

Title (en)  
COMBUSTION CHAMBER/VENTURI COOLING FOR A LOW NOX EMISSION COMBUSTOR

Title (de)  
VERBRENNUNGSRAUM/VENTUR-KÜHLUNG FÜR BRENNRAUM MIT GERINGER STICKOXIDEMISSION

Title (fr)  
REFROIDISSEMENT DE CHAMBRE DE COMBUSTION/VENTURI POUR DISPOSITIF DE COMBUSTION A FAIBLE EMISSION DE NOX

Publication  
**EP 1461520 A1 20040929 (EN)**

Application  
**EP 01275164 A 20011130**

Priority  
US 0145097 W 20011130

Abstract (en)  
[origin: CA2468646A1] A method and apparatus for providing air cooling to the venturi (11) and the combustion chamber (13) in a low NOx emission combustor (10) as used in a gas turbine engine that includes providing an annular air passage (14) surrounding the combustion chamber/venturi near the aft portion of the combustion chamber (13) passing the air along the combustion chamber (13), past the venturi (11) where the air exits (28) near the front portion of the convergent area of the venturi (11). The cooling air is heated as it passes over the combustion chamber (13) and the venturi (11) and then it is directed back into the pre-mix chamber (12) thereby improving the efficiency of the combustor (10) while lowering the NOx emission in the combustion process.

IPC 1-7  
**F02C 1/00**; **F02G 3/00**

IPC 8 full level  
**F23R 3/18** (2006.01); **F02C 1/00** (2006.01); **F02G 3/00** (2006.01); **F23R 3/28** (2006.01); **F23R 3/32** (2006.01)

CPC (source: EP KR)  
**F02C 1/00** (2013.01 - KR); **F02G 3/00** (2013.01 - KR); **F23R 3/005** (2013.01 - EP); **F23R 3/06** (2013.01 - EP); **F23R 3/286** (2013.01 - EP)

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)  
AU 2002219991 A1 20031117; BR 0117192 A 20041109; BR 0117192 B1 20101214; CA 2468646 A1 20031113; CA 2468646 C 20090929; CN 100368664 C 20080213; CN 1582365 A 20050216; EP 1461520 A1 20040929; EP 1461520 A4 20100414; JP 2005520120 A 20050707; JP 4121998 B2 20080723; KR 100831772 B1 20080527; KR 20040058351 A 20040703; MX PA04005182 A 20050217

DOCDB simple family (application)  
AU 2002219991 A 20011130; BR 0117192 A 20011130; CA 2468646 A 20011130; CN 01823940 A 20011130; EP 01275164 A 20011130; JP 2004501791 A 20011130; KR 20047008187 A 20011130; MX PA04005182 A 20011130