

Title (en)

Nozzle for engine piston cooling

Title (de)

Spritzdüse zur Kühlung eines Kolbens einer Brennkraftmaschine

Title (fr)

Gicleur pour le refroidissement de piston de moteur

Publication

EP 1653060 A1 20060503 (DE)

Application

EP 05021250 A 20050929

Priority

DE 102004049174 A 20041008

Abstract (en)

A simple method for fitting an oil spray jet into a crankshaft housing in order to cool the underside of a piston has the shaped jet (10) secured into a bore (4) leading to an oil duct (22) for a main bearing. The spray jet end is secured by a clip (12) with a shaped tag (12b) locating into a blind hole (14) to prevent the jet from rotating. The other end of the jet insert (6) is secured in a widened recess (4a), opening into the oil duct, by a sprung split ring clipped into a retaining groove in the insert shaft.

IPC 8 full level

F01P 3/08 (2006.01); **F02F 3/22** (2006.01)

CPC (source: EP)

F01P 3/08 (2013.01); **F02F 3/22** (2013.01)

Citation (applicant)

- EP 0979931 B1 20040512 - CUMMINS ENGINE CO LTD [GB], et al
- EP 0785344 B1 20020904 - BONTAZ CENTRE SA [FR]

Citation (search report)

- [X] EP 0979931 A1 20000216 - CUMMINS ENGINE CO LTD [GB], et al
- [XA] US 4508065 A 19850402 - SUCHDEV JAGAN N [US]
- [AA] US 4995346 A 19910226 - HUDSON JR SHARON J [US]
- [A] US 2002139322 A1 20021003 - MURGLIN JOSEPH P [US]

Cited by

CN109404520A; US9976513B2

Designated contracting state (EPC)

DE FR GB IT

DOCDB simple family (publication)

EP 1653060 A1 20060503; EP 1653060 B1 20141217; DE 102004049174 A1 20060413; DE 102004049174 B4 20141113

DOCDB simple family (application)

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