

Title (en)
Heat transformation with repressurization

Title (de)
Wärmetransformation mit Rückverdichtung

Title (fr)
Transformation de chaleur avec représsurisation

Publication
EP 1270877 B1 20041222 (DE)

Application
EP 02013142 A 20020614

Priority
DE 10131072 A 20010627

Abstract (en)
[origin: DE10131072C1] Process for heat transformation comprises dividing a steam stream, especially a saturated steam stream, in a vortex device into a heated partial stream and a cooled partial stream. Condensation occurs in the cooled partial stream and after the pressure is increased the condensate absorbs the heat of the heated partial stream and evaporates. The steam after work output in a machine tool is recycled into the turbulent flow. A residual steam quantity consisting of the heated partial stream of the last vortex device (W3) and the spent steam of the last machine tool (T3) is compressed by a steam compressor (K) and fed to a vortex device (W). Preferred Features: The residual steam quantity is compressed to the starting value. Each transformation stage has a turbine (T1-T3).

IPC 1-7
F01K 7/22; **F01K 19/02**

IPC 8 full level
F01K 7/22 (2006.01); **F01K 19/02** (2006.01)

CPC (source: EP)
F01K 7/22 (2013.01); **F01K 19/02** (2013.01)

Cited by
CN105484810A

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)
EP 1270877 A1 20030102; **EP 1270877 B1 20041222**; AT E285511 T1 20050115; DE 10131072 C1 20021212; DE 50201822 D1 20050127; ES 2236395 T3 20050716

DOCDB simple family (application)
EP 02013142 A 20020614; AT 02013142 T 20020614; DE 10131072 A 20010627; DE 50201822 T 20020614; ES 02013142 T 20020614