

Title (en)
Gas turbine combustor

Title (de)
Gasturbinenbrennkammer

Title (fr)
Chambre de combustion de turbine à gaz

Publication
EP 2735798 B1 20200729 (EN)

Application
EP 12194055 A 20121123

Priority
EP 12194055 A 20121123

Abstract (en)
[origin: EP2735798A1] A gas turbine combustor (1) includes a combustion cylinder (2) and a premixing tube (3). A protruding wall (7) of the premixing tube has an inner diameter enlarging portion (10) with a chamfer (11) at its open end. A swirl flow in the premixing tube is guided outward along the chamfer (11), and the cross-section area of a straight flow in the premixing tube is expanded to lower the flow velocity, which shortens the distance between a flame in the combustion cylinder and the inner diameter enlarging portion (lift distance). When using the fuel with high heat radiation upon combustion, the inner diameter enlarging portion is replaced with the one having a smaller chamfer. The cross-section area of the straight flow is reduced to increase the flow velocity, making the lift distance long. This prevents damage to the combustion cylinder owing to the intensified heat radiation. The flame lift position retained in the combustion cylinder may be easily set and changed.

IPC 8 full level
F23R 3/16 (2006.01); **F23R 3/28** (2006.01); **F23R 3/46** (2006.01)

CPC (source: EP)
F23R 3/16 (2013.01); **F23R 3/286** (2013.01); **F23R 3/46** (2013.01)

Citation (examination)
• EP 2685161 A1 20140115 - ALSTOM TECHNOLOGY LTD [CH]
• US 2004255589 A1 20041223 - YOSHIDA SHOUHEI [JP], et al

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