

Title (en)

Process for combustion of liquid fuel in a burner.

Title (de)

Verfahren für die Verbrennung von flüssigem Brennstoff in einem Brenner.

Title (fr)

Procédé pour la combustion de combustible liquide dans un brûleur.

Publication

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Application

**EP 88120667 A 19881210**

Priority

CH 498087 A 19871221

Abstract (en)

In the premix combustion of liquid fuel in a burner without premixing section, there is formed in the interior (14) of the burner a conical liquid fuel column (5) which widens in the direction of flow and which is surrounded by a rotating combustion air flow (15) which flows tangentially into the burner. Ignition of the mixture takes place at the outlet of the burner, a backflow zone (6) being formed in the region of the burner mouth. The burner itself consists of at least two hollow part cone members (1, 2) positioned on one another, which have a cone inclination which increases in the direction of flow. The part cone members (1, 2) are staggered in relation to one another, as a result of which tangential air inlet slots (19, 20) are formed. A nozzle (3) placed on the burner head ensures the injection of the liquid fuel (12) into the interior (14) of the burner. <IMAGE>

Abstract (de)

Bei der vormischartigen Verbrennung von flüssigem Brennstoff in einem Brenner ohne Vormischstrecke wird im Innenraum (14) des Brenners eine in Strömungsrichtung sich ausbreitende kegelförmige Flüssigbrennstoffsäule (5) gebildet, welche von einem tangential in den Brenner einströmenden rotierenden Verbrennungsluftstrom (15) umschlossen wird. Die Zündung des Gemisches findet am Ausgang des Brenners statt, wobei sich im Bereich der Brennermündung eine Rückströmzone (6) bildet. Der Brenner selbst besteht aus mindestens zwei aufeinander positionierten hohlen Teilkegelkörpern (1, 2), welche in Strömungsrichtung eine zunehmende Kegelneigung aufweisen. Die Teilkegelkörper (1, 2) sind zueinander versetzt, wodurch sich tangentielle Lufteintrittsschlitze (19, 20) bilden. Eine am Brennerkopf platzierte Düse (3) sorgt für die Eindüsung des flüssigen Brennstoffes (12) in den Innenraum (14) des Brenners.

IPC 1-7

**F23D 11/40; F23D 17/00; F23R 3/02**

IPC 8 full level

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CPC (source: EP KR US)

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