

35 Lyftanordningar [-69]

35 (IPC: B66) Hoisting; Lifting; Hauling [69-]

35a Hissar [-69]

35a (IPC: B66B) Elevators [69-]

35b Kranar [-69]

35b (IPC: B66C) Cranes; Load-engaging elements or devices for cranes, capstans, winches, or tackles [69-]

35c Vinschar; Lyftblock [-69]

35c (IPC: B66D) Capstans; Winches; Tackles; Hoists [69-]

35d Lyftanordningar [-69]

35d (IPC: B66F) Hoisting, lifting, or hauling, not otherwise provided for [69-]

35a Hissar [-69]

Hissar i byggnader e.d. [-69]

35a-1/01 allmänt [-69]

35a-1/02 Snedgående hissar (uppfodringsanordningar vid masugnar 18a-6/02) [-69]

35a-1/03 Speciella utföranden av hissar i byggnader e.d., t.ex. hissar för vattentunnor eller hissar med klätteranordningar [-69]

35a-1/04 Körbara hissar [-69]

35a-1/10 Mekanisk manövrering av hissar [-69]

35a-1/11 Byggnadsdetaljer vid hissar, t.ex. utjämningsanordningar för hisslinor, gejder eller inredning av schakt (ställningar, gejder e.d. vid gruvhissar 35a-9/05) [-69]

35a-1/12 Säkerhetsanordningar mot faror vid drift, t.ex. mot brand (säkerhetsanordningar vid gruvhissar 35a-22) [-69]

35a-1/13 Skydd mot överbelastning; Anordningar för vägning eller registrering [-69]

35a-1/14 Drivmaskiner [-69]

35a-1/15 Bromsar för hissmaskinerier [-69]

35a-1/16 Ändströmbrytare e.d. [-69]

35a-1/17 Slaklineströmbrytare [-69]

35a-2 Hydrauliska hissar [-69]

35a-3 Omkopplingsbara hissar [-69]

35a-4 Byggnadshissar (byggnadskranar 35b-1/40 – 35b-1/43) [-69]

35a-5 Brevhissar; Varuhissar (andra anordningar för transport av brev i byggnader 81e-158) [-69]

35a-6 Rulltrappor [-69]

35a-7 Paternosterhissar för personbefordran (för styckegods e.d. 81e-25 – 81e-41) [-69]

35a-8 Drivskivehissar (uppfodringsanordningar med drivskiva för gruvor 35a-10) [-69]

Hissar för uppfordring vid gruvor [-69]

35a-9/01 Drivanordningar för uppfordring ur schakt (reglering 35a-22) [-69]

35a-9/02 Gruvhissar med uppfodringsställningar [-69]

35a-9/03 Gruvhissar med uppfordringstunnor [-69]

35a-9/04 Uppfordringstrummor, t.ex. förbindningsanordningar mellan drivaxeln och trumman (vinschar i allmänhet 35c) [-69]

35a-9/05	Uppfodringsverk (byggnadsteknisk utformning 37f-7/17), gejder e.d. (gejder för hissar 35a-1/11)	[-69]
35a-9/06	Uppfodringslinor; Uppfodringskedjor (5a-32/60; 47d; 73)	[-69]
35a-9/07	Inbyggnad eller utbyte av linor	[-69]
35a-9/08	Mellankopplingsanordningar	[-69]
35a-9/09	Svängbara plattformar	[-69]
35a-9/10	Vagnspärrar vid schaktet	[-69]
35a-9/11	Vagnspärrar på uppfodringskorgen (vagnspärrar vid gruvdrift 5d-10)	[-69]
35a-9/12	Anordningar för uppskjutande av vagnar	[-69]
35a-9/13	Lastning av uppfodringskorgar i allmänhet	[-69]
35a-9/14	Anordningar för automatisk återföring av tömda uppfodringsvagnar från tippanordningen till schaktet	[-69]
35a-9/15	Uppfodringsställning med tippbar plattform	[-69]
35a-9/16	Ovanliga gruvuppfodringsanordningar (uppfodringsstunnor 35a-9/03)	[-69]
35a-9/17	Uppfodrning med underlinor eller med annan utbalansering med hjälp av vikter	[-69]
35a-9/18	Andra anordningar vid uppfodrings-schakt	[-69]
35a-10	Lodräta uppfodringsanordningar med drivskivor för gruvor (drivskivehissar i byggnader 35a-8; fångapparater för avslitna linor 35a-6/14)	[-69]
35a-11	Uppfodringsställningar	[-69]
	Fångapparater för alla slags hissar	[-69]
35a-12	Fångapparater med excenter	[-69]
35a-13	Fångapparater med kilverkan	[-69]
	Fångapparater med utskjutande låsanordningar	[-69]
35a-14/01	allmänt	[-69]
35a-14/02	med bromsning av hisskorgen innan låsanordningen sätts i funktion	[-69]
35a-15	Fångapparater med knivar	[-69]
	Andra fångapparater	[-69]
35a-16/01	allmänt	[-69]
35a-16/02	elektriska	[-69]
35a-16/03	med tryckluft, fallskärmar e.d.	[-69]
35a-16/04	med löprullar eller skruvspindlar	[-69]
35a-16/05	med fånglinor	[-69]
35a-16/06	med en speciell i schaktet uppspänd hjälplina	[-69]
35a-16/07	med luftpump	[-69]
35a-16/08	med stöttningsavvikningskroppar	[-69]
35a-16/09	med centrifugalkraftreglering på hisskorgen	[-69]
35a-16/10	med centrifugalkraftreglering på motorn eller i schaktet	[-69]
35a-16/11	med i schakten rörliga skenor eller regler	[-69]
35a-16/12	med relativrörelse hos en av hisskorgens delar	[-69]
35a-16/13	i beroende av motvikter	[-69]
35a-16/14	för den avslitna linänden vid uppfodringsanordningar med drivskiv	[-69]
35a-16/15	Provning av fångapparater	[-69]
35a-17	Buffertanordningar för att fånga upp hisskorgen	[-69]
	Säkerhetsanordningar eller regleranordningar för alla slags hissar	[-69]
	Stängningsanordningar för hiss-schakt	[-69]
35a-18/01	med dörrar eller grindar, påverkade av hisskorgen	[-69]
35a-18/02	utan dörrar	[-69]
35a-18/03	med dörrar i allmänhet	[-69]
35a-18/04	Reglering med hjälp av elektriska dörrkontakter	[-69]
35a-18/05	Spärrning av schakten med hjälp av dörrar vid gruvuppfodringsanordningar	[-69]

35a-18/06	Anordningar för öppning eller stängning av schaktdörrar	[69]
35a-18/07	Spärrar mellan manöverorgan och schaktdörrar i allmänhet	[69]
35a-18/08	Spärrar mellan manöverspak och schaktdörrar	[69]
35a-18/09	Låsliknande dörrsäkringar	[69]
35a-18/10	Byggnadsutförande av schaktdörrar	[69]
35a-19	Stödanordningar för hissar av alla slag	[69]
35a-20	Anordningar för inställning av våningar för hissar i byggnader, t.ex. mekanisk fininställning (elektrisk fininställning 35a-25/02)	[69]
35a-21	Signalanordningar för hissar	[69]
	Regleranordningar eller säkerhetsanordningar för gruvuppfodringsmaskiner (14g-3; 14g-5; 21c-57 – 21c-61; 21d1-36; 21d1-60)	[69]
35a-22/01	allmänt	[69]
35a-22/02	Mekanisk hastighetsreglering	[69]
35a-22/03	Elektrisk hastighetsreglering	[69]
35a-22/04	Manövreringsanordningar eller säkerhetsanordningar vid uppfodringshasplar vid kortare uppfodringschakt e.d.	[69]
35a-23	Skydd mot överspelning för alla slags hissar	[69]
35a-24	Djupvisare, visarur eller liknande anordningar för angivande av en hisskorgs läge	[69]
	Elektriska manövreringsanordningar, kopplingsanordningar eller kopplingar för hissar i byggnader e.d.	[69]
35a-25/01	allmänt	[69]
35a-25/02	Fininställningsanordningar	[69]
35a-25/03	Strömställare eller kopplingsanordningar för elektriska hissar	[69]
35a-25/04	Anordningar för manövrering med tryckknappar	[69]
35a-25/05	Anordningar för skydd mot ledningsstörningar	[69]
35a-26	Anordningar för smörjning, rengöring eller provning för inbyggda uppfodringslinor eller gejder för hissar av alla slag (5a-32/60; 19a-23; 19a-25/00; 20a; 42k-22/03; 47d; 47e; 73; 81e-41)	[69]

