

Министерство образования и науки Украины  
Севастопольский национальный технический университет



## МЕТОДИЧЕСКИЕ УКАЗАНИЯ

к практическим занятиям по дисциплине «Английский язык»  
для студентов II-III курсов специальности «Судовождение»  
дневной формы обучения

### Часть I

Транспортировка и хранение грузов =  
Transport and storage of cargoes

Севастополь  
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Методические указания к практическим занятиям по дисциплине «Английский язык» для студентов II-III курсов специальности «Судовождение» дневной формы обучения: в 2 ч. / Сост. Н. А. Сурова, – Севастополь: Изд-во СевНТУ, 2009. – Ч.1: Транспортировка и хранение грузов = Transport and storage of cargoes. - 24 с.

Целью методических указаний является оказание практической помощи студентам, формирования у них умений перевода специальных текстов и изучения лексического материала по специальности, развитие навыков устной речи в пределах пройденной тематики.

Методические указания утверждены на заседании кафедры практики романских и германских языков ( протокол № 12 от 4.06.2009 г.)

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## ВВЕДЕНИЕ

Данные методические указания предназначены для студентов II-III курсов дневной формы обучения морских специальностей, изучающих английский язык.

Целью методических указаний является сформировать у студентов умение читать и переводить оригинальную литературу по специальности, а также развить у них навыки разговорной речи. Все тексты и упражнения составлены на основе оригинальной лексики, употребляемой современными носителями языка.

Методические указания состоят из 11 уроков-разделов. Каждый раздел имеет текст, несущий профессиональную информацию, словарь, послетекстовые упражнения: тренировочные, контрольные упражнения на перевод с родного языка на английский с употреблением активной лексики урока, грамматические и ситуативные упражнения.

## 1. UNIT1. CLEANING AND VENTILATING CARGO HOLDS

Read the following text:

Owing to their delicate nature frozen cargoes and cooled cargoes require much more care than most of the other goods transported by sea.

For whole products which have been preserved by refrigeration while in a fresh state it is essential to maintain the quality at a high standard.

These products can be divided into two basic groups:

- a) live products
- b) dead products

The live products include fruits and vegetables, while the dead products comprise frozen fish and meat.

A large majority of fruits continue to live even after they have been harvested, i.e. the fruit breathes, absorbs oxygen, and emits carbon dioxide. The carbon dioxide does not affect all products in the same way: in some instances it may prolong their storage life while in others it may have an adverse effect.

The process of life goes on up to the moment of complete maturity, or up to the beginning of decay. Fruit is to a large extent liable to deterioration as it is exposed to the influence of microorganisms found in it and surrounding it, causing decay and fermentation.

The most frequent agents of fruit decay are bacteria and mould. By storing the fruit in cooled spaces any chemical processes are retarded and the fruit is protected from being attacked by a number of microorganisms. This means that by cooling the product, the metabolism is maintained, thereby prolonging its lifetime.

By lowering the temperature the microorganisms are not destroyed, their breeding only is hindered. Their presence in the product remains, and by an increase in the temperature their activities will be resumed.

With fish and meat the cooling, i.e. the freezing is intended to arrest any further multiplication of the microorganisms present in the product.

If we bear in mind that refrigerated cargoes transported by reefer vessels are almost exclusively intended for human consumption, we must pay full attention to the preparation of the holds where these cargoes are to be placed. It means that all compartments are to be thoroughly cleaned, dry and odor free.

The basic conditions for the appropriate preparation of the holds are, as follows:

- a) knowledge of which cargo had been transported previous to this voyage
- b) knowledge of what cargo is to be loaded

According to that appropriate attention will be paid to the preparation of the holds. They should be appropriately prepared even if homogeneous cargoes are to be transported.

As there are many sub-conditions which are to be taken care of and can be seen from the sub-text, we can clearly state that the care of the cargo starts a few days before the loading itself.

It makes no difference whether preparing cargo holds for the carriage of cooled, chilled or frozen cargoes.

