

Title (en)  
Piston and cylinders for a Stirling engine

Title (de)  
Kolben und Zylinder für einen Stirling-Motor

Title (fr)  
Piston et cylindre pour un moteur Stirling

Publication  
**EP 1239137 A3 20030528 (DE)**

Application  
**EP 02400014 A 20020305**

Priority  
DE 10110446 A 20010305

Abstract (en)  
[origin: EP1239137A2] The piston and cylinder unit includes a piston with at least one piston ring groove (35). The spacing between the piston ring groove closest to the crankshaft and the bottom edge (43) of the piston body (41) is between 0.66 and 1.5 times the piston stroke, preferably between 0.9 and 1.1 times the piston stroke. The cylinder is made of globular gray-cast iron, and its running surface is induction-hardened.

IPC 1-7  
**F02G 1/043**

IPC 8 full level  
**F02G 1/043** (2006.01); **F02G 1/053** (2006.01)

CPC (source: EP)  
**F02G 1/043** (2013.01); **F02G 1/053** (2013.01); **F02G 2243/30** (2013.01); **F02G 2244/00** (2013.01); **F02G 2244/10** (2013.01); **F02G 2270/40** (2013.01); **F02G 2270/45** (2013.01); **F05C 2225/04** (2013.01)

Citation (search report)

- [A] FR 935169 A 19480611 - PHILIPS NV
- [A] US 5755100 A 19980526 - LAMOS RICHARD A [VI]
- [A] DE 2851806 A1 19800612 - BRIGGS & STRATTON CORP
- [A] CH 347677 A 19600715 - ENERGY LIMITED [IE]
- [A] PATENT ABSTRACTS OF JAPAN vol. 007, no. 197 (M - 239) 27 August 1983 (1983-08-27)

Cited by  
CN102041370A; SE1850002A1; SE1850005A1; CN111819354A; SE1850003A1; US11261823B2; WO2019135699A1; WO2019135694A1; US11261824B2; WO2019135695A1

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
**EP 1239137 A2 20020911**; **EP 1239137 A3 20030528**; **EP 1239137 B1 20090527**; AT E432413 T1 20090615; DE 10110446 A1 20020919; DE 50213570 D1 20090709

DOCDB simple family (application)  
**EP 02400014 A 20020305**; AT 02400014 T 20020305; DE 10110446 A 20010305; DE 50213570 T 20020305