

# CPC COOPERATIVE PATENT CLASSIFICATION

## B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

### PRINTING

**B41 PRINTING; LINING MACHINES; TYPEWRITERS; STAMPS** (reproduction or duplication of pictures or patterns by scanning and converting into electrical signals [H04N](#))

**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](#))

#### NOTES

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

		1/26	. . Continuous assemblies made up of webs
		1/28	. . . in rolled or wound form
		1/30	. . . folded longitudinally
		1/32	. . . folded transversely
		1/321	. . . . {Stacks of sheets attached to a carrier strip or web}
1/00	<b>Devices for performing operations in connection with manifolding by means of pressure-sensitive layers or intermediaries, e.g. carbons; Accessories for manifolding purposes</b>	1/323	. . . . {Uniting several webs, e.g. transversely}
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	1/325	. . . . . {longitudinally}
		1/326	. . . . . {Severance lines; Perforations}
		1/328	. . . . . {Removing carbon sheets}
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	1/34	. . for making masters for hectographic duplicators
		1/36	. . with pressure-sensitive layers or coating other than carbon ( <a href="#">sheet materials B41M 5/00</a> )
1/06	. . on single form sets	<b>3/00</b>	<b>Platens or like sheet supports for manifolding using pressure-sensitive layers or intermediaries, e.g. for book-keeping purposes</b>
1/08	. . on continuous manifold assemblies		
1/10	. . . Separate folding or disposition of single webs	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 <a href="#">B41F 1/36</a> )}
1/12	. . . Severing webs to obtain single sheets or forms, e.g. by cutting, by bursting		
1/14	. . . Severing edge perforations from webs	3/04	. . Bars provided with pins engaging perforations in the elements
1/16	. Carriers or supply devices for pressure-sensitive material, e.g. for carbon sheets; Carbon gloves	3/06	. with movable clamping or guiding means for the elements of the manifolding assembly
1/18	. . for carbon webs; Continuous carbon supply mechanisms	3/08	. with non-mechanical means for holding the elements in registered position, e.g. magnetic means
1/20	. Manifolding assemblies, e.g. book-like assemblies {(multi-copy labels <a href="#">G09F 3/0288</a> )}		
1/22	. . made up of single sheets or forms		
1/24	. . . Pads or books		

