

Title (en)

DRIVE MECHANISM AND ROTARY DISPLACER FOR HOT AIR ENGINES

Title (de)

GETRIEBE UND ROTIERENDER VERDRÄNGER FÜR HEISSLUFTMASCHINEN

Title (fr)

MECANISME D'ENTRAINEMENT ET DEPLACEUR ROTATIF POUR MOTEURS A AIR CHAUD

Publication

**EP 1179117 A1 20020213 (EN)**

Application

**EP 00916703 A 20000413**

Priority

- AU 0000317 W 20000413
- AU PQ026099 A 19990510
- AU PQ233999 A 19990819
- AU PQ321999 A 19990930

Abstract (en)

[origin: WO0068545A1] A drive mechanism (20) for use in the transmission of power from a plurality of linear reciprocating power generating elements (14) to a rotating output element (60). The drive mechanism (20) includes a drive cam member (21) having a cam follower guiding contour (30) extending along the cam member (21); a drive cam follower (31) operatively connected to each power generating element (14). Each follower (31) is adapted to engage the cam follower guiding contour (30) throughout each reciprocation cycle of the power generating elements (14), the drive cam follower guiding contour (30) following a generally sinusoidal profile on the surface of the drive cam member (21), the profile including a series of lobes (25, 26) forming peaks and troughs with intermediate regions (27, 28) therebetween, the peak to peak amplitude of the substantially sinusoidal profile of the cam follower guiding contour (30) on the surface of the drive cam (21) substantially corresponding to the stroke amplitude of the stroke of the reciprocating power generating elements (14). There are at least three drive cam followers (31) spaced along the contour (30) from one peak to an adjacent trough. A rotary vane displacer for a gamma form Stirling engine is also described.

IPC 1-7

**F01B 3/04**; **F01B 9/06**; **F02G 1/044**; **F02G 1/053**; **F16H 25/06**; **F16H 25/12**

IPC 8 full level

**F01B 3/00** (2006.01); **F01B 3/04** (2006.01); **F01B 9/06** (2006.01); **F02B 75/26** (2006.01); **F02G 1/044** (2006.01); **F02G 1/053** (2006.01); **F16H 25/12** (2006.01); **F02B 75/02** (2006.01)

CPC (source: EP)

**F01B 3/0002** (2013.01); **F01B 3/04** (2013.01); **F01B 9/06** (2013.01); **F02B 75/26** (2013.01); **F02G 1/044** (2013.01); **F02G 1/053** (2013.01); **F16H 25/12** (2013.01); **F02B 2075/025** (2013.01)

Citation (search report)

See references of WO 0068545A1

Designated contracting state (EPC)

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

DOCDB simple family (publication)

**WO 0068545 A1 20001116**; CA 2373087 A1 20001116; CN 1354818 A 20020619; EP 1179117 A1 20020213; HK 1043619 A1 20020920; JP 2002544420 A 20021224

DOCDB simple family (application)

**AU 0000317 W 20000413**; CA 2373087 A 20000413; CN 00808603 A 20000413; EP 00916703 A 20000413; HK 02104510 A 20020618; JP 2000617305 A 20000413