

Title (en)
METHOD FOR PREHEATING FEED WATER OF A STEAM GENERATOR OF A POWER PLANT, AND STEAM POWER PLANT FOR CARRYING OUT THE METHOD

Title (de)
VERFAHREN ZUR SPEISEWASSERVORWÄRMUNG EINES DAMPFERZEUGERS EINES KRAFTWERKS UND DAMPFKRAFTWERK ZUR DURCHFÜHRUNG DES VERFAHRENS

Title (fr)
PROCÉDÉ DE PRÉCHAUFFAGE D'EAU D'ALIMENTATION D'UNE CHAUDIÈRE À VAPEUR D'UNE CENTRALE ÉLECTRIQUE ET CENTRALE À VAPEUR POUR LA MISE EN OEUVRE DU PROCÉDÉ

Publication
EP 3365534 A1 20180829 (DE)

Application
EP 16785471 A 20161024

Priority
• DE 102015118098 A 20151023
• EP 2016075509 W 20161024

Abstract (en)
[origin: WO2017068176A1] The invention relates to a method for operating a steam power plant during a start-up and initiation phase of a steam generator (1, 1a) with a connected water/steam circuit (2). The steam generator (1, 1a) has a fresh steam generator (19) without an intermediate superheater or a fresh steam generator (19) with an intermediate superheater (21) connected downstream, and the water/steam circuit (2) comprises a high-pressure preheater (12) and a feed water container (10). At least one turbo set (3a, 3b) which comprises at least one turbine (3, 22) is arranged in the water/steam circuit (2). The high-pressure preheater (12) and the feed water container (10) of the water/steam circuit (2) are paired with an auxiliary steam rail (13) which supplies auxiliary steam to the water/steam circuit (2) at least during each start-up and initiation phase of the steam generator (1, 1a). The aim of the invention is to allow the thermal energy content of the generated steam to be better utilized for reintegrating heat into the water/steam circuit in order to preheat feed water when initiating the steam power plant which is used to generate power. This is achieved in that during the start-up and initiation phase of the steam power plant with a steam generator (1) without an intermediate superheater or with a steam generator (1a) with an intermediate superheater (21), fresh steam (4) or hot intermediate superheater steam (20) is generated from feed water conducted in the water/steam circuit (2) and supplied to a high-pressure preheater (12) or to the high-pressure preheater (12) and to the auxiliary steam rail (13) during the start-up and initiation phase, thereby utilizing the transmissible thermal energy content of the steam.

IPC 8 full level
F01K 7/08 (2006.01); **F01K 7/22** (2006.01); **F01K 7/38** (2006.01); **F01K 7/44** (2006.01); **F22D 1/28** (2006.01)

CPC (source: EP)
F01K 7/08 (2013.01); **F01K 7/22** (2013.01); **F01K 7/38** (2013.01); **F01K 7/44** (2013.01); **F22D 1/28** (2013.01)

Citation (search report)
See references of WO 2017068176A1

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA ME

DOCDB simple family (publication)
DE 102015118098 A1 20170427; DK 3365534 T3 20200316; EP 3365534 A1 20180829; EP 3365534 B1 20191211; ES 2764757 T3 20200604; PL 3365534 T3 20200601; WO 2017068176 A1 20170427

DOCDB simple family (application)
DE 102015118098 A 20151023; DK 16785471 T 20161024; EP 16785471 A 20161024; EP 2016075509 W 20161024; ES 16785471 T 20161024; PL 16785471 T 20161024