Л.В.Логінова
О.В.Логінов
С.В Козловський

Професійна англійська мова

спеціальність:133 «Галузеве машинобудування»

Одеса-2023

МІНІСТЕРСТВО ОСВІТИ ТА НАУКИ УКРАЇНИ

ОДЕСЬКИЙ
НАЦІОНАЛЬНИЙ МОРСЬКИЙ УНІВЕРСИТЕТ

Кафедра «Філологія»

Професійна англійська мова

Методична вказівка
Спеціальність 133 «Галузеве машинобудування»

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Передмова

Методична вказівка призначена для студентів ІІ курсу, які навчаються за спеціальністю :133 «Галузеве машинобудування» і ставлять перед собою мету – оволодіти англійською мовою.

Методична розробка складена відповідно до вимог навчальної програми, відповідає основним принципам та вимогам сучасної методики викладання іноземних мов в вищій школі.

Кожна частина складається з текстів та вправ певною кількістю лексики за спеціальністю, що необхідні для розвитку навичок читання, говоріння та письма.

В розробці використані тексти для самостійної роботи студентів. Всі лексичне наповнення націлене на практичне оволодіння студентами професійної лексики та розвитку граматичних навичок.

Unit I

SEA
SEA PORTS OF UKRAINE

The powerful port complex that Ukraine has built today is one of the most stable and dynamic sections of the Ukrainian economy. It makes the basis of the water transport system in the country. More that 35 ports (merchant sea ports, fishery ports, river ports) are situated on the Black Sea coast and on the banks of the biggest European rivers running along the territory of Ukraine - the Danube, Dnieper and Yuzhny Bug.

The sea ports of Ukraine are deep-sea ports, with specialized cargo handling terminals equipped with modern equipment, situated along the international transport corridors. This fact contributes a lot to the transformation of Ukraine into a powerful transit country.

Ukraine possesses powerful seaport potential. Along its Black and Sea of Azov coastline there are 18 merchant sea ports: Reni, Izmail, Ust-Dunaisk, Bilgorod-Dnistrovsky, Chornomorsk, Odessa, Yuzhny, Mykolaiv, Olvia, Kherson, Skadovsk, Yevpatoria, Sevastopol, Yalta, Theodosia, Kerch, Berdyansk and Mariupol.

The berthage line of these 18 major sea ports totals more than 38 km, consisting of: 11 km for bulk and dry-bulk cargo; about 15 km for all types of general cargo; 4,5 km for passenger operations; 1,5 km for liquid cargoes; and 4,5 km for auxiliary functions.

The 18 ports are equipped with about 600 gantry cranes, approximately 1,500 lift trucks of different types, and some 400 other units of port machinery. These ports have over 500,000 sq. m of sheltered storage areas and over 2 million sq. m of open storage spaces.

The most important Ukrainian ports are those of Odessa, Chornomorsk and Yuzhny, all situated not far from each other on the northwestern part of the Black Sea coast. These three ports alone account for 70% of the total cargo turnover in die Ukrainian sea ports; and offer the best sea approach ways, which can accommodate large vessels with draft of from 11.5 m to even 14 m; while Ukraine's other ports can only take ships of considerably less draft. The major container terminals in Ukraine are located in ports of Odessa and Chornomorsk.

At the mouths of Ukraine's major rivers, the Dnieper and Yuzhny Bug, there is another important grouping of sea ports: Mykolaiv, Kherson, Olvia and Dnepro-Bugsky (structural subdivision of the Mykolaiv aluminous plant), which can handle both bulk and general cargoes.

Around the Crimean Peninsula's seacoast lie the merchant sea ports of Yevpatoria, Sevastopol, Yalta, Theodosia and Kerch. They are designed, primarily, to serve Crimean transport needs. Given the Crimea's tourism potential, ports of Yalta and Sevastopol have great prospects for passenger and cruise traffic

development. The port of Theodosia is the second in Ukraine by the volumes of crude oil and petroleum products handled.

On the northern coast of the Sea of Azov lie the Ukrainian merchant sez ports of Berdyansk and Mariupol whose distinguishing feature is their closeness tc the industrially developed regions of Donbass and Pridniprovye. The export ol metals and other commodities from these regions provides the main workload for these two ports. Ukraine also has three merchant sea ports in the lower Danube: Reni, Izmail and Ust-Dunaisk.

Under new conditions, and as a conversion from a planned economy to market-oriented economic development has been initiated, the main objective ol the Ukrainian port management has been to attract new clients, namely, new cargo and ship owners. To a large extent, this conversion has been developing successfully over the past few years.

Nowadays, the sea ports are Ukraine's most satisfactory economic enterprises.

Ukraine, by itself, cannot provide a significant boost in foreign trade cargo volume. So, primarily, the ports pin their hopes on transit cargo growth, especially because of Ukraine's strategic geographical location. First and foremost, for greater transit cargo traffic to and from such countries as Russia, Belorussia and Kazakhstan. Definite hopes are also linked with Caspian oil transit to Europe through Georgian and the Ukrainian ports.

The main export cargoes are: metals 48.1%, grain 12.4%, crude oil and petroleum products 9.2%, chemical and mineral fertilizers 8.7%, construction materials 4.3%, ore 3.3%. As for transit cargoes, crude oil and petroleum products prevail at 50.4%, while mineral fertilizers represent 10.8%, metals 10.6%, coal 7.1%, liquid chemical cargoes 5%.

All of Ukraine's 18 major merchant sea ports are state-owned enterprises. This status is provided by the Merchant Shipping Code of Ukraine.

