

CPC COOPERATIVE PATENT CLASSIFICATION

B30B PRESSES IN GENERAL (producing ultra-high pressure or ultra-high pressure and high temperature to effect modifications of a substance, e.g. for making artificial diamonds [B01J 3/00](#)) {(compressing means for refuse receptacles [B65F 1/1405](#))}

NOTE

This subclass provides for presses in general and also for those presses, for particular purposes, which are not provided for elsewhere.

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| <p>1/00 Presses, using a press ram, characterised by the features of the drive therefor, pressure being transmitted directly, or through simple thrust or tension members only, to the press ram or platen</p> <p>1/001 . {by explosive charges}</p> <p>1/002 . {by internal combustion mechanism}</p> <p>1/003 . {by an elastic bag or diaphragm expanded by fluid pressure}</p> <p>1/005 . {by thermal expansion or evaporation}</p> <p>1/006 . {by a scissor or lazy-tongs mechanism}</p> <p>1/007 . {using a fluid connection between the drive means and the press ram}</p> <p>1/008 . {by a rod swinging between a fixed plane and the ram}</p> <p>1/02 . by lever mechanism (by toggle mechanism B30B 1/10)</p> <p>1/04 . . operated by hand or foot</p> <p>1/06 . . operated by cams, eccentrics, or cranks</p> <p>1/08 . . operated by fluid-pressure means</p> <p>1/10 . by toggle mechanism</p> <p>1/103 . . {operated by screw means}</p> <p>1/106 . . {operated by another toggle mechanism}</p> <p>1/12 . . operated by hand or foot</p> <p>1/14 . . operated by cams, eccentrics, or cranks</p> <p>1/16 . . operated by fluid-pressure means</p> <p>1/18 . by screw means {(B30B 9/3064 takes precedence)}</p> <p>1/181 . . {the screw being directly driven by an electric motor}</p> <p>1/183 . . {Braking mechanisms for the return movement of the press ram}</p> <p>1/185 . . {driven through friction roller means}</p> <p>1/186 . . {Control arrangements}</p> <p>1/188 . . {driven by a continuously rotatable flywheel with a coupling arranged between the flywheel and the screw}</p> <p>1/20 . . driven by hand</p> <p>1/22 . . driven through friction disc means</p> <p>1/23 . . operated by fluid-pressure means</p> <p>1/24 . by rack-and-pinion means {(B30B 9/3067 takes precedence)}</p> <p>1/26 . by cams, eccentrics, or cranks</p> <p>1/261 . . {by cams}</p> <p>1/263 . . {work stroke adjustment means}</p> <p>1/265 . . {using a fluid connecting unit between drive shaft and press ram}</p> <p>1/266 . . {Drive systems for the cam, eccentric or crank axis}</p> <p>1/268 . . {using a toggle connection between driveshaft and press ram}</p> | <p>1/28 . . the cam, crank, or eccentric being disposed below the lower platen or table and operating to pull down the upper platen or slide</p> <p>1/30 . by the pull of chains or ropes {(B30B 9/3071 takes precedence)}</p> <p>1/32 . by plungers under fluid pressure</p> <p>1/323 . . {using low pressure long stroke opening and closing means, and high pressure short stroke cylinder means}</p> <p>1/326 . . {operated by hand or foot, e.g. using hydraulic jacks}</p> <p>1/34 . . involving a plurality of plungers acting on the platen (gas operated B30B 1/38)</p> <p>1/36 . . having telescoping plungers (gas operated B30B 1/38)</p> <p>1/38 . . wherein the plungers are operated by pressure of a gas, e.g. steam, air</p> <p>1/40 . by wedge means</p> <p>1/42 . by magnetic means, e.g. electro-magnetic</p> <p>3/00 Presses characterised by the use of rotary pressing members, e.g. rollers, rings, discs</p> <p>3/005 . {Roll constructions}</p> <p>3/02 . co-operating with a fixed member</p> <p>3/04 . co-operating with one another, e.g. with co-operating cones</p> <p>3/045 . . {with co-operating cones}</p> <p>3/06 . . arranged one within another, e.g. with a roller disposed within a rotating ring and co-operating with the inner surface thereof</p> <p>5/00 Presses characterised by the use of pressing means other than those mentioned in the preceding groups</p> <p>5/02 . wherein the pressing means is in the form of a flexible element, e.g. diaphragm, urged by fluid pressure</p> <p>5/04 . wherein the pressing means is in the form of an endless band</p> <p>5/06 . . co-operating with another endless band</p> <p>5/062 . . . {urged by directly-acting fluid pressure}</p> <p>5/065 . . . {using anti-friction means for the pressing band}</p> <p>5/067 {using anti-friction roller means}</p> <p>7/00 Presses characterised by a particular arrangement of the pressing members</p> <p>7/02 . having several platens arranged one above the other</p> <p>7/023 . . {Feeding or discharging means}</p> <p>7/026 . . {Spacer elements; Changing means therefor}</p> |
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- 7/04 . wherein pressing is effected in different directions simultaneously or in turn
- 9/00 Presses specially adapted for particular purposes**
