

Title (en)
PREMIX TYPE MULTIPORT BURNER

Publication
EP 0355953 B1 19920304 (EN)

Application
EP 89305507 A 19890601

Priority
GB 8813026 A 19880602

Abstract (en)
[origin: JPH0229507A] PURPOSE: To protect the surface around a port against damage due to heating and to protect a burner against damage due to backfire by making one or more specified port at a multiport burner smaller in area than the remaining ports and providing means for detecting the presence of a flame within a specified port. CONSTITUTION: Outlet wall 1 of a burner is made of a slotted plate of ceramic, or the like wherein each slot 2 forms outlet of fuel and air having identical bore area. An aperture restrictor 4 is set in a recess adjacent to the upstream end 3 of a port 2' and the bore area is smaller than that of the remaining ports 2'. A thermocouple probe 5 extends into the port 2' through the restrictor 4 and the forward end 6 of the probe 5 terminates at a distance about 6 times as long as the bore diameter of the restrictor from the upstream end 3. At the time of normal combustion, no signal is delivered from the probe 5 and a valve 8 is opened by a control box 7. When the ratio of air in a fuel/air mixture decreases and the combustion face begins to be heated, retraction of flame (light back) takes place in the port 2' and the probe 5 is heated by the flame in the port 2' to provide the control box 7 with a signal for closing the fuel valve 8 thus protecting the burner.

IPC 1-7
F23D 14/72; F23N 5/10

IPC 8 full level
F23N 5/10 (2006.01); **F23N 5/24** (2006.01)

CPC (source: EP)
F23N 5/107 (2013.01); **F23N 5/242** (2013.01); **F23N 2225/16** (2020.01); **F23N 2231/28** (2020.01); **F23N 2235/12** (2020.01)

Cited by
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DOCDB simple family (publication)
GB 2219388 A 19891206; GB 2219388 B 19920429; GB 8813026 D0 19880706; DE 68900918 D1 19920409; EP 0355953 A1 19900228; EP 0355953 B1 19920304; ES 2029375 T3 19920801; JP H0229507 A 19900131; JP H0512617 B2 19930218

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