

Title (en)

Variable size ink printing method and apparatus.

Title (de)

Tintendruckverfahren und -anordnung zum Darstellen von Zeichen variabler Schriftgrösse.

Title (fr)

Méthode et appareil pour l'impression avec de l'encre, de caractères de dimensions variables.

Publication

**EP 0088630 A2 19830914 (EN)**

Application

**EP 83301261 A 19830308**

Priority

US 35622482 A 19820308

Abstract (en)

Method and apparatus for non-contact application of information patterns of variable size and format on a plurality of discrete moving objects 12 carried linearly on a conveyor 14. The objects move, horizontally spaced apart, past at least one print head 16 having plural ink sources arranged vertically relative to the moving objects. An information pattern is provided to control means 20. The leading edge of an object is detected along with the velocity of said object. Representative signals are directed to the control means 20 having inputs for receiving said signals, the control means energizing selected piezoelectric crystal pumping devices in predetermined relation to the velocity signal according to the pattern to provide small ink drop streams. The ink sources are synchronously interrupted with the movement of the object and each succeeding object is marked in the line.

IPC 1-7

**B41J 3/04**; **B65B 61/26**

IPC 8 full level

**B41J 2/01** (2006.01); **B41J 2/13** (2006.01); **B41J 3/28** (2006.01); **B41J 3/407** (2006.01); **B41J 25/308** (2006.01); **B65B 61/26** (2006.01)

CPC (source: EP US)

**B41J 2/01** (2013.01 - EP); **B41J 3/286** (2013.01 - EP); **B41J 3/4073** (2013.01 - EP US); **B41J 25/308** (2013.01 - EP); **B41J 25/3082** (2013.01 - EP US); **B65B 61/26** (2013.01 - EP)

Cited by

FR2859129A1; EP0602251A4; US4564846A; EP0096228A3; US4814795A; US5846002A; US5971634A; EP1604828A1; US5757389A; EP0534337A3; US10011387B1; EP0778130A1; AU714197B2; CN1077503C; US5101224A; EP0385624A1; US5029523A; EP0209896A3; DE102011106135A1; DE102011106135B4; EP4299328A3; US4608575A; EP3753738A1; US9302506B2; US7910184B2; US8522989B2; US8950163B2; WO9908935A1; WO9632258A1; WO9203292A1; WO0017056A1; US6658817B1; US7701478B2; US9272815B2; WO2005120836A1; WO2006113240A1; EP0240651B1; EP1131247B1; US11020986B2; US11794486B2

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI LU NL SE

DOCDB simple family (publication)

**EP 0088630 A2 19830914**; **EP 0088630 A3 19850410**; AU 1175183 A 19830915; CA 1201014 A 19860225; DK 111683 A 19830909; DK 111683 D0 19830307; JP S58171971 A 19831008

DOCDB simple family (application)

**EP 83301261 A 19830308**; AU 1175183 A 19830222; CA 423048 A 19830307; DK 111683 A 19830307; JP 3610383 A 19830307