

Title (en)

PISTON WITH COOLING ARRANGEMENT

Title (de)

KOLBEN MIT ANORDNUNG ZUR KÜHLUNG

Title (fr)

PISTON AVEC DISPOSITIF DE REFROIDISSEMENT

Publication

EP 3301284 B1 20201125 (EN)

Application

EP 16191417 A 20160929

Priority

EP 16191417 A 20160929

Abstract (en)

[origin: EP3301284A1] A piston (1) for an engine (100) comprises a cooling arrangement that allows for an increased cooling efficiency of an outer peripheral wall (5) of a piston body (4) including a plurality of piston ring grooves (10, 12, 14). Lubricant is supplied to an outer plenum (22) formed adjacent to outer peripheral wall (5) via a cooling passage (26) that extends at an upwardly-inclined angle from a central plenum (28) towards the outer plenum (22). Lubricant that enters cooling passage (26) is imparted with a corresponding flow velocity component due to the upwardly-inclined orientation of cooling passage (26) prior to entering outer plenum (22) to flow along an inner surface of the same. A heat transfer between the lubricant and the inner surface of the outer plenum (22) is increased due to the resulting flow of lubricant.

IPC 8 full level

F02F 3/22 (2006.01); **F02F 3/00** (2006.01)

CPC (source: EP)

F02F 3/22 (2013.01); **F02F 3/0015** (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

DOCDB simple family (publication)

EP 3301284 A1 20180404; EP 3301284 B1 20201125

DOCDB simple family (application)

EP 16191417 A 20160929