According to the Programme of Stabilization and Development of Sea and River Transport in Ukraine up to 2005, there exist possibilities for rearranging the management of state-owned ports, whereby governmental maritime management can hand over commercial and industrial activities to private and mixed companies. In the port of Odessa, experiments to organize such joint activities with mixed, national and some international joint ventures began in 1995. They have already proved to be so successful that, presently, seven enterprises of this type are carrying out almost all the cargo handling in the port of Odessa.

Ukraine's other ports have also started to attract the interest of foreign and private investors to projects for forming specialized cargo handling complexes. Two good examples are the specialized grain handling complex built in the port of Illichivsk, which is now under expansion; and the mineral fertilizers processing complex constructed in Mykolaiv Merchant Sea Port.

The new position of the ports in market economy and realization of the concept of the sea ports and shipyards development up to 2010 permit to keep their

balance in severe competition, increase the cargo handling volume and to become a foundation and source of regions and the whole country development.

In 2003 the Ukrainian Ministry of Transport and a new state enterprise "Ukrmorport" put a task for merchant sea ports - to reach a total cargo turnover of 122 mm tons.

1. Give the answers

1.How many ports are situated on the Black Sea Coast and on the banks of the Ukrainian rivers?
2.What are the ports equipped with?
3.What fact makes Ukraine a powerful transit country?
4.How many merchant sea ports are there?
5.What kinds of storage areas do the ports possess?
6.What are the most important ports of Ukraine?
7.What percentage of the total Ukrainian cargo turnover do these ports accoimt for?
8.Where are the main container terminals situated?
9.What is located at the mouths of the Dnieper and Yuzhny Bug rivers?
10.What ports lie around the Crimean Peninsula's seacoast?
11 .What commodities are handled in the port of Theodosia?
12.What is the distinguishing characteristic of Berdyansk and Mariupol merchant sea ports?
13.What ports are located in the lower Danube?
14.What is the main goal of the Ukrainian port management?
15.What do the ports pin their hopes on?
16.What are the main export and transit cargoes?
17.Who owns all of Ukraine's 18 major ports?
18.What are the prospects of the Ukrainian ports?

2. Sum up the answers and speak on the text

3.Put the verbs in the proper tense forms

1.Ukraine already (to become) a powerful transit country.
2.The most Ukrainian ports (topossess) specialized cargo handling equipment.
3.Our approach ways (to accommodate) vessels with draft of 14 m last year.
4.Mariupol port management (to open) new work places lately.
5.This terminal (to handle) bulk and dry-bulk cargoes for ten years already.
6.We (to cooperate) with Russian and Georgian ports in the near future.
7.Crimean ports (to serve) transport and tourism needs mainly.
8.Due to favourable geographical location of our port its turnover considerably (to increase) since last decade.

4.Ask questions on the underlined words

1.**Attraction of new clients** has always been the primary aim of the Ukrainian port management.

2.Ukraine hopes for **transit cargo growth.**

3.A specialized grain handling complex has just been built in the port of **Chornomorsk.**

4.The first international joint venture was organized in the port of Odessa **in 1995**.

5.There always exist possibilities for **expansion of the Ukrainian ports.**

6.We have started to export **metal** this year.

7.**Petroleum products** are mostly handled in the port of Theodosia.

8.This port handles both **bulk and general** cargoes.

Unit 2
ODESSA MERCHANT SEA PORT

The port of Odessa is a major port of international importance and one of the most mechanized ports in this country. It was founded together with the city more than 200 years ago. It is located on the northern shore of the Black Sea.

The port can handle up to 35 million tons of cargo per year, i.e. 12 million tons of dry cargoes, and 23 million tons of liquid bulk cargoes. The port is equipped with modern equipment, machinery and devices for handling the following cargoes: oil and petroleum products; bulk raw sugar; bulk and packed grain; citrus fruits, bananas; and other cargoes packed in sacks, boxes, packets, big bags, barrels or containers.

The port has specialized harbours, testing sites, and terminals. It can take large passenger cruise liners, and has the most modem passenger terminal in Ukraine, which handles up to 4 million passengers a year.

Port Facilities

There are 38 berths with depths ranging from 8 to 13 m. The berth line totals over 8,000 m. The port has 7 terminals for handling dry cargoes, as well as passenger, oil and container terminals. The port's harbours are able to accommodate ocean going vessels.

- Quarantine harbour admits ships of up to 11.5 m draft and 240 m length.
- New harbour admits ships of up to 11.5m draft and 240 m length.
- Cabotage harbour admits ships of up to 11.5m draft and 240 m length.
- Convenience harbour admits ships of up to 11.5 m draft and 240 m length.
- Oil harbour admits ships of up to 12.5 m draft and 250 m length.
- Container terminal admits ships of up to 12 m draft and 240 m length.
- Oil terminal admits ships of up to 12.5 m draft and 250 m length.

The following specialized terminals have recently been constructed in the port.

The mineral fertilizer complex in Quarantine jetty can handle 1.1 million tons of cargo a year with a storage area of 70,000 tons capacity.

The grain transfer complex of Inzernoexport Ltd. at Berth No. 29 in Khlebnaya Harbour can handle bulk grain cargoes, via railwagons and trucks.

Short term storage of grain, up to 2 months, is available. Vessels of lower deadweight can be (unloaded right at berth using mobile conveyers.

On March 23, 2000, the Ukrainian Parliament passed a law designating a certain territory of Odessa Merchant Sea Port as a Special (Free) Economic Zone (FEZ). This special economic zone PORTO-FRANCO is a 32,5 hectares area within the borders of the artificially deposited and filled territory of Quarantine jetty. According to the law the FEZ territory is granted a special customs duty regime. The FEZ territory has a container terminal, a chemical cargoes transfer complex, TIR parking lot and storage areas.

