

Title (en)
Large uniflow two-stroke diesel engine of the crosshead type

Title (de)
Großer Zweitakt-Kreuzkopfdieselmotor mit Gleichstromspülung

Title (fr)
Gros moteur diesel à deux temps à balayage continu et à crosse

Publication
EP 2071177 A1 20090617 (EN)

Application
EP 09002173 A 20060412

Priority
• EP 06742569 A 20060412
• EP 2006003367 W 20060412

Abstract (en)
A large uniflow two-stroke diesel engine of the crosshead type with a plurality of cylinders with at least one exhaust valve (11) per cylinder and one or more fuel injectors (23) per cylinder. The fuel injection is performed under the influence of a source of high pressure fluid. Potential energy is accumulated by compression in a volume (67) of the high pressure fluid. Electro-hydraulic (41) valves control the fuel injection that is primarily driven by energy accumulated in the volume (67) of high pressure. The engine has a camshaft (28) for actuation of the exhaust valves (11). Hydraulic piston pumps (37) are driven by the cams (29) on the camshaft. Hydraulic actuators (21) move the exhaust valves (11) in the opening direction with hydraulic fluid received via conduits (35) from the hydraulic piston pumps (37).

IPC 8 full level
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CPC (source: EP KR US)
F01L 1/38 (2013.01 - KR); **F01L 9/10** (2021.01 - EP); **F01L 9/11** (2021.01 - EP); **F01M 1/08** (2013.01 - EP); **F01M 11/02** (2013.01 - KR); **F02F 7/0007** (2013.01 - EP); **F02M 39/00** (2013.01 - EP US); **F02M 39/02** (2013.01 - EP); **F02M 41/047** (2013.01 - EP); **F02M 55/02** (2013.01 - KR); **F02M 55/025** (2013.01 - EP); **F02M 59/105** (2013.01 - EP US); **F02M 63/0007** (2013.01 - EP); **F02M 63/0047** (2013.01 - EP); **F02M 63/0225** (2013.01 - EP); **F02M 63/027** (2013.01 - EP); **F01L 1/08** (2013.01 - EP); **F01L 1/38** (2013.01 - EP); **F01L 2001/34446** (2013.01 - EP); **F01L 2305/00** (2020.05 - EP); **F01M 2011/022** (2013.01 - EP); **F02B 2075/025** (2013.01 - EP); **F02M 53/02** (2013.01 - EP); **F02M 2200/24** (2013.01 - EP); **F02M 2200/28** (2013.01 - EP)

Citation (applicant)
EP 0909883 A1 19990421 - WAERTSILAE NSD SCHWEIZ AG [CH]

Citation (search report)
• [YX] EP 0909883 A1 19990421 - WAERTSILAE NSD SCHWEIZ AG [CH]
• [Y] FR 2496170 A1 19820618 - SULZER AG [CH]
• [YA] JP S5920560 A 19840202 - YANMAR DIESEL ENGINE CO
• [YA] WO 2004013487 A1 20040212 - WAERTSILAE FINLAND OY [FI], et al
• [A] GB 1503096 A 19780308 - KARL MARX STADT AUTOMOBILBAU [DD]
• [A] JP H11241660 A 19990907 - ISUZU MOTORS LTD

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