

Title (en)

Fuel injector for gas turbine combustion chamber

Title (de)

Einspritzdüse für die Brennkammer einer Gasturbine

Title (fr)

Ensemble d'injection de carburant pour chambre de combustion de turbines à gaz

Publication

EP 0727615 A1 19960821 (FR)

Application

EP 96400310 A 19960215

Priority

FR 9501706 A 19950215

Abstract (en)

The assembly consists of an injector (27) discharging into a pre-vaporisation chamber (21). At least two pre-vaporisation ducts (19) connect the chamber to inlet ports (20) of pre-mixing chambers (12) leading to the combustion chamber (6). The pre-vaporisation chamber (21) has inlets (30) for a pressurised pre-vaporisation fuel, and each of the mixing chambers has an inlet (18,24,32,34,36) for fuel under dilution pressure. The cross-section of the fuel pre-vaporisation inlets (30) and the pressure of the pre-vaporisation fuel are such that the pre-vaporised mixture has a richness greater than that of a stoichiometric mixture. The section of the dilution fuel inlets and the pressure of this fuel are such that the mixture contained in each pre-mixing chamber has a richness below that of the stoichiometric mixture. The pre-vaporisation ducts (19) are connected in parallel with the pre-vaporisation chamber, with a diaphragm (25) between them, and the injector has a protective cap (28) with apertures.

Abstract (fr)

L'invention est relative à un ensemble d'injection de carburant comprenant un injecteur (27) débouchant dans une chambre de prévaporisation (21) et deux conduits de prévaporisation (19) raccordés à ladite chambre, qu'ils relient à deux orifices d'admission (20) dans des chambres de prémélange (12), la chambre de prévaporisation (21) étant munie d'orifices d'admission (30) de carburant et chaque chambre de prémélange (12) étant munie d'un dispositif d'admission (24-32,34-36) d'un comburant de dilution. <IMAGE>

IPC 1-7

F23R 3/32; **F23R 3/28**

IPC 8 full level

F23R 3/28 (2006.01); **F23R 3/32** (2006.01)

CPC (source: EP US)

F23R 3/286 (2013.01 - EP US); **F23R 3/32** (2013.01 - EP US)

Citation (search report)

- [A] US 2949012 A 19600816 - MICHEL FERRIE FRANCK GUILLAUME, et al
- [A] FR 2695713 A1 19940318 - SNECMA [FR]
- [A] FR 2691235 A1 19931119 - SNECMA [FR]
- [A] US 2628475 A 19530217 - HEATH DONALD P
- [A] US 5133192 A 19920728 - OVERTON DENNIS L [GB], et al
- [AD] FR 1590542 A 19700413
- [A] US 4351156 A 19820928 - WHITE DAVID J, et al

Cited by

EP0893650A3

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

EP 0727615 A1 19960821; FR 2730555 A1 19960814; FR 2730555 B1 19970314; US 5651252 A 19970729

DOCDB simple family (application)

EP 96400310 A 19960215; FR 9501706 A 19950215; US 60144696 A 19960214