

Title (en)

INTERNAL COMBUSTION ENGINE WITH IGNITION BY HIGH ENERGY RAYS INTRODUCED INTO THE COMBUSTION CHANGER

Publication

**EP 0167608 B1 19880907 (DE)**

Application

**EP 85900658 A 19850103**

Priority

DE 3400034 A 19840103

Abstract (en)

[origin: DE3400034A1] A substantially instantaneous ignition of an ignitable fuel mixture during the compression phase in the volume of the combustion chamber of an alternating or rotary piston machine may be obtained together with a combination of a lean mixture and a reduction of noxious product emission by introducing high energy rays in the form of a plurality of unfocused laser rays (30) into the combustion chamber so as to generate in the combustion chamber at least at the ignition time a layer traversed by a plurality of those rays (30), the arrangement being such that the wall of the combustion chamber, and during the compression phase, the front surface of the piston facing said walls are close to the layer and that, at the ignition moment, at least in a surface area of the layer, elementary ignition processes are triggered so that the flame fronts providing from the neighbouring elementary ignition processes meet before a displacement of the front surface of the piston during the expansion stroke.

IPC 1-7

**F02P 23/04**

IPC 8 full level

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CPC (source: EP)

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Citation (examination)

- Patents Abstracts of Japan, Band 7, No. 169, 26. Juli 1983, Seite (M-231)(1314) & JP A 5874875, 6. Mai 1983 & US, A, 4434753
- Patents Abstracts of Japan, Band 7, No. 291, 27. Dezember 1983, Seite (M-265)(436) & JP A 58162773

Cited by

US6053140A; DE19911737C2

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**DE 3400034 A1 19850711**; DE 3564848 D1 19881013; EP 0167608 A1 19860115; EP 0167608 B1 19880907; WO 8503109 A1 19850718

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