

Title (en)

HYDRAULIC SEALING RING ON THE INLET OF THE IMPELLER IN SINGLE-STAGE AND MULTISTAGE PUMPS

Publication

EP 0257358 B1 19910710 (EN)

Application

EP 87111178 A 19870801

Priority

IT 3073386 U 19860808

Abstract (en)

[origin: EP0257358A2] The hydraulic sealing ring (1) on the inlet (5) of the impeller (6), particularly for single-stage and multistage pumps is made in a rubber-like material the inner face (3) whereof couples to the outer surface (4) of the inlet (5) of an impeller (6). The ring (1) has substantially radial openings which connect a shimming face to the outer one to allow a slight injection of liquid bled from the higher-pressure chamber in output from the impeller blades in the shimming region and to allow the creation and the maintainance of an extremely thin layer of liquid adapted to ensure a lubrication of the scraping surfaces with a reduced leakage towards the lower-pressure region at the input of the impeller (6) and to counterbalance the radial force which tends to press the ring around the inlet (5) of the impeller (6), said force being generated by the pressure of the liquid acting on the outer face (4) of said ring.

IPC 1-7

F04D 29/16

IPC 8 full level

F04D 29/16 (2006.01)

CPC (source: EP)

F04D 1/063 (2013.01); **F04D 29/167** (2013.01)

Cited by

GB2414768A; DE10260443A1; DE19607292A1; DE19607292C2; DE4330098A1; US2011123317A1; US8721263B2; EP3181909A1; WO2011117359A1; DE3939156A1; EP3460253A1; CN111033054A; JP2020535346A; US11236750B2; AU2018340335B2; WO2019063552A1

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