

Title (en)
Improvements relating to printing press rollers.

Title (de)
Druckmaschinenwalzen.

Title (fr)
Rouleaux des presses.

Publication
EP 0363228 A2 19900411 (EN)

Application
EP 89310321 A 19891009

Priority
US 25515388 A 19881007

Abstract (en)

A pneumatic axially oscillated, frictionally rotated roller (30) is disclosed and may be used in the ink (12) or dampening (13) systems of a printing press. The roller (30) features an internal air piston-cylinder construction that causes the axial motion but permits the roller (30) to freely rotate. Further, several air cylinders can be stacked on each side of the roller (30) to permit even a small diameter roller to be pneumatically oscillated. The roller (30), when used as an ink form roller (18), may be operated to oscillate in synchronization with an adjacent oscillating, vibrating roller (120) to continually diagonally redistribute the ink so as to eliminate or minimize "ghosting". The foregoing is accomplished by controlling the oscillation of the form roller (18) to move axially in a direction opposite of that of the vibrating roller (120). The lengths of the strokes of the two rollers (30, 120) may differ or be the same. The length of axial movement or stroke of the form roller (18) can be varied, while maintaining synchronization by varying the speed of the axial motion, a slower speed yielding a shorter stroke and a higher speed yielding a longer stroke for a given half cycle.

IPC 1-7
B41F 7/26; B41F 7/36; B41F 31/14

IPC 8 full level
B41F 7/24 (2006.01); **B41F 7/26** (2006.01); **B41F 7/36** (2006.01); **B41F 31/15** (2006.01)

CPC (source: EP)
B41F 7/26 (2013.01); **B41F 7/36** (2013.01); **B41F 31/15** (2013.01)

Cited by
WO2007000311A1; WO2008092584A1; DE19603765A1; EP0476379A1; AU645821B2; FR2940177A1; CN102292215A; EP0453847A1; US5134939A; DE102006042959A1; DE102006042959B4; CN107627729A; DE102007004411A1; EP0770482A3; US5727469A; US8001894B2; WO2007128709A3; WO2013106665A3; WO2010072985A1

Designated contracting state (EPC)
DE FR GB IT

DOCDB simple family (publication)
EP 0363228 A2 19900411; EP 0363228 A3 19900919; EP 0363228 B1 19950104; CA 1330636 C 19940712; DE 68920395 D1 19950216;
DE 68920395 T2 19950511; JP 3018081 B2 20000313; JP H02194953 A 19900801

DOCDB simple family (application)
EP 89310321 A 19891009; CA 614009 A 19890928; DE 68920395 T 19891009; JP 26191589 A 19891006