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ИСТОРИЯ



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/SHIPBUILDING/

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AT SHIPBUILDING YARDS

NAVAL SHIPBUILDING

Lisitsky V. V., Sitnikov Yu. A. DB «Vostok»: development experience of foreign and new proprietary projects.

DB «Vostok» used its over 50-years' experience in designing fishing vessels of various types and purpose to develop several conceptual projects thereof, including: two medium freezing trawlers «Meridian-M» and «Merkuriy», large freezing trawler «Vostok» and long-line crab vessel. Main specifications of these vessels are provided.

Keywords: fishing trawler, freezing trawler, long-line fishing vessel.

NAVAL SHIPBUILDING

Baskakov I. Ya. Border guard ships of «Svetlyak» type.

This article reviews design and construction issues of border guard ships of «Svetlyak» type (p.10410). Specifications, construction stages and photos are provided.

Keywords: steam vessel, shipbuilding, Aral fleet, design.

SHIPBOARD EQUIPMENT

Nesterov V. G. Innovative solution to increase processability of shipboard shaft lines.

The author hereby analyses design and technical features of shaft line and estimates processability of eccentric spigot between shaft lines. The article contains bench test results of 150 mm diameter shaft lines, proving that carrying capacity of eccentric spigot exceeds the same of conventional spigot in more than 1.3 times. It is noted, that eccentric spigots have been successfully operating as part of shaft lines onboard Indian Navy ships.

Keywords: shaftline, processability, spigot, carrying capacity, torque moment.

Kulichkova E. A. Shipboard valves affecting transient processes in pipelines.

The author narrates about issues related to design of shipboard valves and research of hydraulic-dynamic and vibro-acoustic processes in operating shipboard valves.

Keywords: shipboard valves, hydraulic-dynamic and vibro-acoustic processes.

Butilyn V. M., Evstifeyev M. I., Mashoshin A. I. New generation of cabinets for shipboard electronic equipment: liquid cooling.

The author hereby reviews and compares technical specifications of cabinets for shipboard electronic equipment. The author justifies design of cabinet with liquid cooling system developed by JSC «Electropribor» having enhanced heat removing specifications (up to 40–50 W per step/slot), higher processability compared to similar cabinets. To ensure high technical and process specifications, the developer used

modern technologies for deep drilling and hydraulic-abrasive metal cutting. Heat modeling and test results of devices installed in the cabinet are provided.

Keywords: electric cabinet, electronic equipment, liquid cooling.

Tsitsikyan G. N., Antipov M. Yu. Application of vacuum switches in marine equipment.

The author hereby reviews potential application of vacuum switches in marine equipment and related physical-technical problems.

Keywords: vacuum switch, current «edge», overvoltage, restriking.

SHIPBUILDING ORGANIZATION AND TECHNOLOGY

Alferov V. I., Platonov V. V., Mikhailov V. S. Estimating impact of process factor on spherical shell bearing capacity (pilot sample).

This article contains estimation of process factor on bearing capacity on spherical shell bearing capacity (pilot sample) made from steel with yielding limit $\sigma_T = 600$ MPa.

Keywords: strength, bearing capacity of steel hull structures, welding deformations and stresses.

Fomichev A. B., Klyakhin V. N., Dorofeyev V. I. Method to define summary labor intensity for surface ship hull construction.

Ship hull construction takes a big share from overall construction time, and therefore it is essential to define its labor intensity accurately. This article reviews math models purposed to correlate analytical and empirical dependencies given in normative documents and subsequently compress timelines required to define labor intensity of hull construction.

Keywords: ship hull construction, labor intensity, math model.

Fedorova O. E. JSC SSTC and composite shipbuilding: history and development prospects.

Advanced development trends for composites by the example of JSC SSTC.

Keywords: composite shipbuilding, developments, new technologies.

SHIPYARD RETOOLING

Khaustov A. N. Shipyard in Belokamenka (Construction Center of Heavy-Tonnage Marine Facilities)

SHIPREPAIR AND DISPOSAL

Zyablov O. K., Kochnev Yu. A. Adapting common industrial and office software for shiprepair.

The author narrates about automated preparation of repair documentation (APRD), typical generic repair technologies (TGRT) and adapted process design systems, overall cost reduction of navy exploitation.

Keywords: automated preparation, documentation, shiprepair.

Nikitin V. S., Sagaidakov F. R., Guryanov S. K. Organizational and technical aspects of disposal of US Navy nuclear-powered submarines.

This article reviews issues of disposal of US Navy submarines. Reviewed are legislative and normative acts regulating disposal of nuclear-powered submarines, concept and programs adopted and executed by US Navy, disposal technology and principles, handling program for reutilization of separate components and materials of nuclear-powered submarines. As of SSBN, the author reviews disposal of their missile compartments.

INFORMATION SECTION

Ministry of Industry and Trade about Shipbuilding. Amosov A. G. Shipbuilder – A. P. Kalinin. Filatov O. V. Diplomatic efforts of the Russian Empire in naval arms race restraint and establishment of international court (1899–1907). Foreign information. High-speed hydrofoil passenger

craft «Valday» in St. Petersburg. Gan'zhina T. A. United Shipbuilding Corporation signed two agreements within the framework of St. Petersburg International Economic Forum. International conference «Russian Shipbuilding». A. A. Get'man – 90 years anniversary! *Vartanyan Yu. T.* Commemorating the 100th anniversary of archival service in Russia. Navigate – joint exhibition of shipbuilding industry, navigation and cargo transportation.

HISTORY OF SHIPBUILDING AND FLEET

Keywords: nuclear-powered submarines, disposal, burial, nuclear reactor, missile compartment, dismantling, transportation.

Mityukov N. V., Yarovoi V. V. Steam vessel «Tashkent» of Aral fleet.

This article reviews design and construction issues of «Tashkent» steam vessel of Aral fleet in the beginning of 1870-s. Drawings and specifications are provided.

Keywords: steam vessel, shipbuilding, Aral fleet, design.

Pridannikov M. I. Guard boats for Abo-Oland line.

This article reviews design and construction issues of guard boats for Abo-Oland line during World War I (1914–1918). Drawings, photos and specification thereof are provided.

Keywords: naval shipbuilding, design, boat construction, guard boat, motor boat.

Kornyakov K. A. Bazhenin family merchants from Arkhangelsk – founders of Russian shipbuilding and lumbering.

Lumbering used to be a dedicated production facility at northern shipyards for a long time. Bazhenin family merchants from Kholmogor were the first in Russia who managed to convert lumbering into standalone industry.

Keywords: history of shipbuilding, shipyard, shipbuilding in Northern Russia.

Tsekhanovskya O. K. Paintings of N. N. Gritsenko and M. S. Tkachenko in Central Naval Museum.

Life and creative work of artists N. N. Gritsenko (1856–1900) and M. S. Tkachenko (1860–1916) are similar in many aspects. Both were born in Southern Russia, both studied in Imperial Academy of Arts, served in Marine department as duty marine painters of General Naval Staff. Many paintings drawn by them are now stored in CNM collection.

Keywords: marine painters, history of fleet, CNM collection.