Title (en)
DOUBLE ACTING RECIPROCATING PISTON PUMP

Abstract (en)
[origin: US4818192A] PCT No. PCT/EP84/00093 Sec. 371 Date Nov. 30, 1984 Sec. 102(e) Date Nov. 30, 1984 PCT Filed Apr. 3, 1984 PCT Pub. No. WO84/03914 PCT Pub. Date Oct. 11, 1984.The invention concerns a reciprocating pump whose plunger (10) is connected with a plunger rod (12) that runs in a stuffing box (13) coordinated with the pump cylinder (9) cap and is reciprocated hydraulically, where the cylindrical walls of the pump cylinder (9) are provided, over their entire length, with flow-through openings for a cooling medium passing through them, and the flow-through openings in the cylindrical walls of the pump cylinder (9) are connected to a coolant circuit. To make such a pump safe to run dry, especially in pumping solid-laden fluids, and avoid burning of the packings (11, 13a) of plunger (10) and stuffing box (13) while preventing hydraulic fluid from proceeding into the pump cylinder (9), the invention suggests sealing the plunger (10) relative to the pump cylinder (9) through packings (11), providing the plunger rod (12) with flow-through openings (12c, 12d) for a medium to pass through, connecting the flow-through openings (12c, 12d) in the plunger rod (12) to a common hydraulic circuit (DIFFERENCE) , and using the medium for the hydraulic cylinder likewise as cooling medium.

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