

Title (en)
Positive displacement pumps.

Title (de)
Verdrängerpumpen.

Title (fr)
Pompes à déplacement positif.

Publication
EP 0335535 A1 19891004 (EN)

Application
EP 89302633 A 19890317

Priority
GB 8807435 A 19880328

Abstract (en)
A pump comprises a casing (15) and a rotor (26) rotatably mounted on a pintle (24) fixed in the casing (15). The rotor (26) has four cylinder bores (32) angularly spaced by 90 DEG in which ball elements (33) are slidably and sealingly disposed. A cam track (35) formed in the casing (15) encircles the rotor (26) and causes the balls (33) to reciprocate as the rotor (26) rotates, and the inner ends of each cylinder bore (32) comes into communication alternately with inlet and outlet apertures (38, 40) in the pintle (24) to produce a flow of the working fluid. The profile of the cam track (35) is arranged so that the sum of the inward velocities of each two adjacent balls (33) during their delivery strokes is constant.

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F04B 1/10

IPC 8 full level
F04B 1/10 (2006.01); **F04B 1/04** (2006.01); **F04B 1/107** (2006.01); **F04B 1/113** (2006.01)

CPC (source: EP)
F04B 1/0413 (2013.01); **F04B 1/1071** (2013.01)

Citation (search report)
• [X] FR 1456704 A 19660708 - NAT RES DEV
• [Y] CH 390689 A 19650415 - HYDREL AG [CH]
• [Y] DE 2021651 A1 19711125 - TEVES GMBH ALFRED
• [A] FR 2368619 A1 19780519 - AUTOMOTIVE PROD CO LTD [GB]
• [A] DE 3628769 A1 19880310 - TEVES GMBH ALFRED [DE]

Cited by
GB2347718A; FR2702519A1; WO2010057484A3

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