

# CPC COOPERATIVE PATENT CLASSIFICATION

## B PERFORMING OPERATIONS; TRANSPORTING

(NOTES omitted)

### PRINTING

#### B41 PRINTING; LINING MACHINES; TYPEWRITERS; STAMPS

#### B41P INDEXING SCHEME RELATING TO PRINTING, LINING MACHINES, TYPEWRITERS, AND TO STAMPS

##### NOTE

This subclass constitutes an internal scheme for indexing only.

##### **2200/00** Printing processes

- 2200/10 . Relief printing
- 2200/11 . . Stereotype printing
- 2200/12 . . Flexographic printing
- 2200/13 . . Offset printing
- 2200/20 . Lithography
- 2200/21 . . Dry offset printing
- 2200/22 . . Wet offset printing
- 2200/30 . Heliography
- 2200/31 . . Pad printing
- 2200/312 . . . multicolor
- 2200/40 . Screen printing
- 2200/41 . . Offset printing
- 2200/42 . . Mimeographic printing, e.g. stencilling

##### **2213/00** Arrangements for actuating or driving printing presses; Auxiliary devices or processes

- 2213/10 . Constitutive elements of driving devices ([driving reciprocating printing dies B41P 2219/10](#))
- 2213/11 . . Motors
  - 2213/112 . . . Fluid motors
    - 2213/114 . . . . Hydraulic motors
      - 2213/116 . . . . . Linear hydraulic motors
      - 2213/118 . . . . . Rotary hydraulic motors
    - 2213/12 . . . . Pneumatic motors
      - 2213/122 . . . . . Linear pneumatic motors
    - 2213/124 . . . Electric motors
      - 2213/126 . . . . Rotary electric motors
      - 2213/128 . . . . Linear electric motors
    - 2213/13 . . . Solenoids
  - 2213/20 . . Gearings
    - 2213/202 . . . Helical gears
    - 2213/204 . . . Bevel gears
    - 2213/206 . . . Planetary gears
    - 2213/208 . . . Harmonic drive
  - 2213/25 . . Couplings; Clutches
    - 2213/252 . . . Synchroclutches
    - 2213/254 . . . Devices allowing two gears to engage with each other
      - 2213/256 . . . . in a fixed angular position
  - 2213/30 . . Rotary energy transmitters, i.e. electric energy couplers
    - 2213/302 . . . using pneumatic energy, e.g. pressurised air
    - 2213/304 . . . using hydraulic energy

- 2213/40 . Auxiliary devices or processes associated with the drives
  - 2213/42 . . Vibration-dampers for machine parts
  - 2213/44 . . Noise reduction
  - 2213/46 . . Lubrication
  - 2213/70 . Driving devices associated with particular installations or situations
    - 2213/71 . . Inching drive mechanism, i.e. to obtain stepwise movement
    - 2213/72 . . Driving devices for monocolour presses
    - 2213/73 . . Driving devices for multicolour presses
      - 2213/732 . . . with means for deviating torque over the printing units
        - 2213/734 . . . . each printing unit being driven by its own electric motor, i.e. electric shaft
    - 2213/80 . Means enabling or facilitating exchange of cylinders ([exchanging tubular printing plates B41P 2227/20](#))
      - 2213/802 . . axially
      - 2213/804 . . radially
    - 2213/90 . Register control
      - 2213/91 . . for sheet printing presses

##### **2215/00** Screen printing machines

- 2215/10 . characterised by their constructional features
  - 2215/11 . . Registering devices
    - 2215/112 . . . with means for displacing the frame
    - 2215/114 . . . with means for displacing the article
  - 2215/12 . . Screens
    - 2215/13 . . Devices for increasing ink penetration
      - 2215/132 . . . by increasing pressure above the screen
      - 2215/134 . . . by increasing pressure beneath the screen
    - 2215/14 . . Devices or methods for reducing snap effect
  - 2215/50 . Screen printing machines for particular purposes
    - 2215/55 . . for printing compact discs
    - 2215/56 . . for printing ceramic tiles

##### **2217/00** Printing machines of special types or for particular purposes

- 2217/10 . characterised by their constructional features
  - 2217/11 . . Machines with modular units, i.e. with units exchangeable as a whole
    - 2217/12 . . Machines with reversible printing units
    - 2217/13 . . Machines with double or multiple printing units for "flying" printing plates exchange

