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LEGAL FEATURES OF PROFESSIONAL AND PHYSICAL TRAINING OF SEAFARERS

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Abstract

The article is devoted to the study of the specifics of the physical training of the sea crew. The fundamental principle is the connection of physical and sports with labor and defense activities. This connection is manifested in practice through the introduction of special methods of physical training in the organization of work. Vocational and physical training is one of the main directions, which forms knowledge, physical and special qualities, abilities and skills, which contribute to the achievement of the readiness of persons for successful professional activity. Recreational activities that reduce the negative impact on the health of the sea crew are characterized. It is certain that the state of health for suitability for maritime activities depends on medical examinations. Medical examinations are mandatory and have their own frequency, taking into account the position on the ship.

Key words: seaman; professional physical training; sea crew; medical examination; fitness; health status; maritime activity.

ПРАВОВЫЕ ОСОБЕННОСТИ ПРОФЕССИОНАЛЬНО-ФИЗИЧЕСКОЙ ПОДГОТОВКИ МОРЯКОВ

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АННОТАЦИЯ

Статья посвящена исследованию специфики физической подготовки морского экипажа. Фундаментальным принципом есть связь физической и спорта с трудовой и оборонной деятельностью. Эта связь проявляется на практике с помощью внедрения особенных методов физической подготовки в организацию труда. Профессионально-физическая подготовка есть одним из основных направлений, которая формирует знания, физические и специальные качества, умение и навыки, что способствуют достижению готовности лиц успешной профессиональной деятельности. Охарактеризованы оздоровительные мероприятия которые уменьшают негативное влияние на состояние здоровья морского экипажа. Определенно, что состояние здоровья на пригодность к морской деятельности зависит от медицинских осмотров. Медицинские осмотры есть обязательными и имеют свою периодичность учитывая должность на судне.

Ключевые слова: моряк; профессионально-физическая подготовка; морской экипаж; медицинский осмотр; пригодность; состояние здоровья; морская деятельность.

Presentation of the basic material. It is known that each of the professions has its own specifics and differs in the requirements for physical training. Therefore, even in educational institutions for seafarers it is necessary to profile the process of physical education with the use of professional and applied physical training (PPFP).

Such means include, as a rule, ordinary physical exercises and sports, and this training itself is an integral part of physical education of future professionals, aimed at:

- comprehensive physical development and achievement of a high level of physical fitness of seafarers;
- special development of physical qualities, especially important for this professional activity;

- formation and improvement of motor skills that help to successfully master professional activities;

- preparation for work in specific working conditions, typical for the future profession;
- education of specific volitional qualities;
- assistance in increasing the productivity of workers;
- promoting accelerated vocational training and preparation for highly productive work;

- creating conditions for active recreation of workers, ensuring the prevention of occupational injuries and combating industrial fatigue of workers by means of physical culture and sports.

PPFP is introduced into the program of physical education of students in maritime universities. And every year its role in training professionals who can successfully work in difficult conditions of their specific activities is growing.

The fundamental principle of the system of physical education is the connection of physical culture and sports with labor and defense activities. This relationship is carried out in practice through the introduction of physical culture and sports in the scientific organization of labor. PPFP is one of the main directions of the system of physical education, which forms the applied knowledge, physical and special qualities, skills and abilities that contribute to the readiness of the individual for successful professional activity [1].

The efficiency of the employee's performance of many production operations largely depends on the development and successful functioning of his body, on his readiness for work. Without a thorough in-depth knowledge of the requirements of a profession for the physical fitness of specialists, it is impossible to define the tasks of PPFP. The conformity of the capabilities of the human body to the work performed by it is revealed with the help of professionalism, which, along with labor expertise, includes professionalism, professional training, professional hygiene and work organization. Professionally important qualities are not a frozen conglomeration of the properties of the organism, they can vary in importance depending on the degree of mastery of the profession. The process of mastering the specialty rarely depends on only one physiological or psychophysiological level of development in most cases, the success of mastering is determined by the development of the whole organism, its functions.

The methodological basis of the requirements of the profession to the functional state of the organism is the tendency to professional suitability, as the ability to successfully master

the profession and improve in it. This ability is determined by the conformity of the body's capabilities to the requirements of the profession [2].

In this case, according to I.D. Kartsev, professional opportunities, which are determined by the level of development for the type of work of physiological functions, can be considered a criterion of professional suitability, and the functions themselves are criterion. The author points out that if the initial level of this criterion is above a certain minimum and corresponds to the working dynamic stereotype of this type of work, then during the work there is a training of criterion functions. The doctrine of the criteria of professional suitability allows us to consider the theoretical laws of physical training for work from the standpoint of studying the mechanisms of interdependent activity of the functional system and its leading part - the function of the criterion of professional suitability. Methods of analysis of the profession are necessary to determine the structure of work actions, which ultimately helps to identify professional and applied motor skills. They can also assess the production efficiency of the proposed program for seafarers PPFP [3].

