

Title (en)

DEVICE AND METHOD FOR SUPPLYING COMBUSTION AIR AND EXHAUST GAS RECIRCULATION FOR A BURNER

Title (de)

VORRICHTUNG UND VERFAHREN ZUR VERBRENNUNGSLUFTZUFUHR UND ABGASREZIRKULATION FÜR EINEN BRENNER

Title (fr)

DISPOSITIF ET PROCÉDÉ D'ALIMENTATION EN AIR DE COMBUSTION ET DE RÉCIRCULATION DES GAZ D'ÉCHAPPEMENT POUR UN BRÛLEUR

Publication

EP 4008955 B1 20240612 (DE)

Application

EP 20211530 A 20201203

Priority

EP 20211530 A 20201203

Abstract (en)

[origin: WO2022117345A1] The invention relates to a device (2) and a method for supplying combustion air and for recirculating exhaust gas for a burner (1) comprising a combustion chamber (10) and to a burner (1) comprising a device (2) for supplying combustion air and for recirculating exhaust gas. Multiple drive nozzles (21) distributed about a central axis (A) are used to supply combustion air to a mixing chamber (22) arranged downstream of the drive nozzles (21) by suctioning exhaust gases out of the combustion chamber (10); the combustion air exiting the drive nozzles (21) is mixed with exhaust gases in the mixing chamber (22) in order to form a combustion air/exhaust gas mixture, said exhaust gases flowing out of the combustion chamber (10) and being backflushed by means of the drive nozzles (21); and the combustion air/exhaust gas mixture is supplied to a reaction zone downstream of the mixing chamber (22).

IPC 8 full level

F23D 14/22 (2006.01); **F23C 9/00** (2006.01)

CPC (source: EP KR US)

F23C 7/008 (2013.01 - US); **F23C 9/006** (2013.01 - EP KR US); **F23D 14/22** (2013.01 - EP KR); **F23C 2202/30** (2013.01 - EP KR US); **F23C 2202/50** (2013.01 - EP KR US); **F23C 2900/09002** (2013.01 - US); **F23C 2900/9901** (2013.01 - EP KR); **F23D 2900/11402** (2013.01 - EP KR)

Citation (examination)

- EP 0386732 B1 19940831 - OERTLI WAERMETECHNIK AG [CH]
- DE 3923238 C2 19940804 - ELECTRO OIL GMBH [DE]
- DE 19917662 C2 20011031 - ELCO KLOECKNER HEIZTECH GMBH [DE]

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 4008955 A1 20220608; **EP 4008955 B1 20240612**; JP 2023551951 A 20231213; KR 20230116845 A 20230804; US 2024060638 A1 20240222; WO 2022117345 A1 20220609

DOCDB simple family (application)

EP 20211530 A 20201203; EP 2021082000 W 20211117; JP 2023533920 A 20211117; KR 20237021696 A 20211117; US 202118265155 A 20211117