

SECTION B — PERFORMING OPERATIONS; TRANSPORTING

B41 PRINTING; LINING MACHINES; TYPEWRITERS; STAMPS

B41F PRINTING MACHINES OR PRESSES (manifolding devices or office printing machines B41L) [4]

Note(s) [6]

Attention is drawn to Notes (1) and (2) following the title of subclass B41L.

Subclass index

PLATEN PRESSES.....	1/00
CYLINDER PRESSES.....	3/00
ROTARY MACHINES	
Letterpress, lithographic, intaglio machines.....	5/00, 7/00, 9/00
Other machines; combined machines.....	11/00, 17/00, 19/00
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Screen printers.....	15/00
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Handling sheets or other surfaces to be printed; treating such surfaces.....	21/00, 25/00, 22/00, 23/00
Attaching printing elements; make-ready arrangements, impression or offset surfaces; inking.....	27/00, 30/00, 31/00
Auxiliary devices; cleaning.....	33/00, 35/00

1/00	Platen presses, i.e. presses in which printing is effected by at least one essentially-flat pressure-applying member co-operating with a flat type-bed [1, 2006.01]	1/42	• • • using flat inking elements, e.g. discs [1, 2006.01]
1/02	• Hand-operated platen presses [1, 2006.01]	1/44	• • • using inking ribbons [1, 2006.01]
1/04	• for mono-impression printing, e.g. on sheets [1, 2006.01]	1/46	• • • using rollers [1, 2006.01]
1/06	• • with platen maintained parallel to bed during movement [1, 2006.01]	1/48	• • • pivoting around the platen or base [1, 2006.01]
1/08	• • on webs [1, 2006.01]	1/50	• • • supported on carriages for movement in or on runways [1, 2006.01]
1/10	• for multi-impression printing in one or more colours, e.g. on webs [1, 2006.01]	1/52	• • • • Carriage driving gear [1, 2006.01]
1/12	• • on sheets [1, 2006.01]	1/54	• • Printing-pressure control devices [1, 2006.01]
1/14	• • • using swinging platens, or forme supports [1, 2006.01]	1/56	• • Auxiliary devices [1, 2006.01]
1/16	• for offset printing [1, 2006.01]	1/58	• • • Arrangements of counting devices for counting sheets [1, 2006.01]
1/18	• for lithography [1, 2006.01]	1/60	• • Safety devices [1, 2006.01]
1/20	• for perfecting sheets, i.e. for printing on both sides of sheets [1, 2006.01]	1/62	• • • for preventing injury to operator [1, 2006.01]
1/22	• specially adapted for printing heads, e.g. letter heads [1, 2006.01]	1/64	• • • • to the hands of the operator [1, 2006.01]
1/24	• specially adapted for proof printing [1, 2006.01]	1/66	• • • responsive to incorrect operating conditions [1, 2006.01]
1/26	• Details [1, 2006.01]	3/00	Cylinder presses, i.e. presses essentially comprising at least one cylinder co-operating with at least one flat type-bed [1, 2006.01]
1/28	• • Sheet-conveying, -aligning or -clamping devices [1, 2006.01]	3/02	• with impression cylinder or cylinders rotating unidirectionally [1, 2006.01]
1/30	• • • using rotary grippers [1, 2006.01]	3/04	• • intermittently; Stop-cylinder presses [1, 2006.01]
1/32	• • • using air pressure, e.g. vacuum [1, 2006.01]	3/06	• • continuously [1, 2006.01]
1/34	• • • Registering devices, e.g. gauges [1, 2006.01]	3/08	• • • Single-revolution presses [1, 2006.01]
1/36	• • • Clamps for conveying sheets and for holding same on the platens [1, 2006.01]	3/10	• • • Two-revolution presses [1, 2006.01]
1/38	• • Platens or type-beds [1, 2006.01]	3/12	• • Twin presses, i.e. with more than one cylinder or type-bed [1, 2006.01]
1/40	• • Inking units [1, 2006.01]	3/14	• with impression cylinder or cylinders rotating in opposite directions during each working cycle [1, 2006.01]

