

Title (en)
SEAL FOR A PISTON-CYLINDER UNIT

Title (de)
DICHTUNGSANORDNUNG AN EINER KOLBEN-ZYLINDER-EINHEIT

Title (fr)
DISPOSITIF D'ETANCHEITE POUR UNITE PISTON-CYLINDRE

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Application
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Abstract (en)
[origin: US5826491A] PCT No. PCT/CH95/00259 Sec. 371 Date Jul. 10, 1996 Sec. 102(e) Date Jul. 10, 1996 PCT Filed Nov. 9, 1995 PCT Pub. No. WO96/15368 PCT Pub. Date May 23, 1996 The device comprises a cylinder (3) and a piston (7) which is guided free of contact relative to the cylinder (3). A gap seal (12) is provided between the lateral surfaces (15, 14) of the cylinder (3) and of the piston (7). The gap seal (12) has a very thin and uniform annular cross section. The lateral surfaces (14, 15) of the cylinder liner (4) and of the piston (7) are essentially smooth and comprise a material with a linear thermal coefficient of expansion which is lower relative to steel. The precise maintenance of the sealing gap and the central guidance of the piston (7) in the cylinder liner (4) is ensured through two guides (8, 9) connected rigidly with the housing (5). These guides (8, 9) are elastic in the direction of the central axis (2) of the piston-cylinder unit and highly rigid transversely to the central axis (2). The arrangement formed with the aid of these guides (8, 9) of a gap sealing between piston (7) and cylinder (3) with minimum gap is free of contact and no abrasion of sealing material develops wherein the motions of the piston (7) are guided precisely centrally to the cylinder (3).

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