

Title (en)
LOW PRESSURE DIESEL ENGINE

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Application
EP 83109857 A 19831003

Priority
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Abstract (en)
[origin: EP0105509A2] A low pressure diesel engine is proposed in which the combustion pressures do not substantially exceed those of spark ignition engines and the combustion temperatures are far below those of the spark ignition process so that the engine power can be raised when using existing models of this design. The basis of the proposal is formed by the combination of a diesel motor with a charging device, preferably with a rotational pivot charger according to the European Patent 0,012,329, the advantages of this latter device being retained: greatly reduced fuel consumption particularly in the partial load region, engine characteristic made closer to the ideal traction force hyperbola, low working speed, reduced noise, less toxic exhaust gases. For this purpose the compression ratio of the diesel engine is lowered to approximately the range of the spark ignition engines which is still favourable thermodynamically so that ignition of the injected fuel would not take place and the necessary ignition temperature would be ensured by heating up the charging air by the corresponding amount. This heating up occurs in the motor working ranges in which the compression heat of the charger is not sufficient, preferably by means of a flame and its hot combustion gases in the charging air current. Variants, for example the use of electrical energy in any form, are possible. Very light-weight two-stroke low pressure diesel engines are thus easy to construct with low specific consumption, favourable characteristic and low weight and are particularly suitable for driving small aeroplanes. <IMAGE>

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Citation (search report)
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• [X] FR 2247625 A1 19750509 - SEMT [FR]
• [A] GB 2067245 A 19810722 - CT LONDON HARWOOD LTD

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CN104260827A; EP0547566A1; US5353763A

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