

Title (en)  
Burner.

Title (de)  
Brenner.

Title (fr)  
Brûleur.

Publication  
**EP 0348646 B1 19940223 (DE)**

Application  
**EP 89108576 A 19890512**

Priority  
DE 3822004 A 19880630

Abstract (en)  
[origin: JPH0237206A] PURPOSE: To contrive to allow only combustion gas to flow back into a suction- back region, by a method wherein a guiding shield of a burner guides fluid of a mixture of expanding air for combustion and combustion gas and directs flames toward the center of a combustion chamber, thereby the flames are prohibited to reverse toward the suction-back region. CONSTITUTION: A guiding shield 20 forms a cone, thereby only directing flames toward a lengthwise axis of a combustion chamber 5. Secondary air passing through an air pipe 4 and the guiding shield 20 and being fluidized produces an injection action inside the guiding shield 20, thereby sucking combustion gas out from the combustion chamber 5. The combustion gas passes through a ring space 27 and is supplied to a starting part of the flames between a primary air-feeding part (through an air pipe 4) and a secondary air-feeding part (through a hollow space 23). An outside gas lance 14 is projectingly provided inside the ring space 27, and flammable gas originating therefrom is mixed with returned combustion gas to reduce a specific heating value. As a result, formation of nitrogen oxides is prohibited, and the injection action is strengthened at the same time.

IPC 1-7  
**F23D 17/00**; **F23C 9/00**

IPC 8 full level  
**F23C 9/00** (2006.01); **F23C 99/00** (2006.01); **F23D 14/84** (2006.01); **F23D 17/00** (2006.01)

CPC (source: EP US)  
**F23C 9/006** (2013.01 - EP US); **F23D 17/002** (2013.01 - EP US)

Cited by  
EP0527565A3; DE19654732C2; CN112728535A; EP0893651A1; FR2766557A1; EP0978685A1; FR2782150A1; EP0675321A1; FR2718222A1; EP1074790A1; FR2797321A1; EP0809070A1

Designated contracting state (EPC)  
AT BE CH DE FR GB IT LI NL SE

DOCDB simple family (publication)  
**EP 0348646 A2 19900103**; **EP 0348646 A3 19910703**; **EP 0348646 B1 19940223**; AT E101911 T1 19940315; DE 3822004 A1 19900104; DE 58907023 D1 19940331; JP H0237206 A 19900207; US 4979894 A 19901225

DOCDB simple family (application)  
**EP 89108576 A 19890512**; AT 89108576 T 19890512; DE 3822004 A 19880630; DE 58907023 T 19890512; JP 14500889 A 19890607; US 37398889 A 19890629