

ANNOTATIONS
of science works published in professional magazine
«River transport (XXIst century)» 4(108)'2023

The features of calculation of vessel's dynamic squat value / M. Churin, Y. Bazhankin, V. Tikhonov // River transport (XXIst century). 2023. – № 4 (108). – p. 38-41.

Describes the features of calculation of vessel's dynamic squat value by different methods of foreign and russian scientists.

Key words: method of calculation, dynamic squat, comparative analysis.

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Determination of running and traction characteristics of tugboats' propulsion and steering complex based on statistical data / M. Aleksandrov, V. Kuznetsova // River transport (XXIst century). 2023. – № 4 (108). – p. 41-44.

Shows the results of researches to create graphical and appromaxi functions for calculation towing vessel's power and thrust based on statistic data, and also regression function for calculation pushed barge's movement resistance with the help of theory of dimensions.

Key words: towing vessel, pusher, power, seaworthiness, propulsion and steering complex.

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Experimental researches of ship diesel's upgraded cooling system/ V. Zhukov, I. Peresetskiy // River transport (XXIst century). 2023. – № 4 (108). – p. 44-47.

Describes the structure of ship diesel's upgraded cooling system containing heat pump and battery which allows to use low temperature secondary energy resources. Shows the results of experimental researches which prove possibility of decreasing energy outlays for engine pre-start preparation and heating of ship's spaces.

Key words: ship's diesel, secondary energy resources, cooling system, heat pump.

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The research of polymethylsiloxane fluid characteristics influence on ship power plant snubber's efficiency / O. Borodina, S. Glushkov, A. Panova // River transport (XXIst century). 2023. – № 4 (108). – p. 47-50.

Shows the results of analysis of polymethylsiloxane liquid features, which influence ship silicone power plant snubber's durability. Suggests the concept of polymethylsiloxane liquid diagnostics. Describes the ways of estimation snubber's efficiency and its residual resource.

Key words: silicone snubber, ship's power plant, polymethylsiloxane liquid, diagnostics, residual resource.

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The research of motor oil's physics-chemical characteristics influence on its waste in ship's diesel / B. Lebedev, O. Lebedev, V. Konovalov //River transport (XXIst century). 2023. – № 4 (108). – p. 50-51.

Describes the way to reduce oil waste in ship's diesel by increasing its thermal conductivity coefficient. Shows the results of experiment of applying motor oil with aluminium powder in 2Ch 8.5/11 engine.

Key words: oil waste, thermal conductivity coefficient, aluminum powder, ship's diesel.

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The calculation of torsional vibrations of ship diesel's shaft line (on the example of G70 engine of «Volga-Don-121» bulk carrier) / E. Adamov, S. Sikarev, N. Otdelkin, V. Orekhvo // River transport (XXIst century). 2023. – № 4 (108). – p. 51-54.

Show the results of calculation of torsional vibrations of ship diesel's shaft line on the example of G70 engine of «Volga-Don-121» bulk carrier.

Key words: diesel, shaft line, torsional vibrations.

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The analysis of chemical current sources' operation modes while operating on ships with electric traction / V. Ropmanovskiy, V. Kurakin, A. Khoroshen'kiy // River transport (XXIst century). 2023. – № 4 (108). – p. 54-57.

Describes the features of using and operation modes of chemical current sources on the fleet. Analyses vessel's energy performance. Suggests the method of calculation of storage battery's capacity.

Key words: ship with electric traction, chemical current sources, storage battery, capacity.

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About influence of ergonomics on «human factor» and safety of fleet's operation / I. Shatokhin, I. Linevich, A. Serdyukov // River transport (XXIst century). 2023. – № 4 (108). – p. 57-58.

Analyses influence of ergonomics on «human factor» and safety of fleet's operation.

Key words: ergonomics, vessel, «human factor», , accident rate, safety.

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