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ИСТОРИЯ



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/SHIPBUILDING/

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CIVIL SHIPBUILDING

***Garmash D. E., Naumova T. B., Temkin M. V., Aleshina L. D.* Multipurpose and special-purpose icebreakers for oil-gas fields located on the shelf in Russian area of Arctic region and Far East**

This article reviews design of multipurpose and special-purpose diesel-electric icebreakers for maintaining operation of offshore rigs at sea shelf in Russian arctic region and Far Eastern region. The authors analyze functional purposes of such ships, provide conceptual technical solutions defining appearance of rescue ice-breaker which is supposed to provide operational safety for offshore rigs at Russian continental shelf and to secure 3D seismic surveys in arctic seas.

NAVAL SHIPBUILDING

***Erokhin A. G., Ageyev A. S., Tsaturov I. V.* Current state and development prospects of power transfer facilities to an emergency object in Russian Navy**

This article describes approach for setting-up a special complex meeting such requirements as versatility, endurance, mobility, minimum weight and dimension parameters, upgradeability and potential to become an advanced facility of Russian Navy for rescuing emergency objects and other similar tasks.

***Sagaidakov F. R., Chernetsova N. A., Gurianov S. K.* Foreign navy. Current state and development prospects for aircraft carriers and landing ships**

Quick reaction forces established in various states include aircraft carriers and multipurpose landing ships. According to opinion of experts, these ships will become a core power in naval forces of large maritime states.

SHIP POWER PLANTS

***Bor S. M., Frolov V. A., Fedotov P. A., Konstandenko I. Yu.* Principles used to take decision on creation of ground-based prototype stand of mobile nuclear plant**

This article reviews justification issues on setting-up ground-based prototype stand of mobile nuclear plant. Given are advantages and disadvantages of mobile facility with and w/o ground based stand. Approach for taking decision on this matter has also been specified.

***Kovalchuk L. I., Isaeva M. V.* Theoretical backgrounds and algorithm for shaping of control models for limitation of heat-release rate of marine diesels**

The authors hereby specify theoretical backgrounds and algorithm for shaping of control models for limitation of heat-release rate of marine diesels. Given is example of calculation of limitation factor for certain engine. Given is algorithm for practical use of limitation factor for rapid estimation of piston-cylinder units state in marine conditions.

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The authors hereby describe decontamination of ships ballast water from biological contamination. Given are results on creation of pilot sample of indigenous control system for ballast waters of sea ships and river-sea ships.

Grineva A. O., Teplyakov M. V., Khazieva M. D. Practical experience and issues of noncontact power transfer

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SHIPBUILDING ORGANIZATION AND TECHNOLOGY

Suzdalev I.V., Gavrilyuk L.P. Setting new quality standard in manufacturing of hulls for nuclear powered and diesel submarines by applying energy beam welding methods

This article analyzes domestic experience in applying energy-beam welding for structures of pressure hull (made from high-tensile steels of AB type, up to 90 mm thickness) of nuclear powered submarines. Final conclusion indicates, that current methods of energy beam welding can significantly increase technological effectiveness in this area, i.e: increase of production performance in 3-4 times, reduction of power and material consumption in 5-7 times, switching to engineering-level accuracy in manufacturing of pressure hull shells and sections.

Suzdalev I.V., Gavrilyuk L.P. Conceptual description of equipment complex required for energy beam welding of submarine pressure hull

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Klimovsky S. D. George Steers and his influence on Russian shipbuilding

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