

Title (en)

Ink jet recording head and ink jet recording apparatus comprising the same

Title (de)

Tintenstrahlaufzeichnungskopf und diesen enthaltendes Tintenstrahlaufzeichnungsgerät

Title (fr)

Tête d'enregistrement à jet d'encre et appareil d'enregistrement à jet d'encre comprenant cette tête

Publication

EP 0985535 B1 20040609 (EN)

Application

EP 99116295 A 19990818

Priority

- JP 23524998 A 19980821
- JP 23982598 A 19980826
- JP 29977998 A 19981021
- JP 3459299 A 19990212
- JP 22206299 A 19990805

Abstract (en)

[origin: EP1277583A2] The invention relates to an ink jet recording head comprising a nozzle forming member provided with a plurality of nozzle orifices for jetting ink; a channel forming substrate provided with a plurality of pressure generating chambers communicated with the associated nozzle orifices, one face of which is bonded to the nozzle forming member; a plurality of piezoelectric elements provided on a face of the channel forming substrate which is opposed to the face bonded to the nozzle forming member with a vibration plate in between for changing the associated pressure generating chambers in volume thereof; and a sealing member bonded to the face of the channel forming substrate on which the piezoelectric elements are provided, the sealing member having walls (27) for defining a space in an area facing the piezoelectric elements such an extent that motion of the respective piezoelectric elements is exhibited while sealing the space hermetically, wherein one of the walls of the sealing member is disposed on each of the piezoelectric elements.

IPC 1-7

B41J 2/14

IPC 8 full level

B41J 2/175 (2006.01); **B41J 2/045** (2006.01); **B41J 2/055** (2006.01); **B41J 2/14** (2006.01); **B41J 2/16** (2006.01)

CPC (source: EP)

B41J 2/14233 (2013.01); **B41J 2/161** (2013.01); **B41J 2/1623** (2013.01); **B41J 2002/14241** (2013.01); **B41J 2002/14419** (2013.01); **B41J 2002/14491** (2013.01); **B41J 2202/03** (2013.01)

Cited by

EP1164015A1; CN104044347A; GB2513466A; CN109484032A; EP3456537A3; US6802597B2; EP1145853A1; KR100498851B1; CN104339869A; US10682854B2; US8944567B2; US6481834B2; WO2011023551A1; DE102009028909A1; US6547373B2; US7153459B2; JP2013222743A

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 0985535 A2 20000315; **EP 0985535 A3 20010829**; **EP 0985535 B1 20040609**; AT E268693 T1 20040615; AT E295265 T1 20050515; DE 69917849 D1 20040715; DE 69917849 T2 20041007; DE 69925318 D1 20050616; DE 69925318 T2 20051006; EP 1277583 A2 20030122; EP 1277583 A3 20030305; EP 1277583 B1 20050511; JP 2000296616 A 20001024; JP 3422364 B2 20030630

DOCDB simple family (application)

EP 99116295 A 19990818; AT 02022353 T 19990818; AT 99116295 T 19990818; DE 69917849 T 19990818; DE 69925318 T 19990818; EP 02022353 A 19990818; JP 22206299 A 19990805