

Title (en)  
Tilted turbine blade root configuration

Title (de)  
Geneigte Turbinenschaufelfußkonfiguration

Title (fr)  
Configuration de pied d'aube de turbine inclinée

Publication  
**EP 2204542 A3 20130403 (EN)**

Application  
**EP 09178822 A 20091211**

Priority  
US 34630108 A 20081230

Abstract (en)  
[origin: EP2204542A2] A rotor blade (120), (126) for use in a turbine engine, the rotor blade (120), (126) comprising a root (138) and, extending in a radial direction from the root (138), an airfoil (136), wherein the root (138) includes at least one root aligned surface (178) that is tilted. Tilted may comprise a non-radial orientation. The root aligned surfaces (178) may comprise the surfaces along the root (138) that are configured to align with and be relatively closely spaced from or in contact with the root aligned surfaces (178) of the root (138) of a neighboring rotor blade (120), (126). The rotor blade (120), (126) may comprise at least two root aligned surfaces (178), one of which resides on a pressure side (143) of the rotor blade (120), (126) and the other of which resides on a suction side (144) of the rotor blade (120), (126). The root aligned surfaces (178) may be tilted.

IPC 8 full level  
**F01D 5/30** (2006.01)

CPC (source: EP KR US)  
**F01D 5/14** (2013.01 - KR); **F01D 5/30** (2013.01 - KR); **F01D 5/3007** (2013.01 - EP US); **F01D 5/34** (2013.01 - KR);  
**F05D 2240/80** (2013.01 - EP US)

Citation (search report)  
• [XA] US 5160242 A 19921103 - BROWN WILMOTT G [US]  
• [XY] US 5183389 A 19930202 - GILCHRIST ALAN R [US], et al  
• [XAY] JP H04123302 U 19921109  
• [XA] DE 1953709 A1 19700430 - ELIN UNION AG  
• [XA] US 3545882 A 19701208 - WILLIAMSON DOUGLAS HERBERT  
• [X] GB 2139295 A 19841107 - KAIVOLA TUOMO  
• [XA] JP S5493702 A 19790725 - KAWASAKI HEAVY IND LTD  
• [X] US 2006222501 A1 20061005 - NOGAMI SHUHEI [JP], et al

Cited by  
FR3045709A1; FR3107551A1; WO2017209752A1

Designated contracting state (EPC)  
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 SE SI SK SM TR

Designated extension state (EPC)  
AL BA RS

DOCDB simple family (publication)  
**EP 2204542 A2 20100707; EP 2204542 A3 20130403; CN 101793168 A 20100804; KR 20100080451 A 20100708; US 2010166561 A1 20100701**

DOCDB simple family (application)  
**EP 09178822 A 20091211; CN 200910266646 A 20091229; KR 20090133235 A 20091229; US 34630108 A 20081230**