The berths of the Oil Harbour have also been reconstructed. Six berths can now take tankers of up to 260 m length, and 13 m draft. Oil Harbour capacity is now 25 mln tons a year. The modern facilities prevent oil spillage.

Almost all cargo handling operations in the Port of Odessa are carried out coordinately by the seven stevedore companies. In accordance with the signed contracts (usually for 5 year period) the port is in charge of the infrastructure and the stevedore companies are responsible for cargo transfer process and purchasing of additional technical appliances at their own expenses. In the last periocLthe stevedore companies' share in dry cargo total turnover constituted up to 90 per cent. The investment amount reached 22 million UHR.

Open storage area totals 215,400 sq. m. Sheltered warehouse area totals 78,800 sq. m. The grain elevator's capacity is 60,000 tons of grain. The perishable goods warehouse capacity is 13,500 tons.

The port disposes of different modern cargo handling facilities such as: gantry and mobile cranes, mounted loaders, self-propelled cranes, high-duty fork-lift trucks. An overpass for transporting cargoes by TIR container carriers is being constructed in the port. This overpass will relieve traffic in neighboring Odessa streets.

Construction of a vegetable oil transfer complex in the port is planned. In 2003 a new route of container carriages, which is called "Bosporus Express" linked the ports of China, Korea, Shri-Lanka, Egypt, Turkey, Romania and Greece with Odessa and Illichivsk. Due to all these developments and reconstructions a total freight turnover of about 33 mln tons has been achieved in the port of Odessa.

1. Find the answers

1.When was the port of Odessa founded?
2.What types of cargoes can the port handle?
3.How many berths are there?
4.Can you describe the port's harbours?
5.In what way and where are bulk grain cargoes handled?
6.What is FEZ?
7.Who is responsible for cargo transfer process and purchasing of appliances?
8.Is there any possibility for handling perishable goods?
9.What means are cargoes handled by?
10.What are the prospects and future plans of the port of Odessa?

2. Use the answers as a plan for retelling the text

3. Find the proper tense forms

1.The port of Odessa (to be) one of the most important ports in this country for more than 200 years.
2.The port (to obtain) specialized harbours and terminals.
3.The port of Odessa (to handle) up to 4 million passengers a year.
4.The mineral fertilizer complex recently (to be constructed) in the port.
5.When the stevedore (to arrive) the perishable cargo (to be loaded) already.
6.The berth (to take) tankers more than 260 m length in the near future.
7.The contract (to be signed) a month ago.
8.When we (to come) the sailors (to unload) a vessel of low deadweight right at berth.

4. Put questions on the underlined words

1.The modem appliances prevent **oil spillage**.
2.The port of Odessa is located on the **northern** shore of the Black Sea.
3.The berth line totals **over 8,000 m.**
4.The FEZ territory is granted **a special customs duty regime.**
5.**Six** berths can take tankers of up to 260 m length and 13 m draft.
6.The investment amount reached **22 million UHR**.
7.The overpass for transporting cargoes will relieve traffic **in neighbouring Odessa streets.**
8.A total freight turnover **of 33 million tons** has been achieved in the port of Odessa.

Unit3

CHORNOMORSK MERCHANT SEA PORT

Chornomorsk merchant sea port, one of the largest in Ukraine, is situated on the coast of Sukhoy Liman (estuary), 12 miles southwest of Odessa. It was founded in 1958 as a branch of cargo handling area for the port of Odessa.

The port can admit vessels of up to 13 m draft and deadweight more than 100,000 tons.The port of Chornomorsk is a component of the European Community's 9th International Transport Corridor, and also a component of the Baltic Sea - Black Sea Corridor. Railway ferry crossings connect the port with Bulgaria and Georgia.

Port Chornomorsk is a modern and highly mechanized, international sea port on the Black Sea coast .The port's throughput capacity is 24 million tons a year. The port disposes of specialized cargo facilities:

- railway ferry terminal;
- liquid cargoes terminal for handling liquid fertilizers, liquid caustic soda and vegetable oils;

- sheltered terminal for storage and transfer of bulk mineral fertilizers;
- container terminal;
- grain cargoes transfer terminal.

Port offers specialized facilities for handling heavy lifts (max. 300 tons)

The port has 28 berths, and the berthing line runs a total of 5.5 km. Its berthing depths range from 9.6 to 13 m. The characteristic feature of the port is that its facilities are located on different levels of its seacoast territory. On the upper level, there is a rail wagon depot, container repair workshop, empty containers depot, and warehouses used mainly for liquid cargo, etc. All port berths are equipped with railway access lines that have enabled the port to reach a turnover capacity of up to 700 wagons a day. The port is divided into three cargo terminal complexes all of which have various transfer and storage facilities.

Chemical cargoes transfer complex is being constructed at berths Nos. 1 - 2. The specialized container transfer complex is situated on berths Nos. 5-6. Its annual capacity is 150,000 containers a year. There are two specialized cargo transfer complexes at Terminal No. 2.

Liquid Cargo Transfer Complex is designed for the transfer and storage of oil, alcohol and some other technical and food liquid cargoes.

Grain Transfer Complex was put into operation in January 1998.This complex is fully mechanized with modern equipment. It has been designed mainly for exporting grain, but when necessary can also handle imported grain,/ It has the only port elevator in Ukraine capable of handling heavyweight Panamax type ships of up to 70,000 tons capacity. The grain transfer complex turnover is 2.5 million tons grain a year. Grain cargo handling is done via direct scheme (wagon — ship, ship - wagon) with the help of a floating grain loader and floating cranes.

Fertilizer Transfer Complex is environmentally safe and highly mechanized, with considerable sheltered storage capacity, up to 1.5 million tons a year, for mineral fertilizer bulk transfer.

