

Title (en)

Ink jet head, ink jet recorder and method for manufacturing ink jet head

Title (de)

Tintenstrahldruckkopf, Verfahren zu seiner Herstellung, und Tintenstrahlaufzeichnungsgerät

Title (fr)

Tête à jet d'encre, sa méthode de fabrication, et imprimante à jet d'encre

Publication

EP 0869002 A1 19981007 (EN)

Application

EP 98302461 A 19980330

Priority

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Abstract (en)

An ink jet head has ink channels and blank channels alternately formed in a head body formed of a piezoelectric element. Then ink channels are formed inside the head body so as to communicate at one end thereof with nozzles and communicate at the other end thereof with a liquid supply port. The blank channels have the interior thereof blocked so as not to communicate with the liquid supply port. There is no need to use a shielding plate for sealing of blank channels in a conventional ink jet head. Thus, the number of constituent parts of the head can be reduced, and the reliability of sealing of blank channels can be increased. The blank channels are obtained by interrupting cutting with a cutter halfway. <IMAGE>

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IPC 8 full level

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Citation (applicant)

- US 5650810 A 19970722 - MUTO MITSURU [JP]
- US 5639220 A 19970617 - HAYAKAWA KIYOHARU [JP]

Citation (search report)

- [X] EP 0595654 A2 19940504 - CITIZEN WATCH CO LTD [JP]
- [X] US 5432540 A 19950711 - HIRAISHI HISATO [JP]
- [X] JP H08187846 A 19960723 - BROTHER IND LTD & US 5686946 A 19971111 - MIZUTANI TSUYOSHI [JP]
- [X] EP 0653303 A2 19950517 - BROTHER IND LTD [JP]
- [X] JP H07132596 A 19950523 - BROTHER IND LTD [JP] & US 5625393 A 19970429 - ASAI HIROKI [JP]
- [X] EP 0707962 A2 19960424 - BROTHER IND LTD [JP]
- [X] JP H08197728 A 19960806 - BROTHER IND LTD & US 5680163 A 19971021 - SUGAHARA HIROTO [JP]

Cited by

GB2594471A; GB2594471B; EP1329318A3; EP3235643A4; US6921158B2; WO2005030490A3; WO2021219987A1

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