

Title (en)
GEARED FLUID MACHINE

Title (de)
ZAHNRADFLUIDMASCHINE

Title (fr)
MACHINE FLUIDIQUE À ROUE DENTÉE

Publication
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Application
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Abstract (en)
[origin: WO2020127082A1] The invention relates to an internal gear fluid machine (1) having a housing (2), a ring gear (3) mounted rotatably about a ring gear rotation axis (5) in the housing (2), and a pinion (4) mounted rotatably about a pinion rotation axis (6) offset parallel to the ring gear rotation axis (5) in the ring gear (3). Viewed in cross-section, internal teeth (7) of the ring gear (3) mesh sealingly with external teeth (8) of the pinion (4) in an engagement region (9) fixed to the housing to form a first sealing point (10), and, to form a second sealing point (11), at least one tooth tip (12) of the internal teeth (7) bears sealingly against a tooth tip (13) of the external teeth (8), or both the tooth tip (12) of the internal teeth (7) and the tooth tip (13) of the external teeth (8) bear against a filler piece on opposing sides. Between the internal teeth (7) and the external teeth (8), there is a first fluid space (16) on one side of a pressure chord (14) which intersects the first sealing point (10) and the second sealing point (11), and a second fluid space (17) on the other side of the pressure chord (14). The ring gear (3) is mounted rotatably in a compensation ring (18) which is accommodated with play in the radial direction in a compensation ring holder (20) of the housing (2), the compensation ring (18) being held on the housing (2) such that it can pivot about a pivot axis into different pivot positions and being fixed in the circumferential direction inside the housing (2) by means of an anti-rotation means (25). According to the invention, the compensation ring (18) is assigned multiple support devices (21), which each form a tilting bearing for tilting the compensation ring (18) relative to the housing (2) about a tilting axis.

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