

Title (en)  
Ink jet nozzle head

Title (de)  
Tintenstrahldüsenkopf

Title (fr)  
Tête à buse à jet d'encre

Publication  
**EP 0820869 A1 19980128 (EN)**

Application  
**EP 97202087 A 19970708**

Priority  
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Abstract (en)  
Ink jet nozzle head comprising: a channel plate (12) defining a linear array of equidistant nozzles (14) and a number of parallel ink channels (16) each connected to a respective one of the nozzles, an array of fingers (26, 28) disposed on one side of the channel plate (12) and extending in parallel with the ink channels, and a backing member (32) disposed on the side of the array of fingers opposite to the channel plate, some of the fingers (26) being configured as actuators for exerting mechanical strokes on the ink contained in the ink channels, so as to expel ink droplets from the nozzles, at least one actuator being provided for each nozzle, the other fingers (28) serving as support members for supporting the channel plate and the backing member against the reaction forces of the actuators, wherein the pitch (a) of the support members (28) is larger than that (b) of the nozzles (14) and wherein the fingers are evenly distributed over the length of the nozzle array. <IMAGE>

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IPC 8 full level  
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CPC (source: EP)  
**B41J 2/14274** (2013.01)

Citation (search report)  
• [YA] WO 9526271 A1 19951005 - CITIZEN WATCH CO LTD [JP], et al  
• [DA] EP 0402172 A1 19901212 - SHARP KK [JP]  
• [A] US 5270740 A 19931214 - NARUSE OSAMU [JP], et al  
• [A] DE 19511408 A1 19951012 - SEIKO EPSON CORP [JP]  
• [A] DE 3630206 A1 19870319 - FUJI ELECTRIC CO LTD [JP]  
• [A] US 4842493 A 19890627 - NILSSON KENTH [SE]  
• [Y] PATENT ABSTRACTS OF JAPAN vol. 16, no. 132 (M - 1229) 3 April 1992 (1992-04-03)

Cited by  
EP1291181A1; DE10026133B4; EP0875381A3; US6702430B2; EP1078761A2; US6676248B1; US6231169B1; US7976124B2; EP1886816A1

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