

CPC COOPERATIVE PATENT CLASSIFICATION

B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

TRANSPORTING

B66 HOISTING; LIFTING; HAULING

B66D CAPSTANS; WINCHES; TACKLES, e.g. PULLEY BLOCKS; HOISTS (winding or unwinding ropes or cables for feeding or storage purposes [B65H](#); rope or cable winding or unwinding mechanisms for lifts [B66B](#))

NOTE

This subclass covers:

- rope, cable or chain winding or unwinding mechanisms for moving all loads except lift cages, e.g. winches for dredges;
- braking or detent devices characterised by their application for retarding or preventing rotary movement of a winding drum or barrel

WARNINGS

1. The following IPC groups are not in the CPC scheme. The subject matter for these IPC groups is classified in the following CPC groups:
[B66D 1/395](#) covered by [B66D 1/36](#), [B66D 1/50](#)
2. 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	Rope, cable, or chain winding mechanisms; Capstans (portable or mobile lifting or hauling appliances B66D 3/00)	1/225	. . . . {variable ratio or reversing gearing (fixed ratio gearing B66D 1/22)}
1/005	. {Attaching winches to vehicle wheels}	1/24	. . . for varying speed or reversing direction of rotation of drums or barrels {, i.e. variable ratio or reversing gearing (B66D 1/225 takes precedence)}
1/02	. Driving gear	1/26	. having several drums or barrels
1/04	. . manually operated	1/28	. Other constructional details
1/06	. . . Safety cranks for preventing unwanted crank rotation and subsequent lowering of the loads	1/30	. . Rope, cable, or chain drums or barrels
1/08	. . incorporating fluid motors	1/34	. . . Attachment of ropes or cables to drums or barrels
1/10	. . . Steam driving gear	1/36	. . Guiding, or otherwise ensuring winding in an orderly manner, of ropes, cables, or chains
1/12	. . incorporating electric motors	1/365	. . . {by means of pivotably mounted drums or barrels}
1/14	. . Power transmissions between power sources and drums or barrels {(including brakes, one-way brakes, one-way clutches, clutches activated alternately with brakes, fixed ratio gearing unless otherwise provided for in B66D 1/16 - B66D 1/24)}	1/38	. . . by means of guides movable relative to drum or barrel
1/16	. . . the drums or barrels being freely rotatable {, e.g. having a clutch activated independently of a brake (B66D 1/20 , B66D 1/22 , B66D 1/24 take precedence; clutches activated alternately with brakes B66D 1/14 , slip couplings B66D 1/14)}	1/39	. . . by means of axially-movable drums or barrels {(pivotably mounted drums or barrel B66D 1/365)}
1/18	. . . . and the power being transmitted from a continuously operating and irreversible prime mover {, i.e. an internal combustion engine, e.g. on a motor vehicle or a portable winch}	1/40	. . Control devices
1/20	. . . Chain, belt, or friction drives, e.g. incorporating sheaves {of fixed or variable ratio}	1/42	. . . non-automatic
1/22	. . . Planetary or differential gearings (for actuating grab buckets B66D 1/70){, i.e. with planet gears having movable axes of rotation}	1/44	. . . . pneumatic or hydraulic
		1/46	. . . . electric
		1/48	. . . automatic
		1/485	. . . . {electrical}
		1/50	. . . . for maintaining predetermined rope, cable, or chain tension, e.g. in ropes or cables for towing craft, in chains for anchors; Warping or mooring winch-cable tension control
		1/505	. . . . . {electrical}
		1/52	. . . . for varying rope or cable tension, e.g. when recovering craft from water

