

Title (en)
ROTARY MACHINE AND METHOD FOR HEAT EXCHANGE IN A ROTARY MACHINE

Title (de)
ROTATIONSMASCHINE SOWIE VERFAHREN FÜR DEN WÄRMEAUSTAUSCH IN EINER ROTATIONSMASCHINE

Title (fr)
ROTATIVE ET PROCÉDÉ D'ÉCHANGE DE CHALEUR DANS UNE ROTATIVE

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Application
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Abstract (en)
[origin: WO2015124414A1] The invention relates to a rotary machine for conveying a fluid, comprising a drive unit (2) for driving a shaft (5), a running wheel (31) arranged on the shaft (5) for conveying the fluid, at least one mechanical gasket (6) for sealing the shaft (5); a first and a second heat exchange system (41, 42) for cooling or for heating the mechanical gasket (6), wherein the first heat exchange system (41) has a fluid heat carrier for directly impacting the mechanical gasket (6). The second heat exchange system (42) comprises a heat exchange jacket (421), through which a fluid heat carrier can flow without direct contact with the mechanical gasket (6). The first and the second heat exchange system (41; 42) form a common heat exchange system (40), in which a common fluid heat carrier can be circulated, and an impeller (44) for circulating the fluid heat carrier in the heat exchange system (40) is provided. The invention further relates to a method for the heat exchange in a rotary machine.

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WO 2013182528 A1 20131212 - ALSTOM TECHNOLOGY LTD [CH]

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• WO 2013182528 A1 20131212 - ALSTOM TECHNOLOGY LTD [CH]
• CH 536955 A 19730515 - FEODOR BURGMANN JR ASBEST UND [DE]
• US 2687096 A 19540824 - ARMACOST WILBUR H
• US 3467396 A 19690916 - HERSHEY LOWELL E
• CH 560341 A5 19750327 - SULZER AG
• DE 3136721 A1 19830331 - KLEIN SCHANZLIN & BECKER AG [DE]

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KR 20160124076 A 20161026; MX 2016010065 A 20161007; RU 2016125738 A 20180322; RU 2016125738 A3 20180918;
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