### **CPC** COOPERATIVE PATENT CLASSIFICATION

#### **TEXTILES; PAPER** D

# TEXTILES OR FLEXIBLE MATERIALS NOT OTHERWISE PROVIDED FOR

#### **D07** ROPES; CABLES OTHER THAN ELECTRIC

**D07B ROPES OR CABLES IN GENERAL** (joining ropes or cables to one another or to other objects <u>B65H 69/00</u>, <u>F16G 11/00</u>; {mountaineering ropes <u>A63B 29/02</u>}; mechanical finishing or dressing of ropes <u>D02J</u>; {braiding <u>D04C</u>}; decorative ropes or cords <u>D04D</u>; 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)

### WARNING

In this subclass non-limiting references (in the sense of paragraph 39 of the Guide to the IPC) may still be displayed in the scheme.

1/00	Constructional features of ropes or cables	1/10	• • • with a core of wires arranged parallel to the
1/005	• {Composite ropes, i.e. ropes built-up from fibrous	1/10	centre line
4 10.0	or filamentary material and metal wires}	1/12	Ropes or cables with a hollow core
1/02	<ul> <li>Ropes built-up from fibrous or filamentary material, e.g. of vegetable origin, of animal origin, regenerated cellulose, plastics</li> </ul>	1/14	• Ropes or cables with incorporated auxiliary elements, e.g. for marking, extending throughout the length of the rope or cable
1/025	• • {comprising high modulus, or high tenacity, polymer filaments or fibres, e.g. liquid-crystal	1/141	• • {comprising liquid, pasty or powder agents, e.g. lubricants or anti-corrosive oils or greases}
1/04	<ul><li>polymers}</li><li>with a core of fibres or filaments arranged parallel</li></ul>	1/142	<ul> <li>. • {for ropes or rope components built-up from fibrous or filamentary material}</li> </ul>
-, -, -	to the centre line	1/144	• • • {for cables or cable components built-up from
1/06	. Ropes or cables built-up from metal wires, e.g. of	1/1	metal wires}
1/0606	section wires around a hemp core  • {Reinforcing cords for rubber or plastic articles}	1/145	• • {comprising elements for indicating or detecting the rope or cable status}
1/0613	{the reinforcing cords being characterised by	1/147	• • {comprising electric conductors or elements
1/062	the rope configuration \\ {the reinforcing cords being characterised by	1/11/	for information transfer (D07B 1/145 takes precedence)}
1/002	the strand configuration}	1/148	• • {comprising marks or luminous elements}
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	1/16	<ul> <li>Ropes or cables with an enveloping sheathing or inlays of rubber or plastics (D07B 1/04, D07B 1/10 take precedence)</li> </ul>
1/0633	<ul><li>configuration}</li><li> {having a multiple-layer configuration}</li></ul>	1/162	<ul> <li>{characterised by a plastic or rubber enveloping sheathing}</li> </ul>
1/0633	{the reinforcing cords being twisted and	1/165	• • {characterised by a plastic or rubber inlay}
1/004	with at least one wire exchanging place with	1/167	• • {having a predetermined shape}
	another wire}	1/18	• Grommets {(slings <u>B66C 1/12)</u> }
1/0646	{comprising longitudinally preformed wires}	1/185	• {characterised by the eye construction}
1/0653	· · · · {in the core}	1/20	<ul> <li>Buoyant ropes, e.g. with air-filled cellular cores;</li> </ul>
1/066	{the wires being made from special alloy or	1,20	Accessories therefor
	special steel composition}	1/22	• Flat or flat-sided ropes; Sets of ropes consisting of a
1/0666	{the wires being characterised by an anti-		series of parallel ropes
	corrosive or adhesion promoting coating}	1/24	• {Ropes or cables with a prematurely failing
1/0673	• • {having a rope configuration}		element}
1/068	• • {characterised by the strand design}		
1/0686	• • {characterised by the core design}	<u>Manufactur</u>	re of ropes or cables
1/0693	• • {having a strand configuration}	3/00	General-purpose machines or apparatus for
1/08	the layers of which are formed of profiled	5/00	producing twisted ropes or cables from component

3/005

interlocking wires, i.e. the strands forming

concentric layers {(D07B 1/0606 takes

precedence)}

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strands of the same or different material