35a (IPC: B66B) Elevators (funicular railbound systems with rigid ground-supported tracks and cable traction, e.g. cliff railways, 20a-13; arrangements of ammunition handlers in vessels 65g-3/00; paternoster-type hoists or lifts combined or associated with loading or unloading devices or apparatus 81e; braking or detent devices controlling normal movements of winding drums or barrels 35c; ship-lifting devices 84b; garages for many vehicles with mechanical means for lifting vehicles 37f-5/28; hoists for feeding ammunition or projectiles to launching apparatus or to loading mechanisms 72d-21/01) **[69-]**

Note: **[69-]**
In this subclass, the term "elevator" includes lifts, e.g. for passengers, in, or associated with, buildings or other structures; rope, cable, or chain-operated hoists, e.g. mine cages; escalators and paternoster-type hoists or lifts, other than those which are combined or associated with loading or unloading devices or apparatus. **[69-]**

Common features of elevators **[69-]**

35a-1/00	Control systems of elevators in general (safety devices 35a-5/00; controlling door or gate operation 35a-13/00; systems of general application 42r)	[69-]
35a-1/02	. Control systems without regulation, i.e. without retroactive action	[69-]
35a-1/04	. . hydraulic	[69-]
35a-1/06	. . electric	[69-]

35a-1/08	. . . with devices, e.g. handles or levers, in the cars or cages for direct control of movements	[69-]
35a-1/10	. . . . specially adapted for mining hoists	[69-]
35a-1/12	. . . with devices, e.g. handles or levers, located at a control station for direct control of movements, e.g. electric mining-hoist control systems	[69-]
35a-1/14	. . . with devices, e.g. push-buttons, for indirect control of movements	[69-]
35a-1/16	. . . . with means for storing pulses controlling the movements of a single car or cage	[69-]
35a-1/18	. . . . with means for storing pulses controlling the movements of several cars or cages	[69-]
35a-1/20	. . . . and for varying the manner of operation to suit particular traffic conditions, e.g. "one-way rush-hour traffic"	[69-]
35a-1/22	. . . . with means for taking account of delayed calls	[69-]
35a-1/24	. Control systems with regulation, i.e. with retroactive action, for influencing travelling speed, acceleration, or deceleration	[69-]
35a-1/26	. . mechanical	[69-]
35a-1/28	. . electrical (detecting excessive speed 35a-5/04)	[69-]
35a-1/30	. . . effective on driving gear	[69-]
35a-1/32	. . . effective on braking devices	[69-]
35a-1/34	. Details	[69-]
35a-1/36	. . Means for stopping the cars, cages, or skips at predetermined levels	[69-]
35a-1/38	. . . and for returning the controlling handle or lever to its neutral position	[69-]
35a-1/40	. . . and for correct levelling at landings	[69-]
35a-1/42	. . . . separate from the main drive	[69-]
35a-1/44	. . . and for taking account of disturbance factors, e.g. variation of load weight	[69-]
35a-1/46	. . Adaptations of switches or switchgear (switches or switchgear in general, applications of switches or switchgear for floor-levelling purpose 21c)	[69-]
35a-1/48	. . . Adaptations of mechanically-operated limit switches (for cranes 35b-13/50; for winding mechanisms 35c-1/56)	[69-]
35a-1/50	. . . with operating or control mechanisms mounted in the car or cage or in the lift well or hoistway	[69-]
35a-1/52	. . . Floor selectors	[69-]
35a-3/00	Applications of devices for indicating or signalling operating conditions (of general application 74)	[69-]
35a-3/02	. Position or depth indicators	[69-]
35a-5/00	Applications of checking, fault-correcting, or safety devices (to lift doors or gates 35a-13/00)	[69-]
35a-5/02	. responsive to abnormal operating conditions	[69-]
35a-5/04	. . for detecting excessive speed	[69-]
35a-5/06	. . . electrical	[69-]
35a-5/08	. . for preventing overwinding	[69-]
35a-5/10	. . . electrical	[69-]
35a-5/12	. . in case of rope or cable slack	[69-]
35a-5/14	. . in case of excessive loads	[69-]
35a-5/16	. . Braking or catch devices operating between cars, cages, or skips and fixed guide elements or surfaces in hoistway or well	[69-]
35a-5/18	. . . and applying frictional retarding forces	[69-]
35a-5/20	. . . . by means of rotatable eccentrically-mounted members (35a-5/24 takes precedence)	[69-]
35a-5/22	. . . . by means of linearly-movable wedges (35a-5/24 takes precedence)	[69-]
35a-5/24	. . . . by acting on guide ropes or cables	[69-]
35a-5/26	. . . Positively-acting devices, e.g. latches, knives	[69-]
35a-5/28	. Buffer-stops for cars, cages, or skips	[69-]
35a-7/00	Other common features of elevators	[69-]
35a-7/02	. Guideways; Guides (arrangements in mine shafts 5c-7/00)	[69-]
35a-7/04	. . Shoes; Rollers	[69-]
35a-7/06	. Arrangements of ropes or cables	[69-]
35a-7/08	. . for connection to the cars or cages, e.g. couplings	[69-]

- 35a-7/10 . . for equalising rope or cable tension [69-]
- 35a-7/12 . Checking, lubricating, or cleaning means for ropes, cables, or guides [69-]

Lifts in, or associated with, buildings [69-]

35a-9/00 Kinds or types of lifts in, or associated with, buildings or other structures (characterised by control systems 35a-1/00; apparatus for raising or lowering persons on stages of theatres 77g-5/12) [69-]

- 35a-9/02 . actuated mechanically otherwise than by rope or cable [69-]
- 35a-9/04 . actuated pneumatically or hydraulically (platforms for lifting or lowering through short distances 35d-7/00) [69-]
- 35a-9/06 . inclined, e.g. serving blast furnaces [71-]
- 35a-9/08 . . associated with stairways, e.g. for transporting disabled persons [69-]
- 35a-9/10 . Paternoster type (with devices for transferring goods into, or out of, the compartments 81e-4) [69-]
- 35a-9/12 . Escalators or like moving stairways (endless conveyers 81e) [69-]
- 35a-9/14 . . Handrails therefor [69-]
- 35a-9/16 . Lift installations adapted to be shifted from one part of a building or other structure to another part [69-]
- 35a-9/18 . adapted for temporary connection to buildings or other structures for erection purposes [69-]
- 35a-9/20 . Mobile or transportable lifts with liftways supported independently of building or structure [69-]

35a-11/00 Main component parts of lifts in, or associated with, buildings or other structures [69-]

- 35a-11/02 . Cages (doors, gates, or other apparatus controlling access to, or exit from, cages 35a-13/00) [69-]
- 35a-11/04 . Driving gear [69-]
- 35a-11/06 . . with hoisting rope or cable positively attached to a winding drum [69-]
- 35a-11/08 . . with hoisting rope or cable operated by frictional engagement with a winding drum or sheave [69-]

35a-13/00 Doors, gates, or other apparatus controlling access to, or exit from, cages or lift-well landings (door fittings, locks 68) [69-]

