

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.

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|--------------|--|--------------|--|
| 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 |

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

B66D

- 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