

**ECLA****EUROPEAN CLASSIFICATION****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)**

[N: **WARNING**

[C1203]

The following IPC groups are not used in the internal ECLA classification scheme.  
Subject matter covered by these groups is classified in the following ECLA groups:

[B66D1/395](#) covered by [B66D1/36](#), [B66D1/50](#)  
]

**Notes**

This subclass covers:

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

**B66D1/00**

**Rope, cable, or chain winding mechanisms; Capstans** (portable or mobile lifting or hauling appliances [B66D3/00](#))

[B66D1/00A](#)

- . [N: Attaching winches to vehicle wheels]

[B66D1/02](#)

- . Driving gear

[B66D1/04](#)

- . . manually operated

[B66D1/06](#)

- . . . Safety cranks for preventing unwanted crank rotation and subsequent lowering of the loads

[B66D1/08](#)

- . . incorporating fluid motors

[B66D1/10](#)

- . . . Steam driving gear

[B66D1/12](#)

- . . incorporating electric motors

[B66D1/14](#)

- . . Power transmissions between power sources and drums or barrels [N: including brakes, one-way brakes, one-way clutches, clutches activated alternately with brakes, fixed ratio gearing unless otherwise provided for in [B66D1/16](#) to [B66D1/24](#)]

[B66D1/16](#)

- . . . the drums or barrels being freely rotatable [N: e.g. having a clutch activated independently of a brake ([B66D1/20](#), [B66D1/22](#), [B66D1/24](#) take precedence; clutches activated alternately with brakes [B66D1/14](#), slip couplings [B66D1/14](#))]

[B66D1/18](#)

- . . . . and the power being transmitted from a continuously operating and irreversible prime mover [N: i.e. an internal combustion engine e.g. on a motor vehicle or a portable winch]

[B66D1/20](#)

- . . . Chain, belt, or friction drives, e.g. incorporating sheaves [N: of fixed or variable ratio]

[B66D1/22](#)

- . . . Planetary or differential gearings (for actuating grab buckets [B66D1/70](#)) [N: i.e. with planet gears having movable axes of rotation]

- B66D1/22B . . . . [N: variable ratio or reversing gearing (fixed ratio gearing [B66D1/22](#))]
- B66D1/24 . . . for varying speed or reversing direction of rotation of drums or barrels [N: i.e. variable ratio or reversing gearing ([B66D1/22B](#) takes precedence)]
- B66D1/26 . having several drums or barrels
- B66D1/28 . Other constructional details
- B66D1/30 . . Rope, cable, or chain drums or barrels
- B66D1/34 . . . Attachment of ropes or cables to drums or barrels
- B66D1/36 . . Guiding, or otherwise ensuring winding in an orderly manner, of ropes, cables, or chains
- B66D1/36A . . . [N: by means of pivotably mounted drums or barrels]
- B66D1/38 . . . by means of guides movable relative to drum or barrel
- B66D1/39 . . . by means of axially-movable drums or barrels [N: (pivotably mounted drums or barrel [B66D1/36A](#))]
- B66D1/40 . . Control devices
- B66D1/42 . . . non-automatic
- B66D1/44 . . . . pneumatic or hydraulic
- B66D1/46 . . . . electric
- B66D1/48 . . . automatic
- B66D1/48B . . . . [N: electrical]
- B66D1/50 . . . . 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
- B66D1/50B . . . . . [N: electrical]
- B66D1/52 . . . . for varying rope or cable tension, e.g. when recovering craft from water
- B66D1/52B . . . . . [N: electrical]
- B66D1/54 . Safety gear
- B66D1/56 . . Adaptations of limit switches
- B66D1/58 . . responsive to excess of load
- B66D1/60 . adapted for special purposes
- B66D1/60B . . [N: scaffolding winches ([B66D1/74](#) takes precedence)]
- B66D1/62 . . for actuating grab buckets (electrical control in cranes [B66C13/32](#))
- B66D1/64 . . . by means of a single rope or chain
- B66D1/66 . . . driven by a single motor
- B66D1/68 . . . driven by two motors
- B66D1/70 . . . driven through planetary or differential gearings
- B66D1/72 . . Anchor-chain sprockets; Anchor capstans
- B66D1/74 . . Capstans
- B66D1/74B . . . [N: having two or more drums providing tractive force]
- B66D1/74B2 . . . . [N: and having rope storing means]
- B66D1/74D . . . [N: Friction drives, e.g. pulleys, having a cable winding angle of less than 360 degrees]

