

CPC**COOPERATIVE PATENT CLASSIFICATION****B41L**

APPARATUS OR DEVICES FOR MANIFOLDING, DUPLICATING, OR PRINTING FOR OFFICE OR OTHER COMMERCIAL PURPOSES; ADDRESSING MACHINES OR LIKE SERIES-PRINTING MACHINES (printing presses or machines for industrial purposes [B41F](#); stamps, stamping or numbering devices [B41K](#))

NOTE

1. This subclass does not cover constituent parts common to manifolding by means of pressure-sensitive layers or intermediaries, to apparatus or machines for duplicating or printing for office or other commercial purposes, or to addressing machines or like series-printing machines, which are covered by subclass [B41F](#).
2. In this subclass, as indicated by the references, groups [B41L 15/00](#) and [B41L 17/00](#) are intended to cover letterpress and lithographic printing apparatus only in so far as it is specially adapted for office or other commercial purposes; the general constructions or features of apparatus of these types are classified in subclass [B41F](#).
 Constructions or features determining classification in these groups are, for example:
 ease of operation by clerical staff, cleanliness of operation
 in non-industrial environments, the use of printing surfaces
 constructed for the production of a limited number of copies.
3. In this subclass, the following terms are used with the meanings indicated:
 - "manifolding" means the obtaining of several copies simultaneously by means of pressure-sensitive layers when making an original;
 - "duplicating" means the obtaining of successive copies from a master, e.g. a hectographic image;
 - "stencilling" involves the use of a printing surface which is perforated to form the image, the ink flowing through the perforations on the copy material.

Manifolding by means of pressure-sensitive layers or intermediaries**B41L 1/00**

Devices for performing operations in connection with manifolding by means of pressure-sensitive layers or intermediaries, e.g. carbons; Accessories for manifolding purposes

B41L 1/02

- Devices for preparatory operations, e.g. for bringing together sheets or webs and interposed carbons; Devices combined with devices for printing, for coating with carbon, for folding

- B41L 1/04
 - . Devices for performing operations subsequent to manifolding, e.g. for separating single sheets or webs from single form sets, continuous manifold assemblies from carbons
- B41L 1/06
 - .. on single form sets
- B41L 1/08
 - .. on continuous manifold assemblies
- B41L 1/10
 - ... Separate folding or disposition of single webs
- B41L 1/12
 - ... Severing webs to obtain single sheets or forms, e.g. by cutting, by bursting
- B41L 1/14
 - ... Severing edge perforations from webs
- B41L 1/16
 - . Carriers or supply devices for pressure-sensitive material, e.g. for carbon sheets; Carbon gloves
- B41L 1/18
 - .. for carbon webs; Continuous carbon supply mechanisms
- B41L 1/20
 - . Manifolded assemblies, e.g. book-like assemblies {(Multi-copy labels [G09F 3/0288](#))}
- B41L 1/22
 - .. made up of single sheets or forms
- B41L 1/24
 - ... Pads or books
- B41L 1/26
 - .. Continuous assemblies made up of webs
- B41L 1/28
 - ... in rolled or wound form
- B41L 1/30
 - ... folded longitudinally
- B41L 1/32
 - ... folded transversely
- B41L 1/321
 - {Stacks of sheets attached to a carrier strip or web}
- B41L 1/323
 - {Uniting several webs, e.g. transversely}
- B41L 1/325
 - {longitudinally}
- B41L 1/326
 - {Severance lines; Perforations}
- B41L 1/328
 - {Removing carbon sheets}
- B41L 1/34
 - .. for making masters for hectographic duplicators
- B41L 1/36
 - .. with pressure-sensitive layers or coating other than carbon ([sheet materials B41M 5/00](#))
- B41L 3/00**
 - Platens or like sheet supports for manifolding using pressure-sensitive layers or intermediaries, e.g. for book-keeping purposes**
- B41L 3/02
 - . with stationary clamping means for holding the manifolding assembly in registered position, e.g. resilient clamps for holding non-perforated sheets {(clamps for platens [B41F 1/36](#))}
- B41L 3/04
 - .. Bars provided with pins engaging perforations in the elements
- B41L 3/06
 - . with movable clamping or guiding means for the elements of the manifolding assembly
- B41L 3/08
 - . with non-mechanical means for holding the elements in registered position, e.g. magnetic means
- B41L 3/10
 - . with means for moving assembled elements step by step relative to platen or support, e.g. for column or line selection; Means for locating assembled elements when stationary
- B41L 3/12
 - . Auxiliary devices
- B41L 3/14
 - .. Magazines or storage compartments, e.g. for slips
- B41L 3/16
 - .. Web-feeding arrangements
- B41L 3/18
 - .. Displaceable covers, e.g. with windows

