

Title (en)

Stepped piston internal combustion engine

Title (de)

Stufenkolbenbrennkraftmaschine

Title (fr)

Moteur à combustion interne à piston étagé

Publication

EP 0890719 A1 19990113 (EN)

Application

EP 97304984 A 19970708

Priority

- EP 97304984 A 19970708
- GB 9610477 A 19960518
- GB 9602063 A 19960201
- GB 9700769 A 19970115

Abstract (en)

A stepped-piston, internal-combustion engine includes at least one cylinder, each cylinder having a working part (12) of lesser diameter defined by a cylindrical wall (21) and a pumping part (13) of greater diameter, a piston slideable in each cylinder, a receiver (25) which is partly delimited by the cylindrical wall (21) of the working part of each cylinder and which extends at least partly around each working part, working inlet ports (23) in the cylindrical wall and extending between the working part of the cylinder and the receiver and valve means (30, 39) to control the entry of charge into the pumping part (13) of each cylinder and the transfer of charge from said pumping part (13) to the receiver (25) is controlled by the uncovering of the working inlet ports (23) by the working part of the piston. <IMAGE>

IPC 1-7

F02B 33/14; F02B 33/30; F02B 33/44; F16F 15/26

IPC 8 full level

F01L 7/02 (2006.01); **F02B 33/14** (2006.01); **F02B 33/30** (2006.01); **F02B 33/44** (2006.01); **F02B 75/02** (2006.01); **F02B 75/18** (2006.01);
F02B 75/22 (2006.01)

CPC (source: EP)

F01L 7/025 (2013.01); **F02B 33/14** (2013.01); **F02B 33/30** (2013.01); **F02B 33/44** (2013.01); **F02B 75/22** (2013.01); **F02B 2075/025** (2013.01);
F02B 2075/1812 (2013.01)

Citation (search report)

- [X] GB 790508 A 19580212 - HEDGES MOTOR COMPANY INC
- [A] US 2440726 A 19480504 - PROBST KARL K
- [A] US 5365899 A 19941122 - DOERAGRIP GUSTAF F A [SE]
- [A] US 2609802 A 19520909 - OTTO ELWERT, et al
- [A] US 4781153 A 19881101 - HOOPER BERNARD [GB]
- [E] GB 2309742 A 19970806 - HOOPER BERNARD [GB], et al

Designated contracting state (EPC)

DE FR IT

DOCDB simple family (publication)

GB 2309742 A 19970806; GB 2309742 B 19990512; GB 9700769 D0 19970305; EP 0890719 A1 19990113

DOCDB simple family (application)

GB 9700769 A 19970115; EP 97304984 A 19970708