Title (en)

Stirling engine with heat exchanger

Title (de)

Stirlingmaschine mit Wärmetauscher

Title (fr)

Moteur Stirling avec échangeur de chaleur

Publication

EP 0570731 B1 19960221 (DE)

Application

EP 93106852 A 19930428

Priority

DE 4216839 A 19920521

Abstract (en)

[origin: EP0570731A1] A Stirling engine in which a displacer plate 5 can be moved backwards and forwards between two housing plates 1, 2, the said displacer plate being without sliding friction relative to the ends 10 of the housing along the circumference, is known. It is desirable here for the Stirling engine to be designed for larger output ranges with a reduced outlay on construction by making the housing plates and the displacer plate as large as possible, taking into consideration the resistance to pressure of the housing. This is achieved by virtue of the fact that the two housing plates 1, 2 are held at a distance from one another by struts 3 arranged in a distributed manner, the struts extending at right angles to the displacer plate 5 and passing through the latter, and by virtue of the fact that the displacer plate 5 is guided along its end edges relative to the ends 10 of the housing by linear rolling diaphragms 9. The housing plates are reinforced over the surface area by the struts and the displacer plate is guided exactly parallel with regard to the struts by the rolling diaphragms. <IMAGE>

IPC 1-7

F02G 1/043

IPC 8 full level

F02G 1/043 (2006.01); **F02G 1/055** (2006.01); **F02G 1/057** (2006.01); **F25B 9/14** (2006.01)

CPC (source: EP KR US)

F02G 1/04 (2013.01 - KR); **F02G 1/043** (2013.01 - EP US); F02G 2244/00 (2013.01 - EP US); F02G 2254/30 (2013.01 - EP US); F02G 2257/00 (2013.01 - EP US); F02G 2270/50 (2013.01 - EP US)

Cited by

ITBO20120120A1; DE102004047054A1; DE9302325U1; GB2296047A; GB2296047B; DE102011106466A1; EP2543860A3; DE102011106466B4; WO0025013A1

Designated contracting state (EPC)

AT BE CH DK ES FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 0570731 A1 19931124; **EP 0570731 B1 19960221**; AT E134420 T1 19960315; AU 3836693 A 19931125; AU 667353 B2 19960321; BR 9302017 A 19931130; CA 2096762 A1 19931122; CN 1085313 A 19940413; DE 4216839 C1 19931104; DK 0570731 T3 19960318; EG 20100 A 19970731; ES 2085070 T3 19960516; GR 3019108 T3 19960531; IL 105532 A0 19930818; IL 105532 A 19960804; JP H074309 A 19950110; KR 930023586 A 19931221; MX 9302940 A 19950131; TR 27770 A 19950804; US 5337563 A 19940816; ZA 933017 B 19931105; ZW 5693 A1 19931103

DOCDB simple family (application)

EP 93106852 A 19930428; AT 93106852 T 19930428; AU 3836693 A 19930503; BR 9302017 A 19930520; CA 2096762 A 19930521; CN 93105905 A 19930421; DE 4216839 A 19920521; DK 93106852 T 19930428; EG 30193 A 19930519; ES 93106852 T 19930428; GR 960400530 T 19960223; IL 10553293 A 19930428; JP 11947093 A 19930521; KR 930008809 A 19930521; MX 9302940 A 19930520; TR 37993 A 19930521; US 5860393 A 19930506; ZA 933017 A 19930429; ZW 5693 A 19930505