

Title (en)

WASTE HEAT RECOVERY INSTALLATION FOR UTILISING THERMAL ENERGY RECOVERED FROM EXHAUST GAS STREAMS FOR POWER GENERATION BY MEANS OF STEAM

Title (de)

ABWÄRMERÜCKGEWINNUNGSANLAGE ZUR NUTZUNG VON AUS ABGASSTRÖMEN RÜCKGEWONNENER WÄRMEENERGIE ZUR STROMERZEUGUNG MITTELS WASSERDAMPFS

Title (fr)

INSTALLATION DE RÉCUPÉRATION DE CHALEUR PERDUE POUR L'UTILISATION D'ÉNERGIE THERMIQUE RÉCUPÉRÉE À PARTIR DE FLUX DE GAZ D'ÉCHAPPEMENT POUR LA PRODUCTION D'ÉNERGIE AU MOYEN DE VAPEUR

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Application

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Abstract (en)

[origin: WO2021099597A1] In a waste heat recovery installation (9.1) for utilising thermal energy recovered from exhaust gas streams for power generation by means of steam in a steam power station the object is to create a solution by which the net efficiency of a waste heat recovery installation can be improved when thermal energy recovered from exhaust gas streams is utilised for power generation by means of steam in a steam power station. According to the invention, this is achieved in that the waste heat recovery installation (9.1) comprises at least two steam-generating heat exchangers (1, 5; 3, 6) through each of which two exhaust gas streams (10a, 10b) flow which are separated from one another, said heat exchangers being integrated on the steam side into a common water-steam circuit (15) of the steam power station. One of the two exhaust gas streams (10b) flows through at least one heat exchanger which is designed as a high-pressure heat exchanger (5) or as a medium-pressure heat exchanger or as a low-pressure heat exchanger (6), and the other one of the two exhaust gas streams (10a) flows through at least one heat exchanger which is designed as a high-pressure heat exchanger (1) and on the steam side is connected by a line to the high-pressure heat exchanger (5) through which one exhaust gas stream (10b) flows, or the heat exchanger is designed as a medium-pressure heat exchanger and on the steam side is connected by a line to the medium-pressure heat exchanger through which one exhaust gas stream (10b) flows, or the heat exchanger is designed as a low-pressure heat exchanger (3) and on the steam side is connected by a line to the low-pressure heat exchanger (6) through which one exhaust gas stream (10b) flows.

IPC 8 full level

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CPC (source: EP)

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