

Title (en)
VARIABLE GUIDE VANE ACTUATING DEVICE AND TURBOMACHINE

Title (de)
LEITSCHAUFELVERSTELLVORRICHTUNG UND STRÖMUNGSMASCHINE

Title (fr)
DISPOSITIF D'ACTIONNEMENT DES AUBES DE GUIDAGE VARIABLES ET TURBOMACHINE

Publication
EP 3283733 A1 20180221 (DE)

Application
EP 16712909 A 20160331

Priority
• DE 102015004649 A 20150415
• EP 2016057083 W 20160331

Abstract (en)
[origin: WO2016165950A1] The invention relates to a guide vane adjusting device for a turbomachine, namely for rotating multiple guide vanes grouped into a guide vane assembly about guide vane rotational axes of the guide vanes of the guide vane assembly, said rotational axes extending in the radial direction. The device comprises a driveshaft (38), to which a drive motor can be coupled and which can be driven via the drive motor, and a control ring (27), which transmits a rotation of the driveshaft (38) to the guide vanes (21) in order to rotate the guide vanes of the guide vane assembly (20). Each guide vane (21) has a front vane part (22) and a rear vane part (23), each of which can be rotated relative to each other about a common rotational axis, namely the respective guide vane rotational axis. The driveshaft (38) is directly coupled to one of the guide vanes (21) of the guide vane assembly (20) such that the vane parts (22, 23) of said guide vane (21) of the guide vane assembly can be directly rotated on the basis of the driveshaft (38) without the interposition of the control ring (27). The driveshaft (38) is indirectly coupled to the other guide vanes (21) of the guide vane assembly (20) such that the guide vane parts (22, 23) of the other guide vanes of the guide vane assembly can be rotated indirectly on the basis of the driveshaft (38) with the interposition of the control ring (27). A respective drive lever (28, 29) acts on a bearing pin (24) of the front vane part (22) and a bearing pin (25) of the rear vane part (23) of the guide vane (21), and the drive lever (28, 29) of the vane parts of each guide vane (21) are coupled together via a respective coupling device (30) such that the vane parts (22, 23) of each guide vane (21) can be rotated in a synchronized manner.

IPC 8 full level
F01D 9/04 (2006.01); **F01D 17/16** (2006.01)

CPC (source: CN EP KR RU US)
F01D 9/041 (2013.01 - RU US); **F01D 17/162** (2013.01 - CN EP KR RU US); **F05D 2260/57** (2013.01 - US)

Citation (search report)
See references of WO 2016165950A1

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 102015004649 A1 20161020; CN 107810311 A 20180316; CN 107810311 B 20200103; DK 3283733 T3 20190805; EP 3283733 A1 20180221; EP 3283733 B1 20190515; JP 2018511737 A 20180426; JP 6499314 B2 20190410; KR 101985130 B1 20190531; KR 20170135944 A 20171208; RU 2666260 C1 20180906; US 10400622 B2 20190903; US 2018119566 A1 20180503; WO 2016165950 A1 20161020

DOCDB simple family (application)
DE 102015004649 A 20150415; CN 201680035357 A 20160331; DK 16712909 T 20160331; EP 16712909 A 20160331; EP 2016057083 W 20160331; JP 2017553975 A 20160331; KR 20177032453 A 20160331; RU 2017139348 A 20160331; US 201615566508 A 20160331