### Note

owing to v. – из-за, вследствие, благодаря, по причине

to preserve v. – предохранять; сохранять

refrigeration n. – охлаждение; замораживание

essential adj. – основной, существенный

to maintain v. – поддерживать

to comprise v. – включать, заключать в себе

to harvest v. – убирать урожай

i.e (сокращение от id est) – то есть

to absorb v. – поглощать

oxygen n. – кислород

to emit v. – испускать, выделять

carbon dioxide n. – углекислый газ

adverse adj. – вредный, побочный

maturity n. – зрелость

decay n. – гниение, затухание

to be liable v. – быть подверженным ч-л

deterioration n. – повреждение, порча

mould n. – плесень

to retard v. – замедлить

breeding n. – размножение

to hinder v. – мешать, препятствовать

to resume v. – возобновлять

multiplication n. – умножение

reefer n. – холодильник, рефрижератор

consumption n. – потребление

appropriate adj. – соответствующий

homogeneous adj. – однородный

hold n. – трюм

### Exercises:

#### 1. Translate into Russian.

Owing to the delicate nature, goods transported by sea, in a fresh state, to maintain the quality at a high standard, to comprise frozen fish and meat, a large majority, the fruit emits carbon dioxide, in the same way, to prolong the storage life, up to the moment, the beginning of decay, to a large extent, to cause decay and fermentation, the fruit is protected from being attacked, prolonging the lifetime, an increase in the temperature, to arrest any further multiplication, to be exclusively intended for human consumption, to be thoroughly cleaned, appropriate preparation of the holds, homogeneous cargoes, before the loading.

2. Open brackets and use a verb in the time, necessary on sense.

Model: Frozen cargoes (to require) much care.

Frozen cargo requires much care.

- 1) Later these products (not to include) fruits and vegetables.
- 2) Some fruits (to continue) to live even after they (to harvest).
- 3) Products (to affect) by the carbon dioxide in the same way.
- 4) Fruits (to be liable) to a large extent to deterioration.
- 5) The most frequent agents of fruit decay (to be) bacteria and mould.
- 6) The fruit (to protect) from (to attack) by a number of microorganisms.
- 7) By lowering the temperature the breeding of microorganisms (to hinder).
- 8) All compartments (to be) to be thoroughly cleaned.
- 9) In future the appropriate attention (to pay) to the preparation of the holds.
- 10) The care of the cargo (to start) a few days before the loading itself.

3. Find the English equivalents in the text.

Товары, перевозимые по морю; в свежем состоянии; требовать много заботы; поддерживать качество; поглощать кислород; выделять углекислый газ; действовать одинаково; срок годности; побочный эффект; начало гниения; фрукты в большей степени подвержены порче; испытывать влияние микроорганизмов; замедлять химический процесс; приостановить размножение; размножение микроорганизмов; рефрижераторные суда; уделять особое внимание подготовке трюмов; предыдущий рейс; однородные грузы; подготовить грузовые трюмы.

4. Answer the questions to the text.

- 1) Why do frozen cargoes and cooled cargoes require much care?
- 2) What is essential for whole products which have been preserved by refrigeration?
- 3) What basic groups of products do you know?
- 4) What do life products include?
- 5) Why do a large majority of fruits continue to live?
- 6) In what ways does the carbon dioxide affect?
- 7) Up to what does the process of life go?
- 8) What is a fruit liable to?
- 9) What's happening when we store the fruit in cooled spaces?
- 10) What is the result of lowering the temperature?
- 11) What must we pay full attention to?
- 12) What are the basic conditions for the appropriate preparation?
- 13) When does the care of the cargo start?

5. Express the main idea of the text in five-six sentences.

## 2. UNIT2. SWEEPING CARGO HOLDS

Read the following text:

Sweeping is something that should be done every time regardless of any subsequent undertaking, in short, it should be performed with full care. Sweeping is the first step to be taken in cargo hold preparation.

In this process we must take into consideration left-over cargoes after each discharge operation.

The cargo holds are often built with many places difficult to access under the gratings that may provide spaces for any remnants to get into.

Special attention should be paid to the corners, scuppers, bulkheads, and all less accessible places where the sweepings and dust may stick.

Such places, when not swept, are the ideal positions for mould growth, beading of bacteria and unpleasant smell throughout the hold.

Leaving this left-over material untended may be disastrous for the next cargo.

Dust, while sweeping, easily accumulates on every surface inside the hold is also advisable to use dry rugs (cotton waste) to wipe out dust if time permits and if washing can't be done for any reason.

