

Title (en)

Aeromechanical injection system with non-return primary swirler

Title (de)

Aeromechanisches Einspritzsystem mit Primärverwirbelungs- und Rückschlagvorrichtung

Title (fr)

Système d'injection aéromécanique à vrille primaire anti-retour

Publication

**EP 1278012 A3 20031119 (FR)**

Application

**EP 02291767 A 20020712**

Priority

FR 0109456 A 20010716

Abstract (en)

[origin: US2003010034A1] An injection system for a turbomachine combustion chamber, the system comprising a fuel injection nozzle for vaporizing fuel in the combustion chamber and a mixer/deflector assembly coaxial with the injection nozzle and serving to mix fuel and oxidizer and to diffuse the mixture in the combustion chamber, said mixer/deflector assembly comprising a primary swirler and a secondary swirler disposed at a determined distance apart from each other in the axial direction and separated by a Venturi device disposed coaxially with the injection nozzle, the primary swirler being fixed securely to the injection nozzle and being spaced apart therefrom by a constant radial distance which is determined in such a manner that the fuel vaporized by the injection nozzle can under no circumstances impact on the primary swirler. The Venturi device preferably has an inside surface that presents an upstream portion with a slope discontinuity P.

IPC 1-7

**F23R 3/14**

IPC 8 full level

**F23R 3/14** (2006.01); **F23R 3/28** (2006.01)

CPC (source: EP US)

**F23R 3/14** (2013.01 - EP US); **F23R 3/286** (2013.01 - EP US)

Citation (search report)

- [XY] EP 0469899 A1 19920205 - GEN ELECTRIC [US]
- [XY] FR 2246734 A1 19750502 - GEN ELECTRIC [US]
- [X] US 5966937 A 19991019 - GRAVES CHARLES B [US]

Cited by

EP1873456A1; FR2903170A1; EP1873457A1; FR2903173A1; EP1488086A4; US7908865B2; US7861529B2

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DOCDB simple family (publication)

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