

Title (en)

METHOD AND DEVICE FOR REMOVING AIR BUBBLES FROM AN INKJET HEAD

Title (de)

VERFAHREN UND VORRICHTUNG ZUM ENTFERNEN VON LUFTBLASEN AUS EINEM TINTENSTRAHLKOPF

Title (fr)

PROCÉDÉ ET APPAREIL POUR ÉLIMINER LES BULLES D'AIR D'UNE TÊTE À JET D'ENCRE

Publication

**EP 3196030 A1 20170726 (EN)**

Application

**EP 15842714 A 20150917**

Priority

- JP 2014190313 A 20140918
- JP 2015076471 W 20150917

Abstract (en)

The present invention addresses the problem of providing a method for removing air bubbles and an apparatus for removing air bubbles from an inkjet head, by which residual air bubbles in an ink storage chamber provided with a filter can be efficiently removed and the amount of wasted ink from a nozzle can be reduced. The problem is solved through a way in which: an ink storage chamber 41 is divided into an upstream-side ink chamber 411 and a downstream-side ink chamber 412 with a filter 42 disposed therebetween; a first ink port 44 and a second ink port 45 are disposed on upper portions of the upstream-side ink chamber 411; a third ink port 46 is disposed on an upper portion inside the downstream-side ink chamber 412 without the filter 42 therebetween; air bubbles in the upstream-side ink chamber 411 are removed by closing the passage of the third ink port 46 and discharging, from the second ink port 45, the ink that has been introduced into the upstream-side ink chamber 411 from the first ink port 44; and subsequently, air bubbles in the downstream-side ink chamber 412 are removed by closing the passage of the second ink port 45, allowing ink to flow down from the first ink port 44 to the downstream-side ink chamber 412 through the filter 42, and discharging the ink in the downstream-side ink chamber 412 from the third ink port 46.

IPC 8 full level

**B41J 2/19** (2006.01); **B41J 2/14** (2006.01); **B41J 2/175** (2006.01); **B41J 2/18** (2006.01)

CPC (source: EP)

**B41J 2/18** (2013.01); **B41J 2/19** (2013.01); **B41J 2002/14419** (2013.01)

Cited by

EP3962745A4; US11667130B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)

BA ME

DOCDB simple family (publication)

**EP 3196030 A1 20170726**; **EP 3196030 A4 20180516**; **EP 3196030 B1 20200722**; CN 107073968 A 20170818; CN 107073968 B 20191112; JP 6617708 B2 20191211; JP WO2016043267 A1 20170706; WO 2016043267 A1 20160324

DOCDB simple family (application)

**EP 15842714 A 20150917**; CN 201580050065 A 20150917; JP 2015076471 W 20150917; JP 2016548940 A 20150917