

Title (en)
INJECTION LANCE FOR INJECTING A LIQUID REDUCING REAGENT INTO A FLUE GAS FROM THE COMBUSTION OF FUEL IN A BOILER OR FURNACE TO REDUCE THE AMOUNT OF NITROGEN OXIDES IN THE FLUE GAS

Title (de)
EINSPRITZLANZE ZUM EINSPRITZEN EINES FLÜSSIGEN REDUZIERUNGS-REAGENS IN RAUCHGAS AUS DER VERBRENNUNG VON KRAFTSTOFF IN EINEM HEIZKESSEL ODER OFEN ZUR REDUZIERUNG DER STICKOXIDE IM RAUCHGAS

Title (fr)
LANCE D'INJECTION PERMETTANT D'INJECTER UN RÉACTIF RÉDUCTEUR LIQUIDE DANS UN GAZ DE COMBUSTION PROVENANT DE LA COMBUSTION DE COMBUSTIBLE DANS UNE CHAUDIÈRE OU UN FOUR AFIN DE RÉDUIRE LA QUANTITÉ D'OXYDES D'AZOTE DANS LES GAZ DE COMBUSTION

Publication
EP 3290793 A1 20180307 (EN)

Application
EP 16187213 A 20160905

Priority
EP 16187213 A 20160905

Abstract (en)
The present application relates to an injection lance for injecting a liquid reducing reagent into a flue gas from the combustion of fuel in a combustion chamber of a boiler or furnace to reduce the amount of nitrogen oxides in the flue gas, wherein the injection lance comprises at least two oblong separate injectors having a different length and each having a single spraying nozzle at the end thereof for spraying the liquid reducing agent, first cooling means to cool the injectors with air, an surrounding pipe coaxial with and disposed around the injectors and provided with at least one opening per injector spaced along its length and located in the vicinity of the respective spraying nozzles to allow the spraying nozzles to spray the liquid reducing agent through the openings into the flue gas and second cooling means to cool the surrounding pipe with air.

IPC 8 full level
B01D 53/56 (2006.01); **B01D 53/79** (2006.01); **F23J 15/00** (2006.01)

CPC (source: EP)
F23J 15/003 (2013.01); **F23J 2215/101** (2013.01); **F23J 2219/20** (2013.01)

Citation (applicant)
WO 8805762 A1 19880811 - FUEL TECH INC [US]

Citation (search report)
• [XII] WO 2013055285 A1 20130418 - ECOMB AB PUBL [SE]
• [A] US 2005013755 A1 20050120 - HIGGINS BRIAN S [US]
• [A] US 2010068111 A1 20100318 - WALSH JR WILLIAM ARTHUR [US]
• [A] US 2012042970 A1 20120223 - KLAGES STEVEN S [CA], et al

Cited by
CN109173667A

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

DOCDB simple family (publication)
EP 3290793 A1 20180307; EP 3507545 A1 20190710; EP 3507545 B1 20200408; PL 3507545 T3 20200921; WO 2018042055 A1 20180308

DOCDB simple family (application)
EP 16187213 A 20160905; EP 17768712 A 20170905; EP 2017072226 W 20170905; PL 17768712 T 20170905