

**58 Presses****58a Hydraulic presses****58a (IPC: B30B) Presses in general****58b Mechanical presses****58a Hydraulic presses**

- 58a-1 Hydraulic presses in general (7c-16; 49g-10/01 – 49g-10/02; 49g-11; 58a-5 – 58a-8; 80a-15)
- 58a-2 Pumps and hydraulic pressure transmitters for hydraulic presses
- 58a-3 Control mechanisms and valves for hydraulic presses (47g-9/01 – 47g-9/04; 47g-10/01; 47g-10/02; 47g-13)
- 58a-4 Hydraulic power accumulators, pressure liquid accumulators
- 58a-5 Hydraulic piston presses for fruit and the like
- 58a-6 Hydraulic moulding presses (80a-15)
- 58a-7 Hydraulic oil presses (58b-11)
- 58a-8 Miscellaneous device for hydraulic presses

**58a (IPC: B30B) Presses in general****Note:**

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

**58a-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**

- 58a-1/02 . by lever mechanism (by toggle mechanism 58a-1/10)
- 58a-1/04 . . operated by hand or foot
- 58a-1/06 . . operated by cams, eccentrics, or cranks
- 58a-1/08 . . operated by fluid-pressure means
- 58a-1/10 . by toggle mechanism
- 58a-1/12 . . operated by hand or foot
- 58a-1/14 . . operated by cams, eccentrics, or cranks
- 58a-1/16 . . operated by fluid-pressure means
- 58a-1/18 . by screw means
- 58a-1/20 . . driven by hand
- 58a-1/22 . . driven through friction disc means
- 58a-1/23 . . operated by fluid pressure means
- 58a-1/24 . by rack-and-pinion means
- 58a-1/26 . by cams, eccentrics, or cranks
- 58a-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
- 58a-1/30 . by the pull of chains or ropes
- 58a-1/32 . by plungers under fluid pressure
- 58a-1/34 . . involving a plurality of plungers acting on the platen (gas operated 58a-1/38)
- 58a-1/36 . . having telescoping plungers (gas operated 58a-1/38)
- 58a-1/38 . . wherein the plungers are operated by pressure of a gas, e.g. steam, air
- 58a-1/40 . by wedge means
- 58a-1/42 . by magnetic means, e.g. electromagnetic (shaping of sheet metal or the like by applying magnetic forces 7c-26/14)
- 58a-1/44 . in which the tools move with the material to be pressed

**58a-3/00 Presses characterised by the use of rotary pressing members, e.g. rollers, rings, discs**

- 58a-3/02 . co-operating with a fixed member

58a-3/04	. co-operating with one another, e.g. with co-operating cones
58a-3/06	. . arranged one within another, e.g. with a roller disposed within a rotating ring and co-operating with the inner surface thereof
<b>58a-5/00</b>	<b>Presses characterised by the use of pressing means other than those mentioned in the preceding groups</b>
58a-5/02	. wherein the pressing means is in the form of a flexible diaphragm, urged by fluid pressure
58a-5/04	. wherein the pressing means is in the form of an endless band
58a-5/06	. . co-operating with another endless band
<b>58a-7/00</b>	<b>Presses characterised by a particular arrangement of the pressing members</b>
58a-7/02	. having several platens arranged one above the other
58a-7/04	. wherein pressing is effected in different directions simultaneously or in turn
58a-7/06	. with several pressing members or with pressing members that can be subdivided
58a-7/08	. with revolving or similar multi-purpose tool holders (movable or exchangeable mountings for tools 7c-37/04)
<b>58a-9/00</b>	<b>Presses specially adapted for particular purposes</b>
58a-9/02	. for squeezing-out liquid from liquid-containing material, e.g. juice from fruits, oil from oil-containing material (household machines 34b-19; expelling water from textile fabrics or laundry 8a-33; drying 82a)
58a-9/04	. . using press rams
58a-9/06	. . . co-operating with permeable casings or strainers
58a-9/08	. . . co-operating with a rotary casing
58a-9/10	. . . without use of a casing
58a-9/12	. . using pressing worms or screws co-operating with a permeable casing
58a-9/14	. . . operating with only one screw or worm
58a-9/16	. . . operating with two or more screws or worms
58a-9/18	. . . with means for adjusting the outlet for the solid
58a-9/20	. . using rotary pressing members, other than worms or screws, e.g. rollers, rings, discs
58a-9/22	. . using a flexible diaphragm urged by fluid pressure
58a-9/23	. . with inflatable elastic pressing members
58a-9/24	. . using an endless pressing band
58a-9/26	. . Permeable casings or strainers
58a-9/28	. for forming shaped articles (from material in powder, granular, or paste form, e.g. briquetting presses 58a-11/00)
58a-9/30	. for baling; Compression boxes therefor (baling hay, straw, or the like 45e)
58a-9/32	. for consolidating scrap metal or for compacting used cars
58a-9/34	. Presses for punching, drawing and pressing of metal, as regards driving of the pressing members and the general construction (bending, straightening, punching, deep-drawing and stretching of sheet metal, tubing and rods, and tools therefor 7c, nibbling machines 49c-27/00)
<b>58a-11/00</b>	<b>Presses specially adapted for forming shaped articles from material in powder, granular or paste form, e.g. briquetting presses, tableting presses (for clay or mixtures containing cement 80a; for plastics 39a2-3/00)</b>
58a-11/02	. using a ram exerting pressure on the material in a moulding space
58a-11/04	. . co-operating with a fixed mould
58a-11/06	. . . each charge of the material being compressed against the previously formed body
58a-11/08	. . co-operating with moulds carried by a turn-table
58a-11/10	. . . intermittently rotated
58a-11/12	. . co-operating with moulds on the circumference of a rotating drum
58a-11/14	. . co-operating with moulds on a movable carrier other than a turn-table or a rotating drum
58a-11/16	. using pocketed rollers, e.g. two co-operating pocketed rollers
58a-11/18	. using profiled rollers
58a-11/20	. Roller-and-ring machines, i.e. with roller disposed within a ring and co-operating with the inner surface of the ring

