

Title (en)  
TURBINE RING ASSEMBLY, ELASTICALLY RETAINED IN A COLD-STATE

Title (de)  
IN EINEM KALTZUSTAND ELASTISCH GEHALTENE TURBINENRINGANORDNUNG

Title (fr)  
ENSEMBLE D'ANNEAU DE TURBINE AVEC MAINTIEN ÉLASTIQUE A FROID.

Publication  
**EP 3390782 A2 20181024 (FR)**

Application  
**EP 16825829 A 20161212**

Priority  
• FR 1562745 A 20151218  
• FR 2016053343 W 20161212

Abstract (en)  
[origin: WO2017103411A2] A turbine ring assembly comprises a plurality of ring sectors (10) made of a ceramic matrix composite material, forming a turbine ring (1), and a ring support structure (3) having first and second annular flanges (32, 36), each ring sector having tabs (14, 16). The first tab (14) of each ring sector (10) has an annular groove (140) which receives an annular projection (34) of the first flange (32), a clearance (J1) being present in a cold state between the annular projection (34) and the annular groove (140). The second tab (16) of each ring sector (10) is connected to the ring support structure (3) via an elastic retaining element (50). The second tab (16) of each ring sector (10) comprises at least one opening (17) which receives a portion of a retaining element (40) rigidly connected with the second annular flange (36) of the ring support structure (3), a clearance (J2) being present in a cold state between the opening (17) of the second tab (16) and the portion of the retaining element (40) present in said opening, said retaining element being composed of a material with a greater coefficient of thermal expansion than the coefficient of thermal expansion of the ceramic matrix composite material forming the ring sectors.

IPC 8 full level  
**F01D 9/04** (2006.01); **F01D 11/08** (2006.01); **F01D 25/24** (2006.01)

CPC (source: EP US)  
**F01D 9/04** (2013.01 - EP US); **F01D 11/08** (2013.01 - EP US); **F01D 25/005** (2013.01 - US); **F01D 25/246** (2013.01 - EP US); **F05D 2220/32** (2013.01 - US); **F05D 2230/642** (2013.01 - EP US); **F05D 2240/11** (2013.01 - EP US); **F05D 2240/55** (2013.01 - US); **F05D 2250/75** (2013.01 - US); **F05D 2260/30** (2013.01 - US); **F05D 2300/50212** (2013.01 - US); **F05D 2300/6033** (2013.01 - EP US)

Citation (search report)  
See references of WO 2017103411A2

Cited by  
CN113195873A

Designated contracting state (EPC)  
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Designated extension state (EPC)  
BA ME

DOCDB simple family (publication)  
**WO 2017103411 A2 20170622; WO 2017103411 A3 20170810**; CN 109072705 A 20181221; CN 109072705 B 20210209; EP 3390782 A2 20181024; EP 3390782 B1 20191127; FR 3045716 A1 20170623; FR 3045716 B1 20180126; US 10378385 B2 20190813; US 2018363506 A1 20181220

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**FR 2016053343 W 20161212**; CN 201680080640 A 20161212; EP 16825829 A 20161212; FR 1562745 A 20151218; US 201616063019 A 20161212