Title (en)
  TORQUE MOTOR

Title (de)
  DREHMOTOR

Title (fr)
  MOTEUR-COUPLE

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Application
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Abstract (en)
  [origin: WO2007101679A1] The present invention relates to a torque motor comprising a long tubular housing, a piston (3), which is mounted in
  said housing in an axially displaceable manner and can be axially driven by being subjected to a pressure fluid in a pressure chamber, and at least
  one shaft (6) that is mounted in an axially fixed manner inside the housing and is configured so as to rotate about an axis of rotation. The piston
  comprises a recess at the shaft hole, thereby allowing the piston to be axially displaceable on the shaft. According to the invention, the shaft forms
  a camshaft whose rotating axis (7) is offset relative to the recess at the shaft hole. The shaft part that extends slidably through the respective recess
  at the shaft hole has a lever arm relative to the axis of rotation of the shaft, thereby converting the radial force produced by the axial displacement
  of the piston and the pitch of the helical engagement path between the shaft and the piston and/or between the piston and the housing during the
  engagement of shaft and piston into a rotational movement of the shaft relative to the housing (1) or vice versa. According to the invention, the
  recess at the shaft hole is arranged approximately in the center of the piston in relation to the piston cross-section, a rotational locking of the piston
  not being required.

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