the filler material
- D07B 2207/4063 . . . for stress relief
- D07B 2207/4068 . . . for curing
- D07B 2207/4072 . . Means for mechanically reducing serpentineing or mechanically killing of rope
- D07B 2207/4077 . . Safety devices
- D07B 2207/4081 . . . comprising means for stopping or shutting down the machine
- D07B 2207/4086 . . . providing warnings
- D07B 2207/409 . . Drives
- D07B 2207/4095 . . . Control means therefor

**D07B 2301/00****Controls**

- D07B 2301/10 . Open loop
- D07B 2301/15 . Closed loop
- D07B 2301/155 . . being of the extended closed loop control system type, e.g. using models or more than one signal in the feedback loop
- D07B 2301/20 . Controller types
- D07B 2301/201 . . proportional
- D07B 2301/202 . . integrative
- D07B 2301/204 . . differential
- D07B 2301/205 . . Programmable controllers; Calculating or controlling methods
- D07B 2301/207 . . . Fuzzy logic

D07B 2301/208	. . . using timing functions
D07B 2301/25	. System input signals, e.g. set points
D07B 2301/251	. . Twist
D07B 2301/252	. . Temperature
D07B 2301/253	. . . Temperature profile or sequence
D07B 2301/254	. . Amount of material
D07B 2301/255	. . Power consumption of drive
D07B 2301/256	. . Pressure
D07B 2301/257	. . Force
D07B 2301/258	. . Tensile stress
D07B 2301/259	. . Strain or elongation
D07B 2301/30	. Signals indicating failure or excessive conditions, e.g. overheating
D07B 2301/302	. . Temperature
D07B 2301/305	. . Wear or friction
D07B 2301/307	. . Breakage of wire or strand or rope
D07B 2301/35	. System output signals
D07B 2301/3508	. . Twist
D07B 2301/3516	. . Temperature
D07B 2301/3525	. . . Temperature profile or sequence
D07B 2301/3533	. . Amount of material
D07B 2301/3541	. . Power consumption of drive
D07B 2301/355	. . Pressure
D07B 2301/3558	. . Force
D07B 2301/3566	. . Tensile stress
D07B 2301/3575	. . Strain or elongation
D07B 2301/3583	. . Rotational speed
D07B 2301/3591	. . Linear speed
D07B 2301/40	. Feedback signal in closed loop controls
D07B 2301/4008	. . Twist
D07B 2301/4016	. . Temperature
D07B 2301/4025	. . . Temperature profile or sequence
D07B 2301/4033	. . Amount of material
D07B 2301/4041	. . Power consumption of drive
D07B 2301/405	. . Pressure
D07B 2301/4058	. . Force
D07B 2301/4066	. . Tensile stress
D07B 2301/4075	. . Strain or elongation
D07B 2301/4083	. . Rotational speed
D07B 2301/4091	. . Linear speed
D07B 2301/45	. for diagnosing (signals indicating failure or excessive conditions <a href="#">D07B 2301/30</a> )

- D07B 2301/50 . User Interface or value setting
- D07B 2301/55 . Sensors
- D07B 2301/5504 . . characterised by their arrangement
- D07B 2301/5509 . . . being movable
- D07B 2301/5513 . . . being of the reflective type
- D07B 2301/5518 . . . . Transducers therefor
- D07B 2301/5522 . . . being of the barrier type
- D07B 2301/5527 . . . comprising an array or multiple sensors
- D07B 2301/5531 . . using electric means or elements
- D07B 2301/5536 . . . for measuring electrical current
- D07B 2301/554 . . . for measuring variable resistance
- D07B 2301/5545 . . . and piezoelectric phenomenons
- D07B 2301/555 . . . for measuring magnetic properties
- D07B 2301/5554 . . . for measuring capacitance
- D07B 2301/5559 . . . for measuring inductance
- D07B 2301/5563 . . . for measuring temperature, i. e. thermocouples
- D07B 2301/5568 . . . acoustic or ultrasonic
- D07B 2301/5572 . . . optical
- D07B 2301/5577 . . . using light guides
- D07B 2301/5581 . . . using cameras
- D07B 2301/5586 . . . using lasers
- D07B 2301/559 . . . for pressure
- D07B 2301/5595 . . . for force

