

Title (en)

VANE EXPANDER AND RELATED ENERGY RECOVERY CIRCUIT

Title (de)

SCHAUFEL-EXPANDER UND ZUGEHÖRIGE ENERGIERÜCKGEWINNUNGSSCHALTUNG

Title (fr)

DÉPLOYEUR D'AUBES ET CIRCUIT DE RÉCUPÉRATION D'ÉNERGIE ASSOCIÉ

Publication

**EP 3732351 A1 20201104 (EN)**

Application

**EP 18839733 A 20181228**

Priority

- IT 201700151144 A 20171229
- IB 2018060703 W 20181228

Abstract (en)

[origin: WO2019130268A1] A vane expander (1) comprising a stator (2) with an inlet port (16) and an outlet port (17) for an operating fluid, a rotor (3) eccentrically housed in the stator (2) and provided with a body (7) internally tangent to an inner wall (6) of the stator (2) and with a plurality of vanes (9) sliding in respective seats (10) provided in the body (7) of the rotor (3) and pushed in a centrifugal direction for cooperating in a sealed manner with the inner wall (6), the stator (2) and the body (7) of the rotor delimiting between each other a circumferential chamber (14) of varying radial width divided by the vanes (9) into a plurality of compartments (15) and communicating with the inlet (16) and outlet (17) ports; the expander (1) comprising an inlet (20, 22) for the introduction of a supplementary flow rate of operating fluid in the vapour state into an expansion portion (18) of the chamber (14) isolated from the inlet port (16) and from the outlet port (17).

IPC 8 full level

**F01C 1/344** (2006.01); **F01C 11/00** (2006.01); **F01C 21/06** (2006.01); **F04C 23/02** (2006.01); **F04C 29/00** (2006.01); **F25B 1/00** (2006.01); **F25B 27/00** (2006.01)

CPC (source: EP)

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Citation (search report)

See references of WO 2019130268A1

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