Passenger and Cargo Ferry Complex. This all-purpose multimodal complex combines three transit processes:

- handling of railway ferries carrying wagons, containers, trucks and cars;
- handling of motor vehicle ferries and Ro-Ro vessels carrying international trucks and automobiles as cargo and export-import wheel vehicles;
- transfer of bulk mineral-building cargoes.

Railway ferry and motor vehicle ferry lines run through the complex. They (connect Ukraine with Bulgaria, Georgia, Turkey and Greece in the future). The complex transfers cargoes to Varna, Batumi and Potijvia railway ferry carriers of 108-wagon capacity each, and Ro-Ro ships carrying heavyweight TIR trucks.

Ferry Complex Turnover:

- 6 million tons of cargo a year in wagons;
- over 300,000 tons of cargo a year via container and motor vehicle transport.

The complex can handle 2 railway ferry carriers and 2 motor vehicle ferry carriers at a time. Ferry handling duration is minimum - 10 hours, maximum - 18

hours. Container storage capacity totals 126,500 tons a year, trailer and car storage -130,000 tons a year.

In the port cargoes are handled by means of highly efficient gantry cranes, ship-to-shore container cranes, rail-mounted cranes, bridge loaders, caterpillar cranes, boom cranes, floating grain loaders. There is also a number of fork-lift trucks with a capacity from 1.5 up to 32 tons. The port also has straddle carriers of up to 35 tons, port's tractors and bucket loaders.

In the coming 10 years the port plans to implement the construction of new railway access lines, a station for unloading mineral fertilizers, a transfer complex for exporting bulk cement, a new container and metal cargo terminal, port facilities for receiving passenger and cargo-passenger vessels at the ferry complex and other big projects.

1. Find the answers in the text

1.What kinds of cargoes are handled in the port of Chornomorsk?
2.Is Chornomorsk a specialized or a universal port?
3.What transfer complexes are there in the port?
4.What handling equipment does the port dispose of?
5.What is the total capacity of the port of Chornomorsk?
6.What draft vessels can the port take?
7.What is the main feature of the port?
8.What are the port berths equipped with?
9.Which countries do the ferry lines connect Ukraine with?
10.What are the port's-development plans?

2.Sum up the answers and speak on the text

3.Insert the verbs in the right tense forms

1.The turnover capacity of the port already (to reach) of up to 700 wagons a day.
2.Railway ferry crossings (to connect) the port with other countries.
3.Grain transfer complex (to start) to operate in 1998.
4.Three new floating cranes (to be delivered) to the port recently.
5.This Ro-Ro vessel (to carry) TTR trucks to Bulgaria now.
6.In the near future the port (to implement) a new railway access line.
7.These ship-to-shore cranes (to work) for 8 hours already.
8.When we (to visit) the Berth No. I the workers (to construct) a new chemical cargoes transfer complex.

4. Put special questions on the underlined words

1.The sheltered terminal is used for storage and transfer of **bulk mineral fertilizers**.
2.The port offers specialized facilities for handling **heavy** lifts.

3.**On the upper level** there is a rail wagon deport, container repair workshops and warehouses.
4.The port is divided into **three** cargo terminal complexes.
5.This complex is equipped with **modern facilities**.
6.The grain transfer complex turnover is **2,5 million tons** grain a year.
7.Railway ferry and motor vehicle ferry lines run **through the complex.**
8.The complex transfers cargoes **via railway ferry carriers.**

Unit 4

PIVDENNYI MERCHANT SEA PORT

The port of Pivdennyi, 30 km east of Odessa, is one of Ukraine's youngest ports. Its construction was started in 1973 on the western shore of Adjalyksky Liman (estuary) that lies on the northwestern coast of the Black Sea. / Two vital circumstances coincided in the founding of this port.', Firstly, the country needed a new and specialized, deep-water port on the Black Sea coast, furnished with the most modern port equipment. Secondly, on the banks of Adjalyksky Liman, the construction of the new Odessa Priportoviy Plant was begun, whose products were to be exported by sea transport. 'Besides exporting the said plant's chemical products (such as ammonia, methanor,~carbamide-ammonia mix), the new port was intended for throughput handling of ammonia coming in through the pipeline from Tolyatty, Russia, and some chemical cargoes, mostly fertilizers, carried by railway from Ukraine, Russia, and Belorussia. The port was also equipped with powerful complexes for throughput handling of bulk cargoes such as coal, ores, and phosphorus. The founding date of the new port was fixed as July 27, 1978.

The port of Pivdennyi is the deepest port in Ukraine. It specializes in throughput handling of bulk, chemical, ore and general cargoes; and is used for transshipment of coal, metal, urea, building materials, ammonia, super phosphoric acid, methanol, and phosphorus. The port can handle up to 15 million tons of cargo a year, and this cargo turnover was reached in 2003.

Main shipping routes run from the port of Pivdennyi to the countries of the Black Sea and Mediterranean Sea Basins; Latin America, the United States of America; the Middle East countries; Southeast Asian countries. Most of the transit cargoes (90%) come from Russia and neighbouring CIS countries i.e. Moldova, Kazakhstan, Belorussia.

The total length of its berths is approximately 2.3 km, and there is 102,500 sq. m of open warehouse space in the port. The port comprises 2 cargo handling areas. The inner port motorways are connected to the Odessa - Mykolaiv highway and to the access railway lines and equipped with gantry cranes of load capacity up to 40 tons.

Cargo Area No. 1 is located on Adjalyksky Liman's western bank and comprises 3 handling terminals. The terminal No.l is designed to handle bulk urea.

Its berths are equipped with 5 highly-efficient, specialized, ship loaders that are connected with Odessa Priportoviy Plant warehouses by conveyer lines housed in covered galleries. The handling rate is 11,500 tons/day.

