

Title (en)
RETROFIT KIT ASSEMBLY

Title (de)
NACHRÜSTKITANORDNUNG

Title (fr)
ENSEMBLE KIT DE CONVERSION

Publication
EP 4317778 A1 20240207 (EN)

Application
EP 22188116 A 20220801

Priority
EP 22188116 A 20220801

Abstract (en)
The invention relates to a retrofit kit assembly (1) for converting a gaseous hydrocarbon combustion appliance (2), in particular a gas boiler, and more particularly for a condensing gas boiler, to a combustion appliance for combustion of fuel gas comprising more than 20 mol%, in particular more than 30 mol%, hydrogen wherein the retrofit kit (1) further comprises a burner (6) configured for combustion of more than 20 mol%, in particular more than 30 mol%, of hydrogen and a data carrier (21) comprising information which, when the data carrier is read out cause a computer or a control unit to carry out a method (100) for controlling the operation of the combustion appliance (2), in particular a gas boiler, wherein the burner (6) is adapted to operate between a minimum load and a maximum load, and wherein the ratio of the maximum load over the minimum load is at least 4, wherein the method (100) comprises:- supplying a combustible gas and air mixture, in particular a premix of combustible gas and air, to the burner (6) at a combustible air to gas ratio,- wherein the air to combustible gas ratio of the gas and air mixture, in particular the premix, which is supplied to the burner (6) when the burner (6) is operated at minimum load is set by a mechanism to be in relative terms at least 20% higher than the air to combustible gas ratio of the gas and air mixture, in particular the premix, which is supplied to the burner (6) when the burner (6) is operated at maximum load.

IPC 8 full level
F23D 14/02 (2006.01); **F23N 5/00** (2006.01)

CPC (source: EP)
F23D 14/02 (2013.01); **F23N 5/003** (2013.01); **F23C 2900/9901** (2013.01); **F23D 2203/1012** (2013.01)

Citation (applicant)
EP 3524884 A1 20190814 - RIELLO SPA [IT]

Citation (search report)
• [X1] US 2022163203 A1 20220526 - TEN HOEVE DIRK [NL], et al
• [X1] EP 3978805 A1 20220406 - BOSCH THERMOTECHNOLOGY LTD UK [GB]
• [X1] WO 2021078949 A1 20210429 - BEKAERT COMBUSTION TECH BV [NL]
• [XA] EP 4027059 A1 20220713 - CROSSTOWN POWER GMBH [CH]
• [XA] WO 2022006444 A1 20220106 - RUIZ ROBERTO [US]

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

Designated extension state (EPC)
BA ME

Designated validation state (EPC)
KH MA MD TN

DOCDB simple family (publication)
EP 4317778 A1 20240207

DOCDB simple family (application)
EP 22188116 A 20220801