

Title (en)
SIX-STROKE INTERNAL COMBUSTION ENGINE WITH VARIABLE COMBUSTION CHAMBER

Title (de)
SECHS-TAKT-VERBRENNUNGSMOTOR MIT VARIABLEM BRENNRAUM

Title (fr)
MOTEUR A COMBUSTION INTERNE A SIX TEMPS ET A CHAMBRE DE COMBUSTION VARIABLE

Publication
EP 0775256 A1 19970528 (DE)

Application
EP 94918344 A 19940519

Priority
EP 9401628 W 19940519

Abstract (en)
[origin: WO9532360A1] A process allows waste heat from an internal combustion engine to be recovered. At least part of the thermal energy contained in the exhaust fumes from a first stroke and in the engine block are used to evaporate a liquid injected into the combustion chamber and the exhaust fumes of the preceding stroke before a second stroke begins. The thermal energy is thus used to increase the total pressure of the mixture of exhaust fumes and liquid vapour and is transformed into mechanical work during the following stroke. The disclosed process, illustrated as a six-stroke engine in the figure, enlarges the combustion chamber during the fourth and fifth strokes in order to avoid the very high temperatures and pressures that result from recompression during the fourth stroke, and also converts the residual energy into mechanical work.

IPC 1-7
F02B 75/02; F02B 41/04; F02B 75/04; F02D 15/02

IPC 8 full level
F01L 1/38 (2006.01); **F01L 3/20** (2006.01); **F02B 41/04** (2006.01); **F02B 47/02** (2006.01); **F02B 75/02** (2006.01); **F02B 75/04** (2006.01); **F02D 15/02** (2006.01); **F02M 61/14** (2006.01); F02B 3/06 (2006.01); F02F 1/24 (2006.01); F02M 53/02 (2006.01)

CPC (source: EP)
F01L 1/38 (2013.01); **F01L 3/205** (2013.01); **F02B 41/04** (2013.01); **F02B 47/02** (2013.01); **F02B 75/021** (2013.01); **F02M 61/14** (2013.01); F01L 2800/00 (2013.01); F02B 3/06 (2013.01); F02F 2001/247 (2013.01); F02M 53/02 (2013.01); Y02T 10/12 (2013.01)

Citation (search report)
See references of WO 9532360A1

Designated contracting state (EPC)
AT DE FR GB IT SE

DOCDB simple family (publication)
WO 9532360 A1 19951130; DE 4480924 D2 19971127; EP 0775256 A1 19970528

DOCDB simple family (application)
EP 9401628 W 19940519; DE 4480924 T 19940519; EP 94918344 A 19940519