- 9/02 . for squeezing-out liquid from liquid-containing material, e.g. juice from fruits, oil from oil-containing material ([kitchen equipment A47J](#); [filtering, e.g. straining solids from liquids, using presses in combination with filtering elements B01D](#); [expelling water from textile fabrics or laundry D06C, D06F](#); [drying F26](#) {clothes presses [D06F 69/00, D06F 71/00](#)})
- 9/04 . . using press rams
- 9/042 . . . {co-operating with casings mounted on a movable carrier, e.g. turntable}
- 9/045 . . . {co-operating with several adjacent casings}
- 9/047 . . . {Control arrangements}
- 9/06 . . . co-operating with permeable casings or strainers
- 9/062 {Extrusion presses}
- 9/065 {for making briquettes, e.g. from paper}
- 9/067 {with a retractable abutment member closing one end of the press chamber}
- 9/08 . . . co-operating with a rotary casing
- 9/10 . . . without use of a casing
- 9/105 {using a press ram co-operating with an intermittently moved endless conveyor}
- 9/12 . . using pressing worms or screws co-operating with a permeable casing
- 9/121 . . . {Screw constructions}
- 9/122 . . . {Means preventing the material from turning with the screw or returning towards the feed hopper}
- 9/124 . . . {using a rotatable and axially movable screw}
- 9/125 . . . {Control arrangements}
- 9/127 . . . {Feed means}
- 9/128 . . . {Vertical or inclined screw presses}
- 9/14 . . . operating with only one screw or worm
- 9/16 . . . operating with two or more screws or worms
- 9/163 {working in different chambers}
- 9/166 {the screws being coaxially disposed in the same chamber}
- 9/18 . . . with means for adjusting the outlet for the solid
- 9/20 . . using rotary pressing members, other than worms or screws, e.g. rollers, rings, discs
- 9/202 . . . {with co-operating cones}
- 9/205 . . . {using a roller with radially arranged vanes dividing the pressing space in separate chambers}
- 9/207 . . . {Roller-and-ring presses}
- 9/22 . . using a flexible member, e.g. diaphragm, urged by fluid pressure
- 9/225 . . . {the diaphragm being tubular}
- 9/24 . . using an endless pressing band
- 9/241 . . . {co-operating with a drum or roller}
- 9/242 . . . {comprising compartments which are recurrently constricted and expanded}
- 9/243 . . . {The squeezing-out being performed in several stages}
- 9/245 . . . {the edges of the band being folded over the material}
- 9/246 . . . {The material being conveyed around a drum between pressing bands}
- 9/247 . . . {Pressing band constructions}
- 9/248 . . . {Means for sealing the press zone}
- 9/26 . . Permeable casings or strainers
- 9/262 . . . {means disposed in the casing facilitating the squeezing-out of liquid}
- 9/265 . . . {Press cloths}
- 9/267 . . . {Strainer bars; Spacers}
- 9/28 . for forming shaped articles (from material in powder, granular, or paste form, e.g. briquetting presses [B30B 11/00](#))
- 9/30 . for baling; Compression boxes therefor ([baling hay, straw, or the like A01F](#))
- 9/3003 . . {Details}
- 9/3007 . . . {Control arrangements}
- 9/301 . . . {Feed means}
- 9/3014 . . . {Ejection means}
- 9/3017 . . . {Odor eliminating means}
- 9/3021 . . . {Press rams}
- 9/3025 . . . {Extrusion chambers with adjustable outlet opening}
- 9/3028 . . . {Retaining dogs}
- 9/3032 . . . {Press boxes}
- 9/3035 . . . {Means for conditioning the material to be pressed, e.g. paper shredding means}
- 9/3039 . . . {Fluid removing means}
- 9/3042 . . {Containers provided with, or connectable to, compactor means}
- 9/3046 . . . {Containers with built-in compactor means}
- 9/305 . . {Drive arrangements for the press ram}
- 9/3053 . . . {Hand- or foot-operated presses}
- 9/3057 . . {Fluid-driven presses}
- 9/306 . . {Mechanically-driven presses}
- 9/3064 . . . {by screw means}
- 9/3067 . . . {by rack-and-pinion means}
- 9/3071 . . . {by the pull of chains or ropes}
- 9/3075 . . {with press boxes on a movable carrier, e.g. turntable}
- 9/3078 . . {with precompression means}
- 9/3082 . . {with compression means other than rams performing a rectilinear movement}
- 9/3085 . . {using a stationary press ram co-operating with a movable press box}
- 9/3089 . . {Extrusion presses}
- 9/3092 . . {with two or more stationary press boxes co-operating alternately with a press ram or simultaneously with press rams}
- 9/3096 . . {the means against which, or wherein, the material is compacted being retractable}
- 9/32 . for consolidating scrap metal or for compacting used cars
- 9/321 . . {for consolidating empty containers, e.g. cans}
- 9/322 . . . {between jaws pivoting with respect to each other}
- 9/323 {operated by hand or foot}
- 9/325 . . . {between rotary pressing members, e.g. rollers, discs}
- 9/326 . . {provided with shearing means for the scrap metal, or adapted to co-operate with a shearing machine}
- 9/327 . . {for briquetting scrap metal}
- 9/328 . . {for making furnace charges}

