

Title (en)

DEVICE FOR TRANSMITTING ULTRASONIC ENERGY TO A LIQUID OR PASTY MEDIUM

Title (de)

GERÄT ZUR EINKOPPLUNG VON ULTRASCHALL IN EIN FLÜSSIGES ODER PASTÖSES MEDIUM

Title (fr)

APPAREIL A TRANSMETTRE DES ONDES ULTRASONORES A UN MILIEU LIQUIDE OU PATEUX

Publication

EP 0975440 B1 20020731 (DE)

Application

EP 98922766 A 19980423

Priority

- DE 19717397 A 19970424
- EP 9802404 W 19980423

Abstract (en)

[origin: US6429575B1] A device for transmitting ultrasonic energy to a liquid or pasty medium, comprising an alternating current generator (23) intended to operate in a frequency range of 1 to 100 kHz, a magnetostrictive or piezoelectric transceiver (12) capable of producing under the generator output AC voltage longitudinal high frequency mechanical vibrations, a waveguide (27) in the form of a cylindrical rod capable of being stimulated by said transceiver for generating longitudinal harmonic vibrations, and a cavity resonator (17) acoustically coupled with the waveguide and in a tubular form for converting said longitudinal harmonic vibrations into transversal vibrations relative to the longitudinal axis (14), the wave power of which can be injected into the medium to be submitted to sonicating. Said cavity resonator (11) is designed in such a way the resonance requirement is met both for the longitudinal and transversal self-vibrations of its envelope (18).

IPC 1-7

B06B 3/00

IPC 8 full level

B06B 3/00 (2006.01)

CPC (source: EP US)

B06B 3/00 (2013.01 - EP US)

Designated contracting state (EPC)

AT BE CH DE FR GB IT LI NL

DOCDB simple family (publication)

US 6429575 B1 20020806; AT E221420 T1 20020815; DE 19717397 A1 19981105; DE 59805004 D1 20020905; EP 0975440 A1 20000202; EP 0975440 B1 20020731; WO 9847632 A1 19981029

DOCDB simple family (application)

US 40385099 A 19991221; AT 98922766 T 19980423; DE 19717397 A 19970424; DE 59805004 T 19980423; EP 9802404 W 19980423; EP 98922766 A 19980423