

Title (en)  
GAS EXPANSION ELEMENT PROVIDED FOR A DEVICE USED TO CONVERT THERMAL ENERGY INTO MOTOR ENERGY, ESPECIALLY FOR A HOT-WATER MOTOR

Title (de)  
GASAUDEHNUNGSELEMENT FÜR EINE ANORDNUNG ZUM UMWANDELN VON THERMISCHER IN MOTORISCHE ENERGIE, INSBESONDERE FÜR EINEN WARMWASSERMOTOR

Title (fr)  
ELEMENT D'EXPANSION DE GAZ CON U POUR UN DISPOSITIF DE TRANSFORMATION D'ENERGIE THERMIQUE EN ENERGIE MOTRICE, NOTAMMENT POUR UN MOTEUR A EAU CHAUDE

Publication  
**EP 1159512 A1 20011205 (DE)**

Application  
**EP 00920368 A 20000304**

Priority  
• DE 0000642 W 20000304  
• DE 19909611 A 19990305

Abstract (en)  
[origin: DE19909611C1] The hot water engine gas expander has a gas filled container with a movable piston. The container has an upper injection opening (2) for hot and cold water and a controllable lower water outlet (8). The injection opening has a nozzle (3).

IPC 1-7  
**F01K 21/02**

IPC 8 full level  
**F03G 7/06** (2006.01); **F01K 21/02** (2006.01); **F01K 27/00** (2006.01); **F02G 1/04** (2006.01)

CPC (source: EP US)  
**F01K 27/005** (2013.01 - EP US); **F02G 1/04** (2013.01 - EP US)

Cited by  
US7506509B2; WO2005071232A1

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DOCDB simple family (publication)  
**US 6564551 B1 20030520**; AT E251713 T1 20031015; AU 4098800 A 20000928; DE 10080564 D2 20020214; DE 19909611 C1 20000406; DE 50003997 D1 20031113; DK 1159512 T3 20040209; EP 1159512 A1 20011205; EP 1159512 B1 20031008; ES 2208307 T3 20040616; JP 2002539351 A 20021119; PT 1159512 E 20040227; WO 0053898 A1 20000914

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