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Nautech

MARINE TECHNOLOGIES, ENGINES & EQUIPMENTS

N° 6 - Anno X - November 2014
Direzione, redazione, abbonamenti,
amministrazione e pubblicità:

Casa Editrice Tecniche Nuove SpA

Via Eritrea, 21 - 20157 Milano - Italia
tel. 02390901 - 023320391 - www.tecnichenuove.com

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Pubblicità:
Via Eritrea, 21 - 20157 Milano - tel. 02390901

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€ 30,00 annuale Italia, € 50,00 biennale Italia,
€ 60,00 annuale Europa, € 80,00 Overseas
Abbonamento digitale € 20,00 IVA 21% compresa.

Costo copia singola €1,50 (presso l'editore,
fiere e manifestazioni). Costo copia arretrata
(se disponibile) € 3,00.

Grafica, disegni e impaginazione:
Grafica Quadrifoglio s.r.l. - Milano

Stampa: Prontostampa - Via Redipuglia 150
24045 Fara Gera d'Adda (BG)

Poste Italiane SpA Spedizione in abbonamento postale
D.L. 353/2003 (conv. in L. 27/02/2004 n° 46) art. 1 comma 1 - DCB Milano.

Periodicità bimestrale

Registrazione: n° 815 del 22/11/04 -
Tribunale di Milano Iscritta al ROC Registro
degli Operatori di Comunicazione al n° 6419
(delibera 236/01/Cons del 30/6/01 dell'Autorità per
le Garanzie nelle Comunicazioni)

Responsabilità

La casa editrice non assume alcuna responsabilità
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Dichiarazione dell'Editore

La diffusione di questo fascicolo carta+on line
è di 9.227 copie

Associato a:



Tecniche Nuove pubblica anche/ Tecniche Nuove publishes the following magazines

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Idrotermosanitario, Computer Music Studio, Cosmesi in farmacia,
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**Gli abbonamenti decorrono dal mese
successivo al ricevimento del pagamento.**

The Milan Polytechnic wears Jeans



past 50 years, is in line with earlier experiments in the use of natural fibres to make bio composites. This cotton fabric, easy to find at low prices on the market, proved easy to drape and wet in normal infusion processes and was compatible with the resins used.

The project

From a project point of view, this hydrodynamically supported boat designed for a crew of two, features optimisation of the profiles of the appendages using simulation and verification with computational fluid dynamic codes. The design team, all from the Master in Yacht Design course, reaped the benefits of the tests on the water carried out with the earlier foiler built last year and developed T-shaped appendages with the aim of lowering the true wind threshold necessary for entering hydrodynamic support, now just 5 kn. To attain this result the appendages project was developed together with a review of the sailplan that included the introduction of a roller reefing code 02 increase thrust.

As in the past, the role of a large group of company sponsors contributed to and favoured the attainment of research objectives. Among them Candiani Denim for the hull fabric and technical support on the mechanical properties of the raw fibre, Bellotti for the wood used in the structure of the hull, Mascherpa for the coordination of a group of companies supplying epoxy resins and structural adhesives (Huntsman), core materials (3dCore), acrylic-urethane resins (Scott Bader), materials to make the infusion net and handle the vacuum in infusion processes (Diatex), and unidirectional linen reinforcements used to make the foils (Lineo). For the rig, PowerPlast and the Murphy & Nye loft in Latina helped

1001velaCUP

The 1001velaCUP, now in its eighth edition, was held this year in the splendid setting of the waters of Mondello, thanks to the hospitality of the Circolo della Vela Sicilia, promoter together with the University of Palermo of the initiative.

A teaching and sporting project with the participation of several Italian universities, 1001velaCUP is a chance for dialogue between the major Italian universities on research being carried out in the yachting field. The three days of racing, with the various teams competing against each other, saw medium to strong wind which allowed the crews to take their boats to the limit. Winner of this edition was the University of Trieste with Azteca, followed by 051 (UniBologna) and Aretè (UniPadova).

in the design and making of the foresail and the preparation of the membranes used to make it. Viadana supplied deck fittings and finally Polimisport and Hp provided logistic support for the crews and the transfer of the boats to the racing area.

Innovation

Crapabusa, with her hull in denim fabric, aroused great interest among the Universities taking part, the professionals and sponsors present, both for the experimentation in foil craft and for the innovative use of conventional materials. This research project will continue in the coming months with experimentation and optimisation of all the components of the boat (structures, appendages, rig) with the aim of presenting by the end of the year the first results of tests carried out on a prototype on the water. Following in the footsteps of the Wright brothers, who back at the beginning of the past century showed they could fly on wings made in cotton, we will soon know what is the further potential of such a simple material if supported by know-how and evolved technologies.

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Presented in preview in Palermo, during the 1001velaCUP races, the new foiler from the Milan Polytechnic, the first boat in the world to use ordinary denim as a reinforcement material for the construction of its hull. Designed and built by Master in Yacht Design students, thanks to the technical and logistic support of the SMaRT lab - Lecco Innovation Hub laboratory, this dinghy marks a further step forward in the search for natural materials for structural applications in yachting. Crapabusa, the Milanese dialect name of the boat chosen in keeping with the preceding Scarliga Merlùss (2013) and Baüscia (2010), includes in just 4.6 m and 70 kg of weight more than five years of application experiments in bio composites. The hull is in fact made entirely from a sandwich structure in denim with a PET core and vacuum impregnated with epoxy resin infusion. The decision to use this fabric, which has been very fashionable for the