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ПРОЕКТИРОВАНИЕ СУДОВ

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ТЕХНОЛОГИЯ СУДОСТРОЕНИЯ

ИСТОРИЯ

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/SHIPBUILDING/

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Upgradation of nuclear submarines of Virginia class includes implementation of «breakthrough» technologies, intended to considerably increase their combat capacity, in particular shifting to complete electric motion, application of composite materials for sail, integration of combat control systems with weapons, sensors, and motion control aids.

MARINE EQUIPMENT

Burtsev S. I., Dzino A. A. Refrigeration supply to onboard air conditioning systems.

The article contains comparative analysis of refrigeration supply solutions based on absorption and steam compression refrigeration machines. General industrial development is considered for both options.

SHIPBUILDING ORGANIZATION AND TECHNOLOGY

Fedorova O. E., Sokolov K. O., Orlova E. A., Yevdokimov S. V. Modern technologies for correction of defects (micro porosity) in casted and powder metal items in shipbuilding and marine engineering.

The authors consider issues related to liquidation of micro porosity in parts of ship systems, manufactured by casting or powder metal methods. Impregnation capacity is compared of compositions Anaterm PK-80 and Resinol 88C. Techniques and equipment are described for liquidation of mocro porosity with polymer impregnation compounds.

Kozlov V. A. Improvement of measurements quality at acoustic test stand.

The article is devoted to study of effect from unwanted noise and vibration to quality of measurements at acoustic test stand in DB Armas. Methods are proposed to reduce such effects, in particular reconstruction of the stand and introduction of correlative values and functions for hydrodynamic noise, generated by shipborne valves under test.

Krushenko G. G. Improvement of quality of steel casted propeller for river passenger vessel C.

The article demonstrated results od the work, ensured improvement of quality of casted steel four-blade propeller by improvement of rod jigs and assembly of casting mould, increasing of surface cleanliness when painting sand rods with nano-powder containing paint, and improvement of mechanical properties due to application of slurry pouring.

SHIPREPAIR AND UTILIZATION

Dikushin V. Yu., Sergeyeva N. L., Yakovlev A.V. Reconstruction of dry docks at the dockyard in Murmansk.

In the article, two options of dry docks reconstruction in Murmansk are considered.

Gavrilyuk L. P., Nesterov V. G. Center alignment of ship shaftline with checking of elastic curve.

Concept is presented for center alignment of shaftlines, based on checking the elastic line, considering the fact that changing in elastic line parameters produces strong effect to load on shaftline bearings. Implementation of such approach can increase operational reliability of a shaft line and in some cases allows to bring forward the alignment to an earlier stage.

INFORMATION SECTION

Polar Code. The Great Russia: Shipbuilders. Foreign information. Exhibitions and conferences in 2017

HISTORY OF SHIPBUIDING AND FLEET

Yoltukhovskiy V. M. Minesweepers and mine exploders in Soviet Navy.

The author studies countermeasures against various types of mines during Great Patriotic War in 1941–1945. Performance parameters of Soviet minesweepers are described, along with purpose of various mine exploders.

Platonov A. V. Some aspects of shipbuilding in USSR and USA in post-war period.

Analysis is given of naval shipbuilding situation in USSR and USA in first years after WWII, appearance of new types of naval weapons and related changes in warship composition, both in Soviet and American Navy.