- B41L 3/20 . . for facilitating manifolding in books
- B41L 3/22 . . Applications of ink ribbons; Holding, feeding, or guiding means therefor
- B41L 5/00** **Autographic registers or like manifolding apparatus using movable strips or webs (movable strip writing or reading apparatus [B42D 19/00](#))**
- B41L 5/02 . with means for limiting movements of webs fed by hand
- B41L 5/04 . with mechanisms for feeding webs or for arranging web feed; with web storage arrangements {(in [genral B65H](#))}
- B41L 5/06 . . by means of rollers, wheels, or chains, { [e.g. with pins](#)} transversely
- B41L 5/08 . . by reciprocating mechanisms
- B41L 5/10 . with mechanisms for feeding the pressure-sensitive web or webs separately from the other webs, e.g. transversely
- B41L 5/12 . with means for indicating exhaustion of web supply
- B41L 5/14 . with auxiliary means for printing, perforating, or severing the web
- B41L 5/16 . Accessories, e.g. drawers for storing forms, for money ([cash registers G07G](#))

Apparatus or machines for duplicating or printing for office or other commercial purposes

- B41L 7/00** **Apparatus for directly duplicating from hectographic originals, i.e. for obtaining copies in mirror image**
- B41L 7/02 . by passing original and copy-sheet or -web between rollers
- B41L 7/04 . . with means for guiding original or copy-sheet or -web
- B41L 7/06 . . with means for severing copy-sheet or -web
- B41L 7/08 . . with means for moistening or drying
- B41L 9/00** **Apparatus for indirectly duplicating from hectographic originals by means of hectographic intermediaries or transfer surfaces, i.e. "dry duplicators"**
- B41L 9/02 . Containers for clay or gelatin
- B41L 9/04 . with flat supports over which gelatin-paper is stretched
- B41L 9/06 . . and with carriages for feeding the sheets
- B41L 9/08 . . and with devices for rolling-in and securing hectographic gelatin-paper webs
- B41L 9/10 . with rotary cylinders carrying sheets of hectographic gelatin-paper
- B41L 11/00** **Apparatus for directly duplicating from hectographic masters in mirror image, i.e. "wet duplicators" for producing positive copies**
- B41L 11/02 . with a flat support carrying the masters
- B41L 11/04 . . and with carriages for feeding the sheets
- B41L 11/06 . . for stack duplicating with pressure rollers
- B41L 11/08 . with rotary cylinders carrying the masters
- B41L 11/10 . with two rollers between which master is stretched
- B41L 11/12 . Driving gear; Control thereof
- B41L 11/14 . Constructional features of masters ([chemical aspects B41M](#))

