A TECHNICAL STUDY ABOUT THE ALTERATION OF PITCH PROPELLER VARIATION TOWARD SHIP’S SPEED: A CASE STUDY OF SPOB PETRO OCEAN III

Student Name: Benedicta Dian Alfanda
NRP: 4209 106 013
Department: Marine Engineering
Supervisor: 1. Ir.Surjo W. Adji, M.Sc, CEng, FIMarEST
2. Irfan Syarif Arief ST, MT

Abstract

Propeller is a part of ship propulsion system. As a result of the rotation from which the propeller produces, the power produced by the main engine is transmitted through the shaft toward the propeller. It is then converted into thrust which can move the ship and resist the resistance appeared against the direction of the ship. SPOB (Self Propelled Oil Barge) Petro Ocean III Petro is a barge type with its own movement and is operated at around Tanjung Perak Surabaya as a fuel supplier in the area. Nowadays, there are more and more competitors in such kind of field/business. Moreover, Petro Ocean can not manage to reach the expected ship speed. Therefore, a change is required in order to increase the low ship speed. Since Petro Ocean still has some contracts to fulfil with other partnering colleagues, and considering the time efficiency, a change needs to be carried out soon to pitch. So an optimum pitch propeller value is obtained by analysing the fluid flow occured on each variation which is carried out.

Keyword: pitch propeller; Self Propelled Oil Barge; ship’s speed; CFD.
“Halaman ini sengaja dikosongkan“