The dust with ship's sweat forms into mould that can contaminate the cargo. In short, inappropriate or insufficient sweeping may cause more harm.

As all gratings are full of small holes for free air circulation, they should be lifted up while sweeping and the space beneath should be swept thoroughly.

If it is not done as described above, the whole cargo will be covered with dust once the ventilators in the holds are switched on.

From the above example it can be seen that it is just a waste of one's time to sweep the gratings from above only, as such sweeping gives us only a visual effect of clean holds.

Of course, we will not lift the gratings every voyage (especially when the cargo is transported). We can say: gratings must be lifted when necessary.

In some books you may find that the gratings should be removed to the deck washed, dried in the sun, and put back again. It really sounds fine, but in every day life on board ship it is almost impossible, especially in large reefer vessel.

Some of the reasons are the short period of navigation between the discharging and next loading port, insufficient crew, as well as the weather conditions the sea which prevent it most of the time.

### Note

sweeping n. - очистка

subsequent adj. – последующий

in short – в двух словах

left-over n.- остаток

access n. – доступ

grating n. – решётка

remnant n. – остаток  
 scupper n. – дренажная труба  
 bulkhead n. – переборка  
 dust n. - пыль  
 to sweep v. – мыть, подметать  
 untended adj. – неубранный  
 to accumulate v. – накапливать  
 rug n. – тряпка  
 sweat n. - влага  
 to contaminate v. – загрязнять  
 insufficient adj. – недостаточный  
 to switch on v. – включать  
 a waste of time – пустая трата времени  
 to lift v. – поднимать  
 crew n. – экипаж  
 weather conditions – погодные условия

### Exercises:

1. Put the words in the right order to make sentences.

- 1) full, performed, care, should ,with , be, Sweeping.
- 2) discharge operation, Left-over, taken, should, cargoes, consideration, into, after, be, each.
- 3) places, all, to, Inaccessible, attention, be, Special, should, paid.
- 4) mould, ideal, places, inaccessible, growth, for, are, positions, the.
- 5) forms, ship's sweat, The, mould, into, with, dust.
- 6) much, or, insufficient, sweeping, harm, Inappropriate, cause, may.
- 7) small, full, All, gratings, air circulation, for, holes, free, are, of.
- 8) put, washed, the, to, removed, should, back, sun, and, again, in, deck, the, dried, be, Gratings.

2. Read and translate the following words and word-combinations.

The cargo holds, to provide spaces for any remnants, scuppers, bulkheads, the ideal position for mould growth, to accumulate on every surface inside the holds, to wipe out dust, free air circulation, mould, cotton waste, ship's sweat, to sweep the space thoroughly, to be covered with ventilators, a waste of one's time, visual effect of clean holds.

3. Make up sentences using the infinitive in the function of adverbial modifier of purpose.

Model: Sweeping should be performed with full care.

To perform sweeping we should be very careful.

#### 4. Answer the questions.

- 1) What is sweeping?
- 2) Why sweeping is the first step in cargo operation?
- 3) What must we take into consideration?
- 4) What should we pay special attention to?
- 5) What are the ideal positions for mould growth? Why?
- 6) What are the drawbacks of cargo holds?
- 7) Why should we use dry rugs?
- 8) What damage might be caused by the dust?
- 9) Why is it necessary to sweep the gratings from above only?
- 10) Why is it impossible to remove gratings to the deck?

#### 5. Say/write it in English.

- 1) Грузовые трюмы часто сконструированы с множеством труднодоступных мест.
- 2) Чистка должна выполняться постоянно в независимости от любых последующих операций.
- 3) Особое внимание должно уделяться труднодоступным местам.
- 4) Чтобы вытереть пыль и предотвратить засорение можно использовать сухие тряпки.
- 5) Труднодоступные для чистки места являются идеальными для роста плесени и размножения бактерий.
- 6) Пыль с влагой формируют плесень, которая может загрязнить груз.
- 6) Решетки должны быть перенесены на палубу, вымыты и высушены на солнце.
- 8) В решетках много маленьких отверстий для свободной циркуляции воздуха.
- 9) Решетки не следует поднимать во время рейса, особенно, когда транспортируется груз.
- 10) Загрязнению решеток способствуют многие причины, такие как: погодные условия, недостаточный экипаж и т.д.

