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MODERNIZATION OF A SMALL-TONNAGE VESSEL CONSIDERING QUALITY, SAFETY, AND OPERATIONAL RELIABILITY REQUIREMENTS FOR VETERAN REHABILITATION

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Currently, the problem of rehabilitation of war veterans is highly relevant for Ukrainian society, among whom there are many individuals who have received wounds, concussions, limb amputation, post-traumatic stress disorder, and other disorders in the psycho-emotional sphere.

According to the results of conducted research, thalasso-oriented recreation shows good results in the reintegration of combatants into civil society, along with various types of psychotherapy, animal therapy, and art therapy.

In recent years, the Department of "Shipbuilding and Ship Repair named after Prof. Yu.L. Vorobyov" of ONMU has been researching the possibility of using in the rehabilitation process a watercraft created on the basis of the Gloucester Gull, the design of which was developed in the second half of the last century by Philip C. Bolger.

The boat has a narrow and sharply pointed bottom near the extremities. At the midship, the design height of the side is approximately 30 cm, but it increases in the bow and stern extremities.

The relatively low freeboard is compensated by a significant flare of the sides and the sheer of the side line. Sufficient stability of the dory is ensured due to the fact that during a heel, thanks to the flare of the sides, the waterplane area increases and, accordingly, the restoring moment increases.

For use in projects for the rehabilitation of fighters, the following changes need to be made to the design:

It is proposed to increase the height of the side at the midship by 400 mm, which will allow, firstly, to increase the reserve of buoyancy, and secondly, to accommodate three people on the boat instead of one rower and a passenger.

Since people with limited mobility may be on the boat, it is necessary to place a railing along the entire side, which will allow a person not to lose balance and feel more confident.

To increase stability, the boat will be equipped with removable outriggers, which are buoyancy blocks attached to the sides using aluminum outrigger beams. When the boat has no heel, the outriggers are above the water surface, but during a heel, one of them enters the water, creating an additional restoring moment.

Since a person with a high leg amputation may be a rower or passenger on the boat, the body weight of this person will be shifted relative to the diametral plane of the watercraft, which will create a noticeable angle of heel. To compensate for this heel, it is proposed to use solid ballast in the form of lead bars that can move in the transverse direction.

For the convenience of rowers and passengers, the seats will be made not in the form of horizontal boards, as in the original design, but will have a backrest, a soft covering, and the ability to move along the length of the vessel on special guides to compensate for trim.

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SPECIFICS OF USING SOFTWARE IN THE EDUCATIONAL PROCESS DURING THE TRAINING OF SHIPBUILDING ENGINEERS IN WARTIME

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During the full-scale invasion, the process of educating engineers in higher educational institutions faces a certain number of complications and challenges. In particular, the following should be mentioned: the lack of sufficient quality of basic education among university entrants as a result of years of distance learning and the discreteness of the educational process in schools caused by daily air raid alerts; the need to ensure the educational process in universities in a distance and mixed-mode format, which limits the possibility of "live" communication between teachers and students and the use of physical visual aids; a high level of stress and anxiety among seekers of educational services, which negatively affects their cognitive abilities and memory; the impossibility, due to the requirements of