• {with alternating twist directions}

3/02	• in which the supply reels rotate about the axis of the rope or cable {or in which a guide member	7/06	• • Bearing supports or brakes for supply bobbins or reels
	rotates about the axis of the rope or cable to guide the component strands away from the supply reels in fixed position}	7/08	Alarms or stop motions responsive to exhaustion or breakage of filamentary material fed from supply reels or bobbins
3/022	• • {with provision for imparting two or more twists to the filaments for each revolution of the guide	7/10	Devices for taking-up or winding the finished rope or cable
3/04	member} . and are arranged in tandem along the axis of	7/12	• • for softening, lubricating or impregnating ropes, cables, or component strands thereof
3/045	<ul><li>the machine {, e.g. tubular or high-speed type stranding machine}</li><li>. • {with the reels axially aligned, their common</li></ul>	7/14	for coating or wrapping ropes, cables, or component strands thereof (applying liquids or the flavor for th
3/043	axis coinciding with the axis of the machine}		other fluent materials to surfaces in general <u>B05</u> ; wrapping elongated cores in general <u>B65H 81/06</u> )
3/06	and are spaced radially from the axis of the	7/145	• • • {Coating or filling-up interstices}
	<pre>machine {, i.e. basket or planetary-type stranding machine}</pre>	7/16	Auxiliary apparatus
3/08	• in which the take-up reel rotates about the axis of	7/162	• • {Vices or clamps for bending or holding the rope
3/00	the rope or cable {or in which a guide member	7/165	or cable during splicing } {for making slings}
	rotates about the axis of the rope or cable to guide	7/167	<ul><li>. {for inaking sinigs}</li><li>. {for joining rope components}</li></ul>
	the rope or cable on the take-up reel in fixed	7/169	<ul><li>. {for interconnecting two cable or rope ends, e.g.</li></ul>
	position) and the supply reels are fixed in position	7/109	by splicing or sewing (fixation or holding of the
3/085	• • {in which a guide member rotates about the axis		ends prior to or during splicing <u>D07B 7/162</u> ;
	of the rope or cable to guide the rope or cable on the take-up reel in fixed position}		joining the rope or cable components individually
3/10	with provision for imparting more than one		or joining the rope ends by permanent means such
3/10	complete twist to the ropes or cables for each		as welding, gluing or crimp sleeve <u>D07B 7/167</u> ;
	revolution of the take-up reel {or of the guide		preparing the splice by opening the ends D07B 7/18)}
	member}	7/18	• for spreading or untwisting ropes or cables
3/103	• • {characterised by the bow construction}	7/10	into constituent parts for treatment or splicing
3/106	• • • {characterised by comprising two bows, both		purposes
3/12	guiding the same bundle to impart a twist} <ul><li>operating with rotating loops of filaments</li></ul>	7/182	• • • {for spreading ropes or cables by hand- operated tools for splicing purposes, e.g.
3/14	<ul> <li>hand-operated</li> </ul>		needles or spikes}
5/00	Making ropes or cables from special materials or of particular form	7/185	• • • {for temporarily untwisting ropes or cables into constituent parts for applying a coating}
5/002	• {Making parallel wire strands}	7/187	• • • {for forming bulbs in ropes or cables}
5/005	<ul> <li>{characterised by their outer shape or surface properties}</li> </ul>	<b>9/00</b> 9/001	Binding or sealing ends, e.g. to prevent unravelling  . {combined with cutting or severing}
5/006	• • {by the properties of an outer surface polymeric coating}		· (combined with editing of severing)
5/007	• {comprising postformed and thereby radially		
	plastically deformed elements}	2201/00	Ropes or cables
5/02	<ul> <li>from straw or like vegetable material</li> </ul>	2201/10	. Rope or cable structures
5/04	. Rope bands	2201/1004	General structure or appearance
5/045	• • {Belts comprising additional filaments for	2201/1008	Several parallel ropes
F/07	laterally interconnected load bearing members}	2201/1012	characterised by their internal structure     characterised by being laid or braided from
5/06	from natural or artificial staple fibres     agglutinated by adhesives.	2201/1014	several sub-ropes or sub-cables, e.g. hawsers
5/08	agglutinated by adhesives     from strands of non-circular cross-section	2201/1016	characterised by the use of different strands
5/10 5/12	<ul> <li>from strands of non-circular cross-section</li> <li>of low twist or low tension by processes comprising</li> </ul>	2201/1010	including a core
3/14	setting or straightening treatments	2201/1024	Structures that change the cross-sectional shape
		2201/1028	characterised by the number of strands
7/00	Details of, or auxiliary devices incorporated in, rope- or cable-making machines; Auxiliary	2201/1032	• • • three to eight strands respectively forming a single layer
7/02	apparatus associated with such machines	2201/1036	nine or more strands respectively forming
7/02 7/021	<ul> <li>Machine details; Auxiliary devices</li> <li>• {Guiding means for filaments, strands, ropes or</li> </ul>		multiple layers
77021	cables	2201/104	twisted
7/022	{Measuring or adjusting the lay or torque in the rope}	2201/1044	characterised by a value or range of the pitch parameter given
7/025	• {Preforming the wires or strands prior to closing}	2201/1048	using regular lay, i.e. the wires or filaments