- 1/525 {electrical}
- 1/54 . Safety gear
- 1/56 . . Adaptations of limit switches
- 1/58 . . responsive to excess of load
- 1/60 . adapted for special purposes
- 1/605 . . {scaffolding winshes ([B66D 1/74](#) takes precedence)}
- 1/62 . . for actuating grab buckets (electrical control in cranes [B66C 13/32](#))
- 1/64 . . . by means of a single rope or chain
- 1/66 . . . driven by a single motor
- 1/68 . . . driven by two motors
- 1/70 . . . driven through planetary or differential gearings
- 1/72 . . Anchor-chain sprockets; Anchor capstans
- 1/74 . . Capstans
- 1/7405 . . . {having two or more drums providing tractive force}
- 1/741 {and having rope storing means}
- 1/7415 . . . {Friction drives, e.g. pulleys, having a cable winding angle of less than 360 degrees}
- 1/7421 . . . {having a vertical rotation axis}
- 1/7426 {driven by motor only}
- 1/7431 {driven manually only}
- 1/7436 {drivable by both motor and manually}
- 1/7442 . . . {having a horizontal rotation axis}
- 1/7447 {driven by motor only}
- 1/7452 {driven manually only}
- 1/7457 {drivable by both motor and manually}
- 1/7463 . . . {Accessories}
- 1/7468 {Handles}
- 1/7473 {with locking means}
- 1/7478 {Powered handles}
- 1/7484 . . . {Details concerning gearing arrangements, e.g. multi-speed}
- 1/7489 . . . {having a particular use, e.g. rope ascenders}
- 1/7494 . . . {Self-tailing capstans}
- 1/76 . . . having auxiliary drums or barrels for storing the ropes or cables
- 1/78 . . . for shunting, e.g. in marshalling yards
- 1/80 . . for scrapers
- 1/82 . . for slewing and hoisting by means of derricks
- 3/00** **Portable or mobile lifting or hauling appliances**
- 3/003 . {using two or more cooperating endless chains}
- 3/006 . {Power actuated devices operating on ropes, cables, or chains for hauling in a mainly horizontal direction ([B66D 3/003](#) takes precedence)}
- 3/02 . Manually-operated, e.g. lever-actuated, devices operating on ropes, cables, or chains for hauling in a mainly horizontal direction ([B66D 3/04](#), [B66D 3/12](#) take precedence)
- 3/04 . Pulley blocks or like devices in which force is applied to a rope, cable, or chain which passes over one or more pulleys, e.g. to obtain mechanical advantage ([sheaves F16H 55/00](#))
- 3/043 . . {Block and tackle system with variable number of cable parts}
- 3/046 . . {Openable pulley blocks}
- 3/06 . . with more than one pulley
- 3/08 . . . Arrangements of sheaves
- 3/10 . . . Applications of braking or detent devices
- 3/12 . Chain or like hand-operated tackles with or without power transmission gearing between operating member and lifting rope, chain or cable
- 3/14 . . lever operated
- 3/16 . . operated by an endless chain passing over a pulley or a sprocket
- 3/18 . Power-operated hoists
- 3/20 . . with driving motor, e.g. electric motor, and drum or barrel contained in a common housing
- 3/22 . . . with variable-speed gearings between driving motor and drum or barrel
- 3/24 . . Applications of limit switches
- 3/26 . . Other details, e.g. housings
- 5/00** **Braking or detent devices characterised by application to lifting or hoisting gear, e.g. for controlling the lowering of loads (for pulley blocks [B66D 3/10](#))**
- 5/02 . Crane, lift hoist, or winch brakes operating on drums, barrels, or ropes
- 5/023 . . {Cooling of brakes (in general [F16D](#))}
- 5/026 . . {Fluid-resistance brakes}
- 5/04 . . actuated by centrifugal force
- 5/06 . . with radial effect ([B66D 5/20](#) takes precedence)
- 5/08 . . . embodying blocks or shoes
- 5/10 . . . embodying bands
- 5/12 . . with axial effect ([B66D 5/22](#) takes precedence)
- 5/14 . . . embodying discs
- 5/16 . . for action on ropes or cables
- 5/18 . . for generating braking forces which are proportional to the loads suspended; Load-actuated brakes
- 5/20 . . . with radial effect
- 5/22 . . . with axial effect
- 5/24 . . Operating devices
- 5/26 . . . pneumatic or hydraulic
- 5/28 specially adapted for winding gear, e.g. in mining hoists
- 5/30 . . . electrical
- 5/32 . Detent devices
- 5/34 . . having latches
- 2700/00** **Capstans, winches or hoists**
- 2700/01 . Winches, capstans or pivots
- 2700/0108 . . with devices for paying out or automatically tightening the cable
- 2700/0116 . . Manually or spring operated winches
- 2700/0125 . . Motor operated winches
- 2700/0133 . . . Fluid actuated
- 2700/0141 . . . Electrically actuated
- 2700/015 . . . Actuated by chain, belt or by friction
- 2700/0158 . . . Hydraulically controlled couplings or gearings
- 2700/0166 . . . Winches with multiple drums or with drums with multiple parts of different diameter
- 2700/0175 with adjacent drums mounted on a single shaft with a common coupling member
- 2700/0183 . . Details, e.g. winch drums, cooling, bearings, mounting, base structures, cable guiding or attachment of the cable to the drum
- 2700/0191 . . . Cable guiding during winding or paying out
- 2700/02 . Hoists or accessories for hoists
- 2700/021 . . Hauling devices
- 2700/023 . . Hoists

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- 2700/025 . . . motor operated
- 2700/026 . . Pulleys, sheaves, pulley blocks or their mounting
- 2700/028 . . . Pulley blocks with multiple sheaves
- 2700/03 . Mechanisms with latches or braking devices in general for capstans, hoists or similar devices as well as braking devices actuated electrically or by fluid under pressure
- 2700/035 . . Fluid operated braking devices
- 2700/05 . Brakes with mechanisms with latches for hoists or similar devices
- 2700/07 . Brakes with axial thrust for winches, hoists or similar devices