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 . . . . [using two or more cooperating endless chains] 3/003
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

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
2700/0202 . . . . Hauling devices
2700/021 . . . . Hoists
<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
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<tbody>
<tr>
<td>2700/025</td>
<td>. . . motor operated</td>
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<td>2700/026</td>
<td>. . Pulleys, sheaves, pulley blocks or their mounting</td>
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<td>2700/028</td>
<td>. . . Pulley blocks with multiple sheaves</td>
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<td>2700/03</td>
<td>. 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</td>
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<td>2700/035</td>
<td>. . Fluid operated braking devices</td>
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<tr>
<td>2700/05</td>
<td>. Brakes with mechanisms with latches for hoists or similar devices</td>
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<tr>
<td>2700/07</td>
<td>. Brakes with axial thrust for winches, hoists or similar devices</td>
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