

Title (en)

Intake valve device for preventing adhesion of deposits

Title (de)

Einlassventileinrichtung zur Verhinderung der Haftfestigkeit von Ablagerungen

Title (fr)

Soupape d'admission empêchant l'adhésion de dépôts

Publication

EP 0802307 A1 19971022 (EN)

Application

EP 96105692 A 19960411

Priority

EP 96105692 A 19960411

Abstract (en)

An intake valve in an internal combustion engine comprises a valve stem and a valve head and moves up and down. On either of contact surfaces between the valve stem and a valve guide, annular and elongate grooves are formed to communicate with an intake port at the lower end. Lubricating oil invaded into a gap between the valve stem and the valve guide goes down through the grooves, gets out of the valve guide and adhere onto the valve head in the intake port. The oil on the valve head is washed down by fuel injected from a fuel injector. <IMAGE>

IPC 1-7

F01L 3/04; **F01L 3/08**

IPC 8 full level

F01L 3/04 (2006.01); **F01L 3/08** (2006.01)

CPC (source: EP)

F01L 3/04 (2013.01); **F01L 3/08** (2013.01)

Citation (search report)

- [A] US 5465691 A 19951114 - CAPALDO RICHARD G [AU]
- [A] JP H07332038 A 19951219 - ARAI PUMP MFG
- [A] DE 3719077 A1 19881222 - DAIMLER BENZ AG [DE]
- [A] FR 2078676 A5 19711105 - CATERPILLAR TRACTOR CO
- [A] PATENT ABSTRACTS OF JAPAN vol. 9, no. 7 (M - 350) 12 January 1985 (1985-01-12)
- [AD] PATENT ABSTRACTS OF JAPAN vol. 18, no. 613 (M - 1709) 22 November 1994 (1994-11-22)
- [A] PATENT ABSTRACTS OF JAPAN vol. 17, no. 671 (M - 1525) 10 December 1993 (1993-12-10)

Cited by

EP1247947A3; DE10358729A1; DE19826865A1; DE19826865B4; US11143146B2; US10794334B2

Designated contracting state (EPC)

DE ES FR GB IT

DOCDB simple family (publication)

EP 0802307 A1 19971022; **EP 0802307 B1 19980708**; DE 69600412 D1 19980813; DE 69600412 T2 19981105; ES 2118655 T3 19980916

DOCDB simple family (application)

EP 96105692 A 19960411; DE 69600412 T 19960411; ES 96105692 T 19960411