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	11/12	• Driving gear; Control thereof
3/12	• Auxiliary devices	11/14	• Constructional features of masters ( <a href="#">chemical aspects B41M</a> )
3/14	• • Magazines or storage compartments, e.g. for slips	<b>13/00</b>	<b>Stencilling apparatus for office or other commercial use (<a href="#">screen printing B41F 15/00</a>; <a href="#">stencils, stencil materials, carriers therefor B41N 1/24</a>)</b>
3/16	• • Web-feeding arrangements	13/02	• with flat stencil carriers
3/18	• • Displaceable covers, e.g. with windows	13/04	• with curved or rotary stencil carriers
3/20	• • for facilitating manifolding in books	13/06	• • with a single cylinder carrying the stencil
3/22	• • Applications of ink ribbons; Holding, feeding, or guiding means therefor	13/08	• • with stencil carried by two or more cylinders, e.g. through the intermediary of endless bands
<b>5/00</b>	<b>Autographic registers or like manifolding apparatus using movable strips or webs (<a href="#">movable strip writing or reading apparatus B42D 19/00</a>)</b>	13/10	• • • Clips or clamps for securing stencils to stencil carriers
5/02	• with means for limiting movements of webs fed by hand	13/12	• for special purposes, e.g. for reproducing Braille characters {( <a href="#">typewriters for Braille B41J 3/32</a> )}
5/04	• with mechanisms for feeding webs or for arranging web feed; with web storage arrangements {(in <a href="#">general B65H</a> )}	13/14	• Attachments, e.g. for punching, cutting, severing
5/06	• • by means of rollers, wheels, or chains {, e.g. with <a href="#">pins</a> } transversely	13/16	• Driving gear; Control thereof
5/08	• • by reciprocating mechanisms	13/18	• Inking units
5/10	• with mechanisms for feeding the pressure-sensitive web or webs separately from the other webs, e.g. transversely	<b>15/00</b>	<b>Letterpress printing apparatus specially adapted for office or other commercial purposes (in <a href="#">general B41F</a>; <a href="#">printing plates or foils, materials thereof or B41N 1/00</a>)</b>
5/12	• with means for indicating exhaustion of web supply	15/02	• with flat printing surfaces, e.g. with flat type-beds, surfaces made of thin sheet material or moulded from plastics or rubber
5/14	• with auxiliary means for printing, perforating, or severing the web	15/04	• • of composed type locked in chases
5/16	• Accessories, e.g. drawers for storing forms, for money ( <a href="#">cash registers G07G</a> )	15/06	• with curved printing surfaces, e.g. cylinders
<b><u>Apparatus or machines for duplicating or printing for office or other commercial purposes</u></b>		15/08	• • with stereotypes
<b>7/00</b>	<b>Apparatus for directly duplicating from hectographic originals, i.e. for obtaining copies in mirror image</b>	15/10	• for multicolour printing; for perfecting
7/02	• by passing original and copy-sheet or -web between rollers	15/12	• Driving gear; Control thereof
7/04	• • with means for guiding original or copy-sheet or -web	15/14	• Attachments, e.g. for punching, cutting, severing
7/06	• • with means for severing copy-sheet or -web	<b>17/00</b>	<b>Lithographic printing apparatus for office or other commercial purposes (in <a href="#">general B41F</a>; <a href="#">printing plates or foils, materials thereof B41N 1/00</a>)</b>
7/08	• • with means for moistening or drying	17/02	• for direct impression printing
<b>9/00</b>	<b>Apparatus for indirectly duplicating from hectographic originals by means of hectographic intermediaries or transfer surfaces, i.e. "dry duplicators"</b>	17/04	• • with flat printing surfaces
9/02	• Containers for clay or gelatin	17/06	• • with curved printing surfaces, e.g. cylinders
9/04	• with flat supports over which gelatin-paper is stretched	17/08	• for offset printing
9/06	• • and with carriages for feeding the sheets	17/10	• • with flat printing surfaces, e.g. co-operating with travelling offset cylinders
9/08	• • and with devices for rolling-in and securing hectographic gelatin-paper webs	17/12	• • with curved printing surfaces, e.g. forme cylinders
9/10	• with rotary cylinders carrying sheets of hectographic gelatin-paper	17/14	• of two-cylinder type, e.g. co-operating forme and impression cylinders
<b>11/00</b>	<b>Apparatus for directly duplicating from hectographic masters in mirror image, i.e. "wet duplicators" for producing positive copies</b>	17/16	• of three-cylinder type
11/02	• with a flat support carrying the masters	17/18	• for multicolour printing, e.g. tandem machines; for perfecting
11/04	• • and with carriages for feeding the sheets	17/20	• without damping means, e.g. using heat-activatable inks, refrigerated printing surfaces
11/06	• • for stack duplicating with pressure rollers	17/22	• Driving gear; Control thereof
11/08	• with rotary cylinders carrying the masters	17/24	• Attachments, e.g. for punching, cutting, severing
11/10	• with two rollers between which master is stretched	<b>19/00</b>	<b>Duplicating or printing apparatus or machines for office or other commercial purposes, of special types or for particular purposes and not otherwise provided for (<a href="#">addressographs B41L 45/00</a>)</b>
		19/003	• { <a href="#">using heat, e.g. wax transfer</a> }
		19/006	• { <a href="#">Auxiliary numbering devices</a> }

