Title (en)

ANNULAR WALL OF A COMBUSTION CHAMBER WITH IMPROVED COOLING AT THE PRIMARY AND/OR DILUTION HOLES

Title (de)

RINGFÖRMIGE BRENNKAMMERWAND MIT VERBESSERTER KÜHLUNG AN DEN PRIMÄR- UND/ODER VERDÜNNUNGSLUFTLÖCHERN

Title (fr)

PAROI ANNULAIRE DE CHAMBRE DE COMBUSTION À REFROIDISSEMENT AMÉLIORÉ AU NIVEAU DES TROUS PRIMAIRES ET/OU DE DILUTION

Publication

EP 2771618 A2 20140903 (FR)

Application

EP 12790620 A 20121025

Priority

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Abstract (en)

[origin: WO2013060987A2] An annular wall of a combustion chamber (10) of a turbo engine, comprising a cold side (16a, 18a) and a hot side (16b, 18b), a plurality of primary and dilution holes (30) distributed in a circumferential row to allow air circulating on the cold side (16a, 18a) of the annular wall to penetrate into the hot side (16b, 18b) in order provide the dilution of an air/fuel mixture; and a plurality of cooling holes (32) to allow air circulating on the cold side (16a, 18a) of the annular wall to penetrate into the hot side (16b, 18b) in order to form a film of cooling air along the annular wall, the cooling holes being distributed in a plurality of circumferential rows spaced axially apart from one another, and the geometrical axes of each of the cooling holes being inclined, in an axial direction of flow D of the combustion gases, by an angle of inclination Theta1 relative to a normal N of the annular wall; the wall further comprising a plurality of additional cooling holes (34) arranged directly downstream from the dilution holes and distributed in a plurality of circumferential rows spaced axially apart from one another, the geometrical axes of each of the additional cooling holes being arranged in a plane perpendicular to said axial direction D and inclined by an angle of inclination Theta2 relative to a normal N of said annular wall.

IPC 8 full level

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CPC (source: EP US)

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