

Title (en)

INTERNALLY COOLED STEAM TURBINE SHAFT AND METHOD FOR COOLING THE SAME

Title (de)

TURBINENWELLE EINER DAMPFTURBINE MIT INTERNER KÜHLUNG SOWIE VERFAHREN ZUR KÜHLUNG EINER TURBINENWELLE

Title (fr)

ARBRE DE TURBINE A VAPEUR AVEC REFROIDISSEMENT INTERNE ET PROCEDE POUR REFROIDIR UN ARBRE DE TURBINE

Publication

EP 0991850 A1 20000412 (DE)

Application

EP 98936164 A 19980615

Priority

- DE 9801618 W 19980615
- DE 19727406 A 19970627

Abstract (en)

[origin: WO9900583A1] The invention relates to a steam turbine shaft (1), especially a partial high pressure and medium pressure turbine (23,25). A cooling duct (5) is arranged on the inside (4) of the turbine shaft (1) to conduct cooling vapour (6). The cooling duct (5) is connected to a discharge duct (7) and a feed duct (8). Turbine shaft(1) vapour is cooled by supplying steam(6) from the high pressure turbine(23) via the feed duct (8) to the medium pressure turbine (25) through the discharge duct (7). The invention also relates to a method for cooling a steam turbine shaft (1).

IPC 1-7

F01D 5/08; **F01D 25/12**

IPC 8 full level

F01D 5/08 (2006.01); **F01D 25/12** (2006.01)

CPC (source: EP US)

F01D 5/081 (2013.01 - EP US); **F01D 5/085** (2013.01 - EP US); **F01D 25/125** (2013.01 - EP US); **F05D 2220/72** (2013.01 - EP US)

Citation (search report)

See references of WO 9900583A1

Cited by

EP1905949A1; EP1911933A1; US8128341B2; US7267525B2; WO2008043663A1

Designated contracting state (EPC)

AT CH DE ES FR GB IT LI PT SE

DOCDB simple family (publication)

WO 9900583 A1 19990107; AT E213305 T1 20020215; CN 1143945 C 20040331; CN 1261420 A 20000726; DE 59803075 D1 20020321; EP 0991850 A1 20000412; EP 0991850 B1 20020213; ES 2172905 T3 20021001; JP 2002508044 A 20020312; JP 4162724 B2 20081008; PT 991850 E 20020731; US 6227799 B1 20010508

DOCDB simple family (application)

DE 9801618 W 19980615; AT 98936164 T 19980615; CN 98806546 A 19980615; DE 59803075 T 19980615; EP 98936164 A 19980615; ES 98936164 T 19980615; JP 50520799 A 19980615; PT 98936164 T 19980615; US 47221899 A 19991227