

Title (en)

A TURBINE WITH A SEAL ARRANGEMENT, ORC RANKINE CYCLE PLANT AND METHOD FOR CONFINING THE OPERATING FLUID

Title (de)

TURBINE MIT EINER DICHTUNGSANORDNUNG, ANLAGE MIT ORGANISCHEM RANKINE-PROZESS UND VERFAHREN ZUR EINSCHRÄNKUNG DER BETRIEBSFLÜSSIGKEIT

Title (fr)

TURBINE DOTÉE D'UN AGENCEMENT DE JOINT D'ÉTANCHÉITÉ, INSTALLATION À CYCLE DE RANKINE ORGANIQUE ET PROCÉDÉ DE CONFINEMENT DU FLUIDE FONCTIONNEL

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Application

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Abstract (en)

[origin: WO2016030847A1] A turbine (1) of an Organic Rankine Cycle ORC, comprising a shaft (4) supported by bearings (8) and a plurality of seals (10, 11) arranged around the shaft (4) for confining the operating fluid expanding in the turbine, is described. The seals are arranged so that to define and preserve the insulation of a first chamber (101), a second buffer chamber (102) and a third chamber (103). The first chamber (101) is between the expansion stages of the turbine and the buffer chamber (102), and the third chamber (103) is between the bearings (8) and the buffer chamber (102). A barrier fluid (302) is fed into the buffer chamber (102). Advantageously, the barrier fluid (302) is the same organic operating fluid fed to the turbine. An ORC Rankine cycle plant comprising said turbine as well as a method for confining an operating fluid in a turbine working in an Organic Rankine Cycle ORC is provided.

IPC 8 full level

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