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(54) Title: CONTRA-ROTATING ROTOR UNIT

(57) Abstract

A marine propulsion unit has two contra-rotating propellers (15, 16) driven by a single shaft (25) through gearing which includes a set of static planetary gears (40), an external gear (30), and an internal gear (44). The gearing is mounted in an oil-filled gear box having three, co-axial cylindrical sections (12, 13, 14). The outer two sections (12, 14) rotate in opposite directions and provide respective propeller hubs. The intermediate section (13) is stationary and serves as a carrier for the planetary gears (40) and a mount for flow-straightening vanes (18) which support a cylindrical shroud (17). An angular passage (28) may be provided in the intermediate section (13) to exhaust combustion gases through openings in the outside of the shroud (17) when the unit forms part of an outboard motor.