Terminal No. 2 is designed to handle liquid chemical cargoes including liquid ammonia, methanol, superphosphoric acid, and nitric acrylic acid. It consists of 2 piers on piles with high-technological equipment (pipelines, standers).This terminal is also equipped with a modern, automated, environmental control system

The third terminal specializes in sand handling.More than 1 million tons of sea and river sand can be handled here by means of hydraulic deposition. The berths for dredgers can accommodate the biggest dredger pumps.

The berth for river sand accommodates vessels with draft of up to 5 m. This sand terminal is equipped with a gantry crane of up to 16 tons capacity, and has an open warehoused

Cargo Area No. 2 is located on the liman's eastern bank. It has coal and ore transshipment complex, designed to handle up to 5.5 million tons.[it has a specialized cargo unloading system with two car tipping devices for discharging 125 ton capacity semi-wagons. The cargo is transferred by means of 1500 m long conveyor lines.

The gantry cranes installed on the berths also enable the handling of pipes, metals, clinker, pig iron, etc. This complex can handle vessels with carrying capacities of up to 60,000 tons; and has a 100,000 sq. m open warehouse area.

Pivdennyi port has put into operation a multipurpose berth No. 7 that is 215 m long and 14 m depth with capacity of 1 million tons a year.'It is designed to handle metal products and bulk cast iron. A berth is fitted with a mobile Liebherr crane (cap. 40 tons); two Kondor gantry cranes (cap. 40 tons); and one Sokol gantry crane (cap. 36 tons).

The port has automobile cranes, fork-lift trucks of up to 25 tons capacity, bucket trucks, bulldozers, port tractors, roll-trailers, caterpillar cranes, automobile graders. Cargo operations and processes of cargo handling are supervised by computerized automation systems.

A sheltered warehouse for storing steel in rolls and an oil handling terminal is under construction in the port. The Yuzhny-Brody oil pipeline is completed. The port plans to put into operation its first installation for handling up to 9 million tons of oil a year. The projected capacity of its fully built oil terminal is 40 mln tons per year. The designed depth of 15 m of the port's approach channel enables the passage of tankers of 80,000 - 100,000 tons deadweight.

1. Give the extensive answers

1.Is Pivdennyi a specialized or a universal port?
2.What proved the port to be constructed?
3.What cargoes are mainly handled in the port?
4.What is the annual cargo turnover of the port of Pivdennyi?
5.What countries do the main shipping routes from the port run?
6.What cargo handling facilities does the port possess?

7.What terminals does the cargo area No. 1 include?
8.How is environmental protection realized?
9.What cargoes does Cargo Area No. 2 specialize in?
10.What are the port's prospects and plans for the future?

2. Sum up the answers and retell the text

3. Put the verbs in the proper tense forms

1.Port Pivdennyi (to export) chemical products for nearly 30 years already.
2.Railways from Russia (to carry) fertilizers and some chemical cargoes.
3.The port (to handle) 13 million tons of cargo last year.
4.This transit cargo just (to come) from Russia.
5.When we (to come) the gantry crane at the sand terminal (to lift) sand.
6.A new oil terminal (to be built) next decade.
7.The engineers (to repair) the dredger pump before it (to be) needed.
8.Oil terminals (not to handle) metal products.

4. Ask special questions on the underlined words

1.The country needed a **new and specialized deep-water** port.
2.This powerful complex is used for **handling of bulk cargoes**.
3.Most of transit cargoes come from **Russia.**
4.Terminal No. 2 is designed to handle **liquid chemical** cargoes.
5.The total length of the port's berths is approximately **2,3 km**.
6.Steel in rolls is stored in a **sheltered warehouse**.
7.The port plans to put into operation a new **oil** terminal.
8.Most fertilizers are carried **by railway**.

Unit 5

BILGOROD-DNISTROVSKY MERCHANT SEA PORT

Bilgorod-Dnistrovsky is one of the oldest cities in Ukraine.

The city is situated on the coast of Dnistrovsky Estuary, which is 42 km long and 4.5 to 12 km wide, and is connected to the Black Sea via a channel.

Given Bilgorod-Dnistrovsky's favourable position, in 1971 a merchant sea port was opened here with the aim of relieving the nearest big ports Odessa and Illichivsk from handling small tonnage vessels. The port is open for navigation all year round.

The port specializes in handling foreign trade and coastal cargoes (grain, timber, general cargoes, livestock, mineral building materials). The port is mainly intended for general and bulk cargo handling, but can also handle containers. Most of these cargoes are exported to Turkey, and the countries around the Mediterranean Sea.

Port territory covers 37.57 hectares, 21.57 of which are deposited territory. There are 9 berths in the port with an overall length of 1,100 m, and depths at berths from 3.5 to 5.2 m.

The port can handle up to 50 wagons of grain per day. Loading and unloading can be carried out by direct scheme (ship-to-wagon, or wagon-to-ship), and via cargo storage spaces.

For transfer grain the following facilities are used:

- two conveyer lines each with capacity of 267 tons per shift and two grain hoppers complex, up to 76 cu. m capacity each, - at berth No. 2;
- two cranes and one hopper complex at berth No. 5. The cargo is transferred as follows:
- wagon - hopper - conveyer - warehouse (floating warehouse);
- warehouse - conveyer - ship;
- floating warehouse - gantry crane - ship.

The port comprises sheltered warehouses with a total area of 11,000 sq. m, and open storage area - 71,100 sq. m. In the port there are 9 barges for grain stowage (total lifting cap. up to 9,000 tons).

The port has caterpillar and automobile cranes of up to 50 t capacity, a floating crane of 15 t capacity, loaders, tractors, roll-trailers and drop-frame trailers.

