Title (en)

GUIDE VANE ADJUSTMENT DEVICE AND TURBOMACHINE

Title (de)

LEITSCHAUFELVERSTELLVORRICHTUNG UND STRÖMUNGSMASCHINE

Title (fr)

DISPOSITIF DE RÉGLAGE D'AUBES DIRECTRICES ET TURBOMACHINE

Publication

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Application

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Abstract (en)

[origin: WO2016166191A2] The invention relates to a guide vane adjustment device for a turbomachine, namely for rotating a plurality of guide vanes, arranged in groups to give a vane ring, about a guide vane axis that runs in a radial direction of a rotor of the turbomachine. Said guide vane adjustment device comprises a driveshaft (26) to which a drive motor can be coupled and which can be driven by the drive motor; and a control ring (27) that transmits a rotation of the driveshaft (26) onto the guide vanes (21) of the vane ring (20) in order to rotate said guide vanes. The driveshaft (26) is directly coupled to one of the guide vanes (21) of the vane ring (20) such that said guide vane of the vane ring can be directly rotated without interposition of the control ring (27), starting from the driveshaft (26); The driveshaft (26) or the guide vane (21) that can be directly driven by the driveshaft (26) is coupled to the control ring (27) via a transmission lever (28) in an articulated manner. The driveshaft (26) is indirectly coupled to the other guide vanes (21) of the vane ring (20) such that the other guide vanes of the vane ring can be indirectly rotated with the interposition of the control ring (27), starting from the driveshaft (26). The guide vanes (21) that can be indirectly driven by the driveshaft (26) are coupled to the control ring (27) via additional transmission levers (29) in an articulated manner. The control ring (27) can be moved in the circumferential direction and in the axial direction so that forces on the coupling points between the control ring (27) and the transmission levers (28, 29) that are coupled to the control ring (27) in an articulated manner run perpendicular to the transmission levers (28, 29).

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