

Title (en)

A novel alternative fuel for diesel engines giving low emissions and high energy content

Title (de)

Alternativer Brennstoff für Dieselmotoren mit niedriger Schadstoffemission und mit hohem Energieinhalt

Title (fr)

Un carburant alternatif pour moteurs diesel à faibles émissions et à haute énergie

Publication

**EP 1452579 A1 20040901 (EN)**

Application

**EP 04445020 A 20040227**

Priority

SE 0300517 A 20030227

Abstract (en)

A novel alternative fuel is described consisting of 10.0 to 50.0 % alkylated mono-cyclic alkanes, 50.0 to 90.0 % non-cyclic alkanes and common additives, e.g. lubricating additives. The aromatics content of the fuel is below 1.0 % and the content of di- and poly-naphthenics are also below 1.0 %. Fuel according to the invention is as energy rich as conventional diesel oil, counted both per litre and per kilogram. Engine effect and torque increase by most engine speeds and loads, and the fuel consumption decreases. The fuel gives decreased regulated and unregulated emissions compared with conventional diesel oil. <??>Decreases in the exhausts by 70 to 95 % has been measured for some of the most toxic compounds in diesel exhausts, for example acrolein, 1,3-butadiene and benzene. Fuel according to the invention has been tested in field trials under both winter and summer conditions without any operational problems that could be connected to the fuel. Cold start of engines down to minus 35 degrees Celsius has been tested without any problems.

IPC 1-7

**C10L 1/08**

IPC 8 full level

**C10L 1/08** (2006.01)

CPC (source: EP)

**C10L 1/08** (2013.01)

Citation (search report)

- [PX] WO 03078550 A2 20030925 - CHEVRON USA INC [US]
- [A] WO 9214804 A1 19920903 - CENTURY OILS AUSTRALIA [AU]
- [A] US 5718820 A 19980217 - MOREL FREDERIC [FR], et al
- [A] US 3835022 A 19740910 - FRAYER J, et al

Cited by

US9051525B2; US10427069B2; US10494579B2; US10590360B2; WO2014116307A1; WO2017189049A1; US7655605B2; US7981270B2; US10550335B2; US10647925B2; US10550341B2; US10808185B2; US10947464B2

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