11/00	Presses specially adapted for forming shaped articles from material in particulate or plastic state, e.g. briquetting presses, tableting presses (for clay or mixtures containing cement B28B; for plastics materials B29)	11/243	. . . {using two or more screws working in the same chamber}
11/001	. {using a flexible element, e.g. diaphragm, urged by fluid pressure; Isostatic presses}	11/245	. . . {using two or more screws working in different chambers}
11/002	. . {Isostatic press chambers; Press stands therefor}	11/246	. . . {Screw constructions}
11/003	. {using a roller with radially arranged vanes dividing the pressing space in separate chambers}	11/248	. . . {Means preventing the material from turning with the screw or returning towards the feed hopper}
11/004	. {involving the use of very high pressures, (for the formation of artificial diamonds or boronitrides B01J 3/065)}	11/26	. . using press rams
11/005	. {Control arrangements}	11/265	. . . {with precompression means}
11/006	. . {for roller presses}	11/28	. . using perforated rollers or discs
11/007	. {using a plurality of pressing members working in different directions}	11/30	. . using directly-acting fluid pressure
11/008	. {Applying a magnetic field to the material}	11/34	. for coating articles, e.g. tablets
11/02	. using a ram exerting pressure on the material in a moulding space	12/00	Presses not provided for in groups B30B 1/00 - B30B 11/00
11/022	. . {whereby the material is subjected to vibrations}	13/00	Methods of pressing not special to the use of presses of any one of the preceding main groups
11/025	. . {whereby the material is transferred into the press chamber by relative movement between a ram and the press chamber}	15/00	Details of, or accessories for, presses; Auxiliary measures in connection with pressing (safety devices F16P)
11/027	. . {Particular press methods or systems}	15/0005	. {for briquetting presses}
11/04	. . co-operating with a fixed mould	15/0011	. . {lubricating means}
11/06	. . . each charge of the material being compressed against the previously formed body	15/0017	. . {Deairing means}
11/08	. . co-operating with moulds carried by a turntable	15/0023	. {Drive arrangements for movable carriers, e.g. turntables}
11/085	. . . {for multi-layer articles}	15/0029	. {means for adjusting the space between the press slide and the press table, i.e. the shut height}
11/10	. . . intermittently rotated	15/0035	. . {using an adjustable connection between the press drive means and the press slide}
11/12	. . co-operating with moulds on the circumference of a rotating drum	15/0041	. . {Control arrangements therefor}
11/14	. . co-operating with moulds on a movable carrier other than a turntable or a rotating drum	15/0047	. {releasing means for jammed presses}
11/16	. using pocketed rollers, e.g. two co-operating pocketed rollers	15/0052	. {for fluid driven presses}
11/165	. . {Roll constructions}	15/0058	. {Inclinable presses}
11/18	. using profiled rollers	15/0064	. {Counterbalancing means for movable press elements}
11/20	. Roller-and-ring machines, i.e. with roller disposed within a ring and co-operating with the inner surface of the ring	15/007	. {Means for maintaining the press table, the press platen or the press ram against tilting or deflection}
11/201	. . {for extruding material}	15/0076	. {Noise or vibration isolation means}
11/202	. . . {Ring constructions}	15/0082	. {Dust eliminating means; Mould or press ram cleaning means}
11/204 {Rings with adjustable extrusion openings}	15/0088	. {Lubricating means (B30B 15/0011 takes precedence)}
11/205	. . . {using an annular series of radial die cells, especially for crop material}	15/0094	. {Press load monitoring means (B30B 15/281 takes precedence)}
11/207	. . . {Feed means}	15/02	. Dies; Inserts therefor; Mounting thereof; Moulds (extrusion dies B30B 11/22)
11/208	. . . {Roller constructions; Mounting of the rollers}	15/022	. . {Moulds for compacting material in powder, granular or pasta form}
11/22	. Extrusion presses; Dies therefor (extruding by the use of roller-and-ring machines B30B 11/20)	15/024	. . . {using elastic mould parts}
11/221	. . {extrusion dies}	15/026	. . {Mounting of dies, platens or press rams}
11/222	. . {using several circumferentially spaced rollers, e.g. skewed rollers}	15/028	. . {Loading or unloading of dies, platens or press rams}
11/224	. . {Extrusion chambers}	15/04	. Frames; Guides
11/225	. . . {with adjustable outlet opening}	15/041	. . {Guides}
11/227	. . {Means for dividing the extruded material into briquets}	15/042	. . {Prestressed frames}
11/228	. . {using pressing means, e.g. rollers moving over a perforated die plate}	15/044	. . {Means preventing deflection of the frame, especially for C-frames}
11/24	. . using screws or worms	15/045	. . {Mountings of press columns}
11/241	. . . {Drive means therefor; screw bearings}	15/047	. . {C-shaped frames (with means for preventing deflection B30B 15/044)}
		15/048	. . {Laminated frame structures}

