

Title (en)

METHOD AND APPARATUS FOR BURNING FUEL IN STAGES

Publication

**EP 0076036 B1 19870429 (EN)**

Application

**EP 82304508 A 19820826**

Priority

US 30641281 A 19810928

Abstract (en)

[origin: EP0076036A1] Burner [10] for a furnace and a method of operating the burner [10] involving a primary [22,38] and secondary [28,46] combustion zone wherein staged fuel and air to both combustion zones [22,38;28,46] is provided. By injection of from about 40% to 60% of the liquid or gaseous hydrocarbon fuel along with about 90% of the total air required to a first reaction zone [22,38] and injection of the remaining fuel with the remaining 10% of the air to a secondary reaction zone [28,46] the formation of NO<sub>x</sub> is significantly suppressed. Such a burner is useful in minimizing NO<sub>x</sub> emissions for a variety of furnace types including both natural draft and forced draft furnaces.

IPC 1-7

**F23C 6/04**; **F23D 14/00**

IPC 8 full level

**F23C 99/00** (2006.01); **F23C 6/04** (2006.01); **F23D 14/22** (2006.01)

CPC (source: EP)

**F23C 6/047** (2013.01); **F23D 14/22** (2013.01); **F23C 2201/20** (2013.01); **F23C 2201/30** (2013.01)

Citation (examination)

Brochure No. D-148, July 1978 by HITACHI ZOSEN

Cited by

EP0333239A3; EP0565196A3; DE19923219B4; EP0430376A3; GB2217829A; GB2217829B; FR2551532A1; EP0323299A1; FR2625295A1; US4925387A; US8172567B2; EP3078910A1; US6685463B2; US5722821A; US5441404A; EP0573300A3; US5403181A; US5441403A; WO9216792A1; WO9004740A1

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