Title (en)

COOLING ARRANGEMENT AND METHOD FOR COOLING A COMPRESSED-AIR GENERATOR WITH AT LEAST TWO STAGES

Title (de)

KÜHLUNGSANORDNUNG UND VERFAHREN ZUR KÜHLUNG EINES MINDESTENS ZWEISTUFIGEN DRUCKLUFTERZEUGERS

Title (fr)

DISPOSITIF ET PROCÉDÉ DE REFROIDISSEMENT POUR REFROIDIR UN GENERATEUR D`AIR COMPRIME AVEC AU MOINS DEUX ETAGES

Publication

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Application

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Priority

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Abstract (en)

[origin: WO2020156942A1] The invention relates to a cooling arrangement for an at least two-stage compressed air generator (01). The cooling arrangement comprises an intercooler (04) which is located between a first and a second compressor stage (02, 03), an aftercooler (05) which is located downstream of the second compressor stage (03), and a component cooler (08) which receives heat from additional components of the compressed air generator (01). A coolant circuit comprises a main cooler (07), the cold side of which supplies a cooled coolant at a low temperature to the coolant inlet of the intercooler (04), to the coolant inlet of the aftercooler (05), and to the coolant inlet of the component cooler (08) in parallel, and the hot side of which receives, at a high temperature, the heated coolant which exits at the coolant outlet of the intercooler (04) and at the coolant outlet of the aftercooler (05) in parallel. The coolant outlet of the component cooler (08) is connected to a feed inlet (12) of the intercooler (04) and/or of the aftercooler (05). The feed inlet (12) is located between the coolant inlet and the coolant outlet at a position at which the intermediate temperature of the coolant in the intercooler (04) and in the aftercooler (05) corresponds to the outlet temperature of the coolant at the component cooler (08) ±20%. The invention also relates to a method for cooling an at least two-stage compressed air generator.

IPC 8 full level

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Citation (opposition)

Opponent : Atlas Copco Airpower,

- US 2018258952 A1 20180913 - MEEUSEN WIM [BE], et al
- CN 102777351 A 20121114 - CHANGQING SHEN
- US 2013067951 A1 20130321 - FUJIOKA TAMOTSU [JP], et al

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