Title (en)

AIR-COOLED INTERNAL COMBUSTION ENGINE WITH A CRANKSHAFT WHICH ROTATES ABOUT A VERTICAL AXIS, ESPECIALLY A SINGLE CYLINDER DIESEL MOTOR

Title (de)

LUFTGEKÜHLTER VERBRENNUNGSMOTOR MIT UM EINE VERTIKALE ACHSE ROTIERENDER KURBELWELLE, INSBESONDERE EINZYLINDER-DIESELMOTOR

Title (fr)

MOTEUR A COMBUSTION INTERNE REFROIDI PAR AIR ET COMPRENANT UN VILEBREQUIN TOURNANT AUTOUR D'UN AXE VERTICAL, NOTAMMENT MOTEUR DIESEL A UN SEUL CYLINDRE

Publication

EP 1066456 A1 20010110 (DE)

Application

EP 99917899 A 19990329

Priority

- DE 19813624 A 19980327
- EP 9902126 W 19990329

Abstract (en)

[origin: DE19813624A1] The invention relates to an air-cooled internal combustion engine with a crankshaft which rotates about a vertical axis, especially a single cylinder diesel motor. Said internal combustion engine has an encapsulation which surrounds the cooling air channels. The flywheel is positioned at the top end of the crankshaft (1), said flywheel being combined with a radial blower (3). An air distribution housing (4) which is joined to the top front wall (2) of the crankcase forms the pressure chamber (5) of the radial blower (3). At least two sub-streams of cooling air branch off from said pressure chamber (5), a first sub-stream (L1) being guided through a housing encapsulation (21) which surrounds the cylinder (10) and the cylinder head (11) and a second sub-stream (L2) being guided in a lining (22) on the outside of the side wall (12) of the crankcase and the oil pan (13) facing the cylinder. Both sub-streams of cooling air (L1, L2) are collected on the downstream side and exit through a common air-extractor shaft.

IPC 1-7

F02B 75/16; F02B 75/00; F01P 5/06

IPC 8 full level

F02B 67/00 (2006.01); **F01P 5/06** (2006.01); **F02B 75/00** (2006.01); **F02B 75/16** (2006.01); F02B 3/06 (2006.01)

CPC (source: EP US)

F01P 5/06 (2013.01 - EP US); **F02B 75/007** (2013.01 - EP US); **F02B 75/16** (2013.01 - EP US); F02B 3/06 (2013.01 - EP US); F05C 2201/021 (2013.01 - EP US)

Citation (search report)

See references of WO 9950542A1

Designated contracting state (EPC)

DE GB IT

DOCDB simple family (publication)

DE 19813624 A1 19990930; **DE 19813624 B4 20041111**; DE 59903320 D1 20021212; EP 1066456 A1 20010110; EP 1066456 B1 20021106; JP 2002510012 A 20020402; JP 3556905 B2 20040825; US 6405690 B1 20020618; WO 9950542 A1 19991007

DOCDB simple family (application)

DE 19813624 A 19980327; DE 59903320 T 19990329; EP 9902126 W 19990329; EP 99917899 A 19990329; JP 2000541415 A 19990329; US 64726300 A 20001208