It is planned to reconstruct the grain complex (ground grain storage construction, which will give 70% increase of the complex efficiency), to lengthen the total berth line and modernize the loading equipment.

1.Try to find the answers

1.Is Bilgorod-Dnistrovsky a new port?
2.What does the port specialize in?
3.Can the port handle containers?
4.How many berths are there in the port?
5.What is the berths' total length?
6.How is loading and unloading of grain done?
7.What facilities help to transfer grain?
8.What kinds of areas does the port dispose of?

2. Find out the proper tense forms for the verbs in brackets

1.Two tractors (to break) yesterday, that's why the pallets (not to be stowed).
2.Next time we (to use) different facilities for grain transfer.
3.A new conveyer line (to be put) into operation recently.
4.When the surveyor (to come) the automobile cranes (to lift) the cargo.
5.The port (to comprise) both sheltered warehouses and open storage areas.

3. Ask questions on the underlined words

1.The port is open for navigation **all year round**.
2.Two conveyer lines possess the capacity **of 267** tons per shift each.

3.Bilgorod-Dnistrovsky has a **favourable** geographical position.
4.The port relieved the nearest big ports from handling **small** tonnage vessels.
5.Twenty wagons of timber have just been exported to **Turkey.**

Unit 6

IZMAIL MERCHANT SEA PORT

Izmail is situated in the Kiliya mouth of the Danube River, 93 km from the Black Sea.

Izmail Merchant Sea Port is one of the modern and highly mechanized ports on the Danube River. The port can accommodate vessels that meet the following specifications:

- sea-going cargo ships with deadweight up to 10,000-15,000 tons, draft in full load up to 7.2 m;
- river cargo ships with: deadweight of up to 5,000 tons.

The port has modern equipment loading devices, and machinery for handling all kinds of incoming cargoes, such as: bulk, dry-bulk, packaged, and containers. The port is designed to handle up to 7.7 million tons of cargo per year.

The territory of the port comprises 23 berths; the depths at the berths are from 3.5 m to 7.5 m.

The port is divided into three cargo handling complexes: Complex No. 1 (berths Nos. 1 - 8) handles mostly packaged cargoes in bags, equipment, agricultural equipment, metals, packed cargoes, and grain with a total capacity of 1,205,000 tons per year.

Complex No.2 (berths Nos. 19-22) is intended for handling bulk cargoes: ore, coal, coke, concentrates, iron ore, pellets, metal products, and grain with a total capacity of 5,400,000 tons per year. Complex No.2 also includes a specialized container terminal (berths Nos. 12-14), where ships with draft up to 6.5 m can be handled.

The total length of the three container berths is 250 m, and there are nine gantry cranes with lifting capacity of 40 tons. 2,200 containers can be stored there simultaneously. The cargo capacity of this container terminal is 660,000 tons cargoes per year.

Complex No.3 (berths Nos. 16-18, 23-26) handles bulk and general cargoes: equipment, coal, metal, ore, and grain. The transshipment of grain cargoes is carried out using Vigan type pneumatic handler, which can transfer 100 tons per hour.

The port has at its disposal 8 sheltered warehouses whose total area is 24,300 sq. m. The open cargo storage area is 162,800 sq. m. 56 gantry cranes of up to 40 t capacities are installed on the port berths. All cranes are located on the border and at the rear of the berths. There are four floating cranes: three with lifting capacity up to 16 tons, and one of 5 tons capacity.

The port has 54 lift-trucks of different specifications, 46 lift-trucks of from 1.5 up to 25 tons. There are also 8 automobile and caterpillar cranes of 6.3 to 50 tons capacity.

The Danube Shipping Company, which is one of the biggest concerns on the Danube, is located in Izmail. This company controls several ports: Izmail, which is the home port, Reni, Ust-Dunaysk as well as ship repair yards and various auxiliary service divisions.

1. Give the answers

1.Is Izmail a sea or river port?
2.What kinds of ships can the port accommodate?
3.What types of cargoes do all three complexes deal with?
4.What is the berths' total length?
5.How many containers can be stored in the container terminal simultaneously?
6.What types of area does the port comprise?
7.How many floating cranes are there?
8.Which ports does the Danube Shipping Company include?

2. Put the verbs in the proper tense forms

1.This river cargo ship (to start) to sea tomorrow morning.
2.When the Master (to come) the pneumatic handler (to transship) the grain.
3.They (not to package) the cargoes because those were bulk cargoes.
4.A new gantry crane (to be installed) this week.
5.The Danube Shipping Company (not to control) Port Yuzhny.

3. Put questions on the word-combinations

1.Izmail is situated **93 km** from the Black Sea.
2.The caterpillar cranes are of **6.3 to 50 tons** capacity.
3.The transshipment of grain cargoes is carried out using **Vigan** type pneumatic handlers.
4.The territory of the port comprises **three** cargo handling complexes.
5.Complex No. 2 handles **bulk** cargoes.

Unit 7

RENI MERCHANT SEA PORT

The sea and river port of Reni is a modern powerful transport junction on the Danube. It is situated 63 miles off the Black Sea on the river Danube approximately 100 km from the river mouth. It was founded in 1816. Navigation is all year-round in the port. Depths at the berths are sufficient to accommodate modern vessels of any type. The route to the sea is via the Suline and Prorva canals.

The port of Reni ranks first among the Danube ports by the cargo turnover which exceeds 10 mln tons. Over 100 commodities are handled there.

The port was founded as the biggest grain trading place in the region.

There are 37 berths for general, bulk liquid, bulk, foodstuffs, heavy lifts and packaged cargo, as well as containers and wheeled motor cars.

