



1001VELA_{cup} DESIGN CONTEST 2020

Entry:
IGIEA



The team :

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The jury evaluation:

***Grado di innovazione
Innovation degree***

<<The project has applied very interesting and innovative approaches. Especially, the design and the fixation of the foils. Furthermore, the application of the topology optimization for the design of the hull is very promising. The manufacturing of the hull structure by overlapping of constant thickness layers of marine plywood is also original.>>

<<Very nice foiling solution (new rules!) on existing platform 40/50>>

<<The design features two L-shaped foils attached to the racks, and a horizontal foil attached to the rudder. Apparently, the windward L-foil is not retractable when sailing (The design load is about half the weight of the boat), so the boat will be extremely unstable since the foil stability will rely only on the weak free-surface effect. Single-handed dinghies, like the Moth, can be controlled, but double handed ones? Further, there is no active ride-height control, which will make the ride-height rather unstable.>>

<<8 su 10 – 8 on 10>>

<<3.5/5 - The topology optimization of hull material distribution is quite innovative eventought is not well described. >>

***Completezza e livello di approfondimento progettuale
Thoroughness level of the project***

<<The presented documents show that the team has worked accurately using the common computer aided tools for product design. The load and the stiffness of the foil and the foil fixation were calculated and evaluated using FEA. The used material and structure (sandwich) for the hull (skin and core) were characterized experimentally>>

<<Not much information about decisions etc. detailed plans 30/40>>

<< The foil attachment is investigated structurally, but there is no structural assessment of the L-foil itself, of the rudder T-Foil or of the effects of these foils on the hull structure. There is however a careful investigation of the material properties of the flax/cork sandwich and a numerical optimization of the structure (neglecting the foil loads). >>

<<Interessante adattamento del sistema foils ad uno skiff gia esistente.



Interesting adaptation of the foils system to an existing skiff (translated by the editor).>>

<< 2/5 - Structural analysis are described, but quite a lot of details are omitted.>>

Qualità della rappresentazione del progetto

Project's quality of representation

<<The project is presented by different documents. A whole project documentation would be more suitable, to get a deep insight in the project work.>>

<<Very short description, just addressing individual aspects 30/50>>

<< Very professional videos for the promotion of the ZyZ project.

Unfortunately, the narrative is in Italian.>>

<<Impaginazione un po scarna ma chiara.

A little sparse but clear layout (translated by the editor).>>

<< 2.5/5 - The presentation need to be interpreted and is not easy to follow.

A connection among different parts of the project is missing .>>

Ranking :

4th

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