

Title (en)  
STIRLING CYCLE ENGINE AND HEAT PUMP.

Title (de)  
STIRLINGMOTOR UND WÄRMEPUMPE.

Title (fr)  
MOTEUR A CYCLE STIRLING ET POMPE THERMIQUE.

Publication  
**EP 0162868 A4 19860821 (EN)**

Application  
**EP 84904048 A 19841029**

Priority  
US 54819883 A 19831102

Abstract (en)  
[origin: WO8501988A1] A Stirling cycle type engine in which a plurality of heat exchanger assemblies (12 and 13) are provided. Each assembly consists of a cooler (12B, 13B), a regenerator (23A, 23B), a heater (12A, 13A) and an end-mounted regenerator (14A, 14B) connected in series. Through use of valves (18A, 19A, 20A, 21A) synchronized to open and close in a specific sequence with reference to movement of a piston (10), two separate volumes of gas are compressed, expanded and transferred through Stirling type cycles, sequentially sharing expansion and compression chambers with one volume undergoing expansion while the other undergoes compression, and one volume isolated in one heat exchanger assembly while the other volume is being transferred through the other heat exchanger assembly from one end of the cylinder to the other end of the cylinder.

IPC 1-7  
**F02G 1/04; F02G 1/06**

IPC 8 full level  
**F02G 1/04** (2006.01); **F02G 1/043** (2006.01); **F02G 1/044** (2006.01); **F02G 1/055** (2006.01); **F25B 9/00** (2006.01); **F25B 9/14** (2006.01)

CPC (source: EP)  
**F02G 1/043** (2013.01); **F25B 9/14** (2013.01); **F02G 2244/50** (2013.01); **F02G 2254/30** (2013.01); **F02G 2270/50** (2013.01)

Citation (search report)

- [A] FR 1453381 A 19660603 - PHILIPS NV
- [A] FR 1378880 A 19641120 - CLEVELAND PNEUMATIC IND
- See references of WO 8501988A1

Cited by  
WO2021104398A1

Designated contracting state (EPC)  
AT BE CH DE FR GB LI LU NL SE

DOCDB simple family (publication)  
**WO 8501988 A1 19850509**; DE 3478486 D1 19890706; EP 0162868 A1 19851204; EP 0162868 A4 19860821; EP 0162868 B1 19890531; JP H071028 B2 19950111; JP S61500272 A 19860220

DOCDB simple family (application)  
**US 8401731 W 19841029**; DE 3478486 T 19841029; EP 84904048 A 19841029; JP 50406884 A 19841029