- 3/16 • • Twin presses, i.e. with more than one cylinder or type-bed [1, 2006.01]
- 3/18 • of special construction or for particular purposes [1, 2006.01]
- 3/20 • • with fixed type-beds and travelling impression cylinders [1, 2006.01]
- 3/22 • • • with more than one type-bed [1, 2006.01]
- 3/24 • • • with cylinders travelling around type-beds having upper and lower printing surfaces [1, 2006.01]
- 3/26 • • with type-beds and impression cylinders simultaneously movable relative to one another [1, 2006.01]
- 3/28 • • Proof-print presses for relief printing, lithography or intaglio printing, i.e. presses for checking accuracy of printing surfaces [1, 2006.01]
- 3/30 • • for lithography (proof-print presses B41F 3/28) [1, 2006.01]
- 3/32 • • • Damping devices [1, 2006.01]
- 3/34 • • • for offset printing [1, 2006.01]
- 3/36 • • for intaglio or heliogravure printing (proof-print presses B41F 3/28) [1, 2006.01]
- 3/38 • • • Wiping mechanisms [1, 2006.01]
- 3/40 • • for perfecting sheets, i.e. for printing on both sides thereof [1, 2006.01]
- 3/42 • • for multicolour printing on sheets [1, 2006.01]
- 3/44 • • for monocolour or multicolour printing on one side of webs, or for perfecting webs, i.e. monocolour or multicolour printing on both sides of webs [1, 2006.01]
- 3/46 • Details [1, 2006.01]
- 3/48 • • Press frames [1, 2006.01]
- 3/51 • • Type-beds; Supports therefor (B41F 3/52 take precedence) [3, 2006.01]
- 3/52 • • Apparatus for cooling, heating, or drying printing surfaces [1, 3, 2006.01]
- 3/54 • • Impression cylinders; Supports therefor [1, 2006.01]
- 3/56 • • • Devices for adjusting cylinders relative to type-beds and setting in adjusted position [1, 2006.01]
- 3/58 • • Driving, synchronising, or control gear [1, 2006.01]
- 3/60 • • • for type-beds [1, 2006.01]
- 3/62 • • • Applications of linkwork or gearing for producing reciprocatory or angular motion [1, 2006.01]
- 3/64 • • • • of crank motions [1, 2006.01]
- 3/66 • • • • of rack-and-pinion gearing [1, 2006.01]
- 3/68 • • • • with pinion rotating unidirectionally [1, 2006.01]
- 3/70 • • • Applications of directly-coupled motors [1, 2006.01]
- 3/72 • • • • of fluid motors [1, 2006.01]
- 3/74 • • • Applications of clutches [1, 2006.01]
- 3/76 • • • Applications of braking devices or of devices for stopping type-bed in registered position [1, 2006.01]
- 3/78 • • • • Air cushions [1, 2006.01]
- 3/80 • • • for impression cylinders [1, 2006.01]
- 3/81 • • Inking units [3, 2006.01]
- 3/82 • Auxiliary devices [1, 2006.01]
- 3/84 • • Arrangements of counting devices [1, 2, 2006.01]
- 3/86 • • Numbering devices [1, 2006.01]

