Title (en)

METHOD AND DEVICE FOR CONVERTING HEAT ENERGY INTO MECHANICAL ENERGY

Title (de)

VERFAHREN UND EINRICHTUNG ZUR UMWANDLUNG VON WÄRMEENERGIE IN MECHANISCHE ENERGIE

Title (fr)

PROCEDE ET DISPOSITIF POUR TRANSFORMER DE L'ENERGIE THERMIQUE EN ENERGIE MECANIQUE

Publication

EP 1651852 B1 20150610 (DE)

Application

EP 04723151 A 20040325

Priority

- CZ 2004000015 W 20040325
- CZ 2003927 A 20030401

Abstract (en)

[origin: WO2004088114A1] The invention relates to a method for converting heat energy into mechanical energy by modifying the volume, pressure and temperature of a working medium, wherein the working medium in the first stage (1) is suctioned and the volume of said first stage (1) is increased, whereupon it is converted into a second stage (2) when the volume of the first stage (1) is reduced and the volume of the second stage is increased, whereupon the working medium is converted into a fourth stage (4) via a third stage (3) wherein the volume of the second stage (2) is reduced, heat is also supplied and the volume of the fourth stage (4) is increased, whereupon the working medium is converted into a fifth stage (5) from the fourth stage (4) wherein the volume thereof is reduced and in the fifth stage (5) the volume of said fifth stage is expanded. The inventive method discloses a thermodynamic cycle process comprising five cycles. The invention also relates to a device for carrying out said method.

IPC 8 full level

F01B 3/00 (2006.01); **F01K 27/00** (2006.01); **F02B 41/00** (2006.01); **F02C 1/00** (2006.01); **F02G 1/043** (2006.01)

CPC (source: EP KR US)

F01B 3/00 (2013.01 - KR); **F01B 3/0079** (2013.01 - EP US); **F02G 1/043** (2013.01 - EP KR US)

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 PL PT RO SE SI SK TR

DOCDB simple family (publication)

WO 2004088114 A1 20041014; **WO 2004088114 A8 20060112**; AU 2004225862 A1 20041014; AU 2004225862 B2 20100422; BR PI0409153 A 20060328; CA 2521042 A1 20041014; CA 2521042 C 20111129; CN 100434684 C 20081119; CN 1768199 A 20060503; CZ 2003927 A3 20041110; CZ 297785 B6 20070328; EA 010122 B1 20080630; EA 200501545 A1 20060428; EG 25327 A 20111214; EP 1651852 A1 20060503; EP 1651852 B1 20150610; ES 2546613 T3 20150925; HU E025570 T2 20160229; IL 171210 A 20110630; JP 2006523278 A 20061012; JP 5142522 B2 20130213; KR 100871734 B1 20081203; KR 20050118303 A 20051216; MX PA05010534 A 20060309; NO 20055109 D0 20051101; NO 20055109 L 20051228; NO 337189 B1 20160208; NZ 543325 A 20090331; PL 1651852 T3 20151130; UA 88442 C2 20091026; US 2006196186 A1 20060907; US 7634902 B2 20091222; ZA 200508827 B 20070425

DOCDB simple family (application)

CZ 2004000015 W 20040325; AU 2004225862 A 20040325; BR PI0409153 A 20040325; CA 2521042 A 20040325; CN 200480009233 A 20040325; CZ 2003927 A 20030401; EA 200501545 A 20040325; EG NA2005000601 A 20051001; EP 04723151 A 20040325; ES 04723151 T 20040325; HU E04723151 A 20040325; IL 17121005 A 20050929; JP 2006504219 A 20040325; KR 20057018825 A 20051001; MX PA05010534 A 20040325; NO 20055109 A 20051101; NZ 54332504 A 20040325; PL 04723151 T 20040325; UA A200510176 A 20040325; US 55178605 A 20051003; ZA 200508827 A 20040325