

# 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.

<b>1/00</b>	<b>Rope, cable, or chain winding mechanisms; Capstans</b> (portable or mobile lifting or hauling appliances <a href="#">B66D 3/00</a> )	<b>1/225</b>	. . . . {variable ratio or reversing gearing (fixed ratio gearing <a href="#">B66D 1/22</a> )}
<b>1/005</b>	. {Attaching winches to vehicle wheels}	<b>1/24</b>	. . . for varying speed or reversing direction of rotation of drums or barrels {, i.e. variable ratio or reversing gearing ( <a href="#">B66D 1/225</a> takes precedence)}
<b>1/02</b>	. Driving gear	<b>1/26</b>	. having several drums or barrels
<b>1/04</b>	. . manually operated	<b>1/28</b>	. Other constructional details
<b>1/06</b>	. . . Safety cranks for preventing unwanted crank rotation and subsequent lowering of the loads	<b>1/30</b>	. . Rope, cable, or chain drums or barrels
<b>1/08</b>	. . incorporating fluid motors	<b>1/34</b>	. . . Attachment of ropes or cables to drums or barrels
<b>1/10</b>	. . . Steam driving gear	<b>1/36</b>	. . Guiding, or otherwise ensuring winding in an orderly manner, of ropes, cables, or chains
<b>1/12</b>	. . incorporating electric motors	<b>1/365</b>	. . . {by means of pivotably mounted drums or barrels}
<b>1/14</b>	. . 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 <a href="#">B66D 1/16</a> - <a href="#">B66D 1/24</a> )}	<b>1/38</b>	. . . by means of guides movable relative to drum or barrel
<b>1/16</b>	. . . the drums or barrels being freely rotatable {, e.g. having a clutch activated independently of a brake ( <a href="#">B66D 1/20</a> , <a href="#">B66D 1/22</a> , <a href="#">B66D 1/24</a> take precedence; clutches activated alternately with brakes <a href="#">B66D 1/14</a> , slip couplings <a href="#">B66D 1/14</a> )}	<b>1/39</b>	. . . by means of axially-movable drums or barrels {(pivotably mounted drums or barrel <a href="#">B66D 1/365</a> )}
<b>1/18</b>	. . . . 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}	<b>1/40</b>	. . Control devices
<b>1/20</b>	. . . Chain, belt, or friction drives, e.g. incorporating sheaves {of fixed or variable ratio}	<b>1/42</b>	. . . non-automatic
<b>1/22</b>	. . . Planetary or differential gearings (for actuating grab buckets <a href="#">B66D 1/70</a> ){, i.e. with planet gears having movable axes of rotation}	<b>1/44</b>	. . . . pneumatic or hydraulic
		<b>1/46</b>	. . . . electric
		<b>1/48</b>	. . . automatic
		<b>1/485</b>	. . . . {electrical}
		<b>1/50</b>	. . . . 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
		<b>1/505</b>	. . . . . {electrical}
		<b>1/52</b>	. . . . for varying rope or cable tension, e.g. when recovering craft from water

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 ( <a href="#">B66D 1/74</a> takes precedence)}	3/22	. . . with variable-speed gearings between driving motor and drum or barrel
1/62	. . for actuating grab buckets ( <a href="#">electrical control in cranes B66C 13/32</a> )	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	<b>5/00</b>	<b>Braking or detent devices characterised by application to lifting or hoisting gear, e.g. for controlling the lowering of loads (<a href="#">for pulley blocks B66D 3/10</a>)</b>
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 ( <a href="#">in general F16D</a> )}
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 ( <a href="#">B66D 5/20</a> 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 ( <a href="#">B66D 5/22</a> 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}	<b>2700/00</b>	<b>Capstans, winches or hoists</b>
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
<b>3/00</b>	<b>Portable or mobile lifting or hauling appliances</b>	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 ( <a href="#">B66D 3/003</a> 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 ( <a href="#">B66D 3/04</a> , <a href="#">B66D 3/12</a> 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 ( <a href="#">sheaves F16H 55/00</a> )	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