- 35a-13/02 . Door or gate operation (of general application 68d) [69-]
- 35a-13/04 . . of swinging doors [69-]
- 35a-13/06 . . of sliding doors [69-]
- 35a-13/08 . . . guided for horizontal movement [69-]
- 35a-13/10 . . . by car or cage movement [69-]
- 35a-13/12 . . Arrangements for effecting simultaneous opening or closing of cage and landing doors [69-]
- 35a-13/14 . . Control systems or devices [69-]
- 35a-13/16 . . . Door or gate locking devices controlled or primarily controlled by condition of cage, e.g. movement or position [69-]
- 35a-13/18 without manually-operable devices for completing locking or unlocking of doors [69-]
- 35a-13/20 Lock mechanisms actuated mechanically by abutments or projections on the cages [69-]
- 35a-13/22 . Operation of door or gate contacts [69-]
- 35a-13/24 . Safety devices in passenger lifts, not otherwise provided for, for preventing trapping of passengers [69-]
- 35a-13/26 . . between closing doors [69-]
- 35a-13/28 . . between car or cage and wells [69-]
- 35a-13/30 . Constructional features of doors or gates (of interest apart from this application 37g1) [69-]

Lifts in hoistways of mines [69-]

35a-15/00 Main component parts of mining-hoist winding devices [69-]

- 35a-15/02 . Rope or cable carriers [69-]
- 35a-15/04 . . Friction sheaves; "Koepe" pulleys [69-]

35a-15/06	. . Drums	[69-]
35a-15/08	. Driving gear	[69-]
35a-17/00	Hoistway equipment	[69-]
35a-17/02	. mounted in head-frames (winding towers for mines 37f-15/40)	[69-]
35a-17/04	. Mining-hoist cars or cages	[69-]
35a-17/06	. . with tiltable platforms	[69-]
35a-17/08	. Mining skips	[69-]
35a-17/10	. . adapted for passenger transport	[69-]
35a-17/12	. Counterpoises	[69-]
35a-17/14	. Applications of loading and unloading equipment (of general application 81e)	[69-]
35a-17/16	. . for loading and unloading mining-hoist cars or cages	[69-]
35a-17/18	. . . Swinging bridges, e.g. for compensating for differences in level between car or cage and landing	[69-]
35a-17/20	. . . by moving vehicles into, or out of, the cars or cages	[69-]
35a-17/22	. . . Securing vehicles in cars or cages	[69-]
35a-17/24	. . . . mounted on the car or cage	[69-]
35a-17/26	. . for loading or unloading mining-hoist skips	[69-]
35a-17/28	. . electrically controlled (for elevators in general 35a-1/06)	[69-]
35a-17/30	. . . for cars or cages	[69-]
35a-17/32	. . . for skips	[69-]
35a-17/34	. Safe lift clips; Keps	[69-]
35a-17/36	. Gates or other apparatus controlling access to, or exit from, cars, cages, or hoistway landings	[69-]
35a-19/00	Mining-hoist operation	[69-]
35a-19/02	. Installing or exchanging ropes or cables	[69-]
35a-19/04	. Installing or removing mining-hoist cars, cages, or skips	[69-]
35a-19/06	. Applications of signalling devices (depth indicators 35a-3/02; order telegraphs 74c)	[69-]
35b	Kranar	[-69]
	Löpkrantar	[-69]
35b-1/01	allmänt	[-69]
35b-1/02	Mekanisk fjärrmanövrering	[-69]
35b-1/03	Detaljer, t.ex. körbanor eller drivmaskiner	[-69]
35b-1/04	Löpvagnar med lyftanordningar	[-69]
35b-1/05	Löpvagnar på en skena med lyftanordningar	[-69]
35b-1/06	Anordningar för ändring av rörelseriktningen hos löpvagnar (35b-1/21)	[-69]
35b-1/07	Lindrivning för last eller löpvagn	[-69]
35b-1/08	Lindrivning för last eller löpvagn med planetväxel	[-69]
35b-1/09	Lindrivning för last eller löpvagn med ändlös lina	[-69]
35b-1/10	Elektrisk fjärrmanövrering av löpvagnens lyft- eller drivmaskiner (elektriska hängbanor, allmänt 20a)	[-69]
35b-1/11	Gjuterikranar	[-69]
35b-1/12	Kranar för stapelbäddar	[-69]
35b-1/13	Vagnkranar; Lokomotivkranar	[-69]
	Bockkranar	[-69]
35b-1/20	allmänt	[-69]
35b-1/21	Anordningar för ändring av rörelseriktningen vid bockkranar eller löpkrantar	[-69]
35b-1/22	Anordningar för att förhindra snedställning	[-69]
35b-1/23	Anordningar för att förhindra oavsiktlig gång	[-69]
35b-1/24	Ledbara lagringar	[-69]
	Kabelkranar	[-69]
35b-1/30	allmänt	[-69]
35b-1/31	Utvikbara linbärare	[-69]

35b-1/32	Medförbara linbärare	[-69]
	Byggnadskranar	[-69]
35b-1/40	allmänt (byggnadshissar 35a)	[-69]
35b-1/41	med automatisk insvängning av lasten	[-69]
35b-1/42	Uppbyggnad av ställningar med hjälp av enkla delar	[-69]
35b-1/43	Fönsterkranar	[-69]
35b-2/01	Temperleykranar, allmänt	[-69]
35b-2/02	Höjssor (45e-30/01; 81e-106)	[-69]
	Kranar med utliggare, t.ex. svängbara	[-69]
35b-3/01	Kranar med fasta utliggare	[-69]
35b-3/02	Kranar med rörliga utliggare	[-69]
35b-3/03	Vippkranar, allmänt	[-69]
35b-3/04	Vippkranar med vågrät lastväg	[-69]
35b-3/05	Vagnkranar med handdrivning	[-69]
35b-3/06	Vagnkranar med motordrivning, allmänt	[-69]
35b-3/07	Vagnkranar med en enda kraftkälla	[-69]
35b-3/08	Järnvägs-kranar	[-69]
35b-3/09	Magasins-kranar med lodrät rörelse och sidorörelse hos lasten	[-69]
35b-3/10	Vridbara pelarkranar	[-69]
35b-3/11	Kranar drivna med hjälp av tryckvatten	[-69]
35b-3/12	Velocipedkranar; Körbara väggkranar	[-69]
35b-3/13	Pontonkranar (flytkroppar för pontonkranar 65a1)	[-69]
35b-3/14	Speciella kranar	[-69]
35b-3/15	Kranar med rörlig motvikt	[-69]
35b-3/16	Säkerhetsanordningar för kranar	[-69]
35b-3/17	Kranar med räkneverk, vågar e.d. (vågar 42f; räkneverk 42p)	[-69]
35b-3/18	Anordningar för anbringande av lasten	[-69]
35b-3/19	Speciella anordningar på kranar med utliggare, t.ex. vridmaskinerier eller vippmaskinerier	[-69]
35b-5/01	Andra anordningar på kranar	[-69]
35b-5/10	Smideskranar	[-69]
	Griporgan eller bärorgan för laster	[-69]
35b-6/01	Lastkrokar	[-69]
35b-6/02	Lastbyglar	[-69]
35b-6/03	Tänger	[-69]
35b-6/04	Griporgan för stapelvaror	[-69]
35b-6/05	Griporgan för plattor	[-69]
35b-6/06	Griporgan för järnbalkar	[-69]
35b-6/07	Griporgan för trä eller lådor	[-69]
35b-6/08	Griporgan för axlar eller rör	[-69]
35b-6/09	Griporgan för säckar	[-69]
35b-6/10	Griporgan med linor eller kedjor	[-69]
35b-6/11	Anordningar för avlyftning av lock	[-69]
35b-6/12	Griporgan med i hålrum utspretande armar	[-69]
35b-6/13	Griporgan för massgods; Hänganordningar för gripskopor eller avstjälpningsskopor	[-69]
35b-6/14	Transportanordningar för tråg	[-69]
35b-6/15	Gripskopa med en lina	[-69]
35b-6/16	Gripskopa med två linor	[-69]
35b-6/17	Motorgripskopor	[-69]
35b-6/18	Anordningar för omväxlande användning av griporgan och lastkrok	[-69]

35b-6/19	Speciella anordningar på gripskopor	[-69]
35b-6/20	Gripskopor upphängda på eller rörliga längs med utliggare	[-69]
35b-6/21	Tippanordningar och gripanordningar på samma kran	[-69]
35b-6/22	Gripanordningar arbetande med vacuum	[-69]
35b-6/23	Lastmagneter	[-69]
35b-6/24	Lastmagneter försedda med griporgan	[-69]
35b-6/25	Speciella anordningar för att gripa eller bära laster	[-69]