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being parallel to rope axis

inclined relative to the rope axis

2201/1052 . . . using lang lay, i.e. the wires or filaments being

Devices for imparting reverse rotation to bobbin-

• • {Postforming of ropes or strands}

or reel cages

7/027

7/04

2201/1056 using alternate lay, i.e. the wires or filaments in	2201/2039 three to eight wires or filaments respectively
the strands being oppositely inclined relative to	forming a single layer
the rope axis	2201/204 nine or more wires or filaments respectively
2201/106 Pitch changing over length	forming multiple layers
2201/1064 characterised by lay direction of the strand	2201/2041 characterised by the materials used
compared to the lay direction of the wires in the	•
	2201/2042 characterised by a coating
strand	2201/2043 comprising metals
2201/1068 having the same lay direction	2201/2044 comprising polymers
2201/1072 Compact winding, i.e. S/S or Z/Z	2201/2045 comprising multiple layers
2201/1076 Open winding	
2201/108 Cylinder winding, i.e. S/Z or Z/S	
•	2201/2047 Cores
2201/1084 Different twist pitch	2201/2048 characterised by their cross-sectional shape
2201/1088 false twisted	2201/2049 having protrusions extending radially
2201/1092 • Parallel strands	functioning as spacer between strands or
2201/1096 • • braided	wires
	2201/2051 characterised by a value or range of the
2201/2001 . Wires or filaments	dimension given
2201/2002 characterised by their cross-sectional shape	2201/2052 characterised by their structure
2201/2003 flat	2201/2053 being homogeneous
2201/2004 triangular	2201/2054 comprising foam material
	* *
2201/2005 oval	
2201/2006 characterised by a value or range of the	2201/2056 arranged parallel to the axis
dimension given	2201/2057 resulting in a twisted structure
2201/2007 characterised by their longitudinal shape	2201/2058 comprising fillers
2201/2008 wavy or undulated	2201/2059 comprising wires
-	
2201/2009 characterised by the materials used	2201/206 arranged parallel to the axis
2201/201 characterised by a coating	2201/2061 resulting in a twisted structure
2201/2011 comprising metals	2201/2062 comprising fillers
2201/2012 comprising polymers	2201/2063 being hollow
2201/2013 comprising multiple layers	2201/2064 being discontinuous in the longitudinal
2201/2014 Compound wires or compound filaments	direction
2201/2015 Strands	2201/2065 comprising a coating
2201/2016 characterised by their cross-sectional shape	2201/2066 characterised by the materials used
2201/2017 triangular	2201/2067 characterised by the elongation or tension
2201/2018 oval	behaviour
2201/2019 pressed to shape	
2201/202 characterised by a value or range of the	2201/2069 being elastic
dimension given	2201/207 being viscous
2201/2021 characterised by their longitudinal shape	2201/2071 Spacers
2201/2022 coreless	2201/2072 characterised by the materials used
2201/2023 with core	
2201/2024 twisted	2201/2074 in radial direction
2201/2025 characterised by a value or range of the pitch	2201/2075 . Fillers
parameter given	2201/2076 having a lubricant function
2201/2026 Pitch changing over length	2201/2077 having an anti-corrosive function
2201/2027 Compact winding	2201/2078 having a load bearing function
2201/2028 having the same lay direction and lay pitch	2201/2079 characterised by the kind or amount of filling
2201/2029 Open winding	2201/208 having an open structure
2201/203 Cylinder winding, i.e. S/Z or Z/S	2201/2081 having maximum filling
2201/2031 Different twist pitch	2201/2082 characterised by the materials used
-	
2201/2032 compared with the core	2201/2083 Jackets or coverings
2201/2033 Parallel wires	2201/2084 characterised by their shape
2201/2034 comprising crossing wires or filaments in the	2201/2085 concerning the internal shape
same layer	2201/2086 concerning the external shape
2201/2035 false twisted	2201/2087 being of the coated type
2201/2036 characterised by the use of different wires or	2201/2088 having multiple layers
filaments	2201/2089 comprising wrapped structures
2201/2037 regarding the dimension of the wires or	2201/209 comprising braided structures
filaments	2201/20903 comprising woven structures
2201/2038 characterised by the number of wires or	2201/20907 comprising woven structures
filaments	
	2201/2091 being movable relative to the internal structure
	2201/2092 characterised by the materials used

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2201/2002		2205/2055	
	being translucent	2205/305/	having a high carbon content, e.g. greater
2201/2094	being luminescent or reflective		than 0,8 percent respectively SHT or UHT
2201/2095	Auxiliary components, e.g. electric conductors or	2205/206	wires
	light guides	2205/306	Aluminium (Al)
2201/2096	Light guides	2205/3064	Chromium (Cr)
2201/2097	Binding wires	2205/3067	Copper (Cu)
2201/2098	characterized by special properties or the	2205/3071	Zinc (Zn)
	arrangements of the binding wire	2205/3075	Tin (Sn)
2205/00	Rope or cable materials	2205/3078	Lead (Pb)
2205/10	Natural organic materials	2205/3082	Tungsten (W)
2205/10	Animal and plant materials	2205/3085	Alloys, i.e. non ferrous
2205/105	Manila, hemp or sisal	2205/3089	<b></b> Brass, i.e. copper (Cu) and zinc (Zn) alloys
	•	2205/3092	Zinc (Zn) and tin (Sn) alloys
2205/20	Organic high polymers  The state of the	2205/3096	Amorphous metals
2205/2003	Thermoplastics	2205/40	Superconductive materials
2205/2007	Duroplastics	2205/405	Ceramic superconductor
2205/201	Polyolefins	2205/50	Lubricants
2205/2014	High performance polyolefins, e.g. Dyneema or	2205/502	Oils
	Spectra	2205/505	Greases
2205/2017	Polystyrenes	2205/507	Solid lubricants
2205/2021	Polyvinyl halides	2203/307	• • Solid Tublicants
2205/2025	Polyvinyl acetates	2207/00	Rope or cable making machines
2205/2028	Polyvinyl alcohols	2207/20	Type of machine
2205/2032	Polyacrylics	2207/201	Manually operated systems
2205/2035	Polyacetals	2207/202	Double twist unwinding
2205/2039	Polyesters	2207/203	comprising flyer
2205/2042	High performance polyesters, e.g. Vectran	2207/204	Double twist winding
2205/2046	Polyamides, e.g. nylons	2207/205	comprising flyer
2205/205	Aramides	2207/206	• • • with means for providing less than double
2205/2053	Polybenzimidazol [PBI]	2201/200	twist, e.g. counter rotating means
2205/2057	• Phenol resins	2207/207	Sequential double twisting devices
2205/206	Epoxy resins	2207/208	characterised by at least partially unwinding the
2205/2064	Polyurethane resins	22011200	twist of the upstream double twisting step
2205/2067	Viscose or regenerated cellulose, e.g. Rayon	2207/209	Tubular strander
2205/2007	Fluor resins	2207/40	Machine components
2205/2075	Rubbers, i.e. elastomers	2207/4004	. Unwinding devices
2205/2078	being of natural origin	2207/4009	over the head
			comprising flyer
2205/2082	being of synthetic nature, e.g. chloroprene		Rope twisting devices
2205/2085	. having particular high polymer characteristics		characterised by twisting die specifics
2205/2089	showing heat contraction	2207/4022	including a coating die
2205/2092	related to water solubility	2207/4027	
2205/2096	Poly-p-phenylenebenzo-bisoxazole [PBO]	2207/4031	• • Winding device
2205/30	Inorganic materials	2207/4036	comprising traversing means
2205/3003	Glass	2207/404	Heat treating devices; Corresponding methods
2205/3007	Carbon	2207/4045	to change the crystal structure of the load
2205/301	Ceramics	2205/405	bearing material
2205/3014	Asbestos	2207/405	• to heat towards the glass transition temperature
2205/3017	Silicon carbides	2207/4054	of the load bearing material
2205/3021	Metals	2207/4054	to soften the load bearing material
2205/3025	Steel	2207/4059	to soften the filler material
2205/3028	Stainless steel		for stress relief
2205/3032	Austenite		for curing
2205/3035	Pearlite	2207/4072	Means for mechanically reducing serpentining or
2205/3039	Martensite		mechanically killing of rope
	Ferrite	2207/4077	,
	characterised by the carbon content	2207/4081	comprising means for stopping or shutting
	having a low carbon content, e.g. below		down the machine
2200/300	0,5 percent respectively NT wires	2207/4086	providing warnings
2205/3053	having a medium carbon content, e.g.	2207/409	Drives
, , , , , , ,	greater than 0,5 percent and lower than 0.8	2207/4095	Control means therefor
	percent respectively HT wires	2301/00	Controls
		2301/10	. Open loop