B41L 13/00	Stencilling apparatus for office or other commercial use (screen printing B41F 15/00 ; stencils, stencil materials, carriers therefor B41N 1/24)
B41L 13/02	. with flat stencil carriers
B41L 13/04	. with curved or rotary stencil carriers
B41L 13/06	. . with a single cylinder carrying the stencil
B41L 13/08	. . with stencil carried by two or more cylinders, e.g. through the intermediary of endless bands
B41L 13/10	. . . Clips or clamps for securing stencils to stencil carriers
B41L 13/12	. for special purposes, e.g. for reproducing Braille characters {(typewriters for Braille B41J 3/32)}
B41L 13/14	. Attachments, e.g. for punching, cutting, severing
B41L 13/16	. Driving gear; Control thereof
B41L 13/18	. Inking units
B41L 15/00	Letterpress printing apparatus specially adapted for office or other commercial purposes (in general B41E ; printing plates or foils, materials thereof or B41N 1/00)
B41L 15/02	. with flat printing surfaces, e.g. with flat type-beds, surfaces made of thin sheet material or moulded from plastics or rubber
B41L 15/04	. . of composed type locked in chases
B41L 15/06	. with curved printing surfaces, e.g. cylinders
B41L 15/08	. . with stereotypes
B41L 15/10	. for multicolour printing; for perfecting
B41L 15/12	. Driving gear; Control thereof
B41L 15/14	. Attachments, e.g. for punching, cutting, severing
B41L 17/00	Lithographic printing apparatus for office or other commercial purposes (in general B41E ; printing plates or foils, materials thereof B41N 1/00)
B41L 17/02	. for direct impression printing
B41L 17/04	. . with flat printing surfaces
B41L 17/06	. . with curved printing surfaces, e.g. cylinders
B41L 17/08	. for offset printing
B41L 17/10	. . with flat printing surfaces, e.g. co-operating with travelling offset cylinders
B41L 17/12	. . with curved printing surfaces, e.g. forme cylinders
B41L 17/14	. of two-cylinder type, e.g. co-operating forme and impression cylinders
B41L 17/16	. of three-cylinder type
B41L 17/18	. for multicolour printing, e.g. tandem machines; for perfecting
B41L 17/20	. without damping means, e.g. using heat-activatable inks, refrigerated printing surfaces
B41L 17/22	. Driving gear; Control thereof
B41L 17/24	. Attachments, e.g. for punching, cutting, severing

- B41L 19/00** **Duplicating or printing apparatus or machines for office or other commercial purposes, of special types or for particular purposes and not otherwise provided for** ([addressographs B41L 45/00](#))
- [B41L 19/003](#) . {[using heat, e.g. wax transfer](#)}
- [B41L 19/006](#) . {[Auxiliary numbering devices](#)}
- [B41L 19/02](#) . having forme cylinders carrying a plurality of printing surface, or for performing letterpress and lithographic processes selectively or in combination ([in general B41F 11/00](#))
- [B41L 19/04](#) . for printing from selected parts of one or more printing surface in one cycle, e.g. line printing ([by inking selected areas B41L 27/20](#))
- [B41L 19/06](#) . . with co-operating forme and impression cylinders
- [B41L 19/08](#) . . . by effecting relative movement of forme and impression cylinders during printing cycle
- [B41L 19/10](#) . . . by projecting and retracting parts of the surfaces of the forme cylinders
- [B41L 19/12](#) . . . by masking parts of the printing surfaces on the forme cylinders
- [B41L 19/14](#) . . . by selective damping of the copy material
- [B41L 19/16](#) . . . by selective tripping of impression cylinders

Common details of, or accessories for, apparatus or machines for manifolding, duplicating, or printing for office or other commercial purposes

