

ANNOTATIONS
of science works published in professional magazine
«River transport (XXIst century)» 3(111)'2024

The relationship between condition of technical fleet and objectives of Transport strategy of Russian Federation / V. Kashina, E. Burmistrov, D. Miltsyn // River transport (XXI st century). 2024. – № 2 (110). – p. 34-36.

Describes the problem of realization activities aimed at development of unified backbone network of inland waterways. Creates relationship between current structure of operating technical fleet and objectives of Transport strategy of Russian Federation until 2030 with forecast for period up to 2035.

Suggests the principle to identify potential suitability ships for operation until 2035 with taking into account influence of key factors combination.

Key words: track fleet, technical condition, inland waterways.

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Approaches to formation of information models to solve external task of design houseboats / S. Gordleev // River transport (XXI st century). 2024. – № 2 (110). – p. 36-38.

Considers approaches to formation of information models for development houseboats. Suggests system principle of organizing design work on initial stages. Estimates using of information models, describes various ways of managing processes to solve external project based on experience of interaction between customer and contractor.

Key words: houseboat, ship architecture, external design task, information model.

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New device for damping vibrations of ship's power plant /V. Chikhachev, B. Lebedev, V. Kochergin // River transport (XXI st century). 2024. – № 2 (110). – p. 39-40.

Substantiates the need to suppress vibrations and noise during the operation of ship's power plant. Shows the results of analysis of main disadvantages of existing damping devices. Suggests new type vibration isolator with support damping cartridge based on hydraulic resistance.

Key words: vibration, ship's power plant, vibration isolator, hydraulic vibration support.

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The substantiation of transport and technological scheme of bulk cargo delivery by ships of Yenisei shipping company in conditions of variable depths of waterway / E. Zhendareva, M. Sinitsyn, M. Valynkin // River transport (XXI st century). 2024. – № 2 (110). – p. 42-43.

Describes the results of technical and economical substantiation of optimal (according to criterion of minimum cost of elements of transport process) schemes of delivery with participation of river fleet of bulk cargo to northern regions of Krasnoyarsk territory in conditions of variable depths of river Yenisei on area between cities of Krasnoyarsk and Lesosibirsk.

Key words: river fleet, river port, transport and technological scheme of delivery, navigation conditions.

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The method of forming plan of port terminal's container yard / A. Kuznetsov, A. Kirichenko, R. Kuznetsov, A. Semenov // River transport (XXI st century). 2024. – № 2 (110). – p. 44-47.

Suggests the method of generating plan of port terminal's container yard. Describes main geometrical characteristics and technologies of operating, which influence on stack's form, zone of container yard.

Key words: port terminal, container yard, stack, design, method.

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Plasma spraying of coatings to protect ships' SST from hydroabrasive and cavitation wear / V. Kuzmin, I. Gulyaev, D. Sergachev, A. Tambovtsev, B. Palagushkin, O. Lebedev, M. Menzilova // River transport (XXI st century). 2024. – № 3 (111). – p. 47-50.

Presents the results of research work on application of coatings designed to protect working surfaces of machine parts and mechanisms operating under conditions of hydroabrasive and cavitation wear. Coatings produced by supersonic atmospheric plasma spraying of powder materials using air as a plasma gas.

Key words: propeller screw, plasma torch, supersonic plasma spraying, APS, porosity, microhardness, protective coating.

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Corrosion wear of berthing port structures made of sheet metal pile and its consideration in assessing their operability / N. Kochkurova, V. Filippycheva // River transport (XXI st century). 2024. – № 3 (111). – p. 50-55.

Researches influence of corrosion of berthing port facilities' metal structures on their strength parameters. Defines dependence of change corrosion speed on objects's height. Describes the method and features to determine structure's operability with corrosion wear.

Key words: berthing structure, sheet pile wall, corrosion, technical condition, operability.

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Optimization of waste collector vessel's characteristics in off-ship cleaning system depending on intensity of fleet movement / M. Manakova, S. Vas'kin // River transport (XXI st century). 2024. – № 3 (111). – p. 55-58.

Describes the author's mathematical model of multi-criteria optimization of ship waste receiving system in river port by collector vessel. Shows obtained as a result of numerical modeling optimal values of the collector vessel's characteristics depending on intensity of fleet movement and location of receiving facilities on waterways.

Key words: ship waste, off-ship cleaning, collector vessel, optimization, environmental safety

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