ANNOTATIONS
of science works published in professional magazine
«River transport (XXIst century)» 4(116)'2025

The problems of targeted training in professional education of specialists for water transport organizations / I. Luchkov, A. Isaeva, M. Luchkova // River transport (XXIst century), 2025. – № 4 (116). – p. 29-33.

Analyses modern state of system of targeted training in professional education of specialists for water transport organizations. Describes existing practice, defines key factors which influence final result.

Key words: targeted training, professional education, employment

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The concept of integrated digitalization of technical operations of inland and mixed navigation fleet / V. Kashina, E. Burmistrov // River transport (XXIst century), 2025. – № 4 (116). – p. 33-35.

Suggests the author's concept of integrated digitalization of technical operations of inland and mixed navigation fleet.

Key words: fleet maintenance, digitalization, ship repair company, shipowner.

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Hybrid power plant of river pleasure ship / O. Burmakin, S. Popov, Y. Malyshev // River transport (XXIst century), 2025. – № 4 (116). – p. 36-40.

Suggests functional single-line diagram of dual-current system for small passenger vessel pr. R-51E. Describes simulation models of direct current link for analyzing operating modes of solar and storage batteries, of united ship energy system; for the last one makes modeling of daily cycle operation.

Key words: river ship, energy system, dual current, renewable energy sources, solar battery.

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Robotics in shipbuilding: transformation of production, challenges and strategic prospects / P. Bimberekov // River transport (XXIst century), 2025. – № 4 (116). – p. 41-44.

Describes the process of shipbuilding transformation under influence of robotics as a key factor in increasing efficiency, quality and safety. Analyses main areas of robot implementation, advantages and limitations.

Key word: robotization, shipbuilding, efficiency, and safety.

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The analysis of dependence of friction coefficient on load and amount of lubricant additive in plain bearings of ship diesel engine / S. Ivanchik, E. Gubin, G. Yur // River transport (XXIst century), 2025. – № 4 (116). – p. 46-48.

Analyses dependence of friction coefficient on load and amount of lubricant additive in plain bearings of ship diesel engine.

Key words: ship diesel engine, plain bearing, friction factor, lubricant additive.

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The analysis of the problem of fatigue among seafarers during their professional activities / S. Kozik // River transport (XXIst century), 2025. – № 4 (116). – p. 48-51.

Analyses the problem of fatigue among seafarers during their professional activities. Describes the factors that lead to fatigue, the conditions under which it occurs, and the characteristic signs of cognitive, physical, and behavioral deterioration.

Key words: professional activity, seafarer, fatigue, danger, analysis.

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The research of screw characteristic of diesel engine operating on distillate fuel with additive of ethyl alcohol head impurities concentrate / V. Gusakov, S. Titov, G. Yur // River transport (XXIst century), 2025. – № 4 (116). – p. 51-53.

Shows the results of comparative tests (based on screw characteristic) of Ch10,5/12 engine operating both on distillate diesel fuel and on additive concentrate of ethyl alcohol head impurities.

Key words: diesel fuel, low-carbon fuel, ethyl alcohol impurities, emulsion, harmful emissions, ecology.

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The research of effect of vegetable additives on reducing oil consumption of ship diesel engine in operation / S. Shelomentsev, B. Lebedev, O. Lebedev, D. Tel'tsov, S. Andryuschenko, K. Mochalin // River transport (XXIst century), 2025. – № 4 (116). – p. 53-55.

Researches effect of vegetable additives on operation of diesel engine. Analyses relationship between oil consumption, power, and crankshaft speed. Presents the results of laboratory tests of various additives.

Key words: internal combustion engine, vegetable additives, efficiency.

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Features of calculating breakup of ice fields at concentrated difference / O. Spirenkova, A. Tushina, N. Fomicheva, E. Rykova, D. Kudaeva // River transport (XXIst century), 2025. – № 4 (116). – p. 55-58.

Substantiates effectiveness of breaking ice before spillways to ensure its passage. Suggests the
author's method for calculating sizes of breaking ice fields.

Key words: hydrosystem, passage of ice, breaking of ice fields.

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About heat exchangers for ship diesel's cooling systems / N. Yudin, E. Zelinskikh, A. Milrat // River transport (XXIst century), 2025. – № 4 (116). – p. 58-59.

Describes functional significance of heat exchangers to ensure operation of main engine and key requirements for ship's coolers.

Key words: ship diesel, cooling system, heat exchanger.

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Development of terminal and logistics infrastructure of Khabarovsk river trade port in context of growing foreign trade container traffic / R. Korol' // River transport (XXIst century), 2025. – № 4 (116). – p. 60-61.

Describes the author's program for simulation modeling of transport and logistics processes in river port with customs post. Shows the results of modeling of processing of increased volumes of foreign trade container traffic at terminal and logistics facilities of the Khabarovsk river trade port with taking into account expansion of production and technological subsystem.

Key words: river port, processing of containers, simulation modeling.

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