

Title (en)
Combination rotary printing machine, particularly for printing securities.

Title (de)
Kombinierte Rotations-Rollendruckmaschine, insbesondere zum Druck von Wertscheinen.

Title (fr)
Machine rotative d'impression combinée, particulièrement pour imprimer les papiers de valeur.

Publication
EP 0415881 B1 19941109 (DE)

Application
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Priority
CH 314889 A 19890830

Abstract (en)
[origin: JPH03118155A] PURPOSE: To execute perfect correction of a register and printing length and to prevent generation of trouble accompanied by the production of a cylinder having a continuous surface by feeding a paper-web in a constant state even at the part prescribed between a second paper-web storage means of a first printing apparatus and a first paper-web storage means of a second printing apparatus. CONSTITUTION: A paper-web is continuously moved from a roll paper state to the first paper-web storage part 29 of a printing apparatus A, from the second paper web storage part 32 of the printing apparatus A to the first paper- web storage part 37 of a printing apparatus B, from the second paper-web storage part 40 of the printing apparatus B to the first paper-web storage part 37' of a printing apparatus C and from the second paper-web storage part 40' of the printing apparatus C to the position of a rear stage. The paper-web receives the constant tension by freely regulable force continuously between the paper-web storage parts 32, 37 to pass through a tension roller mechanism 34 at a constant speed.

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IPC 8 full level
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Cited by
DE102009021515A1; DE102009021551A1; KR100904791B1; EP2251197A3; EP2251196A3; GB2275021A; US5467710A; GB2275021B; US5611272A; EP0718099A3; CN103722866A; EP0873866A1; US5899145A; AU726923B2; CN1096356C; EP1136258A3; DE102013222692A1; AT515024A3; AT515024B1; EP1958769A1; EP0683123A1; US5540146A; CH688137A5; GB2275020A; GB2275020B; US5479856A; US8499690B2; EP0718099A2; WO2008099330A3; WO2014012722A1; EP2251196A2; WO2007060624A1; US8800447B2; EP2524809A1; WO2012160476A1; US9221242B2; EP1842665A1; EP2065187A1; EP2251197A2; EP3398782A1; WO2018202344A1; US10696042B2; EP2524805A1; WO2012160478A1; EP3031608A1; US9751296B2; EP2636527A1; WO2013132471A1; US9475273B2; EP2746049A1; WO2014097227A1; US10150283B2; EP2119527A1; EP2650131A1; WO2013153519A2; EP2743025A2; US9796202B2; EP2159069A1; EP2251198A2; DE102009021475A1; EP2722179A1; US8697177B2; WO2014060997A1; US9211696B2

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