Rotary machines

- 5/00 Rotary letterpress machines [1, 2006.01]**
- 5/02 • for printing on sheets [1, 2006.01]
- 5/04 • for printing on webs [1, 2006.01]
- 5/06 • • with several printing units in sequential arrangement [1, 2006.01]
- 5/08 • • with several printing units in both superimposed and sequential arrangement [1, 2006.01]
- 5/10 • • with several printing units arranged side by side [1, 2006.01]
- 5/12 • • for printing on one side and on the other side of webs between the same forme and impression cylinders [1, 2006.01]
- 5/14 • • with several impression cylinders arranged around a forme cylinder [1, 2006.01]
- 5/16 • • for multicolour printing [1, 2006.01]
- 5/18 • • • using one impression cylinder co-operating with several forme cylinders [1, 2006.01]
- 5/20 • specially adapted for proof printing [1, 2006.01]
- 5/22 • for indirect printing [3, 2006.01]
- 5/24 • for flexographic printing [3, 2006.01]
- 7/00 Rotary lithographic machines [1, 2006.01]**
- 7/02 • for offset printing [1, 2006.01]
- 7/04 • • using printing units incorporating one forme cylinder, one transfer cylinder, and one impression cylinder, e.g. for printing on webs [1, 2006.01]
- 7/06 • • • for printing on sheets [1, 2006.01]
- 7/08 • • using one transfer cylinder co-operating with several forme cylinders for printing on sheets or webs, e.g. sampling of colours on one transfer cylinder [1, 2006.01]
- 7/10 • • using one impression cylinder co-operating with several transfer cylinders for printing on sheets or webs, e.g. satellite-printing units [1, 2006.01]
- 7/12 • • using two cylinders one of which serves two functions, e.g. as a transfer and impression cylinder in perfecting machines [1, 2006.01]
- 7/14 • • with two or more impression cylinders coacting with a single transfer cylinder [1, 2006.01]
- 7/15 • • • for printing on more than one web simultaneously [6, 2006.01]
- 7/16 • for printing on non-deformable material, e.g. sheet metal [1, 2006.01]
- 7/18 • specially adapted for proof printing [1, 2006.01]
- 7/20 • Details [1, 2006.01]
- 7/24 • • Damping devices [1, 2006.01]
- 7/26 • • • using transfer rollers [1, 3, 2006.01]
- 7/28 • • • using brushes [1, 2006.01]
- 7/30 • • • using spraying elements [1, 2006.01]
- 7/32 • • • Ducts, containers, or like supply devices for liquids [1, 2006.01]
- 7/34 • • • Endless bands [1, 2006.01]
- 7/36 • • • Inking-rollers serving also to apply ink repellent [1, 2006.01]
- 7/37 • • • with supercooling for condensation of air moisture [6, 2006.01]
- 7/38 • • • Absorbent pads [1, 2006.01]
- 7/40 • • • Devices for tripping or lifting damping rollers; Supporting, adjusting, or removing arrangements therefor (such arrangements or devices for inking rollers B41F 31/30) [1, 2006.01]
- 9/00 Rotary intaglio printing presses [1, 2006.01]**
- 9/01 • for indirect printing [3, 5, 2006.01]