- 15/06 . Platens or press rams
- 15/061 . . {Cushion plates}
- 15/062 . . {Press plates}
- 15/064 . . . {with heating or cooling means}
- 15/065 . . {Press rams}
- 15/067 . . . {with means for equalizing the pressure exerted by a plurality of press rams}
- 15/068 . . {Drive connections, e.g. pivotal}
- 15/08 . Accessory tools, e.g. knives; mountings therefor
- 15/10 . Brakes specially adapted for presses ([brakes in general F16D](#))
- 15/12 . Clutches specially adapted for presses ([clutches in general F16D](#))
- 15/14 . Control arrangements for mechanically-driven presses
- 15/142 . . {controlling the brake or the clutch}
- 15/144 . . {for stopping the press shaft in a predetermined angular position}
- 15/146 . . {for synchronising a line of presses}
- 15/148 . . {Electrical control arrangements}
- 15/16 . Control arrangements for fluid-driven presses ([pumps per se F04](#); [hydraulic accumulators per se F15B](#); [valves per se F16K](#); [control devices in general G05](#))
- 15/161 . . {controlling the ram speed and ram pressure, e.g. fast approach speed at low pressure, low pressing speed at high pressure}
- 15/163 . . {for accumulator-driven presses}
- 15/165 . . {for pneumatically-hydraulically driven presses}
- 15/166 . . {Electrical control arrangements}
- 15/168 . . {for pneumatically driven presses ([B30B 15/165 takes precedence](#))}
- 15/18 . . controlling the reciprocating motion of the ram
- 15/183 . . . {Controlling the filling of the press cylinder during the approach stroke of the ram, e.g. prefill-valves}
- 15/186 . . . {Controlling the return movement of the ram, e.g. decompression valves}
- 15/20 . . . controlling the speed of the ram, e.g. the speed of the approach, pressing or return strokes
- 15/22 . . controlling the degree of pressure applied by the ram during the pressing stroke
- 15/24 . . controlling the movement of a plurality of actuating members to maintain parallel movement of the platen or press beam
- 15/245 . . . {using auxiliary cylinder and piston means as actuating members}
- 15/26 . Programme control arrangements
- 15/28 . Arrangements for preventing distortion of, or damage to, presses or parts thereof
- 15/281 . . {overload limiting devices ([in general F16H 35/10](#))}
- 15/282 . . . {using a breakage element}
- 15/284 . . . {releasing fluid from a fluid chamber subjected to overload pressure}
- 15/285 . . {preventing a full press stroke if there is an obstruction in the working area}
- 15/287 . . {preventing unintended ram movement, e.g. using blocking devices}
- 15/288 . . {preventing over-run or reverse-run of the press shaft}
- 15/30 . Feeding material to presses
- 15/302 . . {Feeding material in particulate or plastic state to moulding presses}
- 15/304 . . . {by using feed frames or shoes with relative movement with regard to the mould or moulds}
- 15/306 {for multi-layer articles}
- 15/308 . . . {in a continuous manner, e.g. for roller presses, screw extrusion presses}
- 15/32 . Discharging presses
- 15/34 . Heating or cooling presses or parts thereof