### 3. UNIT3. WASHING CARGO HOLDS

Read the text:

If the holds are very dirty, they have to be washed after sweeping. Therefore the second preparatory step is the washing of the holds.

Water used for washing should be limited to the minimum. There are several reasons for this. Too much water may damage the insulation which in some cases may absorb moisture, and as a result it requires a longer period of time for drying.

As a rule the holds should never be washed with salt water.

It is best to use the high pressure machine, which enables the regulation water as well as its dispersion.

Depending on the accumulation of dust, debris and odors, if any, certain detergents should be taken into consideration.

It is advisable for use liquid soap or chemicals which are to be mixed with water and are specially produced for this purpose. A small quantity of detergent should be used as it makes rinsing much easier. The procedure should be repeated twice if necessary.

Using a high concentration of detergent needs a greater amount of water to rinse and a larger amount of water used needs more time for drying and ventilating. Every time when chemicals are used it is obligatory to rinse with fresh water, if not mentioned otherwise in the instructions.

Without using chemicals it is not always sufficient to remove the mould dirt and grease.

As the relative humidity in the holds is predominantly high, the dust raised up during the sweeping will collect on the walls of the hold.

If the holds are not washed we can observe after a number of voyages the formation of mould, first on the bulkheads near the battery room, and on the sides of the battery room.

The mould will be seen first on the lower decks where the concentration of humidity is bigger and ventilation is less effective.

In no way must we allow the mould to develop, because this is the beginning of the growth of fungi.

The surface polluted with mould must be washed well and sprinkled with chemical means against the formation of mould, in most cases the chemicals simultaneously being both a disinfectant and deodorizer.

Besides, the scuppers and all water drains in the hold should always be inspected during the washing procedure.

They should always be free of debris to keep the free flow of waste water.

Neglecting to do this will result in flooding certain sections and corners of the holds. This is one factor that may result in a failure to prepare the holds for new cargoes.

## Note

washing n. – мойка  
 therefore adv. – поэтому  
 to limit v. – ограничивать  
 insulation n. – изоляция  
 moisture n. – влага  
 salt water n. – соленая вода  
 dispersion n. – дисперсия, рассредоточение  
 accumulation n. – накопление  
 debris n. – осколки  
 odor n. – запах  
 liquid soap n. – жидкое мыло  
 detergent n. – моющее средство  
 rinsing n. – промывка, полоскание  
 obligatory adj. – обязательный  
 to mention v. – упоминать  
 sufficient adj. – достаточный  
 grease n. – смазка  
 humidity n. – влажность  
 predominantly adv. - особенно  
 battery room n. - аккумуляторная  
 deck n. – палуба  
 to develop v. – развиваться  
 fungi n. – грибок, плесень  
 to pollute v. – загрязнять  
 to sprinkle v. – опрыскивать  
 simultaneously adv. – одновременно  
 waste water n. - сточные воды  
 neglecting n. – пренебрежение  
 flooding n. - затопление  
 failure n. – сбой, ошибка

## Exercises:

Change the following questions using the model/answer the questions.

Model: Why should the holds be never washed with salt water? (I don't know).  
 I don't know why the holds should be never washed with salt water.

- 1) Why is it better to use the high pressure machine? (I can't tell you).
- 2) Why should the wetter used for washing be limited to the minimum? (In my opinion).
- 3) Why is it advisable to use liquid soap or chemicals? (I'd like to know)
- 4) What makes rising much easier? (I didn't know).

- 5) Why shouldn't we allow the mould to develop? (I wondered).
- 6) What needs more time for drying and ventilating? (I want to know).
- 7) Why is it always inefficient to remove the mould, dirt and grease? (I don't know).
- 8) What should be done against formation of mould? (I have no idea).
- 9) What will cause the flooding of certain sections and corners? (I'd like to guess).

1. Match a line in A with a line in B.

| A                             | B                                      |
|-------------------------------|----------------------------------------|
| too much water                | to use liquid soap or chemicals        |
| dirty holds                   | makes rinsing much easier              |
| as a rule the holds           | to remove the mould, dirt and grease   |
| it is advisable               | may damage the insulation              |
| a small quantity of detergent | should never be washed with salt water |
| you have to use chemicals     | we can observe the formation of mould  |
| if the holds are not washed   | should always be inspected             |
| the scuppers and water drains | have to be washed after sweeping       |

2. Ask questions using the model.

Model: Too much water may damage the insulation.