The profession of a sailor is characterized by the impact on the body of a number of negative factors: bad weather, changes in climatic zones and time zones, limited mobility, seasickness. Insufficient physical training can cause accidents at sea. Therefore, the development of professionally important physical qualities becomes necessary in the process of physical education. Thus, the system of professional and applied physical training, which includes professionally-oriented educational, physical training and sports and mass work, promotes comprehensive physical development and achieving a high level of physical fitness for the future profession. The basis of physical training is:

- preservation and strengthening of health;
- development of general and professionally important physical qualities;
- acquisition of knowledge in the field of physical culture, hygiene, healthy lifestyle;
- education of the need for regular physical exercises of general and professional-applied direction: swimming, boxing, acrobatics, athletics, basketball, martial arts, tennis, initial sea training: rowing and sailing [4].

The level of physical development provides effective professional work and resilience in extreme conditions.

The value of physical activity for a marine specialist in any field is indisputable.

Special studies have shown that after 22 days of hypokinesia, a person's professional performance, which is not associated with direct physical activity, is reduced by 16%, and oxygen debt during muscle load increases by 61-137% compared to control [5].

The example of sailors shows that in coastal conditions, in addition to physical training and sports, sailors travel an average of 12-15 km per day, and during the voyage - 2-4 km. Therefore, prolonged restriction of movement (hypokinesia) and strength activity (hypodynamia) leads to a significant decrease in muscle tone, to the development of detraining of some organs and systems and a marked decrease in efficiency [6].

Of considerable interest are data on changes in hypodynamics and hypokinesia of the functions of the nervous and endocrine systems and metabolism. It is established that in these conditions there is increased fatigue, memory impairment, increased errors, sleep disturbances. In general, there is an advantage of inhibitory processes in the cerebral cortex and a decrease in its functions. Prolonged hypokinesia and hypodynamia lead to dangerous consequences for the health of sailors - the formation of two syndromes: vegetative-vascular dystonia and neuropsychiatric asthenia.

However, it should be noted that in many cases, changes in body functions are not pathological, but have an adaptive nature. Adaptation - a change of conditions (in this case to reduce motor and power load), a natural general biological process of adaptation of the organism to new living conditions [7].

Exercise of marine specialists, especially operator, associated mainly with static load, due to prolonged stay in a forced position, does not compensate for the long-term restriction of active motor mode and adversely affects endurance, performance and safety.

At long action of a complex of harmful conditions or their high intensity in an organism the compensatory reactions directed on reduction of action of harmful conditions or their weakening can arise. However, the compensatory mechanisms of marine specialists are still insufficiently studied, so an effective measure in the fight against hypodynamics and hypokinesia and the mobilization of the body's reserve physiological capabilities are exercise.

Using them during the period of professional activity, seafarers must take into account the patterns of changes in physiological functions and the nature of marine professional activities of specialists. Sets of exercises that are performed, for example, before the shift, should contain some elements in accordance with the specifics of the work process. In this case, they do not violate the established dynamic stereotype, but on the contrary - contribute to its formation. Pace, rhythm, number of repetitions, total load are set depending on the severity of extreme factors, the nature of the labor process, individual physical fitness and general condition of the specialist and the level of physical development of marine specialists [8].

The main health-improving measures for the physical training of seafarers should be considered those that reduce the negative impact, these are:

1. Improving the workplace in order to reduce the fixity of the working posture.
2. Providing a seat, the design of which would be able to adjust the height of the specialist.
3. Provision of periodic performance: work with alternating sitting and standing postures.
4. Introduction of regulated pauses and breaks to perform the required set of exercises.

Thus, one of the most important areas of development of seafarers and the requirements for physical condition is physical training and focus on a healthy lifestyle [9].

Determining the fitness of seafarers for work on ships is regulated by Order № 347 of 19.11.96 of the Ministry of Health of Ukraine, which applies to all shipowners of Ukraine, regardless of their form of ownership of ships operated, seafarers and institutions of the Ministry health care of Ukraine, performing medical examinations [10].

The distribution of naval specialists by professional groups is determined by the degree of social danger of their professional activity in accordance with Article 31 "Mandatory medical examinations" of the Law of Ukraine "Fundamentals of Ukrainian legislation on health care" "2801-XII of 19.11.92:" In order to Preventive medical examinations of minors, pregnant women, employees of enterprises, institutions and organizations with harmful and dangerous working conditions, servicemen and persons whose professional or other activities are related to public services or increased danger to others are organized" [4].

