

Designing and complex mathematical modeling of the hovercraft for the North, Siberia Regions and the Arctic Continental Shelf

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The paper presents the basic complex mathematical model developed by the Special Machine Building Research and Development Centre of Bauman Moscow State Technical University to study the hovercraft motion so that to note unobvious nonlinear interaction between work and companion processes in design engineering and to decrease the error probability at a system level. A kind of a supporting structure in which 6 flexible independent cone seals with small apex angles form an aircushion is considered.

Keywords: *transportation systems, hovercraft, a complex mathematical model, a multi-chamber flexible protection, Arctic regions, the Arctic Shelf.*

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