

Title (en)
COMBUSTION OF PYROLYSIS OIL

Title (de)
VERBRENNUNG VON PYROLYSEÖL

Title (fr)
COMBUSTION D'HUILE DE PYROLYSE

Publication
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Application
EP 00925482 A 20000425

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Abstract (en)
[origin: GB2349175A] Pyrolysis oil, having low calorific value and poor ignition quality, is combusted in an compression ignition engine 1 by direct injection (fig.1) into an oxygen-enriched atmosphere in the combustion chamber. An air separation unit 5 produces oxygen-rich air and nitrogen-rich air. The oxygen-rich air is stored in a tank 28 whence it is pumped to a control valve 7 for mixing with atmospheric air at valve 7 to produce the desired oxygen content for supplying the engine 1. The nitrogen-rich air may be used in the manufacture of the pyrolysis oil. The heat and power produced by the engine is used to generate electricity, a generator 9 may be driven directly and a further generator 15 may be powered by a steam turbine 14 using the heat of the engine exhaust gases. The pyrolysis oil may be manufactured (fig.3) by controlled combustion of dried, chopped woodchips on the fluidised bed of a pyrolysis reactor (43, fig.3) in an inert (nitrogen) atmosphere.

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