

Title (en)  
COMBUSTION OF PYROLYSIS OIL

Title (de)  
VERBRENNUNG VON PYROLYSEÖL

Title (fr)  
COMBUSTION D'HUILE DE PYROLYSE

Publication  
**EP 1204835 A1 20020515 (EN)**

Application  
**EP 00925482 A 20000425**

Priority  
• GB 0001595 W 20000425  
• GB 9909202 A 19990421

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.

IPC 1-7  
**F23G 5/46**; **F23G 5/027**; **F23G 7/00**; **F23L 7/00**

IPC 8 full level  
**F02B 45/02** (2006.01); **F02B 47/06** (2006.01); **F02B 51/02** (2006.01); **F23G 5/027** (2006.01); **F23G 5/46** (2006.01); **F23G 7/00** (2006.01); **F23L 7/00** (2006.01)

CPC (source: EP)  
**F02B 45/02** (2013.01); **F02B 47/06** (2013.01); **F02B 51/02** (2013.01); **F02D 19/0652** (2013.01); **F02D 19/0671** (2013.01); **F02M 25/00** (2013.01); **F23G 5/027** (2013.01); **F23G 5/46** (2013.01); **F23G 7/008** (2013.01); **F23L 7/007** (2013.01); **F23G 2201/301** (2013.01); **F23G 2201/303** (2013.01); **F23G 2206/10** (2013.01); **F23G 2206/202** (2013.01); **F23G 2209/26** (2013.01); **F23L 2900/07006** (2013.01); **Y02E 20/12** (2013.01); **Y02E 20/32** (2013.01); **Y02E 20/34** (2013.01); **Y02T 10/12** (2013.01); **Y02T 10/30** (2013.01)

Citation (search report)  
See references of WO 0107834A1

Designated contracting state (EPC)  
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)  
**GB 2349175 A 20001025**; **GB 9909202 D0 19990616**; AU 4420700 A 20010213; CA 2371141 A1 20010201; CA 2371141 C 20050621; EP 1204835 A1 20020515; GB 0127814 D0 20020109; GB 2369653 A 20020605; GB 2369653 B 20031119; WO 0107834 A1 20010201

DOCDB simple family (application)  
**GB 9909202 A 19990421**; AU 4420700 A 20000425; CA 2371141 A 20000425; EP 00925482 A 20000425; GB 0001595 W 20000425; GB 0127814 A 20000425