

Title (en)  
AIR-COOLED INTERNAL COMBUSTION ENGINE

Title (de)  
LUFTGEKÜHLTER VERBRENNUNGSMOTOR

Title (fr)  
MOTEUR À COMBUSTION INTERNE REFROIDI PAR AIR

Publication  
**EP 3499000 A1 20190619 (EN)**

Application  
**EP 17839373 A 20170804**

Priority  
• JP 2016157187 A 20160810  
• JP 2017028438 W 20170804

Abstract (en)  
Provided is an air-cooled internal combustion engine capable of thoroughly cooling a cylinder block and a cylinder head and capable of particularly efficiently cooling an extension portion of an exhaust pipe extending from the cylinder head where heat generation is intense. In the air-cooled internal combustion engine, a centrifugal cooling fan 56 is secured to one end of a crankshaft 21, and a cylinder block 23 and a cylinder head 24 are surrounded by a shroud 70. In the internal combustion engine, an exhaust-side cylinder side surface 23D of the cylinder block 23 is formed with a plurality of air-guiding cooling fins 82 arranged in parallel, with air-guiding grooves 83 formed between adjacent ones of the air-guiding cooling fins 82, the air-guiding grooves 83 each have a structure in which an inlet port 83i is opened in the direction toward a fan-side side edge 23Dr of the exhaust-side cylinder side surface 23D, while an outlet port 83e is opened in the direction toward the exhaust-side head side surface 24D, and each of the air-guiding grooves 83 communicates from the inlet port 83i to the outlet port 83e.

IPC 8 full level  
**F01P 1/02** (2006.01); **F01P 5/06** (2006.01); **F02F 1/00** (2006.01); **F02F 1/06** (2006.01)

CPC (source: EP)  
**F01P 1/02** (2013.01); **F01P 5/06** (2013.01); **F02F 1/065** (2013.01)

Designated contracting state (EPC)  
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**EP 3499000 A1 20190619**; **EP 3499000 A4 20190724**; CN 109563764 A 20190402; CN 109563764 B 20210601; JP 6639679 B2 20200205; JP WO2018030302 A1 20190613; WO 2018030302 A1 20180215

DOCDB simple family (application)  
**EP 17839373 A 20170804**; CN 201780047836 A 20170804; JP 2017028438 W 20170804; JP 2018533007 A 20170804