

Title (en)

METHOD AND MODULE FOR A PREDICTED START-UP OF STEAM TURBINES

Title (de)

VERFAHREN UND MODUL ZUM VORRAUSSCHAUENDEN ANFAHREN VON DAMPFTURBINEN

Title (fr)

PROCEDE ET MODULE DE DEMARRAGE A PREDICTION DE TURBINES A VAPEUR

Publication

EP 1797284 A1 20070620 (DE)

Application

EP 05785118 A 20050908

Priority

- EP 2005009640 W 20050908
- DE 102004048171 A 20041002
- DE 102004058171 A 20041202

Abstract (en)

[origin: WO2006037417A1] The invention relates to a method and module for a predicted start-up of steam turbines in a turbine plant, by means of a module (1), whereby optimised time curves for the steam parameters at the entrance to the turbine and at the boiler exit are determined before and/or during the turbine start-up with regard to the permitted stress of the critical points of the metal of the turbine by means of a forecast module (10) integrated in the module (1). The stress on the critical points of the metal of the turbine is regulated to an optimally rising stress set value until the attainment of a permitted stress limit by means of the forecast model (10). The permitted stress is maintained under control by the forecast model (10) until the nominal steam temperature is reached, whereby the applied set parameters for the boiler and/or turbine control are the opening speed of the fresh steam control valve (Y<SB>HD</SB>) and the relief control valve (Y<SB>MD</SB>) and on reaching the maximum setting for the valves the speed of change of the steam parameter at the relevant turbine entrance is used as set parameter.

IPC 8 full level

F01K 7/00 (2006.01); **F01D 19/00** (2006.01); **F01D 19/02** (2006.01); **F01K 13/02** (2006.01); **F02C 7/26** (2006.01); **F02C 9/28** (2006.01)

CPC (source: EP)

F01D 19/02 (2013.01); **F01K 7/165** (2013.01)

Citation (search report)

See references of WO 2006037417A1

Cited by

CN103267684A; US11428115B2; EP3974620A1

Designated contracting state (EPC)

AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)

DE 102004058171 A1 20060406; AT E389097 T1 20080315; DE 502005003245 D1 20080424; DK 1797284 T3 20080714;
EP 1797284 A1 20070620; EP 1797284 B1 20080312; PL 1797284 T3 20080829; WO 2006037417 A1 20060413

DOCDB simple family (application)

DE 102004058171 A 20041202; AT 05785118 T 20050908; DE 502005003245 T 20050908; DK 05785118 T 20050908;
EP 05785118 A 20050908; EP 2005009640 W 20050908; PL 05785118 T 20050908