

## SECTION B — PERFORMING OPERATIONS; TRANSPORTING

### B30 PRESSES

**B30B PRESSES IN GENERAL; PRESSES NOT OTHERWISE PROVIDED FOR** (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) [2]

#### Subclass index

PRESSES CHARACTERISED BY OPERATION OF PRESSING MECHANISMS.....1/00, 3/00, 5/00, 7/00  
 PRESSES FOR SPECIAL PURPOSES.....9/00, 11/00  
 OTHER PRESSES.....12/00  
 DETAILS, ACCESSORIES, CONTROL.....15/00  
 OTHER PRESSING METHODS.....13/00

#### **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**

- 1/02 • by lever mechanism (by toggle mechanism B30B 1/10)
- 1/04 • • operated by hand or foot
- 1/06 • • operated by cams, eccentrics, or cranks
- 1/08 • • operated by fluid-pressure means
- 1/10 • by toggle mechanism
- 1/12 • • operated by hand or foot
- 1/14 • • operated by cams, eccentrics, or cranks
- 1/16 • • operated by fluid-pressure means
- 1/18 • by screw means
- 1/20 • • driven by hand
- 1/22 • • driven through friction disc means
- 1/23 • • operated by fluid-pressure means [2]
- 1/24 • by rack-and-pinion means
- 1/26 • by cams, eccentrics, or cranks
- 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
- 1/30 • by the pull of chains or ropes
- 1/32 • by plungers under fluid pressure
- 1/34 • • involving a plurality of plungers acting on the platen (gas operated B30B 1/38)
- 1/36 • • having telescoping plungers (gas operated B30B 1/38)
- 1/38 • • wherein the plungers are operated by pressure of a gas, e.g. steam, air
- 1/40 • by wedge means
- 1/42 • by magnetic means, e.g. electromagnetic [2]

#### **3/00 Presses characterised by the use of rotary pressing members, e.g. rollers, rings, discs**

- 3/02 • co-operating with a fixed member
- 3/04 • co-operating with one another, e.g. with co-operating cones
- 3/06 • • arranged one within another, e.g. with a roller disposed within a rotating ring and co-operating with the inner surface thereof

#### **5/00 Presses characterised by the use of pressing means other than those mentioned in groups B30B 1/00 and B30B 3/00**

- 5/02 • wherein the pressing means is in the form of a flexible element, e.g. diaphragm, urged by fluid pressure [2]
- 5/04 • wherein the pressing means is in the form of an endless band
- 5/06 • • co-operating with another endless band

#### **7/00 Presses characterised by a particular arrangement of the pressing members**

- 7/02 • having several platens arranged one above the other
- 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)
- 9/04 • • using press rams
- 9/06 • • • co-operating with permeable casings or strainers
- 9/08 • • • co-operating with a rotary casing
- 9/10 • • • without use of a casing
- 9/12 • • using pressing worms or screws co-operating with a permeable casing
- 9/14 • • • operating with only one screw or worm
- 9/16 • • • operating with two or more screws or worms
- 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
- 9/22 • • using a flexible element, e.g. diaphragm, urged by fluid pressure (connection of valves to inflatable elastic bodies B60C 29/00) [3]
- 9/24 • • using an endless pressing band
- 9/26 • • Permeable casings or strainers

## B30B

- 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)
- 9/32 • for consolidating scrap metal or for compacting used cars
- 11/00 Presses specially adapted for forming shaped articles from material in particulate or plastic state, e.g. briquetting presses, tableting presses** (apparatus for forming or shaping of dough A21C 3/00, A21C 11/00; apparatus for shaping clay or mixtures containing cement B28B; apparatus for shaping of plastic or substances in a plastic state B29, e.g. for compression moulding B29C 43/00, for extrusion moulding B29C 47/00)
  - 11/02 • using a ram exerting pressure on the material in a moulding space
  - 11/04 • • co-operating with a fixed mould
  - 11/06 • • • each charge of the material being compressed against the previously formed body
  - 11/08 • • co-operating with moulds carried by a turn-table
  - 11/10 • • • intermittently rotated
  - 11/12 • • co-operating with moulds on the circumference of a rotating drum
  - 11/14 • • co-operating with moulds on a movable carrier other than a turn-table or a rotating drum
  - 11/16 • using pocketed rollers, e.g. two co-operating pocketed rollers
  - 11/18 • using profiled rollers
  - 11/20 • Roller-and-ring machines, i.e. with roller disposed within a ring and co-operating with the inner surface of the ring
  - 11/22 • Extrusion presses; Dies therefor (extruding by the use of roller-and-ring machines B30B 11/20)
  - 11/24 • • using screws or worms
  - 11/26 • • using press rams
  - 11/28 • • using perforated rollers or discs

- 11/30 • • using directly-acting fluid pressure
- 11/34 • for coating articles, e.g. tablets
- 12/00 Presses not provided for in groups B30B 1/00-B30B 11/00 [2]**
- 13/00 Methods of pressing not special to the use of presses of any one of the preceding main groups B30B 1/00-B30B 12/00 [2]**
- 15/00 Details of, or accessories for, presses; Auxiliary measures in connection with pressing** (safety devices F16P)
  - 15/02 • Dies; Inserts therefor; Mountings thereof; Moulds (extrusion dies B30B 11/22)
  - 15/04 • Frames; Guides
  - 15/06 • Platens or press rams
  - 15/08 • Accessory tools, e.g. knives; Mountings therefor
  - 15/10 • Brakes specially adapted for presses
  - 15/12 • Clutches specially adapted for presses
  - 15/14 • Control arrangements for mechanically-driven presses
  - 15/16 • Control arrangements for fluid-driven presses (pumps per se F04; hydraulic accumulators per se F15B; valves per se F16K)
  - 15/18 • • controlling the reciprocating motion of the ram
  - 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
  - 15/26 • Programme control arrangements
  - 15/28 • Arrangements for preventing distortion of, or damage to, presses or parts thereof
  - 15/30 • Feeding material to presses
  - 15/32 • Discharging presses
  - 15/34 • Heating or cooling presses or parts thereof