

Title (en)

Twin piston, commutator motor driven, high pressure pump for hydrocleaning equipment.

Title (de)

Hydraulischer Reiniger mit durch Kommutator betätigter Doppelkolben-Hochdruckpumpe.

Title (fr)

Pompe haute pression à deux pistons et moteur à commutation pour nettoyeur hydraulique.

Publication

EP 0484762 A1 19920513 (EN)

Application

EP 91118208 A 19911025

Priority

IT 2197590 A 19901106

Abstract (en)

The pump is driven by a high speed commutator type motor the shaft (24) of which is directly connected to a swash plate (30) which actuates two small ceramic pistons (34,36) set at 180 DEG . The by-pass valve (54) is housed between the two pistons. The springs of the input and output valves (50,52) are not housed within a retaining cage but located directly in the elongation of the bore in which reciprocate the pistons. Owing to the high rotational speed of the motor no delivery pressure drops occur thus obviating the need to foresee pressure accumulators. Overall, the pump is very compact and lightweight because of the type of motor adopted and the miniaturisation and optimisation of fundamental components. <IMAGE>

IPC 1-7

F04B 1/12; **F04B 1/14**; **F04B 17/00**; **F04B 49/00**

IPC 8 full level

F04B 1/12 (2006.01); **F04B 1/14** (2006.01); **F04B 17/03** (2006.01); **F04B 49/24** (2006.01)

CPC (source: EP)

F04B 1/124 (2013.01); **F04B 1/14** (2013.01); **F04B 17/03** (2013.01); **F04B 49/24** (2013.01)

Citation (search report)

- [Y] US 3954048 A 19760504 - HOUSER JOHN W
- [Y] EP 0221304 A1 19870513 - SIEMENS AG [DE]
- [A] WO 8400403 A1 19840202 - SAUDER KARL
- [A] EP 0149219 A2 19850724 - SPECK KOLBENPUMPEN FABRIK [DE]
- [A] FR 1201441 A 19591230 - RECH ETUDES PRODUCTION SARL
- [A] FR 2618187 A1 19890120 - GILARDINI SPA [IT]

Cited by

CN103527438A; EP0666419A3; US5554009A; EP0583779A1; US5380159A; US7938632B2; WO2006116343A3; WO2005061889A1

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