

Title (en)
ECCENTRIC SCREW PUMP

Title (de)
EXZENTERSCHNECKENPUMPE

Title (fr)
POMPE À VIS SANS FIN EXCENTRIQUE

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EP 3749861 B1 20220223 (DE)

Application
EP 19700342 A 20190107

Priority
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Abstract (en)
[origin: WO2019154571A1] The invention relates to a progressive cavity pump, comprising at least a stator (1), a rotor (2), which rotates in the stator, a drive (3) for the rotor, a pump housing (4), which is connected to the stator (1) and which has at least one inlet or outlet opening (6) for the medium to be pumped, a connection housing (14), which is arranged between the pump housing (4) and the drive (3) and which is open or is to be opened, a connection shaft (9), which is detachably connected to the drive (3) and which is at least partly arranged in the connection housing (14). The connection shaft (9) is sealed by means of a (preferably single-acting) slide ring seal (13) in order to separate the pump housing (4) liquid-tight from the surroundings or from the connection housing. The slide ring seal (13) has a seal housing (18), which is fastened to the pump housing (4) and/or the connection housing (14), a slide ring (19), which is fastened to the connection shaft (9) for conjoint rotation and rotates in the seal housing (18), and a stationary counter ring (20), which is fastened to the seal housing (18). The pump is characterized in that the seal housing (18) is designed as a divided seal housing and comprises a main housing (18a), which in the assembled state surrounds the slide ring (19) and is fastened to the pump housing (4) and/or the connection housing (14), and a housing cover (18b), which bears the counter ring (20) and is detachably fastened to the main housing (18a) and can be separated therefrom.

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Citation (opposition)
Opponent : ATLAS COPCO AIRPOWER, N.V.
• EP 3473856 A1 20190424 - CIRCOR PUMPS NORTH AMERICA LLC [US]
• DE 102007002644 A1 20080717 - AUMUELLER HERMANN [DE]
• WO 2009024279 A1 20090226 - SEEPEX GMBH [DE], et al
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• ANONYMOUS: "Eccentric Screw Pumps, Series AE1E, AE2E - Design ID", PRODUCT DATA SHEET, 1 March 2017 (2017-03-01), pages 1 - 14, XP093005002, Retrieved from the Internet <URL:https://service.allweiler.de/WebFolder/Produkte/Dokumentation/TU/PDF_ALL/GE_761_GB.PDF>
• SOLTEC: "Progressive Cavity Pump SOLTEC ® Mechanical Seal Replacement", YOUTUBE, 6 December 2016 (2016-12-06), XP093005008, Retrieved from the Internet <URL:https://www.youtube.com/watch?v=t22gXdlms18>
• PCM I KEEP IT MOVING - PROGRESSING CAVITY PUMPS: "PCM EcoMoineau™ C8 Pump - Rotor & Stator Maintenance - English", YOUTUBE, 4 November 2016 (2016-11-04), XP093005013, Retrieved from the Internet <URL:https://www.youtube.com/watch?v=cNKgikD89ns>

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