

Title (en)

APPARATUS FOR INCREASING THE REARWARDLY PROPULSIVE FORCES OF A MARINE MOTOR COMPRISING A REVERSE DRIVE

Publication

**EP 0013929 B1 19820120 (DE)**

Application

**EP 80100177 A 19800115**

Priority

- DE 2902329 A 19790122
- DE 2911846 A 19790326

Abstract (en)

[origin: US4306867A] The invention relates to an accessory for outboard motors, Z-drives for boats or the like, the exhaust gas of which is normally conducted through the propeller hub into the water. By means of a valve system, which is suitably automatically changed over by the direction of rotation of the propeller, the exhaust gas, during rearward rotation of the propeller, is conducted to a region which lies outside the propeller suction, while the exhaust gas, during forward rotation of the propeller, flows out in the usual manner through the propeller hub. The success of the invention lies in a significant increase of the propeller propulsion during rearward travel.

IPC 1-7

**B63H 21/34**; **F01N 7/12**

IPC 8 full level

**B63H 1/28** (2006.01); **B63H 20/26** (2006.01); **F02B 61/04** (2006.01)

CPC (source: EP US)

**B63H 1/28** (2013.01 - EP US); **B63H 20/245** (2013.01 - EP US); **F02B 61/045** (2013.01 - EP US)

Cited by

EP0758606A1

Designated contracting state (EPC)

AT BE CH FR GB IT NL SE

DOCDB simple family (publication)

**EP 0013929 A1 19800806**; **EP 0013929 B1 19820120**; CA 1140402 A 19830201; US 4306867 A 19811222

DOCDB simple family (application)

**EP 80100177 A 19800115**; CA 344094 A 19800121; US 11243880 A 19800116