

Title (en)
ANGLED TIP RODS

Title (de)
STÄBE MIT ABGEWINKELTER SPITZE

Title (fr)
TIGES À POINTE INCLINÉE

Publication
EP 4166760 A1 20230419 (EN)

Application
EP 22200953 A 20221011

Priority
US 202117498551 A 20211011

Abstract (en)
A core is provided for fabricating a blade to include an airfoil (220). The airfoil (220) includes pressure and suction surfaces (221, 222), leading and trailing edges (223, 224) extending along the pressure and suction surfaces (221, 222) and a tip shelf (225) with a first sweep configuration (701) and a wall (226, 310). The core includes channel sections configured to form internal channels (702) within the airfoil (220) by casting processes and tip rods extending from respective portions of the channel sections proximate to a tip shelf (225) location. The respective portions of the channel sections have a second sweep configuration (430) corresponding to the first sweep configuration (701). The tip rods are configured to extend through the wall (226, 310) at an angle of about 5-12 degrees inclusive relative to a normal angle of the wall (226, 310) during the casting processes to form through-holes angled at about 5-12 degrees inclusive in the wall (226, 310).

IPC 8 full level
F01D 5/20 (2006.01); **F01D 5/18** (2006.01)

CPC (source: EP)
F01D 5/187 (2013.01); **F01D 5/20** (2013.01); **F05D 2230/10** (2013.01); **F05D 2230/21** (2013.01); **F05D 2240/307** (2013.01)

Citation (search report)
• [XYI] EP 3808941 A1 20210421 - RAYTHEON TECH CORP [US]
• [Y] US 2021154729 A1 20210527 - CASTLE LEA DYNNETTE [US]
• [A] US 2018340426 A1 20181129 - MONGILLO DOMINIC J [US], et al

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 ME MK MT NL NO PL PT RO RS SE SI SK SM TR

Designated extension state (EPC)
BA

Designated validation state (EPC)
KH MA MD TN

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