19/02	• having forme cylinders carrying a plurality of printing surfaces, or for performing letterpress and lithographic processes selectively or in combination (in general <a href="#">B41F 11/00</a> )	25/06	• using spraying elements
19/04	• for printing from selected parts of one or more printing surfaces in one cycle, e.g. line printing (by inking selected areas <a href="#">B41L 27/20</a> )	25/08	• using endless bands
19/06	• . with co-operating forme and impression cylinders	25/10	• using absorbent pads
19/08	• . . by effecting relative movement of forme and impression cylinders during printing cycle	25/12	• Ducts, containers, or like supply devices for liquids
19/10	• . . by projecting and retracting parts of the surfaces of the forme cylinders	25/14	• Inking rollers serving also to apply ink repellent {(in rotary lithographic machines <a href="#">B41F 7/36</a> )}
19/12	• . . by masking parts of the printing surfaces on the forme cylinders	25/16	• Devices for tripping or lifting damping rollers; Supporting, adjusting, or removing arrangements therefor {(in rotary lithographic machines <a href="#">B41F 7/40</a> )}
19/14	• . . by selective damping of the copy material	25/18	• Construction of damping rollers
19/16	• . . by selective tripping of impression cylinders	<b>27/00</b>	<b>Inking arrangements or devices (inking units for stencilling apparatus <a href="#">B41L 13/18</a>; applying liquids or other fluent materials to surfaces, in general <a href="#">B05</a>)</b>
<b>Common details of, or accessories for, apparatus or machines for manifolding, duplicating, or printing for office or other commercial purposes</b>		27/02	• adapted for inking by hand
<b>21/00</b>	<b>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 <a href="#">B41L 47/24</a>; {feeding sheets or webs to or from printing apparatus or machines <a href="#">B65H</a>; in printing presses in general <a href="#">B41F 21/00</a>)}</b>	27/04	• Ducts, containers, or supply devices or ink-level control devices (level control in general <a href="#">G05D 9/00</a> )
21/02	• for conveying sheets	27/06	• . Duct blades or like supply devices
21/04	• . Pins	27/08	• . Troughs or like reservoirs with immersed, or partly immersed rollers
21/06	• . Grippers	27/10	• . with ink-ejecting means, e.g. pumps
21/08	• . . Suction-operated grippers	27/12	• . Feed or duct rollers (messenger or moving transfer rollers <a href="#">B41L 27/16</a> )
21/10	• . Combinations of endless conveyors and grippers	27/14	• . . adjustable for regulating supply
21/12	• for conveying webs	27/16	• . Messenger or other moving transfer rollers
<b>23/00</b>	<b>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. <a href="#">B29C 71/00</a>, <a href="#">D21H 23/00</a> or <a href="#">D21H 25/00</a>; after-treatment of prints <a href="#">B41M 7/00</a>)</b>	27/18	• Continuous, e.g. endless-band apparatus
23/02	• by damping, e.g. by moistening copy sheets in connection with hectographic printing	27/20	• for inking selected parts of printing formes
23/04	• . using friction rollers	27/22	• Ink removing or collecting devices
23/06	• . using brushes	27/24	• for inking from interior of cylinder
23/08	• . using spray elements	27/26	• Absorbent pads
23/10	• . using endless bands	27/28	• Construction of inking rollers
23/12	• . using absorbent pads	27/30	• Spray apparatus
23/14	• . Ducts, containers, or like supply devices for liquids	27/32	• Arrangements for tripping, lifting, adjusting, or removing inking rollers; Supports, bearings or forks therefor
23/16	• . Devices for tripping or lifting damping rollers; Supporting, adjusting, or removing arrangements therefor	27/34	• . Lifting or adjusting devices
23/18	• . Construction of damping rollers	27/36	• . . Cams, eccentrics, wedges, or the like devices
23/20	• by heat drying, by cooling, by applying powders	27/38	• . . fluid-pressure operated
23/22	• . Powdering devices, e.g. for preventing set-off	27/40	• . . magnetically operated
23/24	• Print-finishing devices, e.g. for glossing prints	<b>29/00</b>	<b>Devices for attaching printing elements or formes to supports {(in printing presses in general <a href="#">B41F 27/00</a>)}</b>
<b>25/00</b>	<b>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 <a href="#">B05</a>)</b>	29/02	• magnetic
25/005	• {Pre-damping etching devices}	29/04	• for attaching printing elements to flat type-beds
25/02	• using friction rollers	29/06	• for attaching elements to forme cylinders
25/04	• using brushes	29/08	• for attaching print formes to flat type-beds
		29/10	• for attaching non-deformable curved printing formes to forme cylinders
		29/12	• for attaching flexible printing formes
		29/14	• . Clamping devices
		29/16	• . . operating automatically during operation of rotary machines to attach the printing formes to the forme cylinders
		29/18	• . . . electromagnetic, pneumatic, or hydraulic
		29/20	• . . for adjusting position of leading edges of flexible printing formes circumferentially of forme cylinders
		29/22	• for attaching printing formes to intermediate supports, e.g. adapter members
		<b>31/00</b>	<b>Devices for removing flexible printing formes from forme cylinders</b>

