

Title (en)
INJECTION INTERNAL-COMBUSTION ENGINE

Publication
EP 0285598 B1 19901031 (DE)

Application
EP 88890055 A 19880315

Priority
AT 69087 A 19870323

Abstract (en)
[origin: US4836171A] An injection-type internal combustion engine with cylinders arranged in line, with two overhead camshafts, and four valves and a central pump nozzle for each cylinder, and with detachable rocker arms being provided on the cylinder head above the respective camshaft, for actuating the pump nozzles. With this arrangement, the cams for the rocker arms actuating the pump nozzles are operated from the two camshafts in turn, i.e., the first camshaft actuates the pump of one cylinder and the second camshaft actuates that of the adjacent cylinder, each rocker arm being mounted separately. This will facilitate assembly and disassembly of the pump nozzle including the corresponding actuating mechanism and valve gear.

IPC 1-7
F01L 1/04; **F01L 1/18**; **F01L 1/26**

IPC 8 full level
F01L 1/053 (2006.01); **F01L 1/18** (2006.01); **F01L 1/26** (2006.01); **F02B 3/06** (2006.01); **F02F 1/24** (2006.01); **F02F 1/42** (2006.01); **F02F 7/00** (2006.01)

CPC (source: EP US)
F01L 1/053 (2013.01 - EP US); **F01L 1/18** (2013.01 - EP US); **F01L 1/26** (2013.01 - EP US); **F02B 3/06** (2013.01 - EP US); **F02B 2275/18** (2013.01 - EP US); **F02F 1/4214** (2013.01 - EP US); **F02F 7/006** (2013.01 - EP US); **F02F 2001/247** (2013.01 - EP US)

Citation (examination)
US 2024334 A 19351217 - HAROLD CAMINEZ

Cited by
DE102017118862A1; AT401408B; DE4215051A1; EP0487367A1; FR2669375A1; EP3842622A1

Designated contracting state (EPC)
DE ES FR GB

DOCDB simple family (publication)
EP 0285598 A1 19881005; **EP 0285598 B1 19901031**; AT 403944 B 19980625; AT A69087 A 19971115; DE 3860912 D1 19901206; ES 2003857 A4 19881201; ES 2003857 B3 19910501; US 4836171 A 19890606

DOCDB simple family (application)
EP 88890055 A 19880315; AT 69087 A 19870323; DE 3860912 T 19880315; ES 88890055 T 19880315; US 17143988 A 19880321