

Title (en)  
VALVE CONTROL FOR INTERNAL-COMBUSTION ENGINES

Publication  
**EP 0197914 B1 19880525 (DE)**

Application  
**EP 86890051 A 19860310**

Priority  
AT 79585 A 19850318

Abstract (en)  
[origin: EP0197914A1] 1. Valve control for internal combustion engines with at least one cylinder row, which includes four valves arranged mutually inclined for each cylinder, namely for each two inlet valves and two exhaust valves lying opposite to one another, wherein the planes determined by the axes of the opposed valves are rotated about the cylinder axes through an angle of 15-30 degrees with respect to the longitudinal centre plane of the internal combustion engine or to the transverse planes running through the cylinder axes, and in which there is provided for each a cam shaft on one side of the longitudinal centre plane of the internal combustion engine, which is arranged in the plane of the valves of like function operated thereby, characterised in that the valves (3, 4) arranged on each side of the longitudinal centre plane of the internal combustion engine have associated therewith on each side of this longitudinal centre plane two cam shafts (9, 10) operating them, in that each of the four cam shafts (9, 10) is arranged in one each of the valve rows (I, II, III, IV) formed by the valves (3, 4) of like function operated thereby and the planes formed by their valve stems (3', 4'), and in that the cams (11) of the cam shafts (9, 10) are conically formed and act on the cup tappets (7) operating the valves (3, 4).

IPC 1-7  
**F01L 1/26**

IPC 8 full level  
**F01L 1/26** (2006.01); **F02B 1/04** (2006.01); **F02F 1/24** (2006.01); **F02F 1/42** (2006.01)

CPC (source: EP)  
**F01L 1/262** (2013.01); **F02B 1/04** (2013.01); **F02B 2275/18** (2013.01); **F02F 1/4214** (2013.01); **F02F 2001/246** (2013.01)

Citation (examination)  
• AT 150188 B 19370710 - APFELBECK LUDWIG  
• AT 174503 B 19530410 - APFELBECK LUDWIG  
• DE 1243456 B 19670629 - PAUL ICKING  
• DE 1300578 B 19690807 - BAYERISCHE MOTOREN WERKE AG  
• GB 226442 A 19241224 - MONTAGUE STANLEY NAPIER, et al  
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Cited by  
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Designated contracting state (EPC)  
DE FR GB IT

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**EP 0197914 A1 19861015; EP 0197914 B1 19880525**; AT 399021 B 19950327; AT A79585 A 19940715; DE 3660224 D1 19880630

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