

Title (en)
COMPRESSOR AND TURBOMACHINE WITH OPTIMIZED EFFICIENCY

Title (de)
VERDICHTER UND TURBOMASCHINE MIT OPTIMIERTER EFFIZIENZ

Title (fr)
COMPRESSEUR ET TURBOMACHINE A RENDEMENT OPTIMISE.

Publication
EP 2582985 A1 20130424 (FR)

Application
EP 11735463 A 20110609

Priority
• FR 1054826 A 20100617
• FR 2011051307 W 20110609

Abstract (en)
[origin: WO2011157927A1] Turbomachine compressor (10) comprising a casing (12) of which an inner wall defines an aerodynamic reference surface delimiting a gas flow duct, and in which there is mounted a bladed wheel (14) equipped with radial blades (18). A circumferential groove is formed in the inner wall of the casing. Its shape is defined from upstream to downstream by three substantially conical surfaces, an upstream surface, a central surface and a downstream surface, respectively. The upstream surface extends upstream of the leading edge of the blades. The central surface is substantially parallel to said aerodynamic reference surface. The downstream surface extends downstream at least as far as the trailing edge of the blades. The junction between the central and downstream surfaces is situated between 30% and 80%, preferably between 50 and 65%, of the axial length of the blades (18) starting from the leading edge.

IPC 8 full level
F04D 29/52 (2006.01); **F01D 5/14** (2006.01); **F01D 5/20** (2006.01); **F04D 29/68** (2006.01)

CPC (source: EP US)
F01D 5/143 (2013.01 - EP US); **F01D 5/145** (2013.01 - EP US); **F01D 5/20** (2013.01 - EP US); **F04D 19/00** (2013.01 - US); **F04D 29/522** (2013.01 - EP US); **F04D 29/526** (2013.01 - EP US); **F04D 29/545** (2013.01 - US); **F04D 29/547** (2013.01 - US); **F04D 29/68** (2013.01 - US); **F04D 29/681** (2013.01 - EP US); **F05D 2250/232** (2013.01 - EP US); **F05D 2250/314** (2013.01 - EP US); **F05D 2260/2212** (2013.01 - EP US)

Citation (search report)
See references of WO 2011157927A1

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

DOCDB simple family (publication)
WO 2011157927 A1 20111222; BR 112012030350 A2 20160809; BR 112012030350 B1 20201117; CA 2801221 A1 20111222; CA 2801221 C 20180904; CN 102947598 A 20130227; CN 102947598 B 20160504; EP 2582985 A1 20130424; EP 2582985 B1 20200715; FR 2961564 A1 20111223; FR 2961564 B1 20160304; JP 2013529740 A 20130722; JP 5882311 B2 20160309; RU 2013102076 A 20140727; RU 2568355 C2 20151120; US 2013156559 A1 20130620; US 9488179 B2 20161108

DOCDB simple family (application)
FR 2011051307 W 20110609; BR 112012030350 A 20110609; CA 2801221 A 20110609; CN 201180029982 A 20110609; EP 11735463 A 20110609; FR 1054826 A 20100617; JP 2013514758 A 20110609; RU 2013102076 A 20110609; US 201113703809 A 20110609