Title (en)
Reciprocating pump

Title (de)
Kolbenpumpe

Title (fr)
Pompe à pistons

Publication
EP 2381107 B1 20121205 (EN)

Application
EP 11163605 A 20110422

Priority
IT PD20100126 A 20100422

Abstract (en)
[origin: EP2381107A1] Reciprocating pump (1), comprising: several heads (3) mounted on a pump body (2) and each comprising a shaped body (4) which defines one main chamber (5), a suction duct (6) and an outlet duct (7); a pumping member (8) movable inside the main chamber (5) for suctioning a fluid to be pumped into the main chamber (5) and discharge it from the latter. Furthermore, each head (3) comprises: a closing cover (10) fixed to the shaped body (4) and defining with the latter a secondary chamber (11) connected to the outlet duct (7) by means of at least one first opening (12) obtained on the shaped body (4); a sealing body (13), which is arranged inside the secondary chamber (11) and defines with the closing cover (10) a compensation chamber (14) insulated from the outlet duct (7). The sealing body (13) is movable between a first position approaching the closing cover (10), wherein it is pushed towards the closing cover (10) by the fluid which enters into the secondary chamber (11) through the outlet duct (7) by means of the first opening (12), when the pumping member (8) discharges the fluid from the main chamber (5), and a second position moving away from the closing cover (10), wherein the sealing body (13) discharges the fluid from the secondary chamber (11) through the first opening (12), when the pumping member (8) suctions another fluid into the main chamber (5) through the suction duct (6).

IPC 8 full level
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CPC (source: EP US)
F04B 43/02 (2013.01 - EP US); **F04B 53/007** (2013.01 - EP)

Cited by
EP4102069A1; CN108999775A; WO2022259177A1

Designated contracting state (EPC)
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