

Title (en)
ROTARY FEEDTHROUGH

Title (de)
DREHDURCHFÜHRUNG

Title (fr)
PASSAGE TRAVERSANT ROTATIF

Publication
EP 4334620 A1 20240313 (DE)

Application
EP 22725828 A 20220426

Priority

- DE 102021111690 A 20210505
- DE 102021111688 A 20210505
- DE 102021131994 A 20211203
- DE 102021131995 A 20211203
- EP 2022061116 W 20220426

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).

IPC 8 full level
F16L 27/08 (2006.01); **F16J 15/16** (2006.01); **F16J 15/34** (2006.01)

CPC (source: EP US)
F16J 15/3448 (2013.01 - EP US); **F16L 27/082** (2013.01 - EP US); **F16L 27/0828** (2013.01 - US); **F16L 39/04** (2013.01 - US); **F16L 27/0828** (2013.01 - EP)

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
WO 2022233652 A1 20221110; EP 4334619 A1 20240313; EP 4334620 A1 20240313; EP 4334621 A1 20240313; EP 4334622 A1 20240313; JP 2024516853 A 20240417; JP 2024516877 A 20240417; JP 2024516878 A 20240417; JP 2024516879 A 20240417; US 2024229993 A1 20240711; US 2024240736 A1 20240718; US 2024240737 A1 20240718; US 2024240738 A1 20240718; WO 2022233649 A1 20221110; WO 2022233650 A1 20221110; WO 2022233651 A1 20221110

DOCDB simple family (application)
EP 2022061118 W 20220426; EP 2022061115 W 20220426; EP 2022061116 W 20220426; EP 2022061117 W 20220426; EP 22725827 A 20220426; EP 22725828 A 20220426; EP 22725829 A 20220426; EP 22725830 A 20220426; JP 2023568294 A 20220426; JP 2023568614 A 20220426; JP 2023568615 A 20220426; JP 2023568616 A 20220426; US 202218559275 A 20220426; US 202218559279 A 20220426; US 202218559283 A 20220426; US 202218559285 A 20220426