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2301.155				
type, e.g. using models or more than one signal in the feedback loop to the feedback loop	2301/15	Closed loop		e
the feedback loop	2301/155	· · · · · · · · · · · · · · · · · · ·		
2001/201   Controller types   2001/201   For proportional   2301/202   integrative   2301/2058   for measuring capacitance   2301/2058   for measuring temperature, i.e. thermocupiles   2301/2058   does measuring temperature, i.e. thermocupiles   2301/2058   does not controlling methods   2301/2058   does not controlling methods   2301/2057				
2001/202   . proportional   2301/5568   Gor measuring inductance   2301/202	2201/20			
2301/224   . integrative   2301/5563   for measuring temperature, i.e. thermocouples   2301/2512   . Optional products				- ·
2301/250				· ·
2301/255   Programmable controllers, Calculating or controlling methods   2301/5572				
2011/2015				
2301/207   . Fuzzy logic   2301/258   using timing functions   2301/258   using lacers   2301/258	2301/205			- •
2301/258	2201/207			
2301/255   . Troist				_
2301/251   Twist				
2301/252   . Temperature profile or sequence   2401/00   Aspects related to the problem to be solved or advantage   2401/205   . Fersure   2401/205   . Eliongation or elasticity   related to ropes or cables   2401/205   . Eliongation or elasticity   related to ropes or cables   2401/205   . Eliongation or elasticity   related to ropes or cables   2401/205   . Eliongation or elasticity   related to ropes or cables   2401/2015   . Fersure   . Fersure   2401/2015   . Fersure   2401/				-
2301/255   Temperature profile or sequence   2401/200   substance   2401/201			2301/5595	for force
2011/255			2401/00	Aspects related to the problem to be solved or
2301/255   Power consumption of drive   2401/200   Pressure   2401/201   Pressure   2401/201   Pressure   2401/201   Pressure   2401/201   Pressure   2401/201   Pressure   2401/201   Pressure   2401/202   Pressure   2401/202   Pressure   2401/202   Pressure   2401/203   Pressure   2401/204   Pressure   2401/204   Pressure   2401/204   Pressure   2401/204   Pressure   2401/204   Pressure   2401/205   Pressure   24				
2301/256   Pressure   2401/2001   Pressure   2401/201   Pressure   2401/202   Pressure   2401/202   Pressure   2401/202   Pressure   Pressure   Pressure   Pressure   2401/203   Pressure			2401/20	<ul> <li>related to ropes or cables</li> </ul>
2301/257   . Force   2401/2015   . Figarding structural elongation   2301/258   . Tensile stress   2401/2015   . Killing or avoiding twist   2301/259   . Avoiding corrosion   2401/202   . Low temperature resistance   2401/203   . Low temperature resistance   2401/204   . Moisture handling   2401/204   . Moisture handling   2401/204   . Moisture handling   2401/204   . Avoiding longitudinal load for covering   2401/204   . Avoiding longitudinal load for covering   2401/205   . Avoiding longitudinal load for covering   2401/205   . Avoiding longitudinal load for covering   2401/205   . Temperature profile or sequence   2401/205   . Improving load and leave the l			2401/2005	Elongation or elasticity
2301/255   . Tensile stress   2401/2012			2401/201	regarding structural elongation
2301/259   . Strain or elongation   2401/202   . Environmental resistance   2301/203   . Signals indicating failure or excessive conditions, e.g. overheating   2401/203   Low temperature resistance   2401/203			2401/2015	Killing or avoiding twist
2301/300   Signals indicating failure or excessive conditions e.g. overheating e.g. overheating   2401/203   Co.   Low temperature resistance   2301/305   Co.   Temperature   2401/203   Co.   High temperature resistance   2401/203   Co.   High temperature resistance   2401/203   Co.   High temperature resistance   2401/203   Co.   Avoiding inclinational load for covering   2401/203   Co.   Avoiding relative movement of components   2401/205   Co.   Avoiding relative movement of components   2401/205   Co.   Improving load capacity   Improving radial flexibility   Improving radial flexibility   Improving radial flexibility   2301/3515   Co.   Temperature profile or sequence   2401/206   Reducing wear   2401/207   Co.   Improving radial flexibility   2301/3533   Co.   Amount of material   2401/207   Co.   Externally   2301/3555   Pressure   2401/208   Co.   Emabling filler penetration   2401/2075   Co.   Externally   2301/3555   Pressure   2401/208   Emabling filler penetration   2301/3555   Pressure   2401/208   Co.   Emabling filler penetration   2301/3555   Pressure   2401/208   Co.   Emabling filler penetration   2301/3558   Pressure   2401/209   Co.   Comprising compensation of rope twist in strand twist   Co.			2401/202	Environmental resistance
e.g. overheating		_	2401/2025	avoiding corrosion
2301/305   . Temperature   2401/2045   . High temperature resistance   2301/307   . Wear or friction   2401/2045   . Moisture handling   2301/307   . Breakage of wire or strand or rope   2401/2045   . Avoiding longitudinal load for covering   2301/355   . Trwist   2401/205   . Avoiding relative movement of components   2401/2055   . Improving load capacity   2301/3516   . Temperature   2401/2065   . Improving radial flexibility   2301/3525   . Temperature profile or sequence   2401/2065   . Reducing wear   2401/2075   . Returnally   2301/3535   . Amount of material   2401/2075   . Returnally   2301/3555   . Pressure   2401/208   . Enabling filler penetration   2301/3555   . Pressure   2401/208   . Enabling filler penetration   2301/3556   . Tensile stress   2401/209   . comprising compensation of rope twist in strand twist   . Strain or elongation   . Timperature   . Strain or elongation   . Strain or elong	2301/30		2401/203	Low temperature resistance