**D07B 2401/00 Aspects related to the problem to be solved or advantage**

- D07B 2401/20 . related to ropes or cables
- D07B 2401/2005 . . Elongation or elasticity
- D07B 2401/201 . . . regarding structural elongation
- D07B 2401/2015 . . Killing or avoiding twist
- D07B 2401/202 . . Environmental resistance
- D07B 2401/2025 . . . avoiding corrosion
- D07B 2401/203 . . . Low temperature resistance
- D07B 2401/2035 . . . High temperature resistance
- D07B 2401/204 . . . Moisture handling
- D07B 2401/2045 . . Avoiding longitudinal load for covering
- D07B 2401/205 . . Avoiding relative movement of components
- D07B 2401/2055 . . Improving load capacity
- D07B 2401/206 . . Improving radial flexibility
- D07B 2401/2065 . . Reducing wear
- D07B 2401/207 . . . internally

- D07B 2401/2075 . . . externally
- D07B 2401/208 . . Enabling filler penetration
- D07B 2401/2085 . . Adjusting or controlling final twist
- D07B 2401/209 . . . comprising compensation of rope twist in strand twist
- D07B 2401/2095 . . Improving filler wetting respectively or filler adhesion
- D07B 2401/40 . related to rope making machines
- D07B 2401/401 . . Reducing wear
- D07B 2401/403 . . Reducing vibrations
- D07B 2401/405 . . Addressing space constraints
- D07B 2401/406 . . Increasing speed
- D07B 2401/408 . . Increasing rope length, e.g. on drum

#### **D07B 2501/00      Application field**

- D07B 2501/20 . related to ropes or cables
- D07B 2501/2007 . . Elevators
- D07B 2501/2015 . . Construction industries
- D07B 2501/2023 . . . Concrete enforcements
- D07B 2501/203 . . . Bridges
- D07B 2501/2038 . . Agriculture, forestry and fishery
- D07B 2501/2046 . . Tire cords
- D07B 2501/2053 . . . for wheel rim attachment
- D07B 2501/2061 . . Ship moorings
- D07B 2501/2069 . . Climbing or tents
- D07B 2501/2076 . . Power transmissions
- D07B 2501/2084 . . Mechanical controls, e.g. door lashes
- D07B 2501/2092 . . Evacuation lines or lifelines
- D07B 2501/40 . related to rope or cable making machines
- D07B 2501/403 . . for making belts
- D07B 2501/406 . . for making electrically conductive cables

#### **D07B 2801/00      Linked indexing codes associated with indexing codes or classes of [D07B](#) (not used)**

#### **NOTE**

The following indexing codes are applied as linked indexing codes associated to other indexing codes or classes of [D07B](#), with the following restrictions:

- [D07B 2801/10](#), [D07B 2801/14](#) -[D07B 2801/22](#) are only to be used as linked indexing codes with [D07B 2205/00](#) and lower hierarchy
- [D07B 2801/12](#) and [D07B 2801/24](#) are only to be used as linked indexing codes with [D07B 2205/00](#) and lower hierarchy or [D07B 2201/2047](#) and lower hierarchy
- [D07B 2801/60](#) and [D07B 2801/62](#) are only to be used as linked indexing codes with [D07B 2207/404](#) and lower hierarchy

## D07B 2801/00

(continued)

- [D07B 2801/90](#) is only used as linked indexing code with any class or indexing code of [D07B](#) and defines that the classified feature belongs to the general knowledge.

<a href="#">D07B 2801/10</a>	. Smallest filamentary entity of a rope or strand, i.e. wire, filament, fiber or yarn
<a href="#">D07B 2801/12</a>	. Strand
<a href="#">D07B 2801/14</a>	. Core
<a href="#">D07B 2801/16</a>	. Filler
<a href="#">D07B 2801/18</a>	. Coating
<a href="#">D07B 2801/20</a>	. Spacer
<a href="#">D07B 2801/22</a>	. Jacket or covering
<a href="#">D07B 2801/24</a>	. Rope
<a href="#">D07B 2801/60</a>	. Method
<a href="#">D07B 2801/62</a>	. Device
<a href="#">D07B 2801/90</a>	. General knowledge