- B41L 21/00** **Devices for conveying sheets or webs of copy material through the apparatus or machines for manifolding, duplicating, or printing** ([mechanisms for conveying copy material through addressographs or like series-printing machines B41L 47/24](#); { [feeding sheets or webs to or from printing apparatus or machines B65H](#); in printing presses in general [B41F 21/00](#)})
- [B41L 21/02](#) . for conveying sheets
- [B41L 21/04](#) . . Pins
- [B41L 21/06](#) . . Grippers
- [B41L 21/08](#) . . . Suction-operated grippers
- [B41L 21/10](#) . . Combinations of endless conveyors and grippers
- [B41L 21/12](#) . for conveying webs
- B41L 23/00** **Devices for treating the surfaces of sheets, webs, or other articles in connection with printing** ([as a final step in the manufacture of such articles, see the relevant places, e.g. B29C 71/00, D21H 23/00 or D21H 25/00](#); after-treatment of prints [B41M 7/00](#))
- [B41L 23/02](#) . by damping, e.g. by moistening copy sheets in connection with hectographic printing
- [B41L 23/04](#) . . using friction rollers
- [B41L 23/06](#) . . using brushes
- [B41L 23/08](#) . . using spray elements
- [B41L 23/10](#) . . using endless bands
- [B41L 23/12](#) . . using absorbent pads
- [B41L 23/14](#) . . Ducts, containers, or like supply devices for liquids

- B41L 23/16 . . Devices for tripping or lifting damping rollers; Supporting, adjusting, or removing arrangements therefor
- B41L 23/18 . . Construction of damping rollers
- B41L 23/20 . by heat drying, by cooling, by applying powders
- B41L 23/22 . . Powdering devices, e.g. for preventing set-off
- B41L 23/24 . Print-finishing devices, e.g. for glossing prints

- B41L 25/00** **Devices for damping printing surfaces, e.g. moistening printing surfaces in connection with lithographic printing (applying liquids or other fluent materials to surfaces in general B05)**
- B41L 25/005 . {Pre-damping etching devices}
- B41L 25/02 . using friction rollers
- B41L 25/04 . using brushes
- B41L 25/06 . using spraying elements
- B41L 25/08 . using endless bands
- B41L 25/10 . using absorbent pads
- B41L 25/12 . Ducts, containers, or like supply devices for liquids
- B41L 25/14 . Inking rollers serving also to apply ink repellent {(in rotary lithographic machines B41F 7/36)}
- B41L 25/16 . Devices for tripping or lifting damping rollers; Supporting, adjusting, or removing arrangements therefor {(in rotary lithographic machines B41F 7/40)}
- B41L 25/18 . Construction of damping rollers

- B41L 27/00** **Inking arrangements or devices (inking units for stencilling apparatus B41L 13/18; applying liquids or other fluent materials to surfaces, in general B05)**
- B41L 27/02 . adapted for inking by hand
- B41L 27/04 . Ducts, containers, or supply devices or ink-level control devices (level control in general G05D 9/00)
- B41L 27/06 . . Duct blades or like supply devices
- B41L 27/08 . . Troughs or like reservoirs with immersed, or partly immersed rollers
- B41L 27/10 . . with ink-ejecting means, e.g. pumps
- B41L 27/12 . . Feed or duct rollers (messenger or moving transfer rollers B41L 27/16)
- B41L 27/14 . . . adjustable for regulating supply
- B41L 27/16 . . Messenger or other moving transfer rollers
- B41L 27/18 . Continuous, e.g. endless-band apparatus
- B41L 27/20 . for inking selected parts of printing formes
- B41L 27/22 . Ink removing or collecting devices
- B41L 27/24 . for inking from interior of cylinder
- B41L 27/26 . Absorbent pads
- B41L 27/28 . Construction of inking rollers
- B41L 27/30 . Spray apparatus
- B41L 27/32 . Arrangements for tripping, lifting, adjusting, or removing inking rollers; Supports, bearings or forks therefor