2301/307   Seakage of wire or strand or rope   2401/2045   Avoiding longitudinal load for covering   2301/307   System output signals   2401/2055   Avoiding longitudinal load for covering   2301/3508   Twist   2401/2055   Improving load capacity   Improving radial flexibility   2301/3516   Temperature   2401/206   Improving radial flexibility   2301/3516   Temperature profile or sequence   2401/206   Improving radial flexibility   2301/3533   Amount of material   2401/207   Improving radial flexibility   2301/3533   Amount of material   2401/207   Improving radial flexibility   2301/3554   Power consumption of drive   2401/2075   externally   2301/3558   Pressure   2401/2085   Adjusting or controlling final twist   2301/3556   Force   2401/2085   Adjusting or controlling final twist   2301/3556   Force   2401/209   Comprising compensation of rope twist in strand (wist   Strain or elongation   Pressure   2401/2095   Improving filler wetting respectively or filler adhesion   related to rope making machines   2301/3583   Rotational speed   2401/4095   Improving filler wetting respectively or filler adhesion   related to rope making machines   2401/4001   Reducing wear   2401/4001   Red	2301/302		2401/2035	High temperature resistance
2301/307   . Breakage of wire or strand or rope   2401/2045   . Avoiding longitudinal load for covering   2301/35   . System output signals   2401/205   . Avoiding relative movement of components   2401/206   . Improving load capacity     2301/3516   . Temperature profile or sequence   2401/206   . Improving radial flexibility     2301/3525   . Temperature profile or sequence   2401/206   . Reducing wear     2301/3534   . Power consumption of drive   2401/2075   . externally     2301/3554   . Power consumption of drive   2401/2078   . Enabling filler penetration     2301/3555   . Pressure   2401/208   . Enabling filler penetration     2301/3556   . Tensile stress   2401/208   . Adjusting or controlling final twist     2301/3557   . Strain or elongation   2401/209   . comprising compensation of rope twist in strand twist     2301/3575   . Strain or elongation   2401/209   . comprising compensation of rope twist in strand twist     2301/3591   . Linear speed   2401/209   . limproving filler wetting respectively or filler adhesion     2301/3400   . Feedback signal in closed loop controls   2401/400   . Reducing wear     2301/400   . Temperature   2401/401   . Reducing wear     2301/4002   . Temperature profile or sequence   2401/405   . Addressing space constraints     2301/40025   . Temperature profile or sequence   2401/405   . Addressing space constraints     2301/4003   . Amount of material   2401/406   . Increasing speed     2301/4005   . Pressure   2501/00   Application field     2301/4005   . Pressure   2501/00   . Feducing speed     2301/4005   . Force   2501/200   . Elevators     2301/4005   . Force   2501/200   . Concrete enforcements     2301/4005   . Strain or elongation   2501/2015   . Construction industries     2301/4005   . Tensile stress   2501/200   . Elevators     2301/4005   . Strain or elongation   2501/2023   . Concrete enforcements     2301/4005   . Tensile stress   2501/2004   . Tire cords     2301/4005   . Strain or elongation   2501/2023   . Concrete enforcements     2301/4005   . Strai		-	2401/204	Moisture handling
2301/3558   System output signals   2401/205   . Avoiding relative movement of components   2301/3508   . Twist   2401/205   . Improving radial flexibility			2401/2045	Avoiding longitudinal load for covering
2301/3508   . Twist		-	2401/205	Avoiding relative movement of components
2301/3516   . Temperature   2401/206   . Improving radial flexibility   2301/3525   . Temperature profile or sequence   2401/207   internally   2401/207   internally   2301/3533   . Amount of material   2401/207   externally   2401/2075   externally   2401/2085			2401/2055	Improving load capacity
2301/3525   Temperature profile or sequence   2401/2065   Reducing wear   2301/35333   Amount of material   2401/2075   externally   2401/2075   externally   2301/3555   . Pressure   2401/2085   . Enabling filler penetration   2401/2085			2401/206	Improving radial flexibility
2301/3533   Amount of material   2401/2075   internally   2301/3541   Power consumption of drive   2401/2075   externally			2401/2065	Reducing wear
2301/3554			2401/207	internally
2301/355   Pressure   2401/208   Enabling filler penetration   2301/3558   Force   2401/2085   Adjusting or controlling final twist   2301/3566   Tensile stress   2401/2095   comprising compensation of rope twist in strand twist   2301/3583   Rotational speed   2401/2095			2401/2075	externally
