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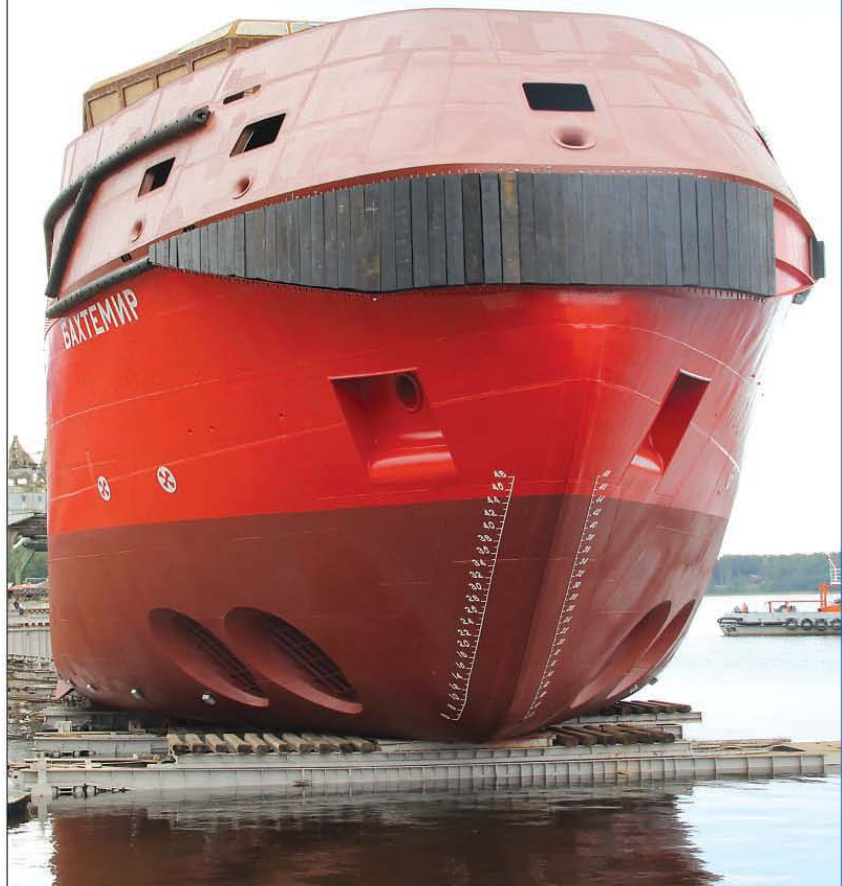
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**ВОЕННОЕ
КОРАБЛЕСТРОЕНИЕ**

**СУДОВОЕ
ОБОРУДОВАНИЕ**

**ТЕХНОЛОГИЯ
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ИСТОРИЯ



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/SHIPBUILDING/

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AT SHIPBUILDING YARDS

CIVIL SHIPBUILDING

***Lyubimov V. I., Baryshev V. I., Khlutchin I. V.* Role of airfoil boats in transport system of the Russian Federation.**

This article was issued by 100 years anniversary of R. E. Alekseev, the famous designer of airfoil boats. The authors analyze history of airfoil boats development in Russia and their usage prospects in transport system of the Russian Federation.

Keywords: airfoil boats, design, transport system, high-speed vessels.

NAVAL SHIPBUILDING

***Sviridov G. M., Novoselov N. A., Britsyn M. M., Sviridov S. G., Pavlov A. A.* Strategic directions in design of electric equipment for Russian Navy ships equipped with electric full-motion systems.**

Ship power plants with electric full-motion system have large potential advantages and large disadvantages before mechanical transmission, which prevent its worldwide implementation. Nevertheless, development of advanced technologies and energy-intensive weapon systems stimulates construction (overseas) of heavy-tonnage ships with electric propulsion systems.

Long experience in development of electric propulsion system of Krylov shipbuilding research institute together with leading ship design bureaus and industrial enterprises allow to conclude, that non-conventional design of EMS power plant proposed by Russian developers is free of many disadvantages of standard design, having x2 less weight and x4–5 less cost than foreign analogues. Such results were achieved due to system approach to development of entire EMS (from energy generation level to converter and propulsion unit).

Correctness of found solutions is proved by floor-based prototype stand of electric motion system of 13 000 kW capacity created by Krylov shipbuilding research institute.

The proposed technology of EMS is sufficiently versatile and therefore can be used on surface ships and submarines of various deadweight.

Keywords: electric motion system, frequency converter, electric propulsion motor, full-scale stand, electromagnetic compatibility.

