

Title (en)

Fluid jet print head and stimulator therefor.

Title (de)

Flüssigkeitsstrahlendruckkopf und Erregungsvorrichtung dazu.

Title (fr)

Tête d'impression à projection de liquide et son dispositif de stimulation.

Publication

**EP 0116786 A2 19840829 (EN)**

Application

**EP 83307925 A 19831222**

Priority

US 45308282 A 19821227

Abstract (en)

A fluid jet print head includes an orifice plate (22) defining a plurality of orifices (24) from which fluid emerges, and a stimulator means (26) mounted in contact with the orifice plate for vibrating the orifice plate to produce a series of bending waves. The bending waves travel along the orifice plate and break up the fluid into drops of substantially uniform size and spacing. The stimulator means includes a stimulator member (28) of a length equal to an integer half wavelength of acoustic waves of a frequency  $f$  passing therethrough. The stimulator member contacts the orifice plate at one end of the member. A pair of piezoelectric crystals (32, 34) are mounted on opposite sides of the stimulator member and, when driven by an A.C. drive signal, cause acoustic waves of a frequency  $f$  to pass along the member. The member is supported at a nodal plane. The member may enter the print head manifold and contact the orifice plate internally, with a seal arrangement (46) being provided at a nodal plane along the member.

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**B41J 3/04**

IPC 8 full level

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