B41L 27/34	..	Lifting or adjusting devices
B41L 27/36	...	Cam, eccentric, wedge, or the like devices
B41L 27/38	...	fluid-pressure operated
B41L 27/40	...	magnetically operated
B41L 29/00		Devices for attaching printing elements or formes to supports {(in printing presses in general B41F 27/00)}
B41L 29/02	.	magnetic
B41L 29/04	.	for attaching printing elements to flat type-beds
B41L 29/06	.	for attaching elements to forme cylinders
B41L 29/08	.	for attaching print formes to flat type-beds
B41L 29/10	.	for attaching non-deformable curved printing formes to forme cylinders
B41L 29/12	.	for attaching flexible printing formes
B41L 29/14	..	Clamping devices
B41L 29/16	...	operating automatically during operation of rotary machines to attach the printing formes to the forme cylinders
B41L 29/18	electromagnetic, pneumatic, or hydraulic
B41L 29/20	...	for adjusting position of leading edges of flexible printing formes circumferentially of forme cylinders
B41L 29/22	.	for attaching printing formes to intermediate supports, e.g. adapter members
B41L 31/00		Devices for removing flexible printing formes from forme cylinders
B41L 33/00		Pressing flexible printing formes or sheets or webs of copy material against cylinders, e.g. for smoothing purposes {(in printing presses in general B41F 25/00)}
B41L 35/00		Cylinders for apparatus or machines for manifolding, duplicating, or printing for office or other commercial purposes {(in printing presses in general B41F 13/08)}
B41L 35/02	.	Forme cylinders
B41L 35/04	..	Registering devices
B41L 35/06	...	with means for displacing the cylinders
B41L 35/08	...	with means for displacing the printing formes on the cylinders
B41L 35/10	.	Impression cylinders
B41L 35/12	.	Bearings or supports for forme, offset, or transfer or impression cylinders
B41L 35/14	.	Means for heating or cooling forme or impression cylinders
B41L 35/16	.	Cylinder-tripping devices; Cylinder impression adjustments
B41L 35/18	..	Arrangements or dispositions of cylinder bearings, forks, or supports
B41L 35/20	...	Eccentric bearings
B41L 35/22	...	Sliding bearings
B41L 35/24	...	Swinging bearings
B41L 35/26	..	Cylinder lifting or adjusting devices
B41L 35/28	...	Cams, eccentrics, wedges, or the like

- B41L 35/30 . . . electrically or magnetically operated
- B41L 35/32 . . . fluid-pressure operated
- B41L 35/34 . Guards or covers, e.g. for safety purposes, for preventing egress or ingress of foreign matter

B41L 38/00 **Devices for attaching coverings or make-ready devices; Guiding devices for coverings** ([make-ready devices B41N 6/00](#); [blankets or like coverings B41N 10/00](#))

- B41L 38/02 . attaching to impression cylinders
- B41L 38/04 . attaching of endless or like continuously-fed coverings

B41L 39/00 **Indicating, counting, warning, control, or safety devices** ([ink-level control devices B41L 27/04](#); such devices in general, see relevant subclasses, e.g. [counting in general G06M](#))

- B41L 39/02 . Indicating devices, e.g. counters
- B41L 39/04 . Tripping devices or stop motions
- B41L 39/06 . . for starting or stopping operation of sheet or web feed
- B41L 39/08 . . for starting or stopping operation of cylinders {([B41L 19/16 takes precedence](#))}
- B41L 39/10 . . for starting or stopping operation of damping or inking units
- B41L 39/12 . . for starting or stopping the machine as a whole
- B41L 39/14 . . Automatic control of tripping devices by feelers, photoelectric devices, pneumatic devices, or other detectors
- B41L 39/16 . Programming systems for automatic control of sequence of operations

B41L 41/00 **Cleaning arrangements or devices** {(for printing presses in general [B41F 35/00](#))}

- B41L 41/02 . for forme cylinders
- B41L 41/04 . for inking rollers
- B41L 41/06 . for offset cylinders

B41L 43/00 **Auxiliary folding, collecting, or depositing of sheets or webs** (in general [B65H](#))

- B41L 43/02 . Folding
- B41L 43/04 . . lengthwise
- B41L 43/06 . . crosswise
- B41L 43/08 . . Folding-cylinders or drums
- B41L 43/10 . Collecting
- B41L 43/12 . . and stapling
- B41L 43/14 . Adding inserts
- B41L 43/16 . Depositing

