Title (en)
FREE PISTON ENGINE GENERATOR

Title (de)
FREIKOLBENMOTOR-GENERATOR

Title (fr)
GÉNÉRATEUR À MOTEUR À PISTON LIBRE

Publication
EP 2542768 A1 20130109 (EN)

Application
EP 11743855 A 20110621

Priority
- GB 201021406 A 20101217
- GB 2011051154 W 20110621

Abstract (en)
[origin: GB2482375A] A method of manufacturing a free-piston engine generator, the method comprising providing a cylinder 1 that accommodates at least one piston 2 configured to reciprocate within the cylinder, extruding a cylinder housing that is arranged to retain and provide structural support for the cylinder and securing the cylinder within the cylinder housing such that the cylinder wall is reinforced by the structure of the cylinder housing. At least one magnetisable element may be arranged to provide load-bearing support to the cylinder and the cylinder may be secured within the cylinder housing using an adhesive material on the outside of the cylinder, where the adhesive material provides thermal insulation between the cylinder and cylinder housing. Preferably the cylinder housing is provided with cooling elements and a coating is provided on the interior wall of the cylinder with a friction reducing material provided between the interior wall and a piston passing along it. The piston may be constructed using alternating magnetisable-elements 9c and non-magnetisable elements.

IPC 8 full level
F02B 63/04 (2006.01); **F02B 71/04** (2006.01); **H02K 7/18** (2006.01)

CPC (source: EP GB KR US)
B21C 23/14 (2013.01 - GB); **B21K 3/00** (2013.01 - US); **F02B 63/04** (2013.01 - EP KR US); **F02B 71/04** (2013.01 - EP GB KR US); **H02K 7/18** (2013.01 - KR); **H02K 7/1884** (2013.01 - EP GB US); Y10T 29/49231 (2015.01 - EP US)

Citation (examination)
US 4523549 A 19850618 - LACY JAMES W [US]

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
GB 201110442 D0 20110803; **GB 2482375 A 20120201**; **GB 2482375 B 20120718**; BR 112013015180 A2 20200609; BR 112013015180 B1 20210209; CN 103261626 A 20130821; CN 103261626 B 20160120; EP 2542768 A1 20130109; GB 201021406 D0 20110126; KR 20130129245 A 20131127; US 2013255080 A1 20131003; WO 2012080709 A1 20120621; ZA 201303751 B 20190130

DOCDB simple family (application)
GB 201110442 A 20110621; BR 112013015180 A 20110621; CN 201180060677 A 20110621; EP 11743855 A 20110621; GB 201021406 A 20101217; GB 2011051154 W 20110621; KR 20137018614 A 20110621; US 201113992995 A 20110621; ZA 201303751 A 20130523