Elektrisk utrustning för kranar [-69]

35b-7/01	Manövreringsanordningar för kranar	[-69]
35b-7/02	Bromskopplingar för omvänd drift	[-69]
35b-7/03	Regleranordningar för åstadkommande av olika hastigheter	[-69]
35b-7/04	Kopplingar för sänkning vid likströmsdrift	[-69]
35b-7/05	Kopplingar för sänkning vid växelströmsdrift	[-69]
35b-7/06	Kopplingar för sänkning med strömåtervinning	[-69]
35b-7/07	Kopplingar för förhindrande av höjning vid sänkning med motström	[-69]
35b-7/08	Elektriska utrustningar av allmänt slag för krandrifv	[-69]
35b-7/09	Gränskopplingar för kranmaskineri	[-69]

Elektrisk manövrering av gripskopspel [-69]

35b-8/01	för gripskopspel med en lina	[-69]
35b-8/02	för gripskopspel med två linor och en motor	[-69]
35b-8/03	för gripskopspel med två linor och två motorer	[-69]
35b-8/04	för gripskopspel med två linor och planetväxel	[-69]

35b (IPC: B66C) Cranes; Load-engaging elements or devices for cranes, capstans, winches, or tackles (rope, cable, or chain winding mechanisms, braking or detent devices therefor 35c; specially adapted for nuclear reactors 21g) [-69]

Load-engaging elements or devices attached to lifting, lowering, or hauling gear of cranes or adapted for connection therewith [-69]

Note: [-69]
In groups 35b-1/00 and 35b-3/00 the term "cranes" also covers capstans, winches, or tackles. [-69]

35b-1/00	Load-engaging elements or devices attached to lifting, lowering gear of cranes, or adapted for connection therewith for transmitting lifting forces to articles or groups of articles (fastening to cables or ropes 47d-11/00)	[-69-]
35b-1/02	. by suction means	[-69-]
35b-1/04	. by magnetic means	[-69-]
35b-1/06	. . electromagnetic	[-69-]
35b-1/08	. . . Circuits therefor (for electromagnets in general 21g-2/01, 21g-2/02)	[-69-]
35b-1/10	. by mechanical means	[-69-]
35b-1/12	. . Slings comprising chains, wires, ropes, or bands; Nets (article side grippers suspended by ropes or chains from crane hooks 35b-1/42)	[-69-]
35b-1/14	. . . Slings with hooks	[-69-]
35b-1/16	. . . Slings with load-engaging platforms or frameworks	[-69-]
35b-1/18	. . . Band-type slings	[-69-]
35b-1/20	. . . specially adapted for handling vehicles	[-69-]
35b-1/22	. . Rigid members, e.g. L-shaped members, with parts engaging the under surface of the loads; Crane hooks	[-69-]
35b-1/24	. . . Single members engaging the loads from one side only	[-69-]
35b-1/26	. . . . with means for releasing the loads	[-69-]
35b-1/28	. . . Duplicate, e.g. pivoted, members engaging the loads from two sides	[-69-]
35b-1/30	. . . . and also arranged to grip the sides of the loads	[-69-]

35b-1/32	. . . . . of piled or stacked articles	[69-]
35b-1/34	. . . Crane hooks	[69-]
35b-1/36	. . . . with means, e.g. spring-biased detents, for preventing inadvertent disengagement of loads	[69-]
35b-1/38	. . . . adapted for automatic disengagement from loads on release of cable tensions (for parachutes 62a3)	[69-]
35b-1/40	. . . . formed or fitted with load-measuring or indicating devices	[69-]
35b-1/42	. . Gripping members engaging only the external or internal surfaces of the articles	[69-]
35b-1/44	. . . and applying frictional forces	[69-]
35b-1/46	. . . . by inflatable elements	[69-]
35b-1/48	. . . . to vertical edge portions of sheets, tubes, or like thin or thin-walled articles (internally-expanding grippers 35b-1/54)	[69-]
35b-1/50	. . . . specially adapted for stripping and handling ingots	[69-]
35b-1/52	. . . . . and actuated by driving gear thereon	[69-]
35b-1/54	. . . . Internally-expanding grippers for handling hollow articles	[69-]
35b-1/56	. . . . . for handling tubes	[69-]
35b-1/58	. . . and deforming the articles, e.g. tongs for sacks	[69-]
35b-1/60	. . . . permanently, e.g. grapples	[69-]
35b-1/62	. . comprising article-engaging members of a shape complementary to that of the articles to be handled	[69-]
35b-1/64	. . . for T-section beams, I-section beams or girders	[69-]
35b-1/66	. . . for engaging holes, recesses, or abutments on articles specially provided for facilitating handling thereof	[69-]
35b-1/68	. mounted on, or guided by, jibs (jibs 35b-23/64)	[69-]
35b-3/00	Load-engaging elements or devices attached to lifting or lowering gear of cranes or adapted for connection therewith and intended primarily for transmitting lifting forces to loose materials; Grabs (buckets and other containers 81c, pallets 81e-119; dredges equipped with grabs 84d)	[69-]
35b-3/02	. Bucket grabs	[69-]
35b-3/04	. Tine grabs	[69-]
35b-3/06	. Grabs actuated by a single rope or chain	[69-]
35b-3/08	. . and having tipping rings	[69-]
35b-3/10	. . and having buckets opening automatically upon the grab being lowered on to the dump of material	[69-]
35b-3/12	. Grabs actuated by two or more ropes	[69-]
35b-3/14	. Grabs opened or closed by driving motors thereon	[69-]
35b-3/16	. . by fluid motors	[69-]
35b-3/18	. . by electric motors	[69-]
35b-3/20	. mounted on, or guided by, jibs (jibs 35b-23/64)	[69-]
	<u>Other common features; Details</u>	[69-]
35b-5/00	Base-supporting structures with legs	[69-]
35b-5/02	. Fixed or travelling bridges or gantries, i.e. elongated structures of inverted-L-shape or of inverted-U-shape	[69-]
35b-5/04	. . with runways or tracks supported for movements relative to bridge or gantry	[69-]
35b-5/06	. . with runways or tracks supported for lateral swinging movements	[69-]
35b-5/08	. . with vertically-inclinable runways or tracks	[69-]
35b-5/10	. Portals, i.e. essentially circular or square platforms with three or more legs specially adapted for supporting slewing jib cranes	[69-]
35b-6/00	Girders, or track-supporting structures, specially adapted for cranes but not restricted to a specific type of crane (base-supporting structures with legs 35b-5/00; girders in general 47a5, 37b)	[69-]
35b-7/00	Runways, tracks, or trackways for trolleys or cranes	[69-]
35b-7/02	. for underhung trolleys or cranes	[69-]
35b-7/04	. . Trackway suspension	[69-]
35b-7/06	. . . on supports constructed for easy erection, e.g. transportable	[69-]

