

Title (en)
STIRLING MACHINE

Title (de)
STIRLINGMASCHINE

Title (fr)
MACHINE STIRLING

Publication
EP 2556236 B1 20180704 (FR)

Application
EP 11718884 A 20110329

Priority
• CH 4962010 A 20100406
• CH 2011000065 W 20110329

Abstract (en)
[origin: WO2011123961A1] This Stirling machine comprises a transfer piston (6, 6a) and a moving part (14) of a generator or of an electric motor, the transfer piston (6, 6a) periodically displacing a working gas between an expansion chamber (VE) and a compression chamber (Vc) which chambers are respectively associated with two working faces of the transfer piston (6, 6a) of which the cross-sectional area ratio a_c/a_E is > 0.35 so that its displacement along an axis X oriented towards the expansion volume (VE) generates an in-phase working gas pressure component P_x that opposes the displacement of the piston (6, 6a), so that all of the mechanical energy produced is transmitted to the moving part (14). This machine comprises a resonant second piston (10) coupled to the transfer piston (6, 6a) by a quantity of energy that is proportional to the pressure component P_x .

IPC 8 full level
F02G 1/043 (2006.01)

CPC (source: EP KR US)
F02B 75/00 (2013.01 - KR); **F02G 1/043** (2013.01 - EP KR US); **F02G 1/0435** (2013.01 - EP US); **F02G 1/047** (2013.01 - EP US); **F02G 1/0535** (2013.01 - EP US); **F02G 2243/202** (2013.01 - EP US); **F02G 2244/52** (2013.01 - EP US); **F02G 2253/02** (2013.01 - EP US); **F02G 2253/04** (2013.01 - EP US); **F02G 2270/30** (2013.01 - EP US); **F02G 2270/40** (2013.01 - EP US); **F02G 2270/80** (2013.01 - EP US); **F02G 2280/10** (2013.01 - EP US); **F02G 2280/20** (2013.01 - EP 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)
WO 2011123961 A1 20111013; WO 2011123961 A8 20121115; CH 702965 A2 20111014; CN 102918249 A 20130206; CN 102918249 B 20150701; EP 2556236 A1 20130213; EP 2556236 B1 20180704; JP 2013524079 A 20130617; JP 5852095 B2 20160203; KR 101749164 B1 20170620; KR 20130094188 A 20130823; US 2013031899 A1 20130207; US 9109533 B2 20150818

DOCDB simple family (application)
CH 2011000065 W 20110329; CH 4962010 A 20100406; CN 201180017774 A 20110329; EP 11718884 A 20110329; JP 2013502971 A 20110329; KR 20127029159 A 20110329; US 201113636614 A 20110329