2301/3566 . Tensile stress 2301/3575 . Strain or elongation 2301/3575 . Strain or elongation 2301/3575 . Rotational speed 2301/3591 . Linear speed 2301/400 . Feedback signal in closed loop controls 2301/4008 . Twist 2301/4010 . Temperature 2301/4010 . Temperature 2301/4010 . Temperature 2301/4025 . Temperature profile or sequence 2301/403 . Amount of material 2301/4040 . Power consumption of drive 2301/4041 . Power consumption of drive 2301/405 . Ternsile stress 2301/406 . Ternsile stress 2301/4075 . Strain or elongation 2301/408 . Force 2301/405 . Force 2301/405 . Tensile stress 2301/406 . Tensile stress 2301/4075 . Strain or elongation 2301/4075 . Strain or elongation 2301/408 . Rotational speed 2301/408 . Rotational speed 2301/4091 . Linear speed 2301/4091 . Linear speed 2301/4091 . Linear speed 2301/4091 . Linear speed 2301/5 . Sensors 2301/5 . Sensors 2301/50 . User Interface or value setting 2301/50 . Sensors 2301/550 . Sensors 2301/5513 being of the partier type 2301/5527 comprising an array or multiple sensors 2301/5527 comprising an array or multiple sensors 2401/403 . for making betts 2501/2002 . Feated to ropes or cables 2501/2003 Concrete enforcements 2501/2015 . Construction industries 2501/2023 Concrete enforcements 2501/2023 Sensors 2501/2024 . Tire cords 2501/203 Spridges 2501/203 Spridges 2501/203 Spridges 2501/2046 . Tire cords 2501/205 . Sensors 2501/2061 . Ship moorings 2501/2061 . Ship moorings 2501/2509 being of the partier type 2501/2092 . Evacuation lines or lifelines 2501/2507 . Power transmissions 2501/2507 . Power transmissions 2501/2507 . being of the barrier type 2501/2003 . For making belts	2301/355	-	2401/208	
Strain or elongation   Strain d twist	2301/3558	Force	2401/2085	
2301/35/35/35/35/35/35/35/35/35/35/35/35/35/	2301/3566	Tensile stress	2401/209	comprising compensation of rope twist in
2301/3583 . Rotational speed 2301/3591 . Linear speed 2301/400 . Feedback signal in closed loop controls 2301/4008 . Twist 2301/4016 . Temperature 2301/4016 . Temperature 2301/4025 Temperature profile or sequence 2301/403 . Amount of material 2301/4041 . Power consumption of drive 2301/4041 . Pressure 2301/405 . Pressure 2301/405 . Pressure 2301/405 . Force 2301/406 . Tensile stress 2301/407 . Strain or elongation 2301/407 . Strain or elongation 2301/408 . Rotational speed 2301/409 . Strain or elongation 2301/409 . Linear speed 2301/409 . Strain or elongation 2301/409 . Linear speed 2301/409 . Linear speed 2301/409 . Strain or elongation 2301/409 . Linear speed 2301/50 . User Interface or value setting 2301/50 . User Interface or value setting 2301/50 . Sensors 2301/50 . Characterised by their arrangement 2301/50 . Characterised by their arrangement 2301/50 . Characterised by their arrangement 2301/50 . Linear speed 2301/50 . Characterised by their arrangement 2301/551 . Characterised by their arrangement 2501/206 . Power transmissions 2301/551 . Deing of the reflective type 2301/551 . Deing of the barrier type 2501/208 . Mechanical controls, e.g. door lashes 2301/552 . Deing of the barrier type 2501/204 . related to rope or cable making machines 2301/552 . Deing of the barrier type 2501/404 . related to rope or cable making machines 2501/5527 . Comprising an array or multiple sensors 2501/403 . for making belts	2301/3575	Strain or elongation		
2301/40   Feedback signal in closed loop controls   2401/40   related to rope making machines	2301/3583		2401/2095	
2301/4008 . Twist 2401/403 . Reducing wear 2401/401 . Reducing wear 2401/408 . Temperature 2401/403 . Reducing vibrations 2401/402 . Temperature profile or sequence 2401/405 . Addressing space constraints 2401/403 . Increasing speed 2401/405 . Increasing rope length, e.g. on drum 2301/401 . Power consumption of drive 2401/408 . Increasing rope length, e.g. on drum 2301/405 . Pressure 2501/00 Application field 2301/4058 . Force 2501/200 . related to ropes or cables 2301/4056 . Tensile stress 2501/2007 . Elevators 2301/4075 . Strain or elongation 2501/2015 . Construction industries 2301/4083 . Rotational speed 2501/2023 Concrete enforcements 2301/4091 . Linear speed 2501/203 Bridges 2301/405 for diagnosing (signals indicating failure or excessive conditions D07B 2301/30) 2501/2046 . Tire cords 2301/50 . User Interface or value setting 2501/2053 for wheel rim attachment 2301/550 . Sensors 2501/2061 . Ship moorings 2301/5504 . characterised by their arrangement 2501/2069 . Climbing or tents 2301/5518 being of the reflective type 2501/2092 . Fevacuation lines or lifelines 2301/552 being of the barrier type 2501/403 . for making belts			• 404 /40	
2301/4008   . Twist   2401/401   . Reducing wear   2401/401   . Reducing vibrations   . Reducing vibrations   . Addressing space constraints   2401/405   . Addressing space constraints   . Increasing speed   . Increas	2301/40	Feedback signal in closed loop controls		
2301/4015 2301/4025 2301/4033 2301/4033 2301/4041 2301/4041 2301/405 2301/405 2301/405 2301/405 2301/405 2301/405 2301/405 2301/405 2301/405 2301/405 2301/405 2301/405 2301/405 2301/405 2301/405 2301/405 2301/405 2301/406 2301/406 2301/406 2301/406 2301/406 2301/406 2301/406 2301/406 2301/406 2301/406 2301/406 2301/407 2301/406 2301/406 2301/406 2301/407 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/408 2301/409 2301/408 2301/409 2301/408 2301/409 2301/409 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/500 2301/5	2301/4008			
2301/4023	2301/4016	Temperature		
