Bearing system parameter optimization of the amphibian air-cushion vehicles

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The article presents results of static and towage tests in experimental pool on solid and water surfaces of a dynamic similar model of amphibian air-cushion vehicle. The aim of the tests was the search for optimal parameters of air-cushion vehicle, such as: form of flexible fence; air flow rate in air-cushion system; centring (mutual position of gravity and pressure centres); trim and list stability on water and solid surfaces; minimized motion resistance. This aim is to be achieved without dividing air cushion area on long and cross sections. It reduces labour-intensiveness of maintenance work. As a result of research the aim was achieved.

Key words: *amphibian, vehicle, air-cushion, stability, towage test, hydrodynamic resistance.*

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