

Abstract

This thesis concerns a study relating to hybrid propulsion, aiming to couple a traditional engine and a wind propellant: the aspirated cylinder.

Through this thesis I seek to demonstrate that it is possible to create an automated system that will capture the direction of the wind, transmit it to an Arduino, the latter will orient the sail in the right direction to optimize its performance and its use. All without an additional officer on the bridge dedicated to the orientation of the masts.

The alternative solution will ultimately allow virtuous maritime transport that respects the protection of the planet.

In this thesis, we will begin by discussing the impact of emissions that create health problems.

We will then proceed in analysing the research and innovations of Commander Cousteau and engineer Anton Flettner.

Furthermore, we will study with the assistance of the wind tunnel available at the school. As well as the aerodynamic performance of the aspirated cylinder.

This ultimately concludes with the discovery of another technology that seems even more promising than our aspirated cylinders from the "Oceans Wing".

I hope that this brief will prove the efficiency of this hybrid propulsion system, hoping to move towards more eco-responsible freight transport.