2301/4031 . Power consumption of drive 2301/4052 . Pressure 2301/4053 . Force 2301/4064 . Tensile stress 2301/4065 . Tensile stress 2301/4066 . Tensile stress 2301/4075 . Strain or elongation 2301/4075 . Rotational speed 2301/4083 . Rotational speed 2301/4091 . Linear speed 2301/405 . Linear speed 2301/405 . Gor diagnosing (signals indicating failure or excessive conditions D07B 2301/30) 2301/45 . User Interface or value setting 2301/50 . User Interface or value setting 2301/50 . characterised by their arrangement 2301/50 . being movable 2301/50 . being movable 2301/513 . being of the reflective type 2301/514 . Transducers therefor 2301/515 . Sensors 2301/516 . Dever transmissions 2301/517 . Evacuation lines or lifelines 2301/518 . Transducers therefor 2501/2092 . Evacuation lines or lifelines 2301/5527 . comprising an array or multiple sensors 2501/403 . for making belts	2301/4025	Temperature profile or sequence		
2301/401 . Power consumption of drive 2301/405 . Pressure 2301/406 . Force 2301/407 . Elevators 2301/407 . Strain or elongation 2301/408 . Rotational speed 2301/408 . Rotational speed 2301/409 . Linear speed 2301/409 . Linear speed 2301/45 . for diagnosing (signals indicating failure or excessive conditions D07B 2301/30) 2301/45 . User Interface or value setting 2301/50 . User Interface or value setting 2301/55 . Sensors 2301/550 . characterised by their arrangement 2301/550 . being movable 2301/5513 . being of the reflective type 2301/5518 Transducers therefor 2301/5522 . being of the barrier type 2301/5527 . comprising an array or multiple sensors 2501/203 . related to rope or cable settion field 2501/2007 . Elevators 2501/201 . Construction industries 2501/202 . Bridges 2501/203 . Bridges 2501/2038 . Agriculture, forestry and fishery 2501/2046 . Tire cords 2501/2053 . for wheel rim attachment 2501/2050 . Ship moorings 2501/2061 . Ship moorings 2501/2069 . Climbing or tents 2501/2076 . Power transmissions 2501/2076 . Power transmissions 2501/2092 . Evacuation lines or lifelines 2501/5522 . being of the barrier type 2501/400 . related to rope or cable making machines 2501/5527 . comprising an array or multiple sensors 2501/403 . for making belts	2301/4033	Amount of material		
2301/4058 . Force	2301/4041	Power consumption of drive	2401/408	Increasing rope length, e.g. on drum
2301/4066 . Tensile stress 2301/4075 . Strain or elongation 2301/4083 . Rotational speed 2301/4091 . Linear speed 2301/4091 . Linear speed 2301/45 . for diagnosing (signals indicating failure or excessive conditions D07B 2301/30) 2301/50 . User Interface or value setting 2301/55 . Sensors 2301/504 . characterised by their arrangement 2301/505 . being movable 2301/551 being of the reflective type 2301/5518 Transducers therefor 2301/5522 comprising an array or multiple sensors 2501/403 . Elevators 2501/2023 Construction industries 2501/2023 Concrete enforcements 2501/203 Bridges 2501/2038 Agriculture, forestry and fishery 2501/2046 . Tire cords 2501/2053 for wheel rim attachment 2501/2061 . Ship moorings 2501/2061 . Ship moorings 2501/2069 Climbing or tents 2501/2076 . Power transmissions 2501/2084 . Mechanical controls, e.g. door lashes 2501/5518 Transducers therefor 2501/2092 . Evacuation lines or lifelines 2501/5527 comprising an array or multiple sensors 2501/403 . for making belts	2301/405	Pressure	2501/00	Application field
2301/4075 . Strain or elongation 2301/4083 . Rotational speed 2301/4091 . Linear speed 2301/4091 . Linear speed 2301/45 . for diagnosing (signals indicating failure or excessive conditions D07B 2301/30) 2301/50 . User Interface or value setting 2301/55 . Sensors 2301/504 . characterised by their arrangement 2301/5504 . characterised by their arrangement 2301/5509 being movable 2301/5513 being of the reflective type 2301/5518 Transducers therefor 2301/5522 being of the barrier type 2301/5527 comprising an array or multiple sensors 2501/403 Construction industries Concrete enforcements 2501/203 Concrete enforcements	2301/4058	Force	2501/20	related to ropes or cables
2301/4083 . Rotational speed 2501/2023 Concrete enforcements 2301/4091 . Linear speed 2501/203 Bridges 2501/203 Bridges 2501/45 . for diagnosing (signals indicating failure or excessive conditions D07B 2301/30) 2501/2038 . Agriculture, forestry and fishery excessive conditions D07B 2301/30) 2501/2046 . Tire cords 2501/2053 for wheel rim attachment 2501/55 . Sensors 2501/2061 . Ship moorings 2501/2061 . Ship moorings 2501/5504 characterised by their arrangement 2501/2069 . Climbing or tents 2501/2076 . Power transmissions 2501/5513 being movable 2501/2084 . Mechanical controls, e.g. door lashes 2301/5518 Transducers therefor 2501/2092 . Evacuation lines or lifelines 2301/5522 being of the barrier type 2501/40 related to rope or cable making machines 2301/5527 comprising an array or multiple sensors 2501/403 . for making belts	2301/4066	Tensile stress		-
