

Title (en)
PISTON ENGINE

Title (de)
KOLBENMASCHINE

Title (fr)
MACHINE À PISTONS

Publication
EP 2205832 A1 20100714 (DE)

Application
EP 08844218 A 20081029

Priority
• EP 2008009132 W 20081029
• DE 102007054321 A 20071031

Abstract (en)
[origin: WO2009056295A1] A piston engine (10) comprises a housing (10) inside which at least one first piston (22) is arranged that can be moved back and forth between two final positions in order to periodically increase and reduce the size of a working chamber (38) bordering a first end face (30) of the at least one first piston (22). The at least one first piston (22) has at least one guiding member (52) which meshes with a radial cam (48) that is designed on a cam member (42) located inside the housing (12). The entire circumference of the cam member (42) inside the housing (12) concentrically extends around an axis of rotation (14) that is fixed relative to the housing (12), the cam member (42) being disposed radially outside the piston (22) in relation to the axis of rotation (14). A second piston (24) which faces the at least one first piston (22) performs opposite reciprocating movements relative to the first piston (22). The second piston (24) has a second end face (32) which faces the first end face (30) of the first piston (22). The working chamber (38) is located between the end faces (30, 32). The cam member (42) is mounted inside the housing (12) in such a way as to be rotatable about the axis of rotation (14), while the at least one first piston (22) and the second piston (24) cannot be rotated about the axis of rotation (14) such that the at least one first piston (22) and the second piston (24) perform reciprocating movements on a plane of movement that is fixed relative to the axis of rotation (14) when the cam member (42) rotates about the axis of rotation (14).

IPC 8 full level
F01C 9/00 (2006.01); **F01C 21/00** (2006.01)

CPC (source: EP US)
F01C 9/002 (2013.01 - EP US); **F01C 21/008** (2013.01 - EP US)

Citation (search report)
See references of WO 2009056295A1

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

Designated extension state (EPC)
AL BA MK RS

DOCDB simple family (publication)
DE 102007054321 A1 20090507; CN 101842554 A 20100922; CN 101842554 B 20130130; EP 2205832 A1 20100714; EP 2205832 B1 20150527; JP 2011501032 A 20110106; JP 5010742 B2 20120829; US 2010269688 A1 20101028; US 8141475 B2 20120327; WO 2009056295 A1 20090507

DOCDB simple family (application)
DE 102007054321 A 20071031; CN 200880114367 A 20081029; EP 08844218 A 20081029; EP 2008009132 W 20081029; JP 2010530356 A 20081029; US 77154010 A 20100430