#### **ANNOTATIONS**

#### of science works published in international magazine «River transport (XXI<sup>st</sup> century)» 2(94)'2020

### About classification of mixed river—sea navigation ships / V. Zuev, V. Lobastov // River transport (XXI<sup>st</sup> century). 2020. – $N_2$ 2 (94). – p. 20-24.

Describes the results of systematization of history of creating mixed river—sea ships, their classification, role and meaning in water transport system.

**Key words:** projecting, new generation of mixed river–ships, inland water ways, regions of shipping, classification, safety of navigation.

Contacts: vplobastov@ya.ru, Zuev.its@yandex.ru

# «Razboy» Rassoloda on Lena river: riverbed regime and its management to improve waterway / R. Chalov, A. Zavadskiy, D. Botavin, P. Glagolev, A. Sakharov // River transport (XXI<sup>st</sup> century). 2020. – $\mathbb{N}_2$ 2 (94). – p. 25-31.

Describes the regularities of re-formation of a complex branched river section. Substantiates measures to stabilize local route of waterway and principles of their implementation.

**Key words:** Lena river, «razboy» Rassoloda, riverbed regime, waterway, waterway.

**Contacts:** rschalov@mail.ru, az200611@rambler.ru, dmitry\_botavin@mfil.ru; pavel\_golovlev@list.ru; sakharov06@mail.ru

## The experience of classification of small tonnage, coastal, port and road navigation vessels / I. Gulyaev, E. Ronnov, E. Burmistrov // River transport (XXI<sup>st</sup> century). 2020. – $N_2$ 2 (94). – p. 31-36.

Analyses modern situation and trends in classification of vessels with taking into account their size, gross capacity, conditions (areas) for navigation, technical condition.

**Key words:** small vessel, sub standard vessel, classification.

Contacts: guliaev@rivreg.ru, eronnov@mail.ru, burmistrov e g@mail.ru

#### Work features of mixed river-sea vessels along the Northern sea route / P. Degteva // River transport ( $XXI^{st}$ century). 2020. – $\mathbb{N}_2$ 2 (94). – p. 38-40.

Shows the results of statistic analysis of mixed river-sea vessels exploitation along the Northern sea route for 2019: vessel types, routes, cargoes.

**Key words:** Northern sea route, mixed river-sea ships, river shipping companies.

Contacts: lin.dave@yandex.ru, kaf gm@gumrf.ru

### Digital technologies and classification of ships / Solovyev A., Galeev R. // River transport $(XXI^{st}$ century). 2020. – No 2 (94). – p. 40-42.

Describes the principles of creation digital platform for the purpose of improving and development activities of classification and examination of ships.

**Key words:** digital platform, classification and examination of ships, Russian River Register.

Contacts: solovev@rivregnn.ru, R.Galeev@volgaflot.com

# The definition of fatigue strength of deck crane stressed with vibro loads by its actual exploitation stress / A. Yablokov, E. Zozulya // River transport (XXI<sup>st</sup> century). 2020. – $\mathbb{N}_2$ (94). – p. 42-49.

Makes analysis of stress-strain state of lifting structure, with taking into account additional loads, based on methods, strength calculations for permissible stresses and finite element method. Describes the authour's design scheme, solid-deformed model and calculation by finite element method in a CAD/CAE system.

**Key words:** lifting structure, metal construction, stress-strain state, finite element method, modeling.

**Contacts:** alex-vodnik@mail.ru, mip.res.centr@yandex.ru

The software which realize algorithm of management of production risks at shipyard / E. Burmistrov, O. Pautova // River transport (XXI<sup>st</sup> century). 2020. – N 2 (94). – p. 49-51.

Describes the authours' software which simply integrates into existing and perspective automatic control systems of enterprise and created to control (identification, analysis, estimation of importance) production risks at shippard for the purpose of substantiation management decisions. Shows the example of application for assembly and welding shop.

**Key words:** computer program, register, management decisions, production risk management system.

Contacts: burmistrov\_e\_g@mail.ru, oksanushka7891@yandex.ru

The unfluence of concentration and dispersion of water in composition of water-fuel emulsion on energy and environmental indicators of diesel engine which works on load characteristic / S. Andryuschenko, G. Yur // River transport (XXI<sup>st</sup> century). 2020. –  $N_2$  2 (94). – p. 52-53.

Describes the results of experimental study of diesel 4 10,5/12 which works on anhydrous fuel, coarse and microheterogenic emulsions of diesel fuel with water with concentrations 5 and 15% for the purpose of decreasing emissions of harmful substances with exhaust gases.

**Key words:** water-fuel emulsion, diesel, deacreasing harmful emissions.

Contacts: ksdvs@nsawt.ru, gsyur@ngs.ru

The method of creating calculation scheme for season cargo transportations by using logistics / D. Sakhnov // River transport (XXI<sup>st</sup> century). 2020. –  $\mathbb{N}_2$  (94). – p. 54-55.

Describes principle and calculation scheme for cargo transportations to polar region.

**Key words:** cargo delivery, transport, logistics, scheme, calculation.

Contacts: DJSA@Yandex.ru