

Title (en)

METHOD AND APPARATUS FOR THE COMBUSTION OF GASEOUS AND LIQUID FUELS GENERATING A LOW EMISSION OF NOXIOUS PRODUCTS

Publication

EP 0483520 A3 19921014 (DE)

Application

EP 91116528 A 19910927

Priority

US 59111390 A 19901002

Abstract (en)

[origin: EP0483520A2] Method and apparatus for the combustion of gaseous and liquid fuels generating a low emission of noxious products together with minimum discharge of particulate combustion materials. The apparatus comprises a number of pipes of decreasing diameter and surrounding vent devices for concentrating the flame, with feeding of the recirculation air together with the combustion products. The pipes are arranged telescopically around the flame outlet or fuel nozzle, the pipe diameters decreasing in the direction of the flame outlet. Rotating vent devices in the pipes can be arranged in various ways to provide the recirculation air with a spin and acceleration. The flame is thus sharply concentrated and the air is rapidly recycled in the combustion chamber. The invention increases the burner output, reduces the combustion temperature and reduces the NOx emissions by up to 50% and the carbons by up to 100%.

IPC 1-7

F23C 9/00

IPC 8 full level

F23C 9/00 (2006.01); **F23D 11/40** (2006.01)

CPC (source: EP)

F23C 9/006 (2013.01); **F23D 11/404** (2013.01); **F23M 2900/05004** (2013.01)

Citation (search report)

- [Y] WO 8601876 A1 19860327 - AIR ANTI POLLUTION IND RES LTD [US]
- [Y] DE 2809114 A1 19790906 - ELCO OEL & GASBRENNER
- [A] EP 0384277 A2 19900829 - HEIM HERMANN MASCH [DE]
- [A] DE 3800217 A1 19890720 - KLAMKE RECORD OEL GASBRENNER [DE]
- [A] EP 0115858 A1 19840815 - MASCHF AUGSBURG NUERNBERG AG [DE]

Cited by

EP0645583A1; EP1464893A1; EP0809070A1; CN107355783A; DE4320212A1; US5423674A; US6872073B2; WO9906766A1

Designated contracting state (EPC)

AT BE CH DE DK ES FR GB GR IT LI LU NL

DOCDB simple family (publication)

EP 0483520 A2 19920506; EP 0483520 A3 19921014

DOCDB simple family (application)

EP 91116528 A 19910927