Title (en)

OPTIMIZATION OF A DRIVE SYSTEM COMPRISING A VARIABLE PITCH PROPELLER IN A WATER VEHICLE DURING A STOPPING MANEUVER

Title (de)

OPTIMIERUNG EINES ANTRIEBSSYSTEMS MIT EINEM VERSTELLPROPELLER BEI EINEM WASSERFAHRZEUG WÄHREND EINES STOPPMANÖVERS

Title (fr)

OPTIMISATION D'UN SYSTÈME D'ENTRAÎNEMENT COMPRENANT UNE HÉLICE À PAS VARIABLE SUR UN VÉHICULE MARITIME AU COURS D'UNE MANUVRE D'ARRÊT

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Abstract (en)

[origin: WO2014187584A1] The invention relates to a method for operating a drive system of a water vehicle during a stopping maneuver, wherein the drive system comprises at least one rotatable variable pitch propeller (1), which in each case comprises propeller blades having an adjustable blade angle (12), and which is driven by means of a motor (3), wherein the motor (3) can exercise a motor torque (15) on the variable pitch propeller (1), wherein a speed (13) of the water vehicle and a propeller torque (11) of the at least one variable pitch propeller (1) are determined. The invention further relates to a control, a water vehicle, a computer program and a computer program product for carrying out the method. In order to allow for a quick braking of the water vehicle, a characteristic line for the water vehicle is determined in advance, according to the invention, which line combines different start-speeds (17) of the water vehicle during the start of the stopping maneuvers with at least in each case one chronological sequence of the pitch propeller torque, such that during the stopping manoeuver the drive system operated according to the characteristic line results in a covered stopping path of the water vehicle which is a short as possible, and the propeller torque (11) does not exceed a torque value that can be predetermined and that is critical, wherein the drive system is operated during the stopping maneuver according to the characteristic line determined in advance.

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