

Title (en)
A PROPELLER DRIVE ARRANGEMENT

Title (de)
PROPELLERANTRIEBSANORDNUNG

Title (fr)
DISPOSITIF DE PROPULSION À HÉLICE

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Application
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Abstract (en)
The invention relates to a propeller drive arrangement (1), comprising:- a propeller shaft (10),- a propeller hub (20) comprising one or more propeller blades (22, 24), wherein a pitch angle of the one or more propeller blades is variable,- a planetary gear (30) comprising a first planetary gear member (32; 36), a second planetary gear member (34; 32) and a third planetary gear member (36; 34) which are drivingly connected, and- an outer shaft (40) arranged coaxially with and radially outside of the propeller shaft (10), wherein the outer shaft (40) is drivingly connected to the one or more propeller blades (22, 24) for varying the pitch angle, wherein the propeller shaft (10), in one end thereof (12), is configured to be drivingly connected to a propulsion unit and, in a second end (14) thereof, is drivingly fixed to the propeller hub (20), and wherein the propeller shaft (10) is drivingly fixed to one of the planetary gear members (32) and wherein another one of the planetary gear members (34, 36) is arranged to drive the outer shaft (40) by a driving torque exerted on the propeller shaft (10), and- the propeller drive arrangement (1) further comprising a pitch controlling member (52) for varying the pitch angle of the one or more propeller blades (22, 24), wherein the pitch controlling member (52) is arranged to, in a first state, rotationally fix the third planetary gear member (36; 34) to the second planetary gear member (34; 32) so that the propeller shaft (10) and the outer shaft (40) are arranged to rotate with the same rotational speed, and, in a second state, engage the third planetary gear member (36; 34) to a housing (60) so that the third planetary gear member (36; 34) is rotationally fixed with respect to the housing (60). The invention also relates to a vessel (100).

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• [A] GB 569056 A 19450502 - PERCY OCTAVIUS ROWLANDS
• [A] JP 2020015347 A 20200130 - IHI POWER SYSTEMS CO LTD
• [A] US 2004157509 A1 20040812 - WILLMOT ERIC PAUL [AU]

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