

Title (en)
marine outboard engine

Title (de)
Aussenbord-Brennkraftmaschine

Title (fr)
Moteur à hors-bord

Publication
EP 0795684 B1 20020619 (EN)

Application
EP 97104073 A 19970311

Priority
JP 8200796 A 19960311

Abstract (en)
[origin: EP0795684A1] A marine outboard engine (1) has an engine unit (10) being vertically arranged with respect to a driving direction of a boat (8). The engine unit (10) comprises a cylinder block (15) having at least one cylinder (37), and a cylinder head (14) connected to said cylinder block (15) and defining at least one combustion chamber. This cylinder block (15) further comprises an exhaust passage (36) for collecting exhaust gases from the combustion chamber and for expelling said exhaust gases downward beneath the engine unit (10). The marine outboard engine (1) further has a cooling structure for cooling said at least one cylinder (37) and said at least one combustion chamber by means of a fresh coolant water. Thereby, said coolant water first is directed to the exhaust passage (36) for firstly cooling said exhaust passage (36) and then is directed to said at least one cylinder (37) and respective combustion chamber. <IMAGE>

IPC 1-7
F01P 3/20; F02B 61/04

IPC 8 full level
B63H 20/28 (2006.01); **F01P 3/02** (2006.01); **F01P 3/20** (2006.01); **F02B 61/04** (2006.01); **F02B 75/20** (2006.01); **F02F 1/10** (2006.01);
F02B 1/04 (2006.01); **F02B 3/06** (2006.01); **F02B 75/02** (2006.01); **F02B 75/18** (2006.01); **F02F 1/24** (2006.01)

CPC (source: EP)
F01P 3/202 (2013.01); **F02B 61/045** (2013.01); **F02B 75/20** (2013.01); **F02F 1/108** (2013.01); **F02B 1/04** (2013.01); **F02B 3/06** (2013.01);
F02B 2075/027 (2013.01); **F02B 2075/1816** (2013.01); **F02B 2275/18** (2013.01); **F02F 1/243** (2013.01); **F02F 2001/245** (2013.01)

Designated contracting state (EPC)
DE FR GB SE

DOCDB simple family (publication)
EP 0795684 A1 19970917; EP 0795684 B1 20020619; DE 69713420 D1 20020725; DE 69713420 T2 20021017; JP 3685416 B2 20050817;
JP H09240590 A 19970916

DOCDB simple family (application)
EP 97104073 A 19970311; DE 69713420 T 19970311; JP 8200796 A 19960311