**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](#))}

**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](#))}

- 35/02 . Forme cylinders
- 35/04 . . Registering devices
- 35/06 . . . with means for displacing the cylinders
- 35/08 . . . with means for displacing the printing formes on the cylinders
- 35/10 . Impression cylinders
- 35/12 . Bearings or supports for forme, offset, or transfer or impression cylinders
- 35/14 . Means for heating or cooling forme or impression cylinders
- 35/16 . Cylinder-tripping devices; Cylinder impression adjustments
- 35/18 . . Arrangements or dispositions of cylinder bearings, forks, or supports
- 35/20 . . . Eccentric bearings
- 35/22 . . . Sliding bearings
- 35/24 . . . Swinging bearings
- 35/26 . . Cylinder lifting or adjusting devices
- 35/28 . . . Cams, eccentrics, wedges, or the like
- 35/30 . . . electrically or magnetically operated
- 35/32 . . . fluid-pressure operated
- 35/34 . Guards or covers, e.g. for safety purposes, for preventing egress or ingress of foreign matter

**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](#))

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

**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](#))

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

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

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

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

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

#### Addressing machines or like series-printing machines

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

- 45/02 . using printing plates
- 45/04 . . composed on type-setting machines
- 45/06 . . for addressing combined with other operations, e.g. franking, collating documents
- 45/08 . with printing surfaces in the form of belts, or carried by chains
- 45/10 . . for addressing combined with other operations, e.g. franking, collating documents
- 45/12 . with separate devices for printing additional texts or images, e.g. for printing receipts on blank sheets or webs

**47/00** Details of addressographs or like series-printing machines (common details of printing machines [B41F 21/00](#) - [B41F 35/00](#))

- 47/02 . Applications of printing surfaces in addressing machines or like series-printing machines (printing surfaces in general [B41N](#))
- 47/04 . . of flat or curved plates for relief printing
- 47/06 . . of flat or curved stencils
- 47/08 . . of flat or curved plates for hectographic printing
- 47/10 . . of printing surfaces in the form of belts or chains
- 47/12 . Auxiliary devices, e.g. for flattening plates, for assembling plates in predetermined order, for wetting stencils
- 47/14 . Devices or arrangements for storing or handling plates
- 47/16 . . Magazines
- 47/18 . . Devices for feeding the plates in their plane
- 47/20 . . Devices for feeding the plates otherwise than in their plane, e.g. transversely thereto
- 47/22 . . with means for presenting plates for repeated printing operations
- 47/24 . Mechanisms for conveying copy material through addressographs or like series-printing machines (in general [B65](#);) )
- 47/26 . . for conveying or positioning single sheetlike articles, e.g. envelopes
- 47/28 . . with gauging-rulers or the like, e.g. for facilitating hand-printing of copy material fed from stacks
- 47/30 . . for conveying webs
- 47/32 . . . combined with devices for other purposes, e.g. for cutting, severing, gluing
- 47/34 . . . specially adapted for conveying chains of forms
- 47/36 . . for conveying sheets or webs for tabulating purposes; Tabulating mechanisms combined with sheet or web conveyors
- 47/38 . . . with clamping means for head or margin

- 47/40 . . . with means for automatically reciprocating sheet or web transversely to enable addresses to be printed in columns side by side
- 47/42 . Printing mechanisms
- 47/44 . . using flat platens
- 47/46 . . using line-contact members, e.g. rollers, cylinders
- 47/48 . . with inking or ink-ribbon devices
- 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](#))
- 47/52 . . with movable counter-pressure plates for printing from selected areas of printing surfaces
- 47/54 . . with means for automatically reciprocating printing plate transversely to enable addresses to be printed in columns side by side
- 47/56 . Indicating, warning, control, or safety devices ([B41L 47/58 takes precedence](#))
- 47/58 . Arrangements or devices for selecting, or for facilitating selection of, text or image to be printed
- 47/60 . . Markings applied to printing plates, e.g. code marks, colours, clips, perforations, edge notches, projections
- 47/62 . . Selecting devices, e.g. cams, windows, positions indicators
- 47/64 . . . Automatic selecting devices with or without overriding manual control, e.g. with scanning-fingers, with presetting controls operable by push-buttons, with programme control by punched tapes
- 49/00 Accessories or attachments for addressographs or like series-printing machines**
- 49/02 . Counting, numbering, or dating devices
- 49/04 . Devices for applying selection markings to printing plates