

Title (en)

Internal combustion engine with at least two over head cam shafts

Title (de)

Brennkraftmaschine mit zumindest zwei obenliegenden Nockenwellen

Title (fr)

Moteur à combustion interne avec au moins deux arbres à cames en tête

Publication

**EP 1249582 A3 20030108 (DE)**

Application

**EP 02006171 A 20020319**

Priority

DE 10118119 A 20010411

Abstract (en)

[origin: EP1249582A2] The internal combustion engine has at least 2 overhead camshafts (4,5), especially for inlet and exhaust valves. Holders (19,20) for control valves (15,16) are in the form of separate flange holders with an insertion bore on the cylinder head directly above the radial bearing for the camshaft. The control valves are arranged adjacent to each other with their cartridges facing away from each other and electromagnets (23,24) facing on a common axis.

IPC 1-7

**F01L 1/34**; **F01L 1/344**; **F02D 13/02**

IPC 8 full level

**F01L 1/34** (2006.01); **F01L 1/344** (2006.01); **F02D 13/02** (2006.01)

CPC (source: EP US)

**F01L 1/34** (2013.01 - EP US); **F01L 1/3442** (2013.01 - EP US); **F01L 2001/028** (2013.01 - EP US); **F01L 2001/0537** (2013.01 - EP US); **F01L 2001/34433** (2013.01 - EP US); **F01L 2001/34489** (2013.01 - EP US); **F02B 2275/18** (2013.01 - EP US)

Citation (search report)

- [A] EP 0808997 A1 19971126 - TOYOTA MOTOR CO LTD [JP]
- [A] DE 19816254 A1 19991014 - SCHAEFFLER WAEELZLAGER OHG [DE]
- [A] EP 0945598 A2 19990929 - YAMAHA MOTOR CO LTD [JP]
- [A] EP 1046793 A2 20001025 - FORD GLOBAL TECH INC [US]

Cited by

EP1865157A1; DE102010006414A1; US7395802B2

Designated contracting state (EPC)

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

DOCDB simple family (publication)

**EP 1249582 A2 20021016**; **EP 1249582 A3 20030108**; **EP 1249582 B1 20040218**; DE 10118119 A1 20021024; DE 10118119 C2 20031120; DE 50200246 D1 20040325; US 2002174842 A1 20021128; US 6505588 B2 20030114

DOCDB simple family (application)

**EP 02006171 A 20020319**; DE 10118119 A 20010411; DE 50200246 T 20020319; US 12096102 A 20020411