

Title (en)
FOUR-CYLINDER INTERNAL-COMBUSTION ENGINE

Publication
EP 0075659 B1 19860129 (DE)

Application
EP 82105814 A 19820630

Priority
DE 3138165 A 19810925

Abstract (en)
[origin: US4510898A] A reciprocating piston internal combustion engine equipped with a vibration-damping balancing shaft that is rotatably supported in a bearing housing which in turn is secured at the cylinder crankcase by means of a threaded connection; in order to support the rotational forces of the balancing shaft between bearing housing and cylinder housing without play, at least one of the bolts of the threaded connection includes a conically shaped neck that cooperates with a corresponding chamfering in the bearing housing.

IPC 1-7
F02B 67/04; **F16F 15/26**; **F16B 33/00**

IPC 8 full level
F02F 7/00 (2006.01); **F01L 1/04** (2006.01); **F02B 67/04** (2006.01); **F16B 33/00** (2006.01); **F16F 15/26** (2006.01); **F02B 75/18** (2006.01)

CPC (source: EP US)
F01L 1/04 (2013.01 - EP US); **F02B 67/04** (2013.01 - EP US); **F02B 2075/1816** (2013.01 - EP US)

Cited by
FR2619881A1; EP0402607A3; EP0255706A1; EP3686410A1

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

DOCDB simple family (publication)
EP 0075659 A2 19830406; **EP 0075659 A3 19830803**; **EP 0075659 B1 19860129**; DE 3138165 A1 19830414; DE 3268790 D1 19860313; JP S5868532 A 19830423; US 4510898 A 19850416

DOCDB simple family (application)
EP 82105814 A 19820630; DE 3138165 A 19810925; DE 3268790 T 19820630; JP 16518482 A 19820924; US 42437282 A 19820927