What may damage the insulation?

- 1) Holds should never be washed with salt water.
- 2) It is best to use the high pressure machine.
- 3) Liquid soap or chemicals are to be mixed with water and are specially produced for this purpose.
- 4) Using a high concentration of detergent needs a greater amount of water.
- 5) As the relative humidity is high, the dust will collect on the walls of the hold.
- 6) On the lower decks the concentration of humidity is bigger and ventilation is less effective.
- 7) In no way must we allow the mould to develop, because this is the beginning of growth of fungi.
- 8) The scuppers should always be free of debris to keep the free flow of waste water.

3. Open the brackets using the right form of the verb.

- 1) When the holds (to be) very dirty, we (to wash) them.
- 2) Water (to damage) the insulation, so we (to have to) wait.
- 3) In the past using a high concentration of detergent (to need) a great amount of water.
- 4) We (to use) chemicals and now it (to be) necessary to rinse this with fresh water.
- 5) The holds (to wash) and now there (to be) the formation of mould.
- 6) The mould (to see) first on the lower decks where the ventilation (to be) less effective.

- 7) The surface polluted with mould (must, to wash) well and (to sprinkle) with chemical means.
- 8) The scuppers in the hold (to inspect), during the washing procedure on Monday.

5. Translate into Russian.

- 1) Вода, используемая для мытья, должна быть ограничена до минимума.
- 2) Слишком много воды может повредить изоляцию, которая может поглощать влагу.
- 3) Если трюмы очень грязные, их следует вымыть после очистки.
- 4) Как правило, трюмы не моются соленой водой.
- 5) Рекомендуется использовать жидкое мыло или химикаты, которые специально предназначены для этой цели.
- 6) Каждый раз после использования химикатов необходимо полоскание пресной водой.
- 7) Без использования химикатов не всегда удаётся удалить плесень и грязь.
- 8) Если относительная влажность в трюмах достаточно высока, пыль поднимается вверх и скапливается на стенах трюма.
- 9) Плесень, прежде всего, образуется на нижних палубах.
- 10) Появление плесени способствует началу роста грибков.
- 11) Во время мойки должны проверяться все трубы и водяные стоки.

## 4. UNIT 4. DISINFECTING AND DEODORIZING

Read the text:

Whether a disinfectant or a deodorant is used depends on what we wish to get of: germs, mould and bacteria, or odd smells. Of course, it mainly depends on the cargo previously transported, as well as the condition of the hold before the last transported cargo had been loaded.

Sometimes there can be such a strong and persistent smell in the holds that it is difficult to eliminate it by washing, ventilating or even ozoning.

Then the only way left to get rid of odd smells is deodorizing, as happens, for example, after discharging salt fish.

Of all reefer cargoes apples, pears, oranges, grapefruit, mandarins, lemons and fish let out their smell, while on the other hand, butter and eggs are the most easily affected and absorb most of the smell.

Today, the market offers some deodorants which are to be mixed with water, so they can be used immediately after washing, but in most cases better effect is achieved if a surface is deodorized.

Using the spray gun, we can spray this solution on and under the gratings and bulkheads paying special attention to the battery room and all less accessible places.

Some solutions have a limited effect lasting between one and two hours. For some of them no potable water rinse is necessary (therefore always read the instructions carefully).

If the result is not satisfactory, that is, if there is any odd smell left, the procedure should be repeated.

Some ship owners will not consider undertaking the above mentioned procedures as they require some additional costs, but in certain cases they are not only necessary but even indispensable.

All chemicals have a limited storage time, mostly a few months if stored in a cool and dry space. For this reason it is not advisable to have larger quantities in stock.

Most of those chemicals produce their optimal effect if used at a temperature of between 20 and 25 degrees centigrade. Always prepare a fresh solution, never use one from the day before.

In one word disinfection and deodorizing are carried out in the same way, except if it is within our own discretion which chemical to use and when. The best and the easiest way is to use those chemicals which are specified for both purposes. The recommended disinfectant and deodorizer is AMERSAN 20 and F/H.

