

Title (en)  
MULTI-CYLINDER INTERNAL COMBUSTION ENGINE

Publication  
**EP 0232467 B1 19900718 (DE)**

Application  
**EP 86114449 A 19861018**

Priority  
DE 3603674 A 19860206

Abstract (en)  
[origin: US4759317A] A multi-cylinder internal combustion engine with liquid cooling comprises a cylinder head and a cylinder crankcase connected with the cylinder head; the crankcase includes cylinder liners circumcirculated by the cooling medium. For reducing the weight of the internal combustion engine, the cooling medium quantity is reduced and the cylinder head and the cylinder liners are acted upon with cooling medium by a cross-flow cooling system. Additionally, an internal combustion engine unit of relatively short construction and relatively light weight is created by the particular construction of the cylinder liners.

IPC 1-7  
**F01P 3/02**; **F02F 1/14**; **F02F 1/16**

IPC 8 full level  
**F01P 3/02** (2006.01); **F02F 1/10** (2006.01); **F02F 1/14** (2006.01); **F02F 1/16** (2006.01)

CPC (source: EP US)  
**F01P 3/02** (2013.01 - EP US); **F02F 1/108** (2013.01 - EP US); **F02F 1/16** (2013.01 - EP US)

Citation (examination)  
DE 3123538 A1 19820325 - LIST HANS [AT]

Cited by  
CN111502855A; EP0356227A3; US5086733A; DE19838746A1; DE19838746C2; US11149679B2; US6167848B1; EP3865687A1

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