

Abstract

Mindful to participate in the reflection on the economic and ecological challenges of tomorrow, this study focuses on the aerodynamics of container ships. Indeed, on ships that consume up to 200 tons of HFO per day in eco speed, each percentage of fuel saved is important.

To complete this study, we will first create several container ship models modified in 3D using Inventor software. Next, we will analyze their aerodynamic behavior in a virtual wind tunnel created using Autodesk CFD software.

In order to test the results obtained during the virtual simulation, the most promising models will be 3D printed and then studied in a real wind tunnel. This will allow us to have a quantitative idea of the energy gain.

Finally, at the end of these tests, we will analyze the feasibility and profitability of such modifications on new or existing units.