***Terentiev A. A.* Design of nuclear heavy missile cruiser «Kirov» by DB-53.**

This article is composed by deputy chief designer of P. 1144 ship series narrating about design procedure in DB-53 (now Northern DB) of «Kirov», the first nuclear heavy missile cruiser, P. 1144.

Keywords: history of shipbuilding, design, nuclear heavy missile cruiser.

Berman B. A. About hull specialization development in DB-53.

This article analyzes issues pertaining to development of hull design specialization in DB-53.

Keywords: history of shipbuilding, design, hull works, welding works, welded hulls.

MILITARY-TECHNICAL COOPERATION

Golyak V. I. Military-technical cooperation with China.

The author hereby analyzes cooperation between Northern DB and China from 1950-s to nowadays.

Keywords: history of shipbuilding, design, military-technical cooperation.

MARINE EQUIPMENT

Bubnov E. A. Strategy of informational support for shipboard equipment operators.

The author hereby describes basic concepts of informational support (IS) theory for shipboard equipment operators and gives formal definitions of the same: IS for shipboard equipment operator, informational support system, typical administration tasks and their classes, typical IS tasks and their classes, IS strategy, system functioning model, etc. Given conceptual structure is invariable for type controlled shipboard unit, thus allowing to create informational support systems capable to run various strategies for various types of controlled units with preset specifications, properties and parameters.

Keywords: informational support, shipboard equipment operator, strategy classes, typical administrative tasks, predicting information, system functional model.

Burtsev S. I. Modern approach to air conditioning onboard ships and vessels.

This article justifies amendment of principles of ship air conditioning systems (SAS) accepted in 1960-s—1970-s and remaining actual nowadays. The author hereby describes general technical solutions on SAS increasing quality of internal environment of compartments being serviced and SAS power efficiency. It has been shown, that design solutions cannot be considered final w/o math models of temperature/speed fields inside compartments.

Keywords: ship air conditioning systems, air distributing terminals, math modeling, temperature and speed fields.

SHIPBUILDING ORGANIZATION AND TECHNOLOGY

Levshakov V. M., Nikitin V. A. Creation of STE for shipbuilding industry: results and prospects.

The author narrates about issues on creating the STE for shipbuilding industry for the last 50 years. Four main stages are highlighted. Each stage got the description and results of STE development for each production type. Reviewed are results on CNC-machines development, laser and robotized equipment, issues related to STE replacement in shipbuilding industry and development features of the same nowadays.

Keywords: STE shipbuilding, industrial equipment.

Karasev V. A. Replacing main gate of dry dock at LLC «Zaliv» dockyard of Kerch.

This article describes replacement of main gate of dry dock at LLC «Zaliv» dockyard in city of Kerch, including manufacturing and installation of new gate, and dismantling of the existing one.

Keywords: dock, main gate, intermediate gate, hinged and roller bearings, gate tilting, floating cranes.

SHIPREPAIR AND UNILIZATION

Lyamin P. L., Petukhov V. V., Sveshnikova N. N., Mazokin V. A., Ryasnyansky S. G. Issues of silt deposit treatment in storage reservoirs for liquid radioactive wastes (LRW) in Gremikh's section of SevRAO.

Keywords: liquid radioactive wastes, silt deposits, conditioning, decommissioning.

This article analyzes topical problems of decommissioning the LWR reservoirs in Gremikh's section of SevRAO.

The authors specify design specifications of LWR reservoirs and their current state, radionuclide composition of LWR and bottom deposits in reservoirs, such as radionuclides ^{137}Cs and ^{90}Sr . It has been shown, that all reservoirs (except one) contain low-active LWR.

Hereby processing methods for bottom silt deposits are analyzed considering specific location of Gremikh's section. Three ways of treatment of bottom silt deposits in LWR reservoirs have been proposed.

INFORMATION SECTION

80 years anniversary of B. A. Barbanel! New signs in class symbol. New expo of ЦБММ at «Aurora» cruiser. Foreign information

HISTORY OF SHIPBUILDING AND FLEET

Klimovsky S. D. Corvette «Knyaz Warsawsky».

Sail corvette «Knyaz Warsawsky» became the first ship of Russian Navy acquired in USA. Documents of Russian State Naval Archive are getting declassified and available for scientific research, allowing to find out the acquisition details, transfer of ship to Russia, specification, features and service milestones of this ship.

Keywords: history of shipbuilding, design, corvette, shipbuilding in USA.

Kuznetsov L. A. Patrol vessels «Yastreb» and «Grif».

During World War I (1914—1918), the Baltic fleet was reinforced with two ice-class steam vessels «Bore I» and «Bore II» further renamed to «Yastreb» and «Grif» respectively. The author narrates about their overhauling into patrol vessels and their further service.

Keywords: history of shipbuilding, design, patrol vessel, World War I.