

Title (en)

Injection system for air-fuel mixture in a combustion chamber

Title (de)

Einspritzsystem für Luft/Brennstoff-Gemisch in einer Brennkammer

Title (fr)

Système d'injection d'un mélange air carburant dans une chambre de combustion

Publication

EP 1342955 A1 20030910 (FR)

Application

EP 03290428 A 20030221

Priority

FR 0202875 A 20020307

Abstract (en)

The system for injection of an air/fuel mixture into the combustion chamber of a gas turbine engine includes a fuel injectors which are specifically placed with regard to air injectors. The fuel injector positions ensure that the fuel is injected in a direction perpendicular to air flow. This allows various operating modes for use at different speeds. The system for injection of an air/fuel mixture into the combustion chamber of a gas turbine engine includes a fuel injector situated between first (22) and second (24) air injectors. This is placed in the internal cavity of a venture (26), and includes a first fuel admission circuit (32) and a second fuel admission circuit (34). These are independent and enable a number of different modes of injection of the fuel and air. At least one orifice of the first circuit is formed in a front wall (28) of the venture, in order to inject the fuel in a direction perpendicular to the flow of air from the first air injector. A further orifice (38) in the second circuit is formed in a wall upstream of the venture, in order to inject fuel in a direction perpendicular to the flow of air from the second air injector.

Abstract (fr)

Système d'injection (12) d'un mélange air/carburant dans une chambre de combustion d'un moteur à turbine à gaz, comportant des moyens d'injection de carburant interposés entre des premiers (22) et seconds moyens d'injection d'air (24), disposés dans une cavité interne d'un venturi (26), et comportant au moins un premier circuit d'admission de carburant (32), et une pluralité de seconds circuits d'admission de carburant (34) indépendants des premiers de façon à définir une pluralité de modes indépendants d'injection du mélange air/carburant, au moins un orifice (36) du premier circuit étant pratiqué dans une paroi amont (28) du venturi afin d'injecter du carburant selon une direction perpendiculaire à un flux d'air issu des premiers moyens d'injection d'air, et au moins un orifice (38) du second circuit étant pratiqué dans une paroi aval (30) du venturi afin d'injecter du carburant selon une direction perpendiculaire à un flux d'air issu des seconds moyens d'injection d'air. <IMAGE>

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IPC 8 full level

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Citation (search report)

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