

Title (en)

ATMOSPHERIC BURNER

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Application

EP 89119591 A 19891021

Priority

DE 3842842 A 19881220

Abstract (en)

[origin: EP0374423A2] The invention relates to an atmospheric burner having a feeder (1) for preferably gaseous fuel, which feeder has at least one feed opening (2) which is arranged essentially centrally in the opening region (3) of a pipe (5) which is open at the front, the fuel flowing axially into the pipe (5) under pressure and at the same time combustion air being drawn in through the pipe opening (4) according to the Venturi principle and being discharged together with the combustion air from a burner nozzle (6) connected to the end of the pipe (5). In order to provide a burner which, in spite of high combustion chamber temperatures, produces a flue gas which maintains considerably reduced NOx values in the region of, for example, 100 mg/m³ without further treatment and without washing the flue gas, it is proposed according to the invention that a flue gas recycle line (16) leads out in the opening region of the pipe (5). <IMAGE>

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IPC 8 full level

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Citation (search report)

- [X] DE 3639974 A1 19880526 - STIEBEL ELTRON GMBH & CO KG [DE]
- [Y] DE 8609585 U1 19860528
- [Y] GB 20011161 A 19790124 - ZINK CO JOHN
- [Y] EP 0158414 A2 19851016 - ZINK CO JOHN [US]
- [XP] DE 3803092 C1 19890427
- [A] US 3684424 A 19720815 - ZINK JOHN SMITH, et al
- [A] HYDROCARBON PROCESSING, Band 62, Nr. 9, September 1983, Seiten 145-147, Houston, Texas, US; C.T. BELL: "Experience with burner NOx reduction"

Cited by

US5145496A; EP0967435A1; CN103868065A; EP1840462A3; US5098282A; AU654986B2; EP0457417A3; EP0687854A1; ES2065224A2; US6729874B2; US6893251B2; US6884062B2; WO03081131A1; WO9208927A1; WO0210645A3; WO03081132A3; WO2013188923A1; US7476099B2; US6893252B2; US6846175B2; US6986658B2; US6877980B2; US7322818B2; US6902390B2; US6890171B2; JP2007263550A; WO2006049588A1; WO03081134A1; US6890172B2; US6866502B2; US7967600B2; US10260742B2; US7025587B2; US6881053B2; US6869277B2; US6887068B2

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