- 9/02 • for multicolour printing [1, 2006.01]
- 9/04 • specially adapted for proof printing [1, 2006.01]
- 9/06 • Details [1, 2006.01]
- 9/08 • • Wiping mechanisms [1, 2006.01]
- 9/10 • • • with doctors, scrapers, or like devices [1, 2006.01]
- 9/12 • • • with absorbent pads [1, 2006.01]
- 9/14 • • • with continuous flexible surfaces, e.g. endless bands [1, 2006.01]
- 9/16 • • • Removing or recovering ink from wiping mechanisms [1, 2006.01]
- 9/18 • • Auxiliary devices for exchanging forme cylinders [1, 2006.01]
- 11/00 Rotary presses or machines having forme cylinders carrying a plurality of printing surfaces, or for performing letterpress, lithographic, or intaglio processes selectively or in combination [1, 2006.01]**
- 11/02 • for securities (security printing B41M 3/14) [3, 2006.01]
- 13/00 Common details of rotary presses or machines [1, 2006.01]**
- 13/004 • Electric or hydraulic features of drives [6, 2006.01]
- 13/008 • Mechanical features of drives, e.g. gears, clutches [6, 2006.01]
- 13/012 • • Taking-up backlash [6, 2006.01]
- 13/016 • Brakes [6, 2006.01]
- 13/02 • Conveying or guiding webs through presses or machines [1, 2006.01]
- 13/03 • • Threading webs into printing machines [6, 2006.01]
- 13/04 • • intermittently [1, 2006.01]
- 13/06 • • Turning-bar arrangements [1, 2006.01]
- 13/08 • Cylinders [1, 2006.01]
- 13/10 • • Forme cylinders [1, 2006.01]
- 13/11 • • • Gravure cylinders [6, 2006.01]
- 13/12 • • • Registering devices [1, 2006.01]
- 13/14 • • • • with means for displacing the cylinders [1, 2006.01]
- 13/16 • • • • with means for displacing the printing formes on the cylinders [1, 2006.01]
- 13/18 • • Impression cylinders [1, 2006.01]
- 13/187 • • • for rotogravure [6, 2006.01]
- 13/193 • • Transfer cylinders; Offset cylinders [6, 2006.01]
- 13/20 • • Supports for bearings or supports for forme, offset, or impression cylinders [1, 2006.01]
- 13/21 • • • Bearer rings [6, 2006.01]
- 13/22 • • Means for cooling or heating forme or impression cylinders [1, 2006.01]
- 13/24 • • Cylinder-tripping devices; Cylinder-impression adjustments [1, 2006.01]
- 13/26 • • • Arrangement of cylinder bearings [1, 2006.01]
- 13/28 • • • • Bearings mounted eccentrically of the cylinder axis [1, 2006.01]
- 13/30 • • • • Bearings mounted on sliding supports [1, 2006.01]
- 13/32 • • • • Bearings mounted on swinging supports [1, 2006.01]
- 13/34 • • • Cylinder-lifting or -adjusting devices [1, 2006.01]
- 13/36 • • • • Cams, eccentrics, wedges, or the like [1, 2006.01]
- 13/38 • • • • electrically or magnetically operated [1, 2006.01]
- 13/40 • • • • fluid-pressure operated [1, 2006.01]
- 13/42 • • Guards or covers, e.g. for preventing ingress or egress of foreign matter [1, 2006.01]
- 13/44 • Arrangements to accommodate interchangeable cylinders of different sizes to enable machine to print on areas of different sizes [1, 2006.01]
- 13/46 • Printing units for inserting latest news [1, 2006.01]
- 13/48 • Arrangements to enable printing to be effected over selected areas of a single forme cylinder (by inking selected areas B41F 31/18) [1, 2006.01]
- 13/50 • • by effecting relative movement of forme and impression cylinders during printing cycle [1, 2006.01]
- 13/52 • • by projecting and retracting parts of the surface of the forme cylinder [1, 2006.01]
- 13/54 • Auxiliary folding, cutting, collecting or depositing of sheets or webs [1, 2006.01]
- 13/56 • • Folding or cutting [1, 2006.01]
- 13/58 • • • lengthwise [1, 2006.01]
- 13/60 • • • crosswise [1, 2006.01]
- 13/62 • • • Folding-cylinders or drums [1, 2006.01]
- 13/64 • • Collecting [1, 2006.01]
- 13/66 • • • and stapling [1, 2006.01]
- 13/68 • • Adding inserts [1, 2006.01]
- 13/70 • • Depositing [1, 2006.01]
- 15/00 Screen printers [1, 2006.01]**
- 15/02 • Manually-operable devices [1, 2006.01]
- 15/04 • • for multicolour printing [1, 2006.01]
- 15/06 • • with auxiliary equipment, e.g. for drying printed articles [1, 2006.01]
- 15/08 • Machines [1, 2006.01]
- 15/10 • • for multicolour printing [1, 2006.01]
- 15/12 • • with auxiliary equipment, e.g. for drying printed articles [1, 2006.01]
- 15/14 • Details [1, 2006.01]
- 15/16 • • Printing tables [1, 2006.01]
- 15/18 • • • Supports for workpieces [1, 2006.01]
- 15/20 • • • • with suction-operated elements [1, 2006.01]
- 15/22 • • • • for single sheets [1, 2006.01]
- 15/24 • • • • for webs [1, 2006.01]
- 15/26 • • • • for articles with flat surfaces [1, 2006.01]
- 15/28 • • • • for elongated flat articles, e.g. strips, bands [1, 2006.01]
- 15/30 • • • • for articles with curved surfaces [1, 2006.01]
- 15/32 • • • • for articles with conical surfaces [1, 2006.01]
- 15/34 • • Screens; Frames; Holders therefor [1, 2006.01]
- 15/36 • • • flat [1, 2006.01]
- 15/38 • • • curved [1, 2006.01]
- 15/40 • • Inking units [1, 2006.01]
- 15/42 • • • comprising squeegees or doctors [1, 2006.01]
- 15/44 • • Squeegees or doctors [1, 2006.01]
- 15/46 • • • with two or more operative parts [1, 2006.01]
- 16/00 Transfer printing apparatus [4, 2006.01]**
- 16/02 • for textile material [4, 2006.01]
- 17/00 Printing apparatus or machines of special types or for particular purposes, not otherwise provided for [1, 2006.01]**
- 17/02 • for printing books or manifold sets [1, 2006.01]
- 17/04 • for printing calendars [1, 2006.01]
- 17/08 • for printing on filamentary or elongated articles or material, or on articles with cylindrical surfaces [1, 2006.01]