35b-7/08	. Constructional features of runway rails or rail mountings (of general application 19a)	[69-]
35b-7/10	. Arrangements or devices for extending runways or tracks	[69-]
35b-7/12	. Devices for changing direction of travel or for transferring from one runway to another; Crossings; Combinations of tracks of different gauges (transfer devices of general application 19a)	[69-]
35b-7/14	. . Runway interlocking devices	[69-]
35b-7/16	. Devices specially adapted for limiting trolley or crane travel; Arrangements of buffer-stops (buffer-stops of interest apart from this application 20g-8; limit-switch arrangements, limit circuits 35c-1/56)	[69-]
35b-9/00	Travelling gear incorporated in, or fitted to, trolleys or cranes (for dredgers 84d)	[69-]
35b-9/02	. for underhung trolleys or cranes	[69-]
35b-9/04	. to facilitate negotiation of curves	[69-]
35b-9/06	. for more than one rail gauge	[69-]
35b-9/08	. Runners; Runner bearings (wheels for railbound vehicles 20d)	[69-]
35b-9/10	. Undercarriages or bogies, e.g. end carriages, end bogies	[69-]
35b-9/12	. . with load-distributing means for equalising wheel pressure	[69-]
35b-9/14	. Trolley or crane travel drives (rope, cable, or chain drives for loads or trolleys 35b-11/16; control 35b-13/18)	[69-]
35b-9/16	. with means for maintaining alignment between wheels and track	[69-]
35b-9/18	. with means for locking trolleys or cranes to runways or tracks to prevent inadvertent movements	[69-]
35b-11/00	Trolleys or crabs, e.g. operating above runways (winch mechanisms 35c)	[69-]
35b-11/02	. with operating gear or operator's cabin suspended, or laterally offset, from runway or track	[69-]
35b-11/04	. . Underhung trolleys (power-operated hoists with driving motor and drum or barrel contained in a common housing 35c-3/20)	[69-]
35b-11/06	. . . running on monorails (overhead railway systems 20a)	[69-]
35b-11/08	. with turntables	[69-]
35b-11/10	. . equipped with jibs (jib cranes 35b-23/00)	[69-]
35b-11/12	. having hoisting gear adapted to special load-engaging elements and not otherwise provided for	[69-]
35b-11/14	. adapted to operate on crane or bridge structure of particular configuration, e.g. on reinforced concrete girders of rectangular cross-section	[69-]
35b-11/16	. Rope, cable, or chain drives for trolleys; Combinations of such drives with hoisting gear	[69-]
35b-11/18	. . comprising endless ropes or cables	[69-]
35b-11/20	. . Arrangements, e.g. comprising differential gears, enabling simultaneous or selective operation of travelling and hoisting gear; Arrangements using the same rope or cable for both travelling and hoisting, e.g. in Temperley cranes (power transmissions between driving motors and winch drums 35c-1/14)	[69-]
35b-11/22	. . actuated pneumatically or hydraulically	[69-]
35b-11/24	. . with means for locating or sustaining the loads or trolleys in predetermined positions; Hay hoists	[69-]
35b-11/26	. . . Abutments; Stop blocks; End stops	[69-]
35b-13/00	Other constructional features or details	[69-]
35b-13/02	. Devices for facilitating retrieval of floating objects, e.g. for recovering craft from water (handling lifeboats 65b; hauling-out waterborne vessels on slipways 65b; winding mechanism controls 35c-1/52)	[69-]
35b-13/04	. Auxiliary devices for controlling movements of suspended loads, or for preventing cable slack	[69-]
35b-13/06	. . for minimising or preventing longitudinal or transverse swinging of loads	[69-]
35b-13/08	. . for depositing loads in desired attitudes or positions	[69-]
35b-13/10	. . for preventing cable slack (control devices for rope, cable, or chain winding mechanisms, e.g. for controlling tension, 35c-1/40)	[69-]

35b-13/12	. Arrangements of means for transmitting pneumatic, hydraulic, or electric power to movable parts or devices	[69-]
35b-13/14	. . to load-engaging elements or motors associated therewith	[69-]
35b-13/16	. Applications of indicating, registering, or weighing devices (in crane hooks 35b-1/40; in safety gear 35b-15/00; weighing-apparatus 42f; remote indicating in general 74)	[69-]
35b-13/18	. Control systems or devices (exclusively for rope, cable, or chain winding mechanisms 35c-1/40)	[69-]
35b-13/20	. . for non-electric drives (transmitting control pulses 35b-13/40)	[69-]
35b-13/22	. . for electric drives (transmitting control pulses 35b-13/40; systems or devices of general application 21c)	[69-]
35b-13/23	. . . Circuits for controlling the lowering of the load	[69-]
35b-13/24	. . . . by dc motors	[69-]
35b-13/26	. . . . by ac motors	[69-]
35b-13/28	. . . . utilising regenerative braking for controlling descent of heavy loads and having means for preventing rotation of motor in the hoisting direction when load is released	[69-]
35b-13/30	. . . Circuits for braking, traversing, or slewing motors	[69-]
35b-13/32	. . . for operating grab-bucket hoists by means of one or more electric motors used both for hoisting and lowering the loads and for opening and closing the bucket jaws (other aspects of rope, cable, or chain winding mechanisms specially adapted for actuating grab buckets 35c-1/62)	[69-]
35b-13/34	. . . . through differential or planetary gearing	[69-]
35b-13/36	. . . . Single-motor-drive control systems	[69-]
35b-13/38	. . . . Systems controlling independent motors	[69-]
35b-13/40	. . Applications of devices for transmitting control pulses; Applications of remote control devices (control in general 42r)	[69-]
35b-13/42	. . . Hydraulic transmitters	[69-]
35b-13/44	. . . Electrical transmitters	[69-]
35b-13/46	. . Position indicators for suspended loads or for crane elements	[69-]
35b-13/48	. . Automatic control of crane drives for producing a single or repeated working cycle; Programme control	[69-]
35b-13/50	. . Applications of limit circuits or of limit-switch arrangements (for winding mechanisms 35c-1/56)	[69-]
35b-13/52	. Details of compartments for driving engines or motors or of operator's stands or cabins	[69-]
35b-13/54	. . Operator's stands or cabins	[69-]
35b-13/56	. . . Arrangements of handles or pedals	[69-]
35b-15/00	Safety gear (for rope, cable, or chain winding mechanisms 35c-1/54)	[69-]
35b-15/02	. for retaining load-engaging elements in the event of rope or cable breakage	[69-]
35b-15/04	. for preventing collisions, e.g. between cranes or trolleys operating on the same track	[69-]
<u>Kinds or types of cranes</u>		[69-]
35b-17/00	Overhead travelling cranes comprising one or more substantially-horizontal girders the ends of which are directly supported by wheels or rollers running on tracks carried by spaced supports	[69-]
35b-17/02	. Adaptations of girders or of track-supporting structures	[69-]
35b-17/04	. with lifting beams, e.g. slewable beams, carrying load-engaging elements, e.g. magnets, hooks (constructions of load-engaging elements 35b-1/00, 35b-3/00)	[69-]
35b-17/06	. specially adapted for particular purposes, e.g. in foundries, forges; combined with auxiliary apparatus serving particular purposes (35b-17/04 takes precedence)	[69-]
35b-17/08	. . for charging treatment chambers, e.g. furnaces, kilns, ovens (charging apparatus associated with hearth furnaces for steel manufacture 18b-5/24)	[69-]
35b-17/10	. . for transporting ladles	[69-]
35b-17/12	. . for handling workpieces, e.g. ingots, which require to be supported temporarily within, or withdrawn from, a treatment chamber, e.g. tong cranes, soaking-pit cranes, stripper cranes (for manipulating ingots during forging 35b-17/18; ingot grippers 35b-1/50)	[69-]