Addressing machines or like series-printing machines

B41L 45/00 **Kinds or types of addressing machines or of like series-printing machines**

- B41L 45/02 . using printing plates

- B41L 45/04 . . . composed on type-setting machines
- B41L 45/06 . . . for addressing combined with other operations, e.g. franking, collating documents
- B41L 45/08 . . . with printing surfaces in the form of belts, or carried by chains
- B41L 45/10 . . . for addressing combined with other operations, e.g. franking, collating documents
- B41L 45/12 . . . with separate devices for printing additional text or images, e.g. for printing receipts on blank sheets or webs

- B41L 47/00** **Details of addressographs or like series-printing machines** ([common details of printing machines B41F 21/00 to B41F 35/00](#))
- B41L 47/02 . . . Applications of printing surfaces in addressing machines or like series-printing machines ([printing surfaces in general B41N](#))
- B41L 47/04 . . . of flat or curved plates for relief printing
- B41L 47/06 . . . of flat or curved stencils
- B41L 47/08 . . . of flat or curved plates for hectographic printing
- B41L 47/10 . . . or printing surfaces in the form of belts or chains
- B41L 47/12 . . . Auxiliary devices, e.g. for flattening plates, for assembling plates in predetermined order, for wetting stencils
- B41L 47/14 . . . Devices or arrangements for storing or handling plates
- B41L 47/16 . . . Magazines
- B41L 47/18 . . . Devices for feeding the plates in their plane
- B41L 47/20 . . . Devices for feeding the plates otherwise than in their plane, e.g. transversely thereto
- B41L 47/22 . . . with means for presenting plates for repeated printing operations
- B41L 47/24 . . . Mechanisms for conveying copy material through addressographs or like series-printing machines ([in general B65;](#))
- B41L 47/26 . . . for conveying or positioning single sheetlike articles, e.g. envelopes
- B41L 47/28 . . . with gauging-rulers or the like, e.g. for facilitating hand-printing of copy material fed from stacks
- B41L 47/30 . . . for conveying webs
- B41L 47/32 combined with devices for other purposes, e.g. for cutting, severing, gluing
- B41L 47/34 specially adapted for conveying chains of forms
- B41L 47/36 . . . for conveying sheets or webs for tabulating purposes; Tabulating mechanisms combined with sheet or web conveyers
- B41L 47/38 with clamping means for head or margin
- B41L 47/40 with means for automatically reciprocating sheet or web transversely to enable addresses to be printed in columns side by side
- B41L 47/42 . . . Printing mechanisms
- B41L 47/44 . . . using flat platens
- B41L 47/46 . . . using line-contact members, e.g. rollers, cylinders
- B41L 47/48 . . . with inking or ink-ribbon devices
- B41L 47/50 . . . using multiple impression-members or -surfaces, e.g. for printing series of addresses with standing context, for printing from selected parts of printing surfaces ([applications of counting, numbering, or dating apparatus B41L 49/02](#))

- B41L 47/52 . . with movable counter-pressure plates for printing from selected areas of printing surfaces
- B41L 47/54 . . with means for automatically reciprocating printing plate transversely to enable addresses to be printed in columns side by side
- B41L 47/56 . Indicating, warning, control, or safety devices ([B41L 47/58 takes precedence](#))
- B41L 47/58 . Arrangements or devices for selecting, or for facilitating selection of, text or image to be printed
- B41L 47/60 . . Markings applied to printing plates, e.g. code marks, colours, clips, perforations, edge notches, projections
- B41L 47/62 . . Selecting devices, e.g. cams, windows, positions indicators
- B41L 47/64 . . . Automatic selecting devices with or without overriding manual control, e.g. with scanning-fingers, with pre-setting controls operable by push-buttons, with programme control by punched tapes

- B41L 49/00** **Accessories or attachments for addressographs or like series-printing machines**
- B41L 49/02 . Counting, numbering, or dating devices
- B41L 49/04 . Devices for applying selection markings to printing plates