- 17/10 • • on articles or material of indefinite length, e.g. wires, hoses, tubes or yarns [1, 2006.01]
- 17/12 • • • at an angle to axis [1, 2006.01]
- 17/13 • • • for printing on rolls of material, the roll serving as impression cylinder, e.g. strip printers [2009.01]
- 17/14 • • on articles of finite length [1, 2006.01]
- 17/16 • • • on end or bottom surfaces thereof [1, 2006.01]
- 17/18 • • • on curved surfaces of articles of varying cross-section, e.g. bottles, lamp glasses [1, 2006.01]
- 17/20 • • • on articles of uniform cross-section, e.g. pencils, rulers, resistors [1, 2006.01]
- 17/22 • • • • by rolling contact [1, 2006.01]
- 17/24 • for printing on flat surfaces of polyhedral articles [1, 2006.01]
- 17/26 • • by rolling contact [1, 2006.01]
- 17/28 • for printing on curved surfaces of conical or frusto-conical articles [1, 2006.01]
- 17/30 • for printing on curved surfaces of essentially spherical, or part-spherical, articles [1, 2006.01]
- 17/32 • • on lamp bulbs [1, 2006.01]
- 17/34 • • on articles with surface irregularities, e.g. fruit, nuts [1, 2006.01]
- 17/36 • for printing on tablets, pills, or like small articles [1, 2006.01]
- 17/38 • for printing on knitted fabrics [1, 2006.01]
- 19/00 Apparatus or machines for carrying out printing operations combined with other operations [1, 2, 2006.01]**
 - 19/02 • with embossing [1, 2006.01]
 - 19/04 • • using intaglio printing formes and wipers [1, 2006.01]
 - 19/06 • • Printing and embossing between a negative and a positive forme after inking and wiping the negative forme; Printing from an ink band treated with colour or "gold" [1, 2006.01]
 - 19/08 • Simultaneous moulding and printing [1, 2006.01]

Common details of printing machinery

- 21/00 Devices for conveying sheets through printing apparatus or machines** (through platen presses B41F 1/28) [1, 2006.01]
 - 21/02 • Pins [1, 3, 5, 2006.01]
 - 21/04 • Grippers [1, 3, 5, 2006.01]
 - 21/05 • • In-feed grippers [3, 5, 2006.01]
 - 21/06 • • Suction-operated grippers [1, 2006.01]
 - 21/08 • Combinations of endless conveyors and grippers [1, 2006.01]
 - 21/10 • Combinations of transfer drums and grippers [3, 2006.01]
 - 21/12 • Adjusting leading edges, e.g. front stops [3, 2006.01]
 - 21/14 • Adjusting lateral edges, e.g. side stops [3, 2006.01]
- 22/00 Means preventing smudging of machine parts or printed articles** (B41F 23/00 takes precedence) [6, 2006.01]
- 23/00 Devices for treating the surfaces of sheets, webs or other articles in connection with printing [1, 2006.01]**
 - 23/02 • by dampening (in rotary lithographic machines B41F 7/24) [1, 2006.01]
 - 23/04 • by heat drying, by cooling, by applying powders [1, 2006.01]

