

Title (en)
Burner for burning various fuels.

Title (de)
Brenner für die Verbrennung mehrerer Brennstoffe.

Title (fr)
Brûleur de combustion de plusieurs combustibles.

Publication
EP 0062228 A1 19821013 (DE)

Application
EP 82102393 A 19820323

Priority
US 25183781 A 19810408

Abstract (en)
1. Burner with a burner port (50) which is arranged in the wall (12) of a combustion chamber, and with a burner wall (84) which is arranged at a distance from the combustion chamber wall (12) where between the combustion chamber wall (12) and the burner wall (84) an air box (42) is formed in which a first tube (82) is at least partly arranged the outlet end of which is provided at the burner port (50) where a first and a second guide (102, 108) are arranged to form an internal and an external ring duct (72, 74) inside the air box (42) which show separate dampers (112, 120) and a number of swirl blades (128) in the inside ring duct (72) and where a pulverized fuel and air duct (64) is connected with the burner characterized by the fact that a second tube (80) is arranged concentrically between the first tube (82) and the first guide (102), that at least part of the second tube (80) is arranged inside the air box (42) and the outlet end of the second tube (80) at the burner port (50), that the inlet end of the second tube (80) is connected with the pulverized fuel and air duct (64), that an air guide duct (65, 71) is provided between the air box (42) and the inlet end of the first tube (82), and that 5 to 10% of the stoichiometric air flow is admitted to the first tube (82), 15 to 30% to the second tube (80), 22 to 35 the internal ring duct (72), and the remaining air flow required for complete combustion to the external ring duct (74).

Abstract (de)
Ein Brenner ist versehen mit Mitteln (67, 68, 112, 120) zur Regelung des durchströmenden Brennstoff-/Luft-Gemisches und mit vier getrennt geregelten Kanälen (72, 74, 94, 98), welche die für die Verbrennung und den Transport der Brennstoffe erforderliche Luft liefern, wobei die Bildung von Stickoxiden vermindert wird. Der Brenner enthält ein erstes Rohr (82), durch das ein fester Brennstoff strömt, und ein zweites Rohr (80), das konzentrisch um das erste Rohr (82) herum angeordnet ist. Dieses zweite Rohr (80) ist strömungstechnisch mit dem Führungskanal (64) verbunden, welcher Kohlenstaub und einen Teil der Verbrennungsluft von der Mühle (56) fördert. Der Flüssigbrennstoff-Brenner (79) ist koaxial innerhalb des ersten Rohrs (82) angeordnet.

IPC 1-7
F23D 17/00

IPC 8 full level
F23D 17/00 (2006.01)

CPC (source: EP)
F23D 17/007 (2013.01)

Citation (search report)
• [YD] US 3788796 A 19740129 - KRIPPENE B, et al
• [Y] BE 843283 A 19761018
• [A] CH 429002 A 19670131 - GHELFI SALVATORE [CH]
• [A] DE 349608 C 19220304 - WILHELM LAUTENSCHLAEGGER
• [A] GB 2005004 A 19790411 - ZINK CO JOHN

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GB2204673A; GB2204673B; EP0421903A3; CN108916876A

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