

Publication

**EP 0654589 A3 19950628**

Application

**EP 95101503 A 19900713**

Priority

- EP 90113491 A 19900713
- JP 18189389 A 19890714

Abstract (en)

[origin: EP0408081A1] A lubrication arrangement for an engine and more particularly to an arrangement for lubricating the valve train of an engine. The valve train includes a cylinder head (24) that journals an intake (53) and an exhaust (63) camshaft through bearings formed in the cylinder head and the cam cover (47). Hydraulic lash adjusters (81-98) are associated with each of the camshafts and there are more intake adjusters than exhaust adjusters. An arrangement is provided for delivering lubricant to the lash adjusters and the camshaft journals which includes a passageway formed in the cam cover. Lubricant is delivered to the cylinder head in proximity to the intake adjusters so that the intake adjusters and the exhaust adjusters will receive lubricant at substantially the same pressure.

IPC 1-7

**F01M 9/10**; **F02F 1/24**; **F01L 1/26**

IPC 8 full level

**F01M 1/06** (2006.01); **F01L 1/053** (2006.01); **F01L 1/24** (2006.01); **F01L 1/26** (2006.01); **F01M 9/10** (2006.01)

CPC (source: EP)

**F01L 1/053** (2013.01); **F01L 1/2405** (2013.01); **F01L 1/265** (2013.01); **F01M 9/102** (2013.01); **F01L 2001/0537** (2013.01); **F02B 2275/18** (2013.01)

Citation (search report)

- [E] EP 0408080 A2 19910116 - YAMAHA MOTOR CO LTD [JP]
- [XP] GB 2224313 A 19900502 - FUJI HEAVY IND LTD [JP]
- [E] EP 0408079 A1 19910116 - YAMAHA MOTOR CO LTD [JP]
- [E] EP 0420139 A1 19910403 - MAZDA MOTOR [JP]
- [AP] GB 2216187 A 19891004 - NISSAN MOTOR [JP]
- [A] EP 0212981 A2 19870304 - HONDA MOTOR CO LTD [JP]
- [A] FR 2552820 A1 19850405 - HONDA MOTOR CO LTD [JP]
- [A] US 4709667 A 19871201 - ICHIHARA EIICHI [JP], et al

Cited by

CN109707526A; EP1722090A3; EP0854272A1; EP0890713A3; EP1006272A3; US6513506B1; US6672296B2

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**EP 0408081 A1 19910116**; **EP 0408081 B1 19951213**; DE 69024117 D1 19960125; DE 69024117 T2 19960509; DE 69031806 D1 19980122; DE 69031806 T2 19980507; EP 0654589 A2 19950524; EP 0654589 A3 19950628; EP 0654589 B1 19971210; JP 2829866 B2 19981202; JP H0347417 A 19910228

DOCDB simple family (application)

**EP 90113491 A 19900713**; DE 69024117 T 19900713; DE 69031806 T 19900713; EP 95101503 A 19900713; JP 18189389 A 19890714