2301/4091 . Linear speed 2301/45 . for diagnosing (signals indicating failure or excessive conditions D07B 2301/30) 2301/50 . User Interface or value setting 2301/55 . Sensors 2301/50 . characterised by their arrangement 2301/55 . characterised by their arrangement 2301/5504 . characterised by their arrangement 2301/5518 being of the reflective type 2301/5518 Transducers therefor 2301/5522 being of the barrier type 2301/5527 comprising an array or multiple sensors 2501/403 Bridges 2501/2038 Bridges 2501/2038 Agriculture, forestry and fishery 2501/2046 Tire cords 2501/2053 for wheel rim attachment 2501/2069 . Climbing or tents 2501/2069 Climbing or tents 2501/2076 . Power transmissions 2501/2084 . Mechanical controls, e.g. door lashes 2501/5518 Transducers therefor 2501/2092 . Evacuation lines or lifelines 2501/5527 comprising an array or multiple sensors 2501/403 for making belts	2301/4075	Strain or elongation	2501/2015	Construction industries
2301/45 • for diagnosing (signals indicating failure or excessive conditions D07B 2301/30) 2501/2046 • Tire cords  2301/50 • User Interface or value setting 2501/2053 • for wheel rim attachment  2301/55 • Sensors 2501/2061 • . Ship moorings  2301/5504 • . characterised by their arrangement 2501/2069 • . Climbing or tents  2301/5509 • being movable 2501/2076 • . Power transmissions  2301/5513 • being of the reflective type 2501/2084 • . Mechanical controls, e.g. door lashes  2301/5518 • Transducers therefor 2501/2092 • . Evacuation lines or lifelines  2301/5522 • being of the barrier type 2501/40 • related to rope or cable making machines  2301/5527 • comprising an array or multiple sensors 2501/403 • . for making belts	2301/4083	Rotational speed	2501/2023	Concrete enforcements
excessive conditions D07B 2301/30)  2301/50  User Interface or value setting  2501/2053  Sensors  2501/2061  Ship moorings  2301/5504  characterised by their arrangement  2501/2069  Climbing or tents  2301/5509  being movable  2301/5513  being of the reflective type  2301/5518  Tire cords  Climbing or wheel rim attachment  2501/2069  Climbing or tents  2501/2076  Power transmissions  2501/2084  Mechanical controls, e.g. door lashes  2501/5518  Circle 1201/2092  Evacuation lines or lifelines  2501/5522  Description of the barrier type  2501/400  Tire cords  Climbing or tents  2501/2069  Power transmissions  2501/2084  Mechanical controls, e.g. door lashes  2501/5527  For making belts	2301/4091	Linear speed	2501/203	Bridges
2301/50  User Interface or value setting  2501/2053  Sensors  2501/2061  Ship moorings  2301/5504  characterised by their arrangement  2501/2069  Climbing or tents  2501/2076  Power transmissions  2301/5513  being of the reflective type  2501/2084  Mechanical controls, e.g. door lashes  2301/5518  Transducers therefor  2501/2092  Evacuation lines or lifelines  2301/5522  being of the barrier type  2501/40  related to rope or cable making machines  2501/203  related to rope or cable making machines	2301/45		2501/2038	Agriculture, forestry and fishery
2301/55			2501/2046	Tire cords
2301/5504		-	2501/2053	for wheel rim attachment
2301/5509 being movable 2501/2076 Power transmissions 2301/5513 being of the reflective type 2501/2084 . Mechanical controls, e.g. door lashes 2301/5518 Transducers therefor 2501/2092 . Evacuation lines or lifelines 2301/5522 being of the barrier type 2501/40 related to rope or cable making machines 2301/5527 comprising an array or multiple sensors 2501/403 . for making belts			2501/2061	Ship moorings
2301/5519 being movable 2501/2076 Power transmissions 2301/5513 being of the reflective type 2501/2084 Mechanical controls, e.g. door lashes 2301/5518 Transducers therefor 2501/2092 . Evacuation lines or lifelines 2301/5522 being of the barrier type 2501/40 . related to rope or cable making machines 2301/5527 comprising an array or multiple sensors 2501/403 . for making belts			2501/2069	Climbing or tents
2301/5518 Transducers therefor 2501/2092 Evacuation lines or lifelines 2301/5522 being of the barrier type 2501/40 . related to rope or cable making machines 2301/5527 comprising an array or multiple sensors 2501/403 for making belts			2501/2076	
2301/5522 being of the barrier type 2501/40 . related to rope or cable making machines 2301/5527 comprising an array or multiple sensors 2501/403 for making belts			2501/2084	Mechanical controls, e.g. door lashes
2301/5527 comprising an array or multiple sensors 2501/403 for making belts			2501/2092	Evacuation lines or lifelines
2007 100 V V 101 Maning 00100			2501/40	<ul> <li>related to rope or cable making machines</li> </ul>
2301/5531 • using electric means or elements			2501/403	for making belts
	2301/5531	using electric means or elements		

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2501/406 . . for making electrically conductive cables

2801/00 Linked indexing codes associated with indexing codes or classes of D07B

## 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
- <u>D07B 2801/60</u> and <u>D07B 2801/62</u> are only to be used as linked indexing codes with <u>D07B 2207/404</u> and lower hierarchy
- <u>D07B 2801/90</u> is only used as linked indexing code with any class or indexing code of <u>D07B</u> and defines that the classified feature belongs to the general knowledge.

2801/10	. Smallest filamentary entity of a rope or strand, i.e.
	wire, filament, fiber or yarn

2801/12	<ul> <li>Strand</li> </ul>
2801/14	. Core
2801/16	. Filler
2801/18	. Coating
2801/20	. Spacer
2001/22	

2801/22 . Jacket or covering

2801/24 . Rope 2801/60 . Method 2801/62 . Device

2801/90 • General knowledge

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