

Title (en)

Rocker arm device for simultaneous control of valve lift and relative timing in a combustion engine

Title (de)

Schlepphebelanordnung für gleichzeitige Ventil-Hub und Winkelsteuerung in einer Brennkraftmaschine

Title (fr)

Culbuteur pour le contrôle simultané de la levée de soupape et de son calage dans un moteur à combustion interne

Publication

EP 0995885 A3 20000719 (EN)

Application

EP 99308287 A 19991020

Priority

IT MI982244 A 19981020

Abstract (en)

[origin: EP0995885A2] A valve control system including a valve actuating camshaft (A), having a high lift cam (B) and a low lift cam (C), and an outer rocker arm (2) engaging the high lift cam, and an inner rocker arm (3) engaging the low lift cam. The ends of the rocker arms adjacent the engine poppet valve (V) are fixed to each other by a connector pin (37). The system includes a latching mechanism disposed at the ends of the rocker arms opposite the connector pin (37). Latching of the rocker arms is accomplished by a compound pin (8) moved between latched (FIG. 14A) and unlatched (FIG. 14B) conditions in response to movement of an actuator (9). The system also includes a rocker ratio varying device, such that, during operation in the low lift mode, the lift can be gradually increased as the engine speed increases. <IMAGE>

IPC 1-7

F01L 13/00; F01L 1/18; F01L 1/24

IPC 8 full level

F01L 1/18 (2006.01); **F01L 1/24** (2006.01); **F01L 1/34** (2006.01); **F01L 13/00** (2006.01)

CPC (source: EP)

F01L 1/185 (2013.01); **F01L 1/2405** (2013.01); **F01L 13/0036** (2013.01); **F01L 13/0063** (2013.01); **F01L 2001/186** (2013.01); **F01L 2305/02** (2020.05); **F01L 2820/033** (2013.01)

Citation (search report)

- [XAY] DE 4136143 A1 19930506
- [YA] US 4768467 A 19880906 - YAMADA TAKEMASA [JP], et al
- [A] US 4768475 A 19880906 - IKEMURA MAKOTO [JP]
- [A] US 5655488 A 19970812 - HAMPTON KEITH [US], et al
- [A] DE 4220816 A1 19940105 - SCHAEFFLER WAEHLZLAGER KG [DE]

Cited by

EP1923546A4; CN112585337A; EP1533486A4; CN110023594A; DE10060890A1; DE10060890C2; US7779797B2; US8033260B2; US6752107B2; WO2017134062A1; WO2019008184A1; WO2009098047A1; US7431000B2; US11566544B2

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)

EP 0995885 A2 20000426; **EP 0995885 A3 20000719**; **EP 0995885 B1 20050112**; BR 9906075 A 20000905; DE 69923139 D1 20050217; DE 69923139 T2 20051229; IT 1302701 B1 20000929; IT MI982244 A0 19981020; IT MI982244 A1 20000420; JP 2000130132 A 20000509; JP 4541471 B2 20100908

DOCDB simple family (application)

EP 99308287 A 19991020; BR 9906075 A 19991020; DE 69923139 T 19991020; IT MI982244 A 19981020; JP 29850899 A 19991020