

ABSTRACT

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POSITIVE DISPLACEMENT PUMP OR MOTOR

A central impeller (77) is sandwiched between fixed walls (19,23) and is driven through a circular path of small radius, but is prevented from rotating by a ring-shaped shuttle or slider (59) which surrounds and guides it. The shape of the impeller (77) and slider (59) are such that displacement chambers (87,89,91,93) are formed between them, which expand and contract as the impeller (77) follows its circular path and imparts a reciprocating motion to the slider (59). The two fixed walls (19,23) may contain suction and discharge ports (29,31) respectively, which are covered and uncovered by the impeller (77) and slider (59) as they perform their motions.

(Figure 3)