- 23/06 • • Powdering devices, e.g. for preventing set-off [1, 2006.01]
- 23/08 • Print-finishing devices, e.g. for glossing prints [1, 2006.01]
- 25/00 Devices for pressing sheets or webs against cylinders, e.g. for smoothing purposes [1, 2006.01]**
- 27/00 Devices for attaching printing elements or formes to supports** (attaching by chemical means B41N 6/00) [1, 5, 2006.01]
 - 27/02 • Magnetic devices [1, 2006.01]
 - 27/04 • for attaching printing elements to flat type-beds [1, 2006.01]
 - 27/06 • for attaching printing elements to forme cylinders [1, 2006.01]
 - 27/08 • for attaching printing formes to flat type-beds [1, 2006.01]
 - 27/10 • for attaching non-deformable curved printing formes to forme cylinders [1, 2006.01]
 - 27/12 • for attaching flexible printing formes [1, 2006.01]
 - 27/14 • for attaching printing formes to intermediate supports, e.g. adapter members [1, 2006.01]
- 30/00 Devices for attaching coverings or make-ready devices; Guiding devices for coverings** (make-ready devices B41N 6/00) [5, 2006.01]
 - 30/02 • attaching to impression cylinders [5, 2006.01]
 - 30/04 • attaching to transfer cylinders [5, 2006.01]
 - 30/06 • attaching of endless or like continuously-fed coverings [5, 2006.01]
- 31/00 Inking arrangements or devices** (inking units for platen presses B41F 1/40; inking units for cylinder presses B41F 3/81) [1, 2006.01]
 - 31/02 • Ducts, containers, supply or metering devices [1, 3, 2006.01]
 - 31/03 • • Ink agitators [6, 2006.01]
 - 31/04 • • with duct-blades or like metering devices [1, 2006.01]
 - 31/05 • • • Positioning devices therefor [6, 2006.01]
 - 31/06 • • Troughs or like reservoirs with immersed, or partly immersed, rollers or cylinders [1, 2006.01]
 - 31/07 • • • for rotogravure [6, 2006.01]
 - 31/08 • • with ink-ejecting means, e.g. pumps, nozzles [1, 2006.01]
 - 31/10 • • Applications of feed or duct rollers (messenger or moving transfer rollers B41F 31/14) [1, 2006.01]
 - 31/12 • • • adjustable for regulating supply [1, 2006.01]
 - 31/13 • • Means for driving fountain rollers [6, 2006.01]
 - 31/14 • • Applications of messenger or other moving transfer rollers [1, 2006.01]
 - 31/15 • Devices for moving vibrator-rollers [6, 2006.01]
 - 31/16 • Continuous, e.g. endless, band apparatus [1, 2006.01]
 - 31/18 • for inking selected parts of printing formes [1, 2006.01]
 - 31/20 • Ink-removing or collecting devices [1, 2006.01]
 - 31/22 • for inking from interior of cylinder [1, 2006.01]
 - 31/24 • Absorbent pads [1, 2006.01]
 - 31/26 • Construction of inking rollers (inking-rollers serving also to apply ink repellent in rotary lithographic machines B41F 7/36) [1, 2006.01]
 - 31/28 • Spray apparatus, e.g. containing brushes [1, 2006.01]
 - 31/30 • Arrangements for tripping, lifting, adjusting, or removing inking rollers; Supports, bearings, or forks therefor [1, 2006.01]

- 31/32 • • Lifting or adjusting devices (for damping rollers B41F 7/40) [1, 2006.01]
- 31/34 • • • Cam, eccentric, wedge, or like devices [1, 2006.01]
- 31/36 • • • fluid-pressure operated [1, 2006.01]
- 31/38 • • • magnetically operated [1, 2006.01]
- 33/00 Indicating, counting, warning, control or safety devices** (arrangements of counting devices in platen presses B41F 1/00, in cylinder presses B41F 3/84; ink supply or metering devices B41F 31/02) [1, 3, 2006.01]
- 33/02 • Arrangements of indicating devices, e.g. counters [1, 2, 2006.01]
- 33/04 • Tripping devices or stop-motions (cylinder-tripping devices of rotary presses or machines B41F 13/24; arrangements for tripping inking rollers B41F 31/30) [1, 2, 2006.01]
- 33/06 • • for starting or stopping operation of sheet or web feed [1, 2006.01]
- 33/08 • • for starting or stopping operation of cylinders [1, 2006.01]
- 33/10 • • for starting or stopping operation of damping or inking units [1, 2006.01]
- 33/12 • • for starting or stopping the machine as a whole [1, 2006.01]
- 33/14 • • Automatic control of tripping devices by feelers, photoelectric devices, pneumatic devices, or other detectors [1, 2006.01]
- 33/16 • Programming systems for automatic control of sequence of operations [1, 2006.01]
- 33/18 • Web break detection (B41F 33/04 takes precedence) [6, 2006.01]
- 35/00 Cleaning arrangements or devices** [1, 2006.01]
- 35/02 • for forme cylinders [1, 2006.01]
- 35/04 • for inking rollers [1, 2006.01]
- 35/06 • for offset cylinders [1, 2006.01]