

Title (en)  
FUEL INJECTION ASSEMBLY FOR GAS TURBINE ENGINE COMBUSTOR

Title (de)  
BRENNSTOFFEINSPRITZVORRICHTUNG FÜR EINE GASTURBINENBRENNKAMMER

Title (fr)  
ENSEMBLE D'INJECTION DE COMBUSTIBLE POUR CHAMBRE A COMBUSTION DE TURBINE A GAZ

Publication  
**EP 1046010 A1 20001025 (EN)**

Application  
**EP 99970455 A 19990929**

Priority  

- US 9922661 W 19990929
- US 10364998 P 19981009
- US 39855899 A 19990917

Abstract (en)  
[origin: WO0022347A1] A fuel injection assembly (174) for a gas turbine engine combustor, including at least one fuel stem (186), a plurality of concentrically disposed tubes (192, 194, 196) positioned within each fuel stem, wherein a cooling supply flow passage (198), a cooling return flow passage (200), and a tip fuel flow passage (202) are defined thereby, and at least one fuel tip assembly (190) connected to each fuel stem (186) so as to be in flow communication with the flow passages, wherein an active cooling circuit for each fuel stem (186) and fuel tip assembly (190) is maintained by providing all active fuel through the cooling supply flow passage (198) and the cooling return flow passage (200) during each stage of combustor operation. The fuel flowing through the active cooling circuit is then collected so that a predetermined portion thereof is provided to the tip fuel flow passage (202) for injection by the fuel tip assembly (190).

IPC 1-7  
**F23D 11/36; F23D 11/40**

IPC 8 full level  
**F02C 7/16** (2006.01); **F23D 11/12** (2006.01); **F23D 11/36** (2006.01); **F23D 11/40** (2006.01); **F23R 3/28** (2006.01)

CPC (source: EP)  
**F23D 11/36** (2013.01); **F23D 11/402** (2013.01); **F23R 3/28** (2013.01); **F23R 3/286** (2013.01); **F23D 2206/10** (2013.01)

Citation (search report)  
See references of WO 0022347A1

Designated contracting state (EPC)  
DE FR GB IT

DOCDB simple family (publication)  
**WO 0022347 A1 20000420**; DE 69932318 D1 20060824; DE 69932318 T2 20070705; EP 1046010 A1 20001025; EP 1046010 B1 20060712; JP 2002527708 A 20020827; JP 4323723 B2 20090902

DOCDB simple family (application)  
**US 9922661 W 19990929**; DE 69932318 T 19990929; EP 99970455 A 19990929; JP 2000576213 A 19990929