The port of Reni consists of 3 cargo areas and a ferry complex. The length of the berthing line is 3,927 m and the territory covers 175.6 ha.

Cargo areas Nos. 1 and 2 are specialized in throughput handling of general cargoes. Area No. 3 specializes in bulk cargo handling and has a complex for throughput handling of motor trucks.

Two specialized berths operate in the port: a berth for heavy lifts, equipped with a bridge crane (cap. 250 tons); the berth's length is 120m; and water depth at the wall is 3.6 m; a berth for handling RO-RO vessels, 85 m length with 3.6 m depth.

The port has an oil terminal that can accommodate sea-going and river oil-carriers of up to 10,000 tons. The terminal can handle 500,000 tons of petroleum products a year. A liquefied gas transfer is also planned. The total area of covered warehouses is 25,200 sq. m, and that of open warehouses is 246,200 sq. m.

In 2000 they introduced the law of Reni special economic zone (SEZ), created on the basis of Reni sea port. Its validity period is 30 years. The SEZ area is 94.36 hectares. On the Reni SEZ territory there operates special concessionary taxation and customs procedure.

The setting up of an economically free zone will allow the port of Reni to carry out some investment projects including the organization of treatment facilities (enterprises) on port territory, a stevedore company involving participation of cargo owners, agents, and so on.

Restructuring of the oil terminal is being planned in order to make the technology better so as to enlarge its capacity up to 4 million tons annually and the volume of simultaneous petroleum products storage up to 85,000 tons.

They have begun constructing a complex for handling of sea-going Ro-Ro vessels. Ferry line Reni — Galats (Romania) is being put into operation. A container terminal organization has been proposed.

1.Answer the following questions on the text

1.How is the port of Reni connected with the sea?
2.Why is the port of Reni the leader among the Danube ports?
3.What types of cargoes are the areas No. 1 and 2 specialized in?
4.What area specializes in bulk cargo handling?
5.What terminal can accommodate sea-going and river oil-carriers?
6.What law was introduced on the basis of the Reni sea port?
7.What are the advantages of economically free zone setting up in the port of Reni?
8.What are the port's prospects and future plans?

2. Insert the proper tense forms of the verbs

1.Port Reni (to include) three cargo areas and a ferry complex.
2.The oil terminal (to handle) 460,000 tons of oil products last year.
3.New restructuring of the oil terminal (to make) the technology better and (t enlarge) its capacity.
4.They already (to begin) to build a complex for sea-going Ro-Ro vessels.
5.When we (to come) a liquefied gas carrier (to enter) -the port.

3. Ask questions on the underlined words

1.Depths at the berths are sufficient to accommodate **modern** vessels.
2.**Two** specialized berths operate in the port.
3.A special economic zone was created on the basis of the **Reni sea** port.
4.The SEZ validity period is **30** years.
5.**Special concessionary taxation and customs** procedure operates on the SEZ territory.

Unit 8

UST-DUNAISK MERCHANT SEA PORT

Ust-Dunaisk merchant sea port is situated in the southern part of Zhebriyansky Bay of the Black Sea, adjacent to the Ochakov mouth of the Danube River.

The port was founded in the late 70's, primarily to serve the lighter carrier system. It provided reception and safe harbourage for the handling of lighters, and to accumulate them for further use in river- and sea-going cargo transportation. However, this lighter carrier system has virtually stopped. Nowadays, the port specializes in transshipment of cargoes from sea-going to river-going vessels for transportation via the Danube, and vice-versa.

The port also comprises the port point Kiliya, situated at the town of Kiliya, and a berth at Vilkovo where the port's administration is located; both of them are designed exclusively for handling river-going vessels.

The main flow of cargo is to and from the Danube and Mediterranean countries.

The port provides handling, transport and forwarding services for transit foreign trade and coastal shipping cargo, and storage facilities. It provides reception, safe harbourage and handling of lighters, and their accumulation for further transportation usage.

The port's cargo turnover consists primarily (over 2/3) of bulk cargoes: ore, ore concentrates, grain. Besides, it handles metals, equipment, textile raw materials, paper and pulp. Cargoes are transported into the port by ships, nonself-propelled barges and lighters. It can handle up to 4 million tons of cargo per year. The port of Ust-Dunaisk comprises two cargo areas: one for sea-going and one for river-going traffic. There are no quays as hydrotechnical constructions.To moor

vessels to be handled, there are three barrel stops. The barrel stops for mooring lighters consist of 4 barrels with holding capacities of 45 tons each.

The cargo berth at Vilkovo specializes in handling bulk and general cargo. Its length is 117m and depth is 1.6 m.

The cargo berth of the port point Kiliya specializes in handling bulk and general cargo. Its length is 150 m.

The port and its points have: gantry (only at Kiliya), floating, caterpillar and automobile cranes; 25 automotive and electrically powered lift trucks.

For dry-bulk cargoes they use a floating loader equipped with automated and electronic machinery enabling fast handling of vessels with no losses.

Clearing machines provide highly mechanized clearing of bulkers' cargo holds.

To maneuver nonself-propelled vessels and move floating cranes, the port has pusher tugs and berthing tugs of power up to 2,200 hp.

1. Give the extensive answers

1.What was the aim of the port's foundation?
2.Does the lighter carrier system operate now?
3.What types of vessels does Ust-Dunaisk port accommodate?
4.Where is the port's administration situated?
5.What cargoes does the berth at Vilkovo specialize in?
6.What services does the port provide?
7.What cargo handling facilities does the port dispose of?
8.Are there any hydrotechnical constructions in the port?

2. Put the verbs in the proper tense forms

1.In the late 70's the port (to serve) the lighter carrier system.
2.Now the port (to handle) up to 4 million tons of cargo per year.
3.That ship (to transport) equipment last year.
4.Look, the lighter (to enter) the port.
5.This Ro-Ro vessel just (to be moored).