While using disinfectant or deodorant you should be very cautious and choose the right one (as today's market offers an increasing number of such products), and strictly follow the instructions prescribed by the producer in order not to cause unnecessary problems.

Whenever you work with chemicals use goggles and rubber gloves: protect the skin. Ships with aluminum gratings have less difficulty with mould and bacteria than

those with wooden gratings, and at the same time, it is easier to keep the holds tidy and clean.

If we are not in possession of any disinfectant or deodorant chemical, a solution of commercial vinegar could be sprayed into the surfaces in the cargo hold. Fumigation is another method of disinfection producing the same effect as above mentioned procedures.

### Note

to get rid of v. – избавляться  
 germ n. – микроб  
 odd adj. – странный  
 previously adv. – предварительно, раньше  
 persistent adj. – устойчивый  
 to eliminate v. – устранять  
 to discharge v. – разгружать  
 reefer adj. – охлажденный  
 pear n. – груша  
 while – в то время как  
 immediately adv. – сразу, немедленно  
 surface n. – поверхность  
 spray gun n. – пульверизатор  
 solution n. – раствор  
 to limit v. – ограничивать  
 to last v. – длиться  
 potable adj. – пригодный для питья (о воде)  
 satisfactory adj. – удовлетворительный  
 to consider v. – считать, полагать  
 to undertake v. – предпринимать  
 additional adj. – дополнительный  
 indispensable adj. – необходимый  
 mostly – чаще всего  
 quantity n. – количество  
 to produce v. – производить, давать  
 to carry out v. – проводить, осуществлять  
 discretion n. – внимательность, осторожность  
 purpose n. – цель  
 cautious adj. – осторожный  
 to prescribe v. – предписывать  
 goggles n. – защитные очки  
 rubber gloves n. – резиновые перчатки  
 vinegar n. – уксус  
 fumigation n. – окушивание

### Exercises:

1. Express your agreement or disagreement, using expressions: "That's true" or "That's wrong, (I'm afraid)". Explain your point of view. Try not look in the text.

Model:

- You could prepare a fresh solution or even use one from the day before.
- That's wrong (I'm afraid). You should never use solution from the day before.

- 1) Whether a disinfectant or a deodorant is used depends on the cargo previously transported.
- 2) It's very easy to eliminate strong and persistent smell by washing and ventilating.
- 3) Today, the market offers some deodorants which can be used immediately after washing.
- 4) For some of solutions no portable water rinse is necessary.
- 5) Using the spray gun, it is enough to spray this solution on the gratings and bulkheads.
- 6) All chemicals have a limited storage time.
- 7) Apples, pears, oranges, grapefruits, mandarins and lemons are the most easily affected and absorb most of the smell.
- 8) Disinfecting and deodorizing are carried out in the same way.
- 9) In order not to cause unnecessary problems you should choose the best disinfectant and deodorant.
- 10) To protect the skin you should wash your hands.
- 11) Ships with aluminum gratings have less difficulty with mould and bacteria than those with wooden gratings.
- 12) If we are no in possession of any deodorant chemical, a solution of salt and water could be used.

2. Translate the following word-combinations into Russian and try to memorize them.

To get rid of germs and odd smells, previously transported cargo, strong and persistent smell, to eliminate smth. by washing, discharging salt fish, reefer cargoes, to absorb most of the smell, to be mixed with water, in most cases, to spray the solution under the gratings, battery room, limited effect, potable water rinse, to repeat the procedure, ship owners, additional costs, in certain cases, limited storage time, in stock, to produce an optimal effect, the fresh solution, to be specified for both purposes, to be very cautious, instructions prescribed by the producer, goggles and rubber gloves, at the same time, tidy and clean, to be in possession, solution of commercial vinegar, to protect the skin.

3. Explain the following expressions in English with the use of the model. Translate them into Russian.



## Model:

salt water = water with salt

limited effect = effect that is limited

ship owner = a person who owns the ship

fresh solution = solution that was made just now

1) Persistent smell. 2) Salt fish. 3) Reefer cargoes. 4) Deodorized surface. 5) Less accessible places. 6) Potable water rinse. 7) Additional costs. 8) Limited storage time. 9) Cool space. 10) Dry space. 11) Increasing number. 12) Unnecessary problems. 13) Rubber gloves. 14) Aluminum gratings. 15) Cargo holds. 16) Wooden gratings.