- B66D1/74F . . . [N: having a vertical rotation axis] [N1204]
- B66D1/74F2 . . . . [N: driven by motor only] [N1204]
- B66D1/74F4 . . . . [N: driven manually only] [N1204]
- B66D1/74F6 . . . . [N: drivable by both motor and manually] [N1204]
- B66D1/74H . . . [N: having a horizontal rotation axis] [N1204]
- B66D1/74H2 . . . . [N: driven by motor only] [N1204]
- B66D1/74H4 . . . . [N: driven manually only] [N1204]
- B66D1/74H6 . . . . [N: drivable by both motor and manually] [N1204]
- B66D1/74J . . . [N: Accessories] [N1204]
- B66D1/74J2 . . . . [N: Handles] [N1204]
- B66D1/74J2L . . . . . [N: with locking means] [N1204]
- B66D1/74J2P . . . . . [N: Powered handles] [N1204]
- B66D1/74N . . . [N: Details concerning gearing arrangements, e.g. multi-speed] [N1204]
- B66D1/74P . . . [N: having a particular use, e.g. rope ascenders] [N1204]
- B66D1/74T . . . [N: Self-tailing capstans] [N1204]
- B66D1/76 . . . having auxiliary drums or barrels for storing the ropes or cables
- B66D1/78 . . . for shunting, e.g. in marshalling yards
- B66D1/80 . . . for scrapers
- B66D1/82 . . . for slewing and hoisting by means of derricks

## **B66D3/00      Portable or mobile lifting or hauling appliances**

- B66D3/00B . [N: using two or more cooperating endless chains]
- B66D3/00D . [N: Power actuated devices operating on ropes, cables, or chains for hauling in a mainly horizontal direction ([B66D3/00B](#) takes precedence)]
- B66D3/02 . Manually-operated, e.g. lever-actuated, devices operating on ropes, cables, or chains for hauling in a mainly horizontal direction ([B66D3/04](#), [B66D3/12](#) take precedence)
- B66D3/04 . 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 F16H55/00](#))
- B66D3/04B . . [N: Block and tackle system with variable number of cable parts]
- B66D3/04D . . [N: Openable pulley blocks]
- B66D3/06 . . with more than one pulley
- B66D3/08 . . . Arrangements of sheaves
- B66D3/10 . . . Applications of braking or detent devices
- B66D3/12 . Chain or like hand-operated tackles with or without power transmission gearing between operating member and lifting rope, chain or cable
- B66D3/14 . . lever operated
- B66D3/16 . . operated by an endless chain passing over a pulley or a sprocket
- B66D3/18 . Power-operated hoists
- B66D3/20 . . with driving motor, e.g. electric motor, and drum or barrel contained in a common

housing

- B66D3/22 . . . with variable-speed gearings between driving motor and drum or barrel
- B66D3/24 . . Applications of limit switches
- B66D3/26 . . Other details, e.g. housings

**B66D5/00      Braking or detent devices characterised by application to lifting or hoisting gear, e.g. for controlling the lowering of loads (for pulley blocks [B66D3/10](#)) [\[C9602\]](#)**

- B66D5/02 . Crane, lift hoist, or winch brakes operating on drums, barrels, or ropes
- B66D5/02A . . [\[N: Cooling of brakes \(in general \[F16D\]\(#\)\)\]](#)
- B66D5/02B . . [\[N: Fluid-resistance brakes\]](#)
- B66D5/04 . . actuated by centrifugal force
- B66D5/06 . . with radial effect ([B66D5/20](#) takes precedence)
- B66D5/08 . . . embodying blocks or shoes
- B66D5/10 . . . embodying bands
- B66D5/12 . . with axial effect ([B66D5/22](#) takes precedence)
- B66D5/14 . . . embodying discs
- B66D5/16 . . for action on ropes or cables
- B66D5/18 . . for generating braking forces which are proportional to the loads suspended;  
Load-actuated brakes
- B66D5/20 . . . with radial effect
- B66D5/22 . . . with axial effect
- B66D5/24 . . Operating devices
- B66D5/26 . . . pneumatic or hydraulic
- B66D5/28 . . . . specially adapted for winding gear, e.g. in mining hoists
- B66D5/30 . . . electrical
- B66D5/32 . Detent devices
- B66D5/34 . . having latches