

Title (en)

BUCKET WHEEL OF A TURBOMACHINE

Title (de)

SCHAUFELRAD EINER STRÖMUNGSMASCHINE

Title (fr)

ROUE À AUBES D'UNE TURBOMACHINE

Publication

EP 3940200 B1 20240313 (DE)

Application

EP 21195914 A 20190809

Priority

- DE 102018119704 A 20180814
- EP 19190987 A 20190809

Abstract (en)

[origin: US2020056486A1] A blade wheel of a turbomachine, which blade wheel has a multiplicity of blades which are suitable and provided for extending radially in a flow path of the turbomachine, wherein the blades form a blade entry angle and a blade exit angle. Provision is made whereby the blade wheel forms N blocks of blades, where $N \geq 2$, wherein the blades of a block have in each case the same blade entry angle and the same blade exit angle, and the blades of at least two mutually adjacent blocks have a different blade entry angle and/or a different blade exit angle. According to a further aspect of the invention, partial gaps that the blades form in relation to an adjacent flow path boundary are varied in mutually adjacent blocks.

IPC 8 full level

F01D 5/14 (2006.01); **F01D 5/16** (2006.01); **F01D 17/16** (2006.01); **F04D 29/32** (2006.01); **F04D 29/54** (2006.01); **F04D 29/56** (2006.01);
F04D 29/66 (2006.01)

CPC (source: EP US)

F01D 5/141 (2013.01 - EP US); **F01D 5/16** (2013.01 - EP); **F01D 9/041** (2013.01 - US); **F01D 17/162** (2013.01 - EP); **F04D 29/324** (2013.01 - EP);
F04D 29/544 (2013.01 - EP); **F04D 29/563** (2013.01 - EP); **F04D 29/666** (2013.01 - EP); **F04D 29/668** (2013.01 - EP); **F01D 17/16** (2013.01 - US);
F01D 17/162 (2013.01 - US); **F01D 17/167** (2013.01 - US); **F05D 2240/10** (2013.01 - US); **F05D 2240/125** (2013.01 - EP US);
F05D 2240/24 (2013.01 - US); **F05D 2250/38** (2013.01 - US); **F05D 2250/73** (2013.01 - EP); **F05D 2250/90** (2013.01 - EP);
F05D 2260/70 (2013.01 - EP); **F05D 2260/961** (2013.01 - EP); **F05D 2270/101** (2013.01 - EP)

Cited by

EP4286649A1; US11939886B2; US12017782B2

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)

EP 3611387 A2 20200219; **EP 3611387 A3 20200506**; **EP 3611387 B1 20211006**; DE 102018119704 A1 20200220;
EP 3940200 A1 20220119; EP 3940200 B1 20240313; US 11105207 B2 20210831; US 11391169 B2 20220719; US 2020056486 A1 20200220;
US 2021340875 A1 20211104

DOCDB simple family (application)

EP 19190987 A 20190809; DE 102018119704 A 20180814; EP 21195914 A 20190809; US 201916539688 A 20190813;
US 202117376632 A 20210715