

Title (en)
FUEL STAGING IN A BURNER

Title (de)
BRENNSTOFFVERSORGUNG IN EINEM BRENNER

Title (fr)
ÉTAGEMENT DE COMBUSTIBLE DANS UN BRÛLEUR

Publication
EP 2263045 A1 20101222 (EN)

Application
EP 09726632 A 20090326

Priority

- EP 2009053562 W 20090326
- EP 08006661 A 20080401
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Abstract (en)
[origin: EP2107313A1] The invention relates to a method for staging operation at start up of a burner for a gas turbine engine combustor. It is one object of the invention to stabilize the combustion of a lean-rich partially premixed low emission burner for a gas turbine combustor at all engine load conditions. The method includes the steps of: - adding fuel (23) mixed with air (24) to the pilot combustor (5); - igniting the mixture utilizing an ignitor (34) provided at an upstream end of the pilot combustor (5) for initiating a lean flame (35) inside the pilot combustor (5) and for providing a flow of said radicals (32) and heat; - imparting a swirl of fuel (30b) and air (27) at an outside at the exit (6) of the pilot combustor (5) at an upstream end of a combustion room for creating and sustaining a main lean flame (7); - gradually adding a swirl of air (12) and fuel (14) for establishing a full load stage to at least one channel (10, 11).

IPC 8 full level
F23R 3/34 (2006.01)

CPC (source: EP US)
F23R 3/343 (2013.01 - EP US); **F23R 3/346** (2013.01 - EP US); **F23D 2900/00015** (2013.01 - EP US)

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