

ANNOTATIONS
of science works published in professional magazine
«River transport (XXIst century)» 2(110)'2024

The method of estimation comfort of tourist river vessels / E. Ronnov, D. Mikheev, Y. Kochnev // River transport (XXIst century). 2024. – № 2 (110). – p. 26-29.

Makes analysis of comfort indicators of tourist river vessels. Suggests the method to estimate their level in order to assign a «stardom» class by analogy with coastal hotels classification system.

Key words: tourist river vessel, comfort, method, classification.

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The dispersion of water flow along arms among islands of complexly branched riverbed of middle and lower Lena, its variability and consideration in realisation dredging / R. Chalov, A. Sakharov, G. Golubtsov, A. Kurakova, V. Semakov // River transport (XXIst century). 2024. – № 2 (110). – p. 30-38.

Reveals main patterns of water flow dispersion among islands forming very complex parallel-sleeve branches in morphology, its variability in time and consideration in substantiation measures to provide safety of navigation, realisation dredging.

Key words: middle and lower Lena, complicated riverbed, water flow, dredging, safety of navigation.

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The features of normative regulation for safety navigation of autonomous vessels of inland water transport / V. Dmitriev, V. Karetnikov, D. Milyakov // River transport (XXIst century). 2024. – № 2 (110). – p. 40-41.

Describes questions about normative regulation for process to provide safety navigation of autonomous vessels of inland water transport.

Key words: safety, shipping, «human factor», autonomous vessel, Center for remote control.

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The analysis of development of modern criteria of stability of vessel in undamaged state / M. Osokin, M. Zhukov, V. Tikhonov // River transport (XXIst century). 2024. – № 2 (110). – p. 41-46.

Describes the problems and prospects of practical application of second generation of criteria of stability of vessel in undamaged state. Suggests the method to correct moment of inertia of acting waterline on wave.

Key words: moment of inertia, actual waterline, parametric resonance, pitching, excitement, vessel's stability.

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The review of issues of energy efficiency of marine vessels and ways to reduce their greenhouse gas emissions / S. Andryuschenko, A. Dmitriev, D. Tel'tsov, O. Lebedev, S. Ivanchik // River transport (XXIst century). 2024. – № 2 (110). – p. 46-48.

Describes introduced by International maritime organization (IMO) necessary measures to reduce emissions of harmful substances from exhaust gases of marine diesel engines.

Key words: energy efficiency, marine vessels, greenhouse gases, ecology.

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Tribomechanical system of dynamic suppressor of torsional vibrations with viscous friction of ship's diesel / O. Borodina, S. Glushkov // River transport (XXIst century). 2024. – № 2 (110). – p. 48-51.

Analyses physicochemical parameters of polymer in dynamic suppressor of torsional vibrations with viscous friction of crank mechanism of ship's diesel in order to determine operability and prolong service life of damper.

Key words: torsional vibrations, viscous friction damper, tribological system, polymer, molecular weight distribution.

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About using biofuel as a combustible in diesel engine of river vessel / B. Lebedev, O. Lebedev, E. Zherdeva // River transport (XXIst century). 2024. – № 2 (110). – p. 52-54.

Analyses state and prospects of using biodiesel fuel as a more environmentally friendly and economical alternative to traditional hydrocarbon fuel in river fleet.

Key words: biodiesel, river fleet, diesel engine, ecology, economy .

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Application of GIS-technologies in natural studies of river confluence nodes (on the example of Siberian region) / V. Shamova, V. Belyaeva, S. Stupko, V. Salikov, A. Botvinkov // River transport (XXIst century). 2024. – № 2 (110). – p. 54-55.

Shows the example of using GIS-technologies in natural studies of confluence nodes of rivers Biya and Katun'. Formation of electronic map of this section for the purpose of planning measures to improve local navigable conditions.

Key words: river confluence nodes, safety of navigation, GIS, map.

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The container line model based on graph theory in context of strategic planning / D. Morozova // River transport (XXIst century). 2024. – № 2 (110). – p. 56-59.

Suggests network planning method to build model of set of interrelated operations that implement specific functions and represent sequence of actions performed by operators of shipping company.

Key words: container line, linear shipping, optimization, network schedule.

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