Thus, medical examinations of seafarers are carried out in accordance with the Merchant Shipping Code of Ukraine, the order of the Ministry of Health of Ukraine dated 19.11.96 № 347 "On approval of the Rules for determining the fitness of persons for work on ships" [12], but the Ministry of Protection of Health of Ukraine and the State Committee of Ukraine for Occupational Safety and Health issued an order on medical examinations of September 23, 1994 for № 263/121 "On the list of jobs where there is a need for professional selection", paragraph 9 of which requires professional selection persons performing work on water transport [13]. Also, the obligation of medical examinations is enshrined in the Resolution of the Cabinet of Ministers № 1238 of 06.11.97, "On mandatory preventive and narcological examination and the procedure for its conduct", where paragraph 14 requires this examination of all employees of floating water transport [14].

In addition, medical examinations of seafarers are required by the 73rd Convention of the International Labor Organization "On Medical Examinations of Seafarers" (1946), ratified by Ukraine, which requires Article 4, paragraph 3, that the medical certificate must confirm:

"(a) that the hearing and sight of persons, and for persons who are to work on deck (except for some workers whose fitness for the job is not diminished by their inability to distinguish colors), their ability to distinguish colors is quite satisfactory."

"(b) that she is not suffering from any disease capable of exacerbating as a result service at sea, or render it unfit for such service, or endanger the health of others on board. "[15]

The procedure for medical examinations and the list of harmful factors for health at work is defined in Ukraine by the order of the Ministry of Health of Ukraine dated May 21, 2007 № 246 "On approval of the Procedure for medical examinations of certain categories" on the basis of the Law of Ukraine "On labor protection", as well as in the requirements of the ILO Convention № 73 and other regulations of national legislation [16].

Therefore, the criteria for assessing the functional suitability of seafarers for health and psychophysiological status for safe professional activities and safe navigation are determined through medical examinations.

Preliminary medical examinations are carried out by persons employed for work related to being on board the vessel while sailing, and for the first time a medical examination is carried out by those who move to a higher maritime safety professional group, as well as those who have expired. previously obtained medical certificate of a seafarer more than one year.

The purpose of the preliminary medical examination is to establish the physical and psychophysiological fitness of the person to work in a particular maritime profession, as well as to identify diseases that may exacerbate due to service at sea or render the person unfit for such service, or pose a danger to others on board the vessel, material objects and the environment.

Periodic medical examinations are routinely performed by persons whose medical certificate of a seafarer issued by the same Department of Medical Examinations as the previous medical examination has expired [17].

A medical examination is mandatory to detect early signs of contraindications to safe navigation on board, which is necessary for the timely initiation of medical rehabilitation or treatment.

Extraordinary medical examinations are carried out in the scope of a preliminary medical examination on request and at the expense of administrative bodies, the shipowner or the seafarer himself.

The reasons for the mandatory referral for an extraordinary medical examination are: the need for dispensary supervision, injuries that can cause permanent disability; participation in accidents or emergencies; suicide attempt; manifestation of inadequate aggression; reasonable suspicions of contraindications to safe navigation.

Referrals for medical examinations, their financing, as well as operational control over the non-admission to work of persons who have not passed the medical examination, or those who have contraindications to work in a particular profession, are carried out by the shipowner.

The personal responsibility for the presence of seafarers with medical certificates with a valid validity period, the relevant functions performed by them on board, is the captain of the vessel or a person authorized to do so [18].

The control over the performance of their duties by shipowners under these Rules and the implementation of their responsibilities belongs to the competence of the Ministry of Infrastructure of Ukraine [19].

According to Article 57 of the Merchant Shipping Code of Ukraine, the shipowner is obliged to ensure safe working conditions and conditions on the ship, health protection of crew members and equipment, supply of food and water in sufficient quantities, as well as appropriate ship premises [20].

Based on this rule, the shipowner must contribute to the health of the crew while ensuring the passage of medical examinations for the purpose of safe navigation, namely:

- enter into and timely renew with health care institutions agreements on preliminary, periodic and extraordinary medical examinations, on the provision of consulting assistance to crews on the voyage, rehabilitation treatment and correction of psychophysiological qualities of seafarers;

- allocate allocations for compensation of expenses for examination and treatment of seafarers in specialized medical institutions, for rehabilitation of seafarers;

- eliminate the causes that contribute to the emergence of occupational diseases, and perform the recommended health and preventive measures;

- inform the medical examination departments of all known to the shipowner accidents, suicide attempts, deaths, temporary incapacity for work during the voyage or in the inter-voyage period, which concern seafarers;

- to send for a preliminary medical examination persons hired to work on ships, as well as those who change the professional group to a higher one according to the requirements for safe navigation;

- to acquaint the hired persons with the peculiarities of their work on specific vessels related to the influence of harmful and dangerous production factors, with the regulations on labor protection;

- to ensure the timely passage of periodical medical examinations by seafarers;

- to employ seafarers in accordance with the results of medical examinations;

- provide a seafarer who has been refused a medical certificate as a result of the examination with the possibility of re-examination by the Expert Commission of the Department of Medical Examinations [10].

