

Title (en)

TANGENTIAL ANNULAR COMBUSTOR WITH PREMIXED FUEL AND AIR FOR USE ON GAS TURBINE ENGINES

Title (de)

TANGENTIALE RINGFÖRMIGE VERBRENNUNGSEINHEIT MIT VORGEMISCHTEM BRENNSTOFF ZUR VERWENDUNG IN GASTURBINENMOTOREN

Title (fr)

CHAMBRE DE COMBUSTION ANNULAIRE TANGENTIELLE COMPRENANT UN PRÉMÉLANGE D'AIR ET DE CARBURANT DESTINÉE À ÊTRE UTILISÉE DANS DES MOTEURS À TURBINE À GAZ

Publication

EP 2748533 A2 20140702 (EN)

Application

EP 11871342 A 20110822

Priority

US 2011048595 W 20110822

Abstract (en)

[origin: WO2013028164A2] A combustion device used in gas turbine engines to produce propulsion or rotate a shaft for power generation includes an annular combustor with a system of fuel and air inlet passages and nozzles that results in a staged combustion of premixed fuel and air. The fuel and air inlets are placed at various longitudinal locations circumferentially, and can take on different configurations where all nozzles inject a fuel-air mixture or some may inject only air. The combustion device provides an optimal mixing of fuel and air, creates an environment for combustion that reduces pollutant emissions reducing the need for costly pollution control devices, enhances ignition and flame stability, reduces piloting issues, allows increased fuel flexibility, decreases the required size of the first stage nozzle guide vane (NGV), and improves vibration reduction.

IPC 8 full level

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