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*Dear colleagues-welders: professors, teachers and workers of Chair of Welding Engineering of the Admiral Makarov National Shipbuilding University!*

*On behalf of scientists and workers of the E.O. Paton Electric Welding Institute of NASU and Editorial Board of «The Paton Welding Journal» we cordially congratulate You with the 50th jubilee of Chair of Welding Engineering.*

*Over many years the specialists of the Chair solve successfully the tasks of improvement of educational level of welders-engineers, perform development and realization of high-efficient technologies not only in shipbuilding, but also in many other branches of industry. During the whole period over 2900 welding production engineers were educated. Among the graduates there are over 80 doctors and candidates of sciences, honored science and technology workers.*

*Owing to initiative and creative work of the Chair staff under management of scientists-production workers and senior lecturers, such as A.I. Safonov and I.I. Dzhevaga at the first years and Prof. V.F. Kvasnitsky in latest 30 years, the actual scientific trends were formed and branch research laboratories and branches of the Chair at the largest enterprises of shipbuilding and ship machine building were founded.*

*For specialists education and performance of scientific work the Chair successfully collaborates with leading scientific and educational centers of Ukraine, Russia, Germany, China, actively participates in certification of welding production enterprises at the South of Ukraine.*

*The scientists and specialists from the E.O. Paton Electric Welding Institute and Editorial Board of Journal wish happiness, welfare and creative success to all staff, graduates and students of the Chair.*

*Editorial Board*

## STATUS OF WELDING PRODUCTION AT SHIPBUILDING PLANTS OF UKRAINE

V.F. KVASNITSKY<sup>1</sup>, B.V. BUGAENKO<sup>1</sup>, Zh.G. GOLOBORODKO<sup>1</sup>, V.M. ILYUSHENKO<sup>2</sup>, N.P. ROMANCHUK<sup>3</sup>,  
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It is shown that in spite of economic problems all over the world the shipbuilding enterprises of Ukraine have available the modern efficient technologies and equipment which allows successful production of competitive products at the world market.

**Keywords:** shipbuilding, assembly, welding, cutting, parts, sections, blocks, welding consumables, equipment

The water transport of Ukraine is featured by ships with a life exceeding 20 years and even more. Since the fleet needs updating in the nearest time, it is necessary to build ships for inland navigation as well as for mixed river-sea type. The world shipbuilding market requires also shipbuilding production [1]. However, the world market entry is only possible providing that advanced technologies and equipment are implemented, capable to provide reduction in building terms, required quality and cost effectiveness of ships.

The aim of this work is the analysis (on the example of two plants) of technical and technological status

of welding production of shipbuilding in Ukraine, primarily defining the niche of production of this branch at the world market.

The principal technology of shipbuilding depends on the method of hull forming and is defined by design peculiarities of a ship, production capacities of enterprise-manufacturer, program of ships building of this project and also by other factors.

The hulls of modern ships are composed of sheet and shaped rolled stock differed by sizes, shape and materials. The sheet parts make up 85–90 % of ship hull mass. The number of parts for building of one ship can reach several tens of thousands. The principal method of their manufacture is thermal cutting, whose