

Title (en)

Diesel engine with direct fuel injection

Title (de)

Dieselmotor mit direkter Kraftstoffeinspritzung

Title (fr)

Moteur diesel à injection de combustible directe

Publication

EP 0661447 B1 20001018 (DE)

Application

EP 94120612 A 19941223

Priority

DE 4344026 A 19931223

Abstract (en)

[origin: EP0661447A1] The present invention relates to an injection nozzle (4) for diesel engines with direct fuel injection into combustion air in the combustion space, to which air a swirl has been imparted. The nozzle is designed as a hole-type nozzle with a plurality of injection openings (8, 9) arranged at uniform intervals around the circumference of the nozzle. In order to develop an injection nozzle (4) of this kind so as to permit shorter injection durations and improved air utilisation, an additional injection opening (9) with a smaller diameter is in each case formed between two adjacent injection openings (8), making the total cross-sectional area of all the injection openings (8, 9) greater without the fuel jets thereby formed being blown into one another. <IMAGE>

IPC 1-7

F02M 61/18

IPC 8 full level

F02B 23/06 (2006.01); **F02M 61/18** (2006.01); **F02B 3/06** (2006.01)

CPC (source: EP US)

F02M 61/1806 (2013.01 - EP US); **F02M 61/1826** (2013.01 - EP US); **F02B 3/06** (2013.01 - EP US)

Cited by

FR2877056A1; EP2112348A2

Designated contracting state (EPC)

FR GB IT

DOCDB simple family (publication)

DE 4344026 A1 19950629; **DE 4344026 C2 19970918**; EP 0661447 A1 19950705; EP 0661447 B1 20001018; JP H07208303 A 19950808; US 5667145 A 19970916

DOCDB simple family (application)

DE 4344026 A 19931223; EP 94120612 A 19941223; JP 32060394 A 19941222; US 36150194 A 19941222