

# PARTICULAR DESIGN FEATURES OF THE WORLD'S FIRST AIR-CUSHION CRAFT

K.U.K. LT.CDR. MÜLLER VON  
THOMAMÜHL

Osobitosti projekta prvoga svjetskog plovila  
na zračnom jastuku c. i kr. poručnika bojnog  
broda Müllera von Thomamühla

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## *Summary*

*The principle of the lifting effect for a vehicle by an underneath maintained air cushion had already been known in the 19th century, but it could not be implemented then due to technological reasons. In 1915/16 the Austro-Hungarian Lt. Cdr. Dagobert Müller von Thomamühl, a former resident of Pula and Susak, proposed to Naval Command (MTK) the design of a torpedo-carrying speedboat, which revealed itself as an air-cushion craft. Requested to demonstrate the feasibility of his design, he married his air-cushion system to a surface effect design of reduced size.*

*Many particular design features concerning: lay-out, hull construction, power train, steering and armament - nowadays quite common for SE-craft - were employed in this craft for the first time. Some of them were innovative, others purely makeshift and out of necessity. In Pula, in the basin of the Arsenal, the air-cushion effect was presented for the first time in the world by this torpedo-carrying test-craft on 3<sup>rd</sup> October 1915.*

*During the otherwise successful trial runs, as the system prevailed, deficiencies – actually quite normal at that stage - showed up, which would have required a long lasting or more intense development at the expense of other small combatants of conventional design. Thus further development on that line had to be discontinued. With the collapse of the Austro-Hungarian Empire invention and inventor fell into oblivion.*

*The idea resurfaced in 1955, with Christopher S. Cockerell's "Hovercraft", which was based on advanced technologies. Without it, modern transportation - especially in the military - could hardly be imagined.*

**Key words:** first Air-cushion Craft, Müller von Thomamühl, Pola, hovercraft

### Sažetak

Princip uzgona kod plovila ispod kojega se nalazi stalni zračni jastuk, poznat je još iz 19. stoljeća, no realizacija takvog plovila tada nije bila moguća zbog tehničkih razloga. Godine 1915./16. austrougarski poručnik bojnog broda Dagobert Müller von Thomamühl, koji je prethodno živio u Puli i Sušaku, predložio je Mornaričko-tehničkom odboru (MTK) projekt brzog torpednog čamca koji se zapravo pokazao plovilom na zračnom jastuku. Kada je od njega zatraženo da dokaže izvedivost svoga projekta, spojio je sustav na zračnom jastuku s djelomično postignutim površinskim efektom plovila.

U tom su se brodu prvi put primijenile mnoge posebne projektantske karakteristike vezane za plan rasporeda, konstrukciju trupa, pogonski sklop, upravljanje i naoružanje, koje su danas prilično uobičajene za plovila s površinskim efektom. Neke od njih bile su inovativne, druge tek privremena i nužna rješenja. Dana 3. listopada 1915. u akvatoriju Arsenala u Puli dogodilo se prvo svjetsko predstavljanje efekta zračnog jastuka u sklopu pokusnoga torpednog plovila.

Sustav se afirmirao, no u inače uspješnim pokusnim vožnjama pokazali su se i nedostaci koji su zapravo bili normalni u toj fazi i koji su zahtijevali dugotrajno ili intenzivnije razvijanje toga sustava nauštrb drugih manjih ratnih brodova konvencionalnog dizajna. Stoga se daljnje razvijanje na toj liniji moralo obustaviti. Nakon pada Austro-Ugarskog Carstva izumitelj i izum pali su u zaborav.

Ideju je 1955. ponovno preuzeo Christopher S. Cockerell sa svojim hovercraftom, utemeljenim na naprednim tehnologijama, bez kojega je teško zamisliti moderan prijevoz, posebice za potrebe vojske.

**Ključne riječi:** prvo plovilo na zračnom jastuku, Müller von Thomamühl, Pola, hovercraft