

Title (en)
PIEZO-ELECTRIC COMPRESSOR WITH DISPLACEMENT AMPLIFIER

Title (de)
PIEZO-ELEKTRISCHER KOMPRESSOR MIT VERDRÄNGUNGSVERSTÄRKER

Title (fr)
COMPRESSEUR PIEZO-ELECTRIQUE AVEC AMPLIFICATEUR DE DEPLACEMENT

Publication
EP 1534955 A4 20110223 (EN)

Application
EP 03794411 A 20030724

Priority
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Abstract (en)
[origin: WO2004022972A1] A compressor (300) for successive suction and discharge of a compressible fluid, thereby increasing fluid pressure of the compressible fluid in a substantially closed chamber, the compressor (300) comprising: at least one piezoelectric element (22); a primary displacement member (46) coupled to the at least one piezoelectric element (22); a secondary displacement member (44) coupled to the piston (16); and a non-compressible fluid (45) disposed to fill a fixed predetermined volume between the primary displacement member (46) and the secondary displacement member (44); wherein electrical actuation of the piezoelectric element (22) is controllable to displace the primary displacement member (46) by a predetermined distance, being coupled via the non-compressible fluid (45) to displace the secondary displacement member (44) by an amplified distance based upon the fixed predetermined volume.

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Citation (search report)
• [X] DE 19844518 A1 20000406 - POBERING SEBASTIAN [DE], et al
• [X] US 5286199 A 19940215 - KIPKE SIEGFRIED [DE]
• [A] DE 4407962 C1 19950601 - CONTINENTAL AG [DE]
• See references of WO 2004022972A1

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PT RO SE SI SK TR

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