

Title (en)

Ink-jet print head.

Title (de)

Tintenstrahldruckkopf.

Title (fr)

Tête d'impression par jet d'encre.

Publication

EP 0611654 A3 19950125 (EN)

Application

EP 94101961 A 19940209

Priority

DE 4304733 A 19930213

Abstract (en)

[origin: EP0611654A2] The invention relates to an ink-jet print head which functions according to the drop-on-demand principle. Said print head operates without the ink being subjected to heat and is suited for high resolution. Proceeding from an ink-jet print head having a plurality of ink channels which are separated from each other by walls (8) forming integral units of an insulating housing (11), it is proposed that the surfaces of the separating walls (8), limiting the channels, be provided with conductive coatings (28). In order that a drop be ejected, the coatings (28) associated with the ink channel (16) concerned are pulsewise provided with charges of opposite polarities. Due to the electrostatic attraction forces of the coatings (28), the separating walls (8) limiting the ink channel (16) concerned move toward each other at least partially and cause excess pressure to be produced in the ink channel (16), which leads to the ejection of an ink drop. During printing breaks, readiness for use can be determined by measuring the capacity of the coatings (28) associated with an ink channel (16). <IMAGE>

IPC 1-7

B41J 2/16

IPC 8 full level

B41J 2/16 (2006.01)

CPC (source: EP)

B41J 2/1606 (2013.01)

Citation (search report)

- [Y] US 4520375 A 19850528 - KROLL JOHN W [US]
- [YDAD] WO 9117891 A1 19911128 - MANNESMANN AG [DE]
- [A] EP 0513971 A2 19921119 - TOKYO ELECTRIC CO LTD [JP]
- [A] EP 0516284 A2 19921202 - BROTHER IND LTD [JP]

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0611654 A2 19940824; EP 0611654 A3 19950125; DE 4304733 A1 19940825

DOCDB simple family (application)

EP 94101961 A 19940209; DE 4304733 A 19930213