

Title (en)

SYSTEM AND METHOD TO ALIGN VARIABLE DIFFUSER VANE WITH DIRECTION OF FLOW OF WORKING FLUID

Title (de)

SYSTEM UND VERFAHREN ZUM AUSRICHTEN EINER VARIABLEN DIFFUSORSCHAUFEL MIT DER STRÖMUNGSRICHTUNG EINER ARBEITSFLÜSSIGKEIT

Title (fr)

SYSTÈME ET PROCÉDÉ POUR ALIGNER UNE AUBE DE DIFFUSEUR À INCIDENCE VARIABLE SUR LA DIRECTION D'ÉCOULEMENT D'UN FLUIDE DE TRAVAIL

Publication

EP 2890897 A1 20150708 (EN)

Application

EP 13756234 A 20130820

Priority

- US 201213601822 A 20120831
- US 2013055738 W 20130820

Abstract (en)

[origin: WO2014035726A1] Embodiments of systems and methods permit use of variable diffuser vanes in multistage compressor devices. These embodiments deploy a flow sensor to identify the direction of flow for a working fluid that transits the stages of the compressor device. In one embodiment, the flow sensor generates a signal, which a controller processes to align a variable diffuser vane with the direction of flow of the working fluid. This configuration preempts the operational difficulties of previous designs by providing independent control over the diffuser vanes in the individual stages of the multi-stage compressor device.

IPC 8 full level

F04D 17/12 (2006.01); **F04D 27/02** (2006.01); **F04D 29/44** (2006.01); **F04D 29/46** (2006.01)

CPC (source: EP US)

F04D 17/12 (2013.01 - EP US); **F04D 27/0246** (2013.01 - EP US); **F04D 29/444** (2013.01 - EP US); **F04D 29/462** (2013.01 - EP US); **F05D 2250/52** (2013.01 - EP US); **G01P 13/02** (2013.01 - EP US)

Citation (search report)

See references of WO 2014035726A1

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)

WO 2014035726 A1 20140306; BR 112015004606 A2 20170704; CN 104919184 A 20150916; EP 2890897 A1 20150708; RU 2015107886 A 20161020; US 2014064921 A1 20140306

DOCDB simple family (application)

US 2013055738 W 20130820; BR 112015004606 A 20130820; CN 201380056540 A 20130820; EP 13756234 A 20130820; RU 2015107886 A 20130820; US 201213601822 A 20120831