

THE FUNCTIONING OF MARITIME SEARCH AND RESCUE TEAMS

DOI <https://doi.org/10.30525/978-9934-26-645-4-59>

TECHNICAL EQUIPMENT OF FIRE VESSELS IN MARTIAL ARTS CONDITIONS

ТЕХНІЧНЕ ОСНАЩЕННЯ ПОЖЕЖНИХ СУДЕН В УМОВАХ ВОЄННОГО СТАНУ

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Fires are a problem not only on land but also on water bodies. This problem has become especially difficult in conditions of martial law, when the enemy attacks port infrastructure facilities and water vessels. Both special ground equipment of emergency and rescue units and water vessels can be involved in extinguishing such fires and eliminating other consequences of enemy shelling. These vessels can be both specialized (fire vessels) and have a dual purpose (for example, tugboats). Given the nature of damage to objects as a result of enemy shelling, there is a need not only to extinguish fires, but also to localize and/or eliminate spills of various substances that can get into the water and thereby cause an ecological disaster [1]. For the successful localization and/or elimination of these spills, water vessels must be equipped with special equipment.

Typically, watercrafts that can provide fire extinguishing function are equipped with fire pumps, gun barrels and necessary fire-technical equipment. In the case of specialized fire vessels, they can also be equipped with foam storage tanks to enable fire extinguishing with air-mechanical foam.

At the same time, in today's conditions, it is important to have equipment on such vessels for localization and/or liquidation of spills of various substances. First of all, we are talking about oil products and other liquid chemicals that are transported by cargo ships and used in industry.

Cases of formation of the specified spills are possible during shelling of port infrastructure facilities and cargo ships. Elimination of the consequences of such shelling, provided that there is no fire on the vessel or no ignition of the substance that has spilled onto the water surface, requires localization of the spill area and elimination of the leak.

In order to carry out spill localization work, it is necessary for vessels to be equipped with boom barriers. Their installation also requires the use of small-sized maneuverable vessels. Elimination of the flow from holes in the hull of vessels is possible using pneumatic bandages and pneumatic wedges. In conditions where the hole appeared due to the ingress of a fragment from the explosion of a military munitions, the area around it has sharp edges, which limits the use of specialized sealing emergency rescue equipment. To prevent damage to pneumatic bandages, special protective capes must be applied to them. There are also known cases when units of emergency and rescue formations specializing in liquidation of chemical accidents independently manufacture or order bandages made of metal. Such technical solutions usually allow avoiding damage to bandages during their installation. Pneumatic wedges, unlike bandages, do not have any protective devices. At the same time, units specializing in extinguishing fires of oil storage facilities in existing conditions have experience in using wedges made of wood. Such wedges can have different shapes. During liquidation of the flow, a wedge of the required shape is selected, and then inserted into the hole and further clogged. The described technical solution does not require large capital investments and at the same time is quite effective. The only problem with this is that the firefighter-rescuer must get to the place from which the flow occurs. Given the overall dimensions of cargo ships, this task can be quite difficult. One way to solve this problem is to equip vessels with climbing equipment, which at the same time requires additional training for personnel.

Constant monitoring of air threats is also important during firefighting and emergency rescue operations at such facilities, because since the beginning of the full-scale invasion, many firefighters and rescuers have died or been injured due to repeated shelling.

Thus, the problem considered in this work is relevant, and its solution requires a comprehensive approach and taking into account the already extensive experience of extinguishing fires and conducting other operational operations by emergency rescue units at various facilities. In addition to scientific, the work also has practical significance. It analyzes certain types of equipment and approaches to its application, which can be used to localize and/or eliminate spills of various substances due to damage caused by shelling of water vessels.

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DOI <https://doi.org/10.30525/978-9934-26-645-4-60>

**ORGANIZATIONAL AND TECHNOLOGICAL BASES
OF THE ACTIVITIES OF MARITIME SEARCH AND RESCUE
SERVICES IN THE CONTEXT OF CONTEMPORARY
CHALLENGES**

**ОРГАНІЗАЦІЙНІ ТА ТЕХНОЛОГІЧНІ ОСНОВИ ДІЯЛЬНОСТІ
МОРСЬКИХ ПОШУКОВО-РЯТУВАЛЬНИХ СЛУЖБ
У КОНТЕКСТІ СУЧАСНИХ ВИКЛИКІВ**

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Морські пошуково-рятувальні служби (МПРС) є ключовим елементом глобальної системи безпеки на морі. Їхня діяльність спрямована на збереження життя людей, які опинилися у небезпеці під час морських перевезень, рибальства, військових чи наукових експедицій.

Відзначимо про проблемні питання із якими зіштовхнулася Україна та світ а саме: вплив: кліматичні змін, зростання інтенсивності морських перевезень, військові конфлікти та вплив нових технологій а також посилення норм та інших факторів потребують розробку нових норм та права а також адаптації до нових викликів організаційно-правових механізмів щодо функціонування Морських пошуково-рятувальних підрозділів.