35b-17/14	. . . Tong cranes with means for moving article-pushers relative to the tongs	[69-]
35b-17/16	. . . Tong cranes with means for turning the tongs about a vertical axis	[69-]
35b-17/18	. . for manipulating workpieces during forging operations (workpiece manipulators in forging machines 7g-13/10)	[69-]
35b-17/20	. . for hoisting or lowering heavy load carriers, e.g. freight containers, railway wagons	[69-]
35b-17/22	. . for hoisting or lowering locomotives	[69-]
35b-17/24	. . for building ships on slipways	[69-]
35b-17/26	. . combined with auxiliary apparatus, e.g. log saws, pushers for unloading vehicles, means for shunting railway vehicles	[69-]
35b-19/00	Cranes comprising trolleys or crabs running on fixed or movable bridges or gantries (35b-17/00 takes precedence; base-supporting structures with legs 35b-5/00; jib cranes 35b-23/00)	[69-]
35b-19/02	. collapsible	[69-]
35b-21/00	Cable cranes, i.e. comprising hoisting devices running on aerial cable-ways (rope or cable drives for trolleys, combinations of such drives with hoisting gear 35b-11/16; railway systems 20a; rope or cable winding mechanisms 35c-1/00)	[69-]
35b-21/02	. with cable-ways supported on framework swingably connected to ground-engaging elements	[69-]
35b-21/04	. with cable-ways supported at one end or both ends on bodily-movable framework, e.g. framework mounted on rail track	[69-]
35b-21/06	. . with one end supported on a framework movable in a curved, e.g. circular, path and the other end by a column rotatable around a vertical axis	[69-]
35b-21/08	. Sag carriers or rope trolleys, suspended or not, e.g. fixed but offering clearance for travelling gear	[69-]
35b-21/10	. . travelling	[69-]
35b-23/00	Cranes comprising essentially a beam, boom, or triangular structure acting as a cantilever and mounted for translatory or swinging movements in vertical or horizontal planes or a combination of such movements, e.g. jib cranes, derricks, tower cranes (base-supporting structures with legs 35b-5/00)	[69-]
35b-23/02	. with non-adjustable and non-inclinable jibs mounted solely for slewing movements	[69-]
35b-23/04	. with jibs the effective length of which is variable in operation, e.g. longitudinally displaceable, extensible	[69-]
35b-23/06	. with jibs mounted for jibbing or luffing movements	[69-]
35b-23/08	. . and adapted to move the loads in predetermined paths	[69-]
35b-23/10	. . . the paths being substantially horizontal; Level-luffing jib cranes	[69-]
35b-23/12	. . . . with means for automatically varying the effective length of the hoisting rope or cable	[69-]
35b-23/14	. . . . with means, e.g. pantograph arrangements, for varying jib configuration	[69-]
35b-23/16	. with jibs supported by columns, e.g. towers having their lower end mounted for slewing movements	[69-]
35b-23/18	. specially adapted for use in particular purposes	[69-]
35b-23/20	. . with supporting couples provided by walls of buildings or like structures	[69-]
35b-23/22	. . . Window cranes, i.e. adapted to be supported in window openings	[69-]
35b-23/24	. . . Mobile wall cranes	[69-]
35b-23/26	. . for use on building sites; constructed, e.g. with separable parts, to facilitate rapid assembly or dismantling, for operation at successively higher levels, for transport by road or rail (with supporting couples provided by walls or buildings 35b-23/20; mounted on vehicles 35b-23/36; jib constructions 35b-23/64)	[69-]
35b-23/28	. . . constructed to operate at successively higher levels	[69-]
35b-23/30	. . . . with frameworks composed of telescopic elements	[69-]
35b-23/32	. . . . Self-hoisting cranes	[69-]
35b-23/34	. . . Self-erecting cranes, i.e. with hoisting gear adapted for crane erection purposes	[69-]

35b-23/36	. . . mounted on road or rail vehicles; Manually-movable jib cranes for use in workshops; Floating cranes (with pneumatic or hydraulic motors 35b-23/54; vehicle or ship aspects 20, 62, 63, 65)	[69-]
35b-23/38	. . . with separate prime movers for crane and vehicle	[69-]
35b-23/40	. . . with a single prime mover for both crane and vehicle	[69-]
35b-23/42	. . . with jibs of adjustable configuration, e.g. foldable	[69-]
35b-23/44	. . . Jib cranes adapted for attachment to standard vehicles, e.g. agricultural tractors	[69-]
35b-23/46	. . . Mobile jib cranes with non-sleuable jibs	[69-]
35b-23/48	. . . Manually-movable jib cranes for use in workshops	[69-]
35b-23/50	. . . mounted on railway vehicles, e.g. breakdown cranes	[69-]
35b-23/52	. . . Floating cranes (floating dredgers 84d)	[69-]
35b-23/54	. with pneumatic or hydraulic motors, e.g. for actuating jib cranes on tractors	[69-]
35b-23/56	. . of the reciprocating type	[69-]
35b-23/58	. arranged to carry-out a desired sequence of operations automatically, e.g. hoisting followed by luffing and slewing	[69-]
35b-23/60	. Derricks (derricks employing ships' masts 65a)	[69-]
35b-23/62	. Constructional features or details (of dredgers 84d)	[69-]
35b-23/64	. . Jibs	[69-]
35b-23/66	. . . Outer or upper end constructions	[69-]
35b-23/68	. . . foldable or otherwise adjustable in configuration	[69-]
35b-23/70	. . . constructed of sections adapted to be assembled to form jibs of various lengths	[69-]
35b-23/71	. . Kranmaste (Maste allgemein 37f-15/22)	[69-]
35b-23/72	. . Counterweights or supports for balancing lifting couples	[69-]
35b-23/74	. . . separate from jib	[69-]
35b-23/76	. . . . and movable to take account of variations of load or of variations of length of jib	[69-]
35b-23/78	. . . Supports, e.g. outriggers, for mobile cranes	[69-]
35b-23/80	. . . . hydraulically actuated	[69-]
35b-23/82	. . Luffing gear	[69-]
35b-23/84	. . Slewing gear	[69-]
35b-23/86	. . . hydraulically actuated	[69-]
35b-23/88	. Safety gear (for cranes in general 35b-15/00; for rope, cable, or chain winding mechanisms 35c-1/54)	[69-]
35b-23/90	. . Devices for indicating or limiting lifting movement	[69-]
35b-23/92	. . Snubbers or dash-pots for preventing backwards-swinging of jibs, e.g. in the event of cable or tackle breakage	[69-]
35b-23/94	. . for limiting slewing movements	[69-]

35c Vinschar; Lyftblock [-69]

Vinschar [-69]

35c-1/01	Vinschar, allmänt	[69-]
35c-1/02	Vinschar drivna i en riktning	[69-]
35c-1/03	Vinschar med frigående trummor som kan kopplas till drivmaskineriet	[69-]
35c-1/04	Vinschar med flera växlar	[69-]
35c-1/05	Vinschar med friktionshjulsdrivning	[69-]
35c-1/06	Vindspel	[69-]
35c-1/07	Ankarspel	[69-]
35c-1/08	Bogseringsvinschar; Manövrering av bogseringsvinschar	[69-]
35c-1/09	Rangeringsvinschar	[69-]
35c-1/10	Vinschar fastsatta på väggar	[69-]
35c-1/11	Ångvinschar	[69-]
35c-1/12	Vinschar med flera trummor	[69-]
35c-1/13	Vinschar med elektrisk drivning	[69-]
35c-1/14	Vinschar drivna av gas eller vätska	[69-]
35c-1/15	Mekanisk manövrering eller bromsning med spak	[69-]

35c-1/16	Omkoppling av vinschar	[69]
35c-1/17	Vinschtrummor för vinschanordningar (allmänt 47b-26)	[69]
35c-1/18	Maskineri för vinschar	[69]
35c-1/19	Linledare	[69]
35c-1/20	Skyddsanordningar mot överbelastning	[69]
35c-1/21	Ändströmbrytare e.d. för vinschar	[69]
35c-1/22	Andra detaljer	[69]
	Lyftblock	[69]
35c-2/01	Lyftblock med lindrivning	[69]
35c-2/02	Lyftblock med kedjedrivning	[69]
35c-2/03	Skruvhjulslyftblock	[69]
35c-2/04	Elektrolyftblock	[69]
35c-2/05	Ställningar för lyftblock	[69]
	Spärranordningar eller bromsanordningar för vinschar	[69]
35c-3/01	Spärranordningar (allmänt 47h-4)	[69]
35c-3/02	Bromsar av vanlig typ (bromsar för rotationsrörelser allmänt 47c-17)	[69]
35c-3/03	Bromsar manövrerade med hjälp av gastryck eller vätsketryck	[69]
35c-3/04	Elektriskt manövrerade bromsar	[69]
35c-3/05	Manövrering av bromsar vid uppfodringsanordningar (bromsar för rotationsrörelser allmänt 47c-17)	[69]
35c-3/06	Axialtryckbromsar	[69]
35c-3/07	Radialtryckbromsar	[69]
35c-3/08	Lasttrycksbromsar, allmänt	[69]
35c-3/09	Axiellt verkande lasttrycksbromsar	[69]
35c-3/10	Radiellt verkande lasttrycksbromsar	[69]
35c-3/11	Centrifugalbromsar	[69]
35c-3/12	Linbromsar	[69]
35c-3/13	Säkerhetsanordningar vid vevar	[69]

35c (IPC: B66D) Capstans; Winches; Tackles, e.g. pulley blocks; Hoists
(winding or unwinding ropes or cables for feeding or storage purposes 47k; rope or cable-winding or unwinding mechanisms for lifts 35a) **[69-]**

