

Title (en)

GASTURBINE COMBUSTION CHAMBER AND METHOD OF OPERATION THEREOF.

Title (de)

GASTURBINENBRENNKAMMER UND DEREN ARBEITSWEISE.

Title (fr)

CHAMBRE DE COMBUSTION POUR MOTEUR A TURBINE A GAZ ET MODE DE FONCTIONNEMENT DE LADITE CHAMBRE.

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Application

EP 91918884 A 19910926

Priority

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Abstract (en)

[origin: WO9207221A1] A gas turbine engine combustion chamber (36) which has staged combustion to reduce nitrous oxides comprises a first radial flow swirler (70) and a second radial flow swirler (74) which supply primary air into a first fuel and air mixing zone (64). A pilot injector (86) only supplies fuel to be burnt into the mixing zone (64) at low power levels. At high power levels primary fuel injectors (88) inject fuel into the passages (72, 80) formed between the vanes (70, 74) of the first and second swirlers so that fuel and air mixture flows into the first fuel and air mixing zone (64) to be burnt. Simultaneously secondary fuel injectors (104) inject fuel into an annular secondary fuel and air mixing zone (94) which surrounds the first mixing zone (64). Fuel and air from the second mixing zone (94) flow through apertures (106) into the combustion chamber (36) downstream of the first mixing zone (64) and the additional fuel is burnt in the zone (112).

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CPC (source: EP)

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