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)
   1/005 . . . [Attaching winches to vehicle wheels]
   1/02 . . . Driving gear
   1/04 . . . manually operated
   1/06 . . . Safety cranks for preventing unwanted crank rotation and subsequent lowering of the loads
   1/08 . . . incorporating fluid motors
   1/10 . . . Steam driving gear
   1/12 . . . incorporating electric motors
   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))
   1/16 . . . 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)]
   1/18 . . . 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]
   1/20 . . . Chain, belt, or friction drives, e.g. incorporating sheaves [of fixed or variable ratio]
   1/22 . . . Planetary or differential gearings (for actuating grab buckets B66D 1/70) [. i.e. with planet gears having movable axes of rotation]
   1/225 . . . [variable ratio or reversing gearing (fixed ratio gearing B66D 1/22)]
   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)]
   1/26 . . . having several drums or barrels
   1/28 . . . Other constructional details
   1/30 . . . Rope, cable, or chain drums or barrels
   1/34 . . . Attachment of ropes or cables to drums or barrels
   1/36 . . . Guiding, or otherwise ensuring winding in an orderly manner, of ropes, cables, or chains
   1/365 . . . [by means of pivotably mounted drums or barrels]
   1/38 . . . by means of guides movable relative to drum or barrel
   1/39 . . . by means of axially movable drums or barrels (pivotably mounted drums or barrel B66D 1/365)
   1/40 . . . Control devices
   1/42 . . . non-automatic
   1/44 . . . pneumatic of 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
Portable or mobile lifting or hauling appliances
3/00
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 3/03 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

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
2700/0202 . . . Hauling devices
2700/0221 . . . Hoists
motor operated

Pulleys, sheaves, pulley blocks or their mounting

Pulley blocks with multiple sheaves

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

Fluid operated braking devices

Brakes with mechanisms with latches for hoists or similar devices

Brakes with axial thrust for winches, hoists or similar devices