Note: **[69-]**

This subclass includes:

(a) rope, cable, or chain winding or unwinding mechanisms for moving all loads except lift cages, e.g. winches for dredges;

(b) braking or detent devices characterised by their application for retarding, or preventing rotary movement of, a winding drum or barrel. **[69-]**

35c-1/00	Rope, cable, or chain winding mechanisms; Capstans (portable or mobile lifting or hauling appliances 35c-3/00)	[69-]
35c-1/02	. Driving gear	[69-]
35c-1/04	. . manually operated	[69-]
35c-1/06	. . . Safety cranks for preventing unwanted crank rotation and subsequent lowering of the loads	[69-]
35c-1/08	. . incorporating fluid motors	[69-]
35c-1/10	. . . Steam driving gear	[69-]
35c-1/12	. . incorporating electric motors	[69-]
35c-1/14	. . Power transmissions between power sources and drums or barrels	[69-]
35c-1/16	. . . the drums or barrels being freely rotatable (35c-1/24 takes precedence)	[69-]
35c-1/18	. . . . and the power being transmitted from a continuously-operating and irreversible prime mover	[69-]
35c-1/20	. . . Chain, belt, or friction drives, e.g. incorporating sheaves	[69-]

35c-1/22	. . . Planetary or differential gearings (for actuating grab buckets 35c-1/70)	[69-]
35c-1/24	. . . for varying speed, or reversing direction of rotation, of drums or barrels	[69-]
35c-1/26	. having several drums or barrels	[69-]
35c-1/28	. Other constructional details	[69-]
35c-1/30	. . Rope, cable, or chain drums or barrels	[69-]
35c-1/34	. . . Attachment of ropes or cables to drums or barrels	[69-]
35c-1/36	. . Guiding, or otherwise ensuring winding in an orderly manner, of ropes, cables, or chains	[69-]
35c-1/38	. . . by means of guides movable relative to drum or barrel	[69-]
35c-1/39	. . . by means of axially-movable drums or barrels	[69-]
35c-1/40	. . Control devices	[69-]
35c-1/42	. . . non-automatic	[69-]
35c-1/44	. . . . pneumatic or hydraulic	[69-]
35c-1/46	. . . . electric	[69-]
35c-1/48	. . . . automatic	[69-]
35c-1/50	. . . . for maintaining predetermined rope, cable, or chain tension, e.g. in ropes or cables for towing craft, in chains for anchors; Warming or mooring winch-cable tension control	[69-]
35c-1/52	. . . . for varying rope or cable tension, e.g. when recovering craft from water	[69-]
35c-1/54	. Safety gear	[69-]
35c-1/56	. . Adaptations of limit switches	[69-]
35c-1/58	. . responsive to excess of load	[69-]
35c-1/60	. adapted for special purposes	[69-]
35c-1/62	. . for actuating grab buckets (electrical control in cranes 35b-13/32)	[69-]
35c-1/64	. . . by means of a single rope or chain	[69-]
35c-1/66	. . . driven by a single motor	[69-]
35c-1/68	. . . driven by two motors	[69-]
35c-1/70	. . . driven through planetary or differential gearings	[69-]
35c-1/72	. . Anchor-chain sprockets; Anchor capstans	[69-]
35c-1/74	. . Capstans	[69-]
35c-1/76	. . . having auxiliary drums or barrels for storing the ropes or cables	[69-]
35c-1/78	. . . for shunting, e.g. in marshalling yards	[69-]
35c-1/80	. . for scrapers	[69-]
35c-1/82	. . for slewing and hoisting by means of derricks	[69-]
35c-3/00	Portable or mobile lifting or hauling appliances	[69-]
35c-3/02	. Manually-operated, e.g. lever-actuated, devices operating on ropes, cables, or chains for hauling in a mainly horizontal direction (35c-3/04, 35c-3/12 take precedence)	[69-]
35c-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 47h-55/00)	[69-]
35c-3/06	. . with more than one pulley	[69-]
35c-3/08	. . . Arrangements of sheaves	[69-]
35c-3/10	. . . Applications of braking or detent devices	[69-]
35c-3/12	. Chain or like hand-operated tackles with or without power-transmission gearing between operating member and lifting rope, chain, or cable	[69-]
35c-3/14	. . lever-operated	[69-]
35c-3/16	. . operated by an endless chain passing over a pulley or a sprocket	[69-]
35c-3/18	. Power-operated hoists	[69-]
35c-3/20	. . with driving motor, e.g. electric motor, and drum or barrel contained in a common housing	[69-]
35c-3/22	. . . with variable-speed gearing between driving motor and drum or barrel	[69-]
35c-3/24	. . Applications of limit switches	[69-]
35c-3/26	. . Other details, e.g. housings	[69-]
35c-5/00	Braking or detent devices characterised by their application to lifting or hoisting gear, e.g. for controlling the lowering of loads (for pulley blocks 35c-3/10; of interest apart from such applications 47c, 47h)	[69-]
35c-5/02	. Crane, lift, hoist, or winch brakes operating on drums, barrels, or ropes	[69-]
35c-5/04	. . actuated by centrifugal force	[69-]

35c-5/06	. . with radial effect (35c-5/20 takes precedence)	[69-]
35c-5/08	. . . embodying blocks or shoes	[69-]
35c-5/10	. . . embodying bands	[69-]
35c-5/12	. . with axial effect (35c-5/22 takes precedence)	[69-]
35c-5/14	. . . embodying discs	[69-]
35c-5/16	. . for action on ropes or cables	[69-]
35c-5/18	. . for generating braking forces which are proportional to the loads suspended; Load-actuated brakes	[69-]
35c-5/20	. . . with radial effect	[69-]
35c-5/22	. . . with axial effect	[69-]
35c-5/24	. . Operating devices	[69-]
35c-5/26	. . . pneumatic or hydraulic	[69-]
35c-5/28	. . . specially adapted for winding gear, e.g. in mining hoists	[69-]
35c-5/30	. . . electrical	[69-]
35c-5/32	. Detent devices	[69-]
35c-5/34	. . having latches	[69-]

35d Lyftanordningar, t.ex. fatstegar, domkrafter, säcklyftare eller verktyg för lyftning av laster [-69]

35d-1/01	Fatstegar	[-69]
35d-1/02	Säcklyftare	[-69]
35d-2/01	Bräckstänger; Hävstänger	[-69]
35d-2/02	Domkrafter, allmänt	[-69]
35d-2/03	Domkrafter med en manövrerbar spärrhake	[-69]
35d-2/04	Domkrafter med två manövrerbara spärrhakar	[-69]
35d-2/05	Domkrafter med klätterlyftverk	[-69]
35d-2/06	Domkrafter med klämlyftverk	[-69]
	Domkrafter med kuggstång	[-69]
35d-3/01	allmänt	[-69]
35d-3/02	med flera kuggstänger	[-69]
35d-3/03	med ledade kuggstänger	[-69]
35d-3/04	med spärrhakar	[-69]
	Domkrafter med skruvmekanism	[-69]
35d-4/01	allmänt	[-69]
35d-4/02	teleskopiska	[-69]
35d-4/03	med knäledsverkan	[-69]
	Domkrafter	[-69]
35d-5/01	drivna med hjälp av tryckvatten	[-69]
35d-5/02	drivna med hjälp av tryckvatten, med pump	[-69]
35d-5/03	med vid sänkning verkande bromsar	[-69]
35d-5/04	drivna med hjälp av tryckluft	[-69]
35d-6	Lyftanordningar med nürnbergersax (37e-6/02; 61a-3/01)	[-69]
35d-7	Lyftning med statisk lyftkraft (dockanordningar 65b)	[-69]
35d-8/01	Axellyftare, allmänt	[-69]
35d-8/02	Axellyftare med automatisk urkoppling av drivmaskinen	[-69]
35d-8/03	Domkrafter drivna med bakom varandra liggande kulor	[-69]
35d-9/01	Anordningar för resning av master	[-69]
35d-9/02	Anordningar för uppdragning av master	[-69]
35d-9/03	Anordningar för utdragning av balar ur staplar	[-69]
35d-9/04	Domkrafter med elektrisk drivning	[-69]
35d-9/05	Lyftanordningar för speciella ändamål	[-69]
35d-10/01	Uppkörningsplattformar	[-69]
35d-10/02	Lyftplattformar, allmänt	[-69]