## 4. Answer the questions to the text.

- 1) What does a disinfectant depend on?
- 2) What is a limited storage time for all chemicals?
- 3) Is it difficult to eliminate strong smell by washing and ozoning? Why?
- 4) What is the only way to get rid of odd smells?
- 5) What kind of cargo does most of the smell absorb?
- 6) What kinds of deodorants can be used immediately after washing?
- 7) In what case can you achieve better effect during disinfecting?
- 8) What should we pay the special attention to, using the spray gun?
- 9) Why is it unnecessary for some solutions to use portable water rinse?
- 10) Why don't ship owners want to use solutions?
- 11) Why should we be very cautious while using disinfectant or deodorant?
- 12) What should we do to protect the skin?
- 13) Why are ships with aluminum gratings better than with wooden ones?
- 14) What could be done if we have no disinfectant and deodorant?

## 5. Look through the text and find out the following word-combinations.

Состояние трюма; груз, перевозимый ранее; избавиться от неприятного запаха; сильный и устойчивый запах; устранил запах озоном; разгрузка соленой рыбы; оставлять запах; портиться и впитывать запах; вчерашний раствор; на сегодняшний день; смешивать с водой; деодоризовать поверхность; распылять раствор; отчистить решетки и переборки; последующее споласкивание водой; тщательно читать инструкцию; дополнительные средства; иметь ограниченный срок хранения; свежий раствор; выбрать правильное средство; избегать лишних проблем; использовать защитные очки и резиновые перчатки; иметь трудности с плесенью и бактериями; разбрызгивать раствор уксуса.

## 5. UNIT 5. VENTILATION AND EQUIPMENT

Read the following text:

As we have performed all necessary tasks described here, and have done it with utmost care, it is time to pay attention to the ventilating of the holds. The best way is to open up hatch covers, as well as all tweendecks. That is, of course, if the weather permits it. If the weather conditions are poor or there is any kind of cargo placed on the hatch coamings so that the hatches can't be opened, artificial ventilation should be performed in the way that the fresh air system is operated at maximum capacity.

Ventilation is needed even when there are no odd smells, in order to eliminate too much moisture in the holds, as well as stale air.

The air renewal system.

Fruits and vegetables require that fresh air is supplied to the cargo hold in order to ensure the necessary oxygen supply.

For this application an air renewal system is used, divided into one or several systems per cargo hold.

An air renewal system can be provided with:

- a) mechanical supply with natural exhaust
- b) natural supply with mechanical exhaust
- c) mechanical supply with mechanical exhaust

The capacity of the air renewal system corresponds to 2-4 air changes per hour.

The fans are usually provided with two-speed motors. Full r.p.m. is used when the ship carries bananas where the fresh air change is between 2 and 4 times per hour.

When carrying other fruits, the fans are operating at half speed and thus the fresh air change is less than 2 times per hour.

Air renewal unit.

The air renewal unit is equipped with manual dampers to enable fine adjustment of fresh air. The supply and exhaust fans are equipped with two speed motors, to supply the cargo holds with an amount of fresh air corresponding to 4 air renewals per hour (for banana carriage) or, at half speed, an amount corresponding to two air renewals per hour (for fruit carriage).

Cargo hold fans.

The cargo hold fans are usually dimensioned to give about 90 air changes per hour at full speed calculated in empty holds. The 90 air change per hour is required for the carriage of banana cargoes, when the cargo hold fans, operate at full speed for the whole voyage.

