

Title (en)

Jet for piston cooling with reduced inter-axle

Title (de)

Düse für Kolbenkühlung mit verminderter Zwischenachse

Title (fr)

Gicleur de refroidissement de piston à entre-axe réduit

Publication

EP 1529935 B1 20110601 (FR)

Application

EP 04356176 A 20041103

Priority

FR 0313248 A 20031104

Abstract (en)

[origin: EP1529935A1] The nozzle has a peripheral wall (1a) with thickness greater than or equal to diameter of a transversal hole (4), so that an end of a coolant outlet duct is fixed in the hole. The wall is thin due to the presence of an external recess (1d) opposite to a hole of a transversal fixing plate (6). A nozzle body and a fixing screw have a small axis distance between them which is sufficient to rotate a screwing tool on a screw head. The external recess is in a portion opposite to the hole, and permits to connect axes of the nozzle body and the fixing screw.

IPC 8 full level

F01P 3/08 (2006.01)

CPC (source: EP US)

F01P 3/08 (2013.01 - EP US)

Cited by

US9074516B2; US9476344B2

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

EP 1529935 A1 20050511; EP 1529935 B1 20110601; AT E511599 T1 20110615; AU 2004226948 A1 20050519; AU 2004226948 B2 20070510; BR PI0404650 A 20050621; CN 1287072 C 20061129; CN 1614206 A 20050511; FR 2861804 A1 20050506; FR 2861804 B1 20060120; US 2005098122 A1 20050512; US 7104225 B2 20060912

DOCDB simple family (application)

EP 04356176 A 20041103; AT 04356176 T 20041103; AU 2004226948 A 20041104; BR PI0404650 A 20041029; CN 200410086861 A 20041102; FR 0313248 A 20031104; US 98050004 A 20041103