

TOPIC: (4) Technology, materials, protection and maintenance

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## **ANALYSIS OF THE TECHNOLOGICAL SUITABILITY OF TWO ALUMINUM SUPERSTRUCTURE CONSTRUCTIONS OF STEEL HULL RIVER YACHT AND THEIR INFLUENCE ON THE BASIC PROJECT FEATURES**

### **Summary**

The paper analyzes reconstruction of river yacht with aluminum superstructure construction on an existing steel hull. On the example of two constructions the analysis was performed regarding their technological feasibility and influence on the basic project features. The analysis intends to show relationship of increasing construction weight to the length of the installed steel to aluminum transition joint. The length of installed transition joint is considered as a technology factor, as by increasing its length the requirements on connection geometry grow, and it complexes the construction, but lighter construction, and a more favorable position of mass center of gravity of the ship is obtained.

*Key words: aluminum superstructure, steel to aluminum transition joint, stability, construction, reconstruction*

## **ANALIZA TEHNOLOŠKE PODOBNOSTI DVIJU IZVEDBI KONSTRUKCIJE ALUMINIJSKOG NADGRAĐA RIJEČNE JAHTE ČELIČNOG TRUPA I NJIHOV UPLIV NA OSNOVNE PROJEKTNE ZNAČAJKE**

### **Sažetak**

Rad analizira pregradnju riječne jahte konstrukcijom aluminijskog nadgrađa na postojeći čelični trup. Na primjeru dviju izvedbi konstrukcije analizirana je njihova tehnološka izvedivost i upliv na osnovne projektne značajke.

Analizom se želi pokazati odnos povećanja mase konstrukcije prema duljini ugrađene trimetalne trake. Duljina ugrađene trimetalne razmatra se kao faktor tehnologije, jer se po njenoj duljini povećavaju zahtjevi na geometriju spoja, usložnjava se gradnja, ali se dobiva lakša konstrukcija, odnosno povoljniji položaj težišta mase broda.

*Ključne riječi: aluminijsko nadgrađe, trimetalna traka, stabilitet, konstrukcija, pregradnja*