Note

to describe v. – описывать

utmost care - наивысшая степень осторожности

hatch cover n. – крышка люка

tweendeck n. – твиндек

to permit v. – позволять

poor adj. – плохой  
 hatch coaming n. – комингс люка  
 artificial adj. – искусственный  
 capacity n. – возможность  
 moisture n. – влага  
 stale adj. – несвежий  
 air renewal n. – обмен воздуха  
 oxygen n. – кислород  
 to provide v. – обеспечивать  
 supply n. – источник питания  
 exhaust n. – выпускная труба  
 capacity n. – пропускная способность  
 to correspond v. - соответствовать  
 fan n. – вентилятор  
 to carry v. – перевозить  
 to equip v. – оборудовать, снабжать  
 amount n. – количество  
 unit n. – установка  
 to dimension v. – определять размеры  
 manual damper n. - ручной воздушный клапан

### Exercises:

1. Put the words in the right order to make sentences.

- 1) there, no, smells, even, are, Ventilation, when, is, needed, odd.
- 2) way, to, open, covers, best, The, is, hatch, up.
- 3) require, vegetables, the, Fruits, and, fresh, air.
- 4) system, used, renewal, ensure, air, is, An, to, supply, necessary, the, oxygen.
- 5) fans, usually, are, The, provided, two-speed, with, motors.
- 6) speed, at, are, The, fans, operating, half.
- 7) renewal, unit, equipped, The, is, air, manual, with, dampers.
- 8) two, speed, equipped, with, motors, fans, and, The, supply, exhaust, are.
- 9) hold, usually, fans, The, cargo, are, dimensioned.

2. Put the verbs in brackets into the right form. Pay attention to the passive forms.

- 1) As we (to do) all necessary tasks, it's time to pay attention to the ventilating.
- 2) If the weather (to permit) it, we (to open up) hatch covers.
- 3) Ventilation (to need) when there (to be) odd smells.
- 4) The fans (to provide) usually with two-speed motors.
- 5) When carrying fruits, the fans (to operate) at half speed.
- 6) If the weather conditions (to be) poor, artificial ventilation (to perform).
- 7) The supply and exhaust fans (to equip) with two speed motors.

- 8) The cargo hold fans (to dimension) to give about 90 air changes per hour.
- 9) Last year the 90 air change per hour (to require) for the carriage of banana cargoes.
- 10) Fruits and vegetables (to require) that fresh air (to supply) to the cargo hold.

3. Put into the right prepositions, where it's necessary.

- 1) An air renewal system may be provided ... mechanical supply with natural exhaust.
- 2) For this application an air renewal system is used, divided ... one or several systems per cargo hold.
- 3) In order ... eliminate moisture in the holds ventilation is needed.
- 4) The capacity ... the air renewal system corresponds to 2-4 air changes per hour.
- 5) The fans are usually provided ... two-speed motors.
- 6) The best way is to open ... hatch covers, as well as all tweendecks.
- 7) When carrying other fruits ..., the fans are operating at half speed.
- 8) The supply and exhaust fans are equipped ... two speed motors.
- 9) If there is any kind ... cargo placed on the hatch coamings the hatches can't be opened.
- 10) The 90 air change per hour is required ... the carriage ... banana cargoes.

4. Answer the questions.

- 1) What is the best way to ventilate the holds?
- 2) Why should artificial ventilation be performed?
- 3) Is ventilation needed when there're no odd smells?
- 4) What do fruits and vegetables usually require?
- 5) What is used for necessary oxygen supply?
- 6) What can renewal system be provided with?
- 7) What are the fans usually provided with?
- 8) How are the fans operating, when carrying fruits?
- 9) What is needed to enable fine adjustment of fresh air?
- 10) What types of fans are equipped with two speed motors?
- 11) What is required for the carriage of banana cargoes?

5. Translate into Russian.

- 1) Лучший способ вентиляции это открыть крышки люков, если позволяет погода.
- 2) Если люк невозможно открыть, применяется искусственная вентиляция.
- 3) Вентиляцию следует проводить, даже когда нет неприятных запахов для того, чтобы удалить излишнюю влагу из трюмов.
- 4) Свежий воздух поступает в грузовой трюм для того, чтобы обеспечить его

содержимое необходимым количеством кислорода.

- 5) Система воздухообмена разделена на несколько систем для каждого грузового трюма.
- 6) Вентиляторы снабжены двухскоростными моторами.
- 7) При перевозке бананов требуется 2-4 смены воздуха в час.
- 8) При перевозке других фруктов, смена свежего воздуха происходит менее 2-х раз в час, так как вентиляторы работают на половине скорости.
- 9) Установка воздухообмена оснащена ручными воздушными клапанами, которые предназначены для регулирования поступления свежего воздуха.
- 10) При перевозке бананов, вентиляторы грузового трюма работают на полной скорости в течение всего рейса.

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