Title (en)

MULTIMEDIA ROTARY UNION AND METHOD FOR OPERATING SAME

Title (de)

MULTIMEDIENTAUGLICHE DREHDURCHFÜHRUNG UND VERFAHREN ZUM BETREIBEN EINER SOLCHEN

Title (fr)

RACCORD ROTATIF POUR MILIEUX MULTIPLES ET SON PROCÉDÉ DE FONCTIONNEMENT

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Application

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Abstract (en)

[origin: WO2022233652A1] The invention relates to a multimedia rotary union (10) for transferring various fluid media having different viscosities from a stationary machine part to a rotating machine part, comprising: a stationary housing part (12) for mounting into the stationary machine part and having a main media channel (20) into which fluid media can be introduced with the application of pressure; a rotor (16) for connection to the rotating machine part (18) and having a rotor fluid channel (17) which is fluidically connected to the main media channel (20) of the stationary housing part (12); a mechanical face seal (30) between the stationary housing part (12) and the rotor (16), the mechanical face seal (30) comprising a rotor sliding ring (38) rotating with the rotor (16) and a stator sliding ring (36), the stator sliding ring (36) or the rotor sliding ring (38) being fastened to an axially movable sliding ring carrier (34), whereby an axially movable sliding ring arrangement (32) is formed, the medium pressure in the rotary union (10) exerting a first axial force component (K1) onto the axially movable sliding ring arrangement (32), which then acts on the mechanical face seal (30); and a loading device (100) acting on the axially movable sliding ring arrangement (32), said loading device being activated by the medium pressure in the rotary union (10) when the medium pressure in the rotary union (10) exceeds a predefined threshold value (pS) and, when activated, exerting an additional, second axial force component (K2) onto the sliding ring arrangement (32) which controls the closing force of the mechanical face seal (30).

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