

Title (en)

AN INTERNAL COMBUSTION ENGINE AND A METHOD FOR OPERATING AN INTERNAL COMBUSTION ENGINE

Title (de)

VERBRENNUNGSMOTOR UND VERFAHREN ZUM BETRIEB EINES VERBRENNUNGSMOTORS

Title (fr)

MOTEUR À COMBUSTION INTERNE ET PROCÉDÉ DE FONCTIONNEMENT D'UN MOTEUR À COMBUSTION INTERNE

Publication

**EP 3779152 A1 20210217 (EN)**

Application

**EP 19191287 A 20190812**

Priority

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Abstract (en)

The invention provides an internal combustion engine (100) comprising a crankshaft (110) and at least one combustion chamber (120). The at least one combustion chamber (120) comprises at least one inlet port (121) for a fuel mixture, and at least one exhaust port (122) for exhaust gases. The at least one combustion chamber (120) comprises a first piston (130) coupled to the crankshaft (110) for reciprocating the first piston (130) in the at least one combustion chamber (120) for a first compression of the fuel mixture during a first duration up to a first compression ratio (CR1) below auto-ignition. The at least one combustion chamber (120) comprises a second piston (140) coupled to a drive system (150) for reciprocating the second piston (140) in the at least one combustion chamber (120) for a second compression of the fuel mixture, in addition to the first compression, during a predetermined second duration, shorter than the first duration, at least up to a second compression ratio for auto-ignition.

IPC 8 full level

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Citation (applicant)

WO 2007084242 A1 20070726 - PERKINS ENGINES CO LTD [GB], et al

Citation (search report)

- [XY] JP 2014118930 A 20140630 - OKUNO ARITOMI
- [XY] WO 2018081854 A1 20180511 - AUSTRALIAN FROZEN FOODS PTY LTD [AU]
- [XY] US 2002059907 A1 20020523 - THOMAS CHARLES RUSSELL [US]
- [XY] WO 2011063742 A1 20110603 - WANG HONGZE [CN]
- [XY] JP 2014098321 A 20140529 - UNIV NIHON
- [XY] DE 10228303 A1 20030320 - CATERPILLAR INC [US]

Designated contracting state (EPC)

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