35d-10/03	Lyftplattformar med kuggstångsdrivning	[-69]
35d-10/04	Lyftplattformar med skruvspindeldrivning	[-69]
35d-10/05	Lyftplattformar med tryckmediumdrivning	[-69]
35d-10/06	Lyftplattformar drivna av fordonets motor	[-69]
35d-10/07	Lyftplattformar uppresta av det uppkörande fordonets rörelse	[-69]
35d-10/08	Lyftplattformar vid vilka fordonet grips under axlarna eller hjulen	[-69]
35d-10/09	Lyftplattformar med ställbara bärskenor	[-69]
35d-10/10	Upphängda lyftplattformar	[-69]
35d-10/11	Tippbara lyftplattformar	[-69]
35d-10/12	Anordningar för lyftning av vagnskorgar	[-69]
35d-10/13	Lyftplattformar bestående av fyra gemensamt drivna domkrafter	[-69]
35d-10/14	Lyftplattformar med en pelare mitt under fordonet	[-69]
35d-11	Tillbehör	[-69]

35d (IPC: B66F) Hoisting, lifting, or hauling, not otherwise provided for, e.g. devices which apply a lifting or pushing force directly to the surface of a load (off-shore platforms 84c-21/00; scaffolding combined with lifting devices 37e-1/22; lifting devices for sliding forms 37e-11/24; lifting of buildings 37e-23/06; shores or struts 37e-25/00; lifts or other hoisting devices on ladders 37g2-7/12; props for mining 5c-15/00) **[69-]**

35d-1/00 Devices, e.g. jacks, for lifting loads in predetermined steps **[69-]**

35d-1/02	. with locking elements, e.g. washers, co-operating with posts	[69-]
35d-1/04	. . the posts being toothed	[69-]
35d-1/06	. . . and the devices being actuated mechanically	[69-]
35d-1/08	. . . and the devices being operated by fluid pressure	[69-]

35d-3/00 Devices, e.g. jacks, adapted for uninterrupted lifting of loads (mobile jacks of the garage type 35d-5/00) **[69-]**

35d-3/02 . with racks actuated by pinions **[69-]**

35d-3/04	. . with several racks	[69-]
35d-3/06	. . with racks comprising pivotable toothed sections or segments, e.g. arranged in pairs	[69-]
35d-3/08	. screw-operated (35d-3/44 takes precedence; gearings 47h)	[69-]
35d-3/10	. . with telescopic sleeves	[69-]
35d-3/12	. . comprising toggle levers (lazy-tongs mechanisms 35d-3/22)	[69-]
35d-3/14	. . actuated through pawl-and-ratchet mechanisms	[69-]
35d-3/16	. . actuated through bevel-wheel gearings	[69-]
35d-3/18	. . actuated through worm gearings	[69-]
35d-3/20	. . actuated through multiple or change-speed gearings	[69-]
35d-3/22	. Lazy-tongs mechanisms	[69-]
35d-3/24	. fluid-pressure operated (water-pressure machines 88b; fluid-pressure servomotors 60a; hydraulic gearings 47h; cylinders, pistons 47f2)	[69-]
35d-3/26	. . Adaptations or arrangements of pistons	[69-]
35d-3/28	. . . telescopic	[69-]
35d-3/30	. . with positive brakes or lock	[69-]
35d-3/32	. . with means for avoiding excessive shocks on completion movements	[69-]
35d-3/34	. . pneumatic	[69-]
35d-3/36	. . Load-engaging elements	[69-]
35d-3/38	. . . adjustable relative to piston	[69-]
35d-3/40	. . . inflatable	[69-]
35d-3/42	. . with self-contained pumps, e.g. actuated by hand	[69-]
35d-3/44	. with self-contained electric driving motors	[69-]
35d-3/46	. Combinations of several jacks with means for interrelating lifting or lowering movements	[69-]

35d-5/00 Mobile jacks of the garage type mounted on wheels or rollers **[69-]**

35d-5/02	. with mechanical lifting gear	[69-]
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35d-5/04	. with fluid-pressure-operated lifting gear	[69-]
35d-7/00	Lifting frames, e.g. for lifting vehicles; Platform lifts (for lift-truck platforms 35d-9/06)	[69-]
35d-7/02	. with platforms suspended from ropes, cables, or chains	[69-]
35d-7/04	. . hydraulically or pneumatically operated	[69-]
35d-7/06	. with platforms supported by levers for vertical movement	[69-]
35d-7/08	. . hydraulically or pneumatically operated	[69-]
35d-7/10	. with platforms supported directly by jacks	[69-]
35d-7/12	. . by mechanical jacks	[69-]
35d-7/14	. . . screw-operated	[69-]
35d-7/16	. . by one or more hydraulic or pneumatic jacks	[69-]
35d-7/18	. . . by a single central jack	[69-]
35d-7/20	. . . by several jacks with means for maintaining the platforms horizontal during movement	[69-]
35d-7/22	. with tiltable platforms (tilting vehicles for unloading 81e)	[69-]
35d-7/24	. for raising or lowering vehicles by their own power	[69-]
35d-7/26	. for selective lifting of parts of vehicles (mobile garage jacks 35d-5/00)	[69-]
35d-7/28	. Constructional details, e.g. end stops, pivoting supporting members, sliding runners adjustable to load dimensions	[69-]
35d-9/00	Devices for lifting or lowering bulky or heavy goods for loading or unloading purposes (cranes 35b)	[69-]
35d-9/02	. Stationary loaders or unloaders, e.g. for sacks	[69-]
35d-9/04	. . hydraulically actuated or controlled	[69-]
35d-9/06	. Masted lifting-platform or for-lift trucks movable on wheels or equivalent (vehicle aspects 63c; non-masted lifting-platform trucks, trucks or like wheeled vehicles with auxiliary loading or unloading platforms 63c); Inverted lifting-platform or fork-lift trucks, i.e. trucks suspended from overhead rail-tracks or running between upper and lower rail-tracks (rail-vehicle aspects 20c, 20d)	[69-]
	Note:	[69-]
	The terms "platforms" and "forks" in this sub-group also cover other load supporting or gripping members movable along the mast.	[69-]
35d-9/08	. . Masts; Guides; Chains	[69-]
35d-9/10	. . . movable in a horizontal direction relative to truck	[69-]
35d-9/12	. . Platforms; Forks; Other load supporting or gripping members	[69-]
35d-9/14	. . . laterally movable, e.g. swingable, for slewing or transverse movements	[69-]
35d-9/16	. . . inclinable relative to mast	[69-]
35d-9/18	. . . Load gripping or retaining means	[69-]
35d-9/19	. . . Additional means for facilitating unloading	[69-]
35d-9/20	. . Means for actuating or controlling masts, platforms, or forks (power take-off from vehicle transmissions, combined with vehicle propulsion systems 63c)	[69-]
35d-9/22	. . . Hydraulic devices or systems	[69-]
35d-9/24	. . . Electrical devices or systems	[69-]
35d-11/00	Lifting devices specially adapted for particular uses not otherwise provided for	[69-]
35d-11/02	. for elevating, erecting, or dismantling masts	[69-]
35d-11/04	. for movable platforms or cabins, e.g. on vehicles, permitting workmen to place themselves in any desired position for carrying out required operations (platforms for cleaning windows 34c-3/02; devices for rescuing persons from buildings 61a-8; vehicle aspects of service vehicles 20, 63; maintenance travellers for bridges 19d-19/10; scaffolds on an extensible substructure 37e-1/22; liftable or lowerable platforms for use on ladders 37g2-7/16)	[69-]
35d-13/00	Common constructional features or accessories	[69-]
35d-15/00	Crowbars or levers	[69-]
35d-17/00	Safety devices, e.g. for limiting or indicating lifting force	[69-]
35d-19/00	Hoisting, lifting, hauling, or pushing, not otherwise provided for	[69-]