

Title (en)
RECIPROCATING PISTON ENGINE

Title (de)
HUBKOLBENMASCHINE

Title (fr)
MACHINE À PISTON ALTERNATIF

Publication
EP 2318713 A1 20110511 (DE)

Application
EP 09777260 A 20090717

Priority
• EP 2009005204 W 20090717
• DE 102008045329 A 20080821

Abstract (en)
[origin: WO2010020318A1] The invention relates to a reciprocating piston engine, particularly for motor vehicles, having - at least one piston displaceably supported in a cylinder bore and having - a valve device (1) acting together with the at least one piston, said valve device comprising a valve plate (3) and an intake valve (5) having a plurality of valve fingers (7).

IPC 8 full level
F04B 39/10 (2006.01); **F04B 27/10** (2006.01)

CPC (source: EP US)
F04B 27/1009 (2013.01 - EP US); **F04B 39/1066** (2013.01 - EP US); **F04B 39/1073** (2013.01 - EP US)

Citation (examination)
• US 2004035468 A1 20040226 - SHIM JAE-SUL [KR]
• US 5228468 A 19930720 - KAPADIA NEVILLE D [US]
• See also references of WO 2010020318A1

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 MK MT NL NO PL PT RO SE SI SK SM TR

Designated extension state (EPC)
AL BA RS

DOCDB simple family (publication)
WO 2010020318 A1 20100225; DE 112009001704 A5 20110929; DE 112009001704 B4 20240801; EP 2318713 A1 20110511; JP 2012500355 A 20120105; US 2011126701 A1 20110602

DOCDB simple family (application)
EP 2009005204 W 20090717; DE 112009001704 T 20090717; EP 09777260 A 20090717; JP 2011523316 A 20090717; US 200913056202 A 20090717