

Title (en)
RADIAL COMPRESSOR STAGE

Title (de)
RADIALVERDICHTERSTUFE

Title (fr)
ÉTAGE DE COMPRESSEUR RADIAL

Publication
EP 2993357 A3 20160413 (DE)

Application
EP 15179255 A 20150731

Priority
DE 102014012765 A 20140902

Abstract (en)
[origin: US2016061219A1] A radial compressor stage includes an impeller with multiple impeller blades on the rotor side and a diffuser with multiple guide blades on the stator side positioned downstream of the impeller. Between the impeller and the stator an impeller side gap is formed. Flow inlet edges of the guide blades on the stator side lie on a first circle contour such that the flow inlet edges of all guide blades on the stator side have an identical spacing to the flow inlet edges of the respective adjacent guide blades. Flow outlet edges of the guide blades on the stator side lie on a second circle contour such that in at least one first circumferential position the flow outlet edge of the respective guide blade on the stator side has a spacing to the flow outlet edge of at least one adjacent guide blade other than in second circumferential positions.

IPC 8 full level
F04D 29/28 (2006.01); **F04D 29/44** (2006.01); **F04D 29/66** (2006.01)

CPC (source: EP RU US)
F04D 17/10 (2013.01 - US); **F04D 29/284** (2013.01 - US); **F04D 29/44** (2013.01 - RU); **F04D 29/444** (2013.01 - EP US);
F04D 29/666 (2013.01 - EP US); **F04D 29/668** (2013.01 - EP US)

Citation (search report)
• [XA] JP 2004100553 A 20040402 - MITSUBISHI HEAVY IND LTD
• [XI] DE 4126907 A1 19920312 - HITACHI LTD [JP]
• [IJ] WO 2009012990 A1 20090129 - CONTINENTAL AUTOMOTIVE GMBH [DE], et al
• [A] EP 2620651 A1 20130731 - MITSUBISHI HEAVY IND LTD [JP]
• [A] US 3006603 A 19611031 - CARUSO WILLIAM J, et al

Cited by
EP3650709A1

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)
EP 2993357 A2 20160309; EP 2993357 A3 20160413; EP 2993357 B1 20180221; CN 105387002 A 20160309; CN 105387002 B 20191025;
DE 102014012765 A1 20160303; JP 2016053363 A 20160414; JP 6716220 B2 20200701; NO 3191511 T3 20180217;
RU 2015137073 A 20170307; RU 2015137073 A3 20181029; RU 2691699 C2 20190617; US 2016061219 A1 20160303

DOCDB simple family (application)
EP 15179255 A 20150731; CN 201510553935 A 20150902; DE 102014012765 A 20140902; JP 2015170238 A 20150831;
NO 16798122 A 20161114; RU 2015137073 A 20150831; US 201514842567 A 20150901