Title (en)

METHOD OF MIXING COMBUSTION REACTANTS FOR COMBUSTION IN A GAS TURBINE ENGINE

Title (de)

VERFAHREN ZUR MISCHUNG VON VERBRENNUNGSREAKTANTEN FÜR DIE VERBRENNUNG IN EINEM GASTURBINENMOTOR

Title (fr)

MÉTHODE POUR MÉLANGER DES RÉACTIFS DE COMBUSTION POUR LA COMBUSTION DANS UN MOTEUR DE TURBINE À GAZ

Publication

EP 2748443 A1 20140702 (EN)

Application

EP 11871108 A 20110822

Priority

US 2011048622 W 20110822

Abstract (en)

[origin: WO2013028169A1] A combustion device used in gas turbine engines to produce propulsion or rotate a shaft for power generation includes a can-annular combustor with a system of fuel and air inlet passages and nozzles that results in an optimal combustion environment of premixed fuel and air. The fuel-air inlets are placed at various longitudinal locations and circumferentially distributed, and direct the flow tangentially or nearly tangent to the can liner. The combustion device provides effective mixing of fuel and air, creates an environment for combustion that reduces pollutant emissions, reduces the need for costly pollution control devices, enhances ignition and flame stability, reduces piloting issues, and improves vibration reduction.

IPC 8 full level

F02C 3/00 (2006.01); **F23R 3/34** (2006.01); **F23R 3/42** (2006.01); **F23R 3/58** (2006.01)

CPC (source: EP RU)

F23R 3/346 (2013.01 - EP); **F23R 3/425** (2013.01 - EP); **F23R 3/58** (2013.01 - EP); F23R 3/28 (2013.01 - RU); F23R 3/30 (2013.01 - RU); F23R 3/46 (2013.01 - RU)

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 2013028169 A1 20130228; **WO 2013028169 A8 20140417**; CN 104053883 A 20140917; CN 104053883 B 20170215; EP 2748443 A1 20140702; EP 2748443 A4 20150527; EP 2748443 B1 20190424; JP 2014526030 A 20141002; JP 6086371 B2 20170301; KR 101774094 B1 20170904; KR 20140082659 A 20140702; PL 2748443 T3 20190930; RU 2014110631 A 20150927; RU 2619673 C2 20170517

DOCDB simple family (application)

US 2011048622 W 20110822; CN 201180073014 A 20110822; EP 11871108 A 20110822; JP 2014527127 A 20110822; KR 20147007519 A 20110822; PL 11871108 T 20110822; RU 2014110631 A 20110822