

Title (en)

ROTARY PUMP FOR CONVEYING A FLUID

Title (de)

ROTATIONSPUMPE ZUM FÖRDERN EINES FLUIDS

Title (fr)

POMPE ROTATIVE POUR TRANSPORTER UN FLUIDE

Publication

EP 4001658 A1 20220525 (EN)

Application

EP 21203843 A 20211021

Priority

EP 20209460 A 20201124

Abstract (en)

A rotary pump for conveying a fluid is proposed, comprising a pump housing (2) with an inlet (3) for receiving the fluid having a suction pressure (SP) , and an outlet (4) for discharging the fluid having a discharge pressure (DP), further comprising an impeller (5) for conveying the fluid from the inlet (3) to the outlet (4) and for pressurizing the fluid from the suction pressure (SP) such, that the fluid is discharged with the discharge pressure (DP), and a shaft (6) for rotating the impeller (5) about an axial direction (A), wherein the impeller (5) is configured as an overhung impeller (5), wherein a pressure chamber (15) is arranged upstream of the impeller (5) between the inlet (3) and the impeller (5), wherein the pressure chamber (15) is delimited by a stationary part (18) and a rotary part (16), wherein the stationary part (18) is configured to be stationary with respect to the pump housing (2), wherein the rotary part (16) is fixedly connected to the shaft (6), wherein the stationary part (18) and the rotary part (16) are configured to overlap with respect to the axial direction (A), such that a relief passage (19) is provided between the rotary part (16) and the stationary part (18), wherein the relief passage (19) extends from the pressure chamber (15) to a low pressure location (17), and wherein at least one balance line (30) is provided, which is configured for supplying the fluid having the discharge pressure (DP) to the pressure chamber (15).

IPC 8 full level

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CPC (source: BR EP)

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Citation (search report)

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Designated contracting state (EPC)

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