3.Put special questions on the underlined words

1.The barrel stops consist of **4** barrels.
2.Cargoes are transported into the port **by ships, barges and lighters.**
3.The cargo berth of the port point Kiliya specializes in handling **bulk** and **general** cargo.
4.**Clearing machines** provide clearing of bulkers' cargo holds.
5.Both ports are designed for handling **river-going** vessels.

Unit 9

MYKOLAIV MERCHANT SEA PORT

Mykolaiv is situated on the left bank of the Bugsky Liman (estuary) of the Black Sea where the Yuzhny Bug and Ingul Rivers join.

Nowadays, it is a shipbuilding center of the independent Ukraine. Mykolaiv merchant sea port was founded in 1862.

Today it is a vital transport junction of the south Ukraine.

Both sea port and river port are within Mykolaiv city limits. The port of Olvia and Dnepro-Bugsky Port, built by the Aluminous Enterprise for receiving imported bauxites, are also situated not far from the city.

The port of Mykolaiv has adequate facilities to handle up to 5.5 million tons of cargoes per year.

The following kinds of cargoes can be handled in the port: ferrous and non-ferrous metals of all sorts and shapes (slabs, rolls, coils, packages, etc.), pig iron, large and small diameter pipes, various ores, iron ore pellets, ferro-alloys, clays, bulk potassium fertilizers, equipment (including over size and heavy lifts), bulk grain, foodstuffs of all kinds, packed cargoes.

The port is divided into two cargo areas. The first cargo area includes berths Nos. 1-9. The second cargo area includes berths Nos. 10-14. The total length of berths is 2,362 m. The port has a specialized complex (berth No. 14) for handling chloride potassium by direct scheme and via a specialized warehouse of 20,000 tons capacity.

At present it can handle up to 1 million tons of chloride potassium a year. The complex is fitted with bunker and conveyer lines enabling it to handle up to 700 tons of fertilizers a hour.

The port grain complex (berth No.4) is assigned for handling solid grain and milling products (bran); it can handle up to 1 million tons a year

The Mykolaiv port elevator, adjoining the port, is a separate enterprise, and uses berth No. 7 for grain handling.

The elevator can handle up to 1 million tons of grain annually. Railways are laid to all berths, and there are also approaches for motor transport.

The area of sheltered warehouses comprises 30,000 sq. m, and the total area of open cargo storage space is 174,600 sq. m.

The port has:

- lift trucks with lifting capacities from 1.5 up to 25 tons - 89 units;
- tractors - 7 units;
- roll-trailers-21 units;
- bucket loaders - 13 units.

The cargo area operates 24 hours a day.

A special mineral fertilizer complex has a handling arrangement that allows to load the fertilizers into the under deck space and transfer the fertilizers into the wagons. They have completed the reconstruction of berth No.5 and they are still reconstructing berths Nos. 1 - 4.

Unit 10

OLVIA MERCHANT SEA PORT

The specialized sea port of Olvia was founded in 1965, 25 km from the city of Mykolaiv, on the left shore of the Dnipro-Bugsky estuary. The port is open to foreign flag ships.

The port of Olvia can handle up to 1 million tons of general cargo. The port handles only cargo in boxes or packages. In 1999 the port handled 700,600 tons of cargo.

The port of Olvia has 7 berths, with a total berth line of 1.9 km. The port has sufficient railway and motor vehicle access tracks and roads.

Its sheltered warehouse area covers 40,000 sq. m, and open storage area covers 240,000 sq. m.

The port has gantry cranes of 10 - 40 tons capacity, and other cargo handling equipment.

1. Find the answers in the text

1.What industry is Mykolaiv the center of?
2.What cargoes are handled in the port of Mykolaiv?
3.What areas is the port divided into?
4.Where is chloride potassium handled?
5.What transport is laid to the berths?
6.What cargo handling facilities exist in the port?
7.What does the special fertilizer complex allow?
8.What type of cargo does the port of Olvia handle?

2. Put the verbs in the right tense forms

1.Mylolaiv (to lie) on the left bank of the Bugsky Liman.
2.This conveyer line (to handle) 3000 tons of fertilizers today.
3.They (to construct) that complex last year.
4.The fertilizers already (to be loaded) into the upper deck space.
5.Look, they still (to reconstruct) the berth.

3. Ask questions on the underlined words

1.The Aluminous Enterprise receives **imported** bauxites.
2.The complex has been fitted with **bunker and conveyor** lines.
3.Chloride potassium is handled via a **specialized** warehouse.
4.There are approaches for **motor** transport to all berths.
5.The port has gantry cranes of **10-40 tons** capacity.

Unit 11

KHERSON MERCHANT SEA PORT

The port of Kherson was founded in 1778. It is a large transport center on the Dnieper in which sea, river, railway and motor transports are closely interlaced. It is an important sea and river port on the Dnieper river. The port is located 25 km from the mouth of the Dnieper and 90 km from the Black Sea. Due to a convenient geographical situation of the port, it is an interface of sea and river transport links. Ships with a draught of down to 7.5 m are received. About 200 vessels visit the port annually.

The port is designed to handle 5 million tons of cargo a year. The port handles general and dry-bulk cargoes. Over 40% of this is mineral fertilizers and bulk or packed chemicals, another 40 % is cereals.

The port also handles all kinds of ferrous metals, cast iron ingots, coke, ferrous alloys, timber and peat.

There is one cargo handling area in the port of Kherson for handling general and bulk cargoes. Its berthing line runs 1,262 m. The grain terminal is situated here, including a warehouse (cap. 20,000