58a-11/22	. Extrusion presses; Dies therefor (extruding by the use of roller-and-ring machines 58a-11/20)
58a-11/24	. . using screws or worms
58a-11/26	. . using press rams
58a-11/28	. . using perforated rollers or discs
58a-11/30	. . using directly-acting fluid pressure
58a-11/32	. involving the use of very high pressures, e.g. for the formation of artificial diamonds; Moulds or dies therefor
58a-11/34	. for coating articles, e.g. tablets
<b>58a-13/00</b>	<b>Methods of pressing not special to the use of presses of any one of the preceding groups</b>
<b>58a-15/00</b>	<b>Details of, or accessories for, presses; Auxiliary measures in connection with pressing (safety devices 47a4)</b>
58a-15/02	. Dies; Inserts therefor; Mountings thereof; Moulds (extrusion dies 58a-11/22)
58a-15/04	. Frames; Guides
58a-15/06	. Platens or press rams
58a-15/08	. Accessory tools, e.g. knives; Mountings therefor
58a-15/10	. Brakes specially adapted for presses (brakes in general 47c)
58a-15/12	. Clutches specially adapted for presses (clutches in general 47c)
58a-15/13	. Gearings specially adapted for presses (gearings in general 47h)
58a-15/14	. Control arrangements for mechanically-driven presses
58a-15/16	. Control arrangements for fluid-driven presses (hydraulic accumulators per se 60a; valves per se 47g1; control devices in general 42r)
58a-15/18	. . controlling the reciprocating motion of the ram
58a-15/20	. . . controlling the speed of the ram, e.g. the speed of the approach, pressing or return strokes
58a-15/22	. . controlling the degree of pressure applied by the ram during the pressing stroke
58a-15/24	. . controlling the movement of a plurality of actuating members to maintain parallel movement of the platen or press beam
58a-15/26	. Programme control arrangements
58a-15/28	. Arrangements for preventing distortion of, or damage to, presses or parts thereof
58a-15/30	. Feeding material to presses
58a-15/32	. Discharging presses
58a-15/34	. Heating or cooling presses or parts thereof

**58b Mechanical presses**

58b-1	Lever presses in general (80a-10; 80a-11)
58b-2	Screw presses in general
58b-3	Ratchet mechanisms for screw presses
58b-4	Rack-and-pinion presses
58b-5	Roll presses (8b-19; 8h-3; 45e-28; 45e-15/00; 55d-19; 55d-20/01 – 55d-20/50; 80a-25/50; 89c-8)
58b-6	Presses with endless belts (45e-28; 45e-15/00; 89b-6)
58b-7	Eccentric presses in general (7c-13, 7c-18; 49c-17/01 – 49c-17/12; 49c-18/01; 80a-12)
58b-8	Wedge-operated presses
58b-9	Screw presses for moist materials in general (10c-7; 45e-28; 45e-15/00; 80a-26; 89b-5)
58b-10	Piston presses for fruits and the like (34b-9/01 – 34b-9/10; 45e-23/01 – 45e-23/07; 45e-15/00; 58a-5)
58b-11	Mechanically operated oil presses (23a-1; 58a-7)
58b-12	Moulding presses in general (80a; coinage presses 75a-2)
58b-13	Lozenge presses (30g-7/01 – 30g-7/03)

- 58b-14        Baling presses in general (hay and straw presses and automatic binding devices  
45e-23/01 – 45e-23/07; 45e-24 – 45e-28; 45e-15/04 – 45e-15/06)
- 58b-15        Presses with counteracting springs
- 58b-16        Safety and protective devices for presses (see various classes for special machinery;  
additional casings, prevention of fracture in general 47a-18)
- 58b-17        Miscellaneous devices for mechanically operated presses