The sailor, in turn, must:

- to pass medical examinations in the established order and in the established terms;

- fully comply with medical recommendations;

- provide the necessary documents at the request of the Department of Medical Examinations;

- to receive information on the state of his health based on the results of medical examination, on harmful and dangerous to health production factors related to his production activities, on the amounts allocated by the shipowner for health and rehabilitation measures per seafarer;

- demand a transfer to a job that corresponds to the state of his health, if the work he performs is contraindicated for him based on the results of a medical examination;

- receive compensation from shipowners for damage to health in connection with the performance of professional duties;

- require an extraordinary medical examination;

- apply to the Expert Commission in case of unsatisfactory result of the medical examination;

- to appeal in court the decisions made as a result of a medical examination [21].

Medical examinations of seafarers are conducted by specialized health care institutions [22].

These institutions of the Ministry of Health:

- develop and agree with the shipowner a plan for medical examinations;

- conduct medical examinations of seafarers, clinical and other studies;

- control the terms of medical examinations, make decisions on medical contraindications about the possibility of continuing to work as a seafarer in his professional group;

- inform the seafarer about the state of his health and the opportunity to continue working in his profession based on the results of inspections or issue an opinion on transfer to another job;

- ask the sanitary inspection authorities for sanitary and hygienic characteristics of seafarers' working conditions;

- involve other specialists in medical examinations, to conduct additional clinical studies according to the indications, necessary to assess the state of health of seafarers;

- according to medical indications, the sailor is sent for examination to other medical institutions to clarify the diagnosis and treatment;

- a seafarer who has passed a medical examination is issued a seafarer's medical certificate certifying his fitness for safe navigation on the ships of the relevant position if necessary "Seafarer's personal medical card", "Certificate of vaccination of international standard". In case of unfitness of the seafarer for health reasons the medical certificate is not issued, and negative results of check are reported to the shipowner;

- keep records and analyze the results of medical examinations;

- create an Expert Commission to consider individual cases based on the results of medical examinations, emergencies on ships, including accidents and injuries [10].

According to the requirements for determining the fitness of persons for work on ships, maritime professions are differentiated by the importance of health groups for safe navigation on ships.

According to the requirements for the state of health and psychophysiological status of seafarers, depending on the importance of the functions performed by them on board, persons undergoing medical examination are grouped into the following professional groups:

And the group - persons whose professional activities are not related to maritime safety;

Group II - persons who implement decisions related to maritime safety;

Group III - persons who make decisions related to maritime safety.

The number of the professional group to which the seaman is to be assigned shall be determined by the shipowner and indicated by him in the form of sending the seaman for a medical examination.

In the absence of a position corresponding to the function performed by the person sent for medical examination, the professional group of this person is determined by the Department of Medical Examinations, guided by the above requirements for the grouping of professions to ensure maritime safety [21].

The general health requirements for the admission of seafarers to work on board a ship while the ship is at sea and for the seafarer to perform his professional duties are:

- visual and hearing acuity;
- epidemiological safety;
- adequacy of psychobehavior;
- preservation of orientation in space;
- preservation of the functions of the musculoskeletal system;
- the absence of a seafarer's illness which may exacerbate as a result of service at sea or render him unfit for such service, or constitute a danger to other persons on board the ship, material objects and the environment.

For seafarers belonging to the III professional group, the requirements in addition to the general ones are compliance with the permissible values of the following psychophysiological indicators:

- sensorimotor reaction;
- reactions to a moving object;
- attention;
- speed of switching attention;
- visual and auditory memory;
- emotional stability and anxiety;
- resistance to stress;
- orientation in space;
- fatigue;
- ability to make decisions and act in extreme conditions;
- resistance to monotony.

For seafarers belonging to the II professional group, the requirements, in addition to the general ones, are compliance with the permissible values of the following psychophysiological indicators:

- sensorimotor reaction;
- reactions to a moving object;
- attention;

- fatigue;
- resistance to stress [62].

Conclusion. Thus, a medical certificate for the relevant maritime profession, taking into account the position, is issued only in the absence of medical and psychophysiological contraindications for seafarers, ie it depends on a well-developed body, physical training and constant health care.

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