- 2217/14 . . Machines with constructions allowing refurbishing, converting or updating existing presses
- 2217/15 . . Machines with cylinders only supported on one side, e.g. cantilever construction
- 2217/50 . Printing presses for particular purposes
- 2217/51 . . for printing individualised books
- 2217/52 . . for printing a long repeat length on webs
- 2217/53 . . for printing on the interior of hollow articles
- 2217/55 . . for printing compact discs
- 2217/56 . . for printing ceramic tiles
- 2217/60 . . Means for supporting the articles
- 2217/61 . . . internally, e.g. for mugs or goblets
- 2217/62 . . . externally, e.g. for bottles
- 2219/00 Printing presses using a heated printing foil**
- 2219/10 . Driving devices for the reciprocating die
- 2219/11 . . Hydraulic or pneumatic motors
- 2219/12 . . Electric motors
- 2219/13 . . Gearings
- 2219/132 . . . Cams or eccentrics
- 2219/134 . . . Knee-lever
- 2219/20 . Arrangements for moving, supporting or positioning the printing foil
- 2219/21 . . Supports for the unwinding roll; Braking devices for the unwinding roll
- 2219/22 . . Guiding or tensioning the printing foil
- 2219/23 . . Winding up the printing foil
- 2219/30 . Printing dies
- 2219/31 . . Heating means
- 2219/32 . . with means for attaching printing elements to the holder
- 2219/33 . . Supports for printing dies
- 2219/40 . Material or products to be decorated or printed
- 2219/41 . . Web-like material
- 2219/42 . . Sheet-like material
- 2219/43 . . Three-dimensional articles
- 2219/432 . . . Pencils
- 2219/434 . . . Books, e.g. edge-gilding
- 2219/50 . combined with existing presses
- 2219/51 . . Converting existing presses to foil printing presses
- 2219/60 . Using more than one printing foil
- 2227/00 Mounting or handling printing plates; Forming printing surfaces *in situ***
- 2227/10 . Attaching several printing plates on one cylinder
- 2227/11 . . in axial direction
- 2227/12 . . in circumferential direction
- 2227/20 . Means enabling or facilitating exchange of tubular printing or impression members, e.g. printing sleeves, blankets
- 2227/21 . . Means facilitating exchange of sleeves mounted on cylinders without removing the cylinder from the press
- 2227/30 . Detecting the correct position of printing plates on the cylinder
- 2227/40 . Adjusting means for printing plates on the cylinder
- 2227/41 . . axially
- 2227/42 . . circumferentially
- 2227/43 . . diagonally
- 2227/50 . Devices for storing printing plates
- 2227/60 . Devices for transferring printing plates
- 2227/61 . . using the sheet feed system
- 2227/62 . . Devices for introducing printing plates
- 2227/63 . . Devices for removing printing plates
- 2227/70 . Forming the printing surface directly on the form cylinder
- 2231/00 Inking devices; Recovering printing ink**
- 2231/10 . Axially segmented ducter rollers
- 2231/12 . Axially segmented ink blades
- 2231/20 . Recovering printing ink
- 2231/21 . . by using mixtures of ink and water or repellent
- 2233/00 Arrangements for the operation of printing presses**
- 2233/10 . Starting-up the machine
- 2233/11 . . Pre-inking
- 2233/12 . . Pre-wetting
- 2233/13 . . Pre-registering
- 2233/20 . Safety devices preventing damage
- 2233/21 . . by cutting the web in case of web break
- 2233/22 . . by deviating the web in case of web break
- 2233/23 . . by preventing the web winding up around cylinders
- 2233/30 . Measuring or controlling the consumption of ink
- 2233/50 . Marks on printed material
- 2233/51 . . for colour quality control
- 2233/52 . . for registering
- 2235/00 Cleaning**
- 2235/10 . characterised by the methods or devices
- 2235/12 . . using laser energy
- 2235/14 . . using ultrasonic energy
- 2235/20 . . Wiping devices
- 2235/21 . . . Scrapers, e.g. absorbent pads
- 2235/22 . . . Rollers
- 2235/23 . . . Brushes
- 2235/24 . . . using rolls of cleaning cloth
- 2235/242 . . . . Unwinding the cleaning cloth
- 2235/244 . . . . Rewinding the cleaning cloth
- 2235/246 . . . . Pressing the cleaning cloth against the cylinder
- 2235/26 . . Spraying devices
- 2235/27 . . Suction devices
- 2235/30 . Recovering used solvents or residues
- 2235/31 . . by filtering
- 2235/32 . . by distilling
- 2235/33 . . by burning
- 2235/40 . Cleaning restricted areas on cylinders
- 2235/50 . Selection of materials or products for cleaning
- 2251/00 Details or accessories of printing machines not otherwise provided for**
- 2251/10 . Pumps
- 2251/11 . . Membrane pumps
- 2251/112 . . Peristaltic pumps
- 2700/00 Manifolding, printing or duplicating for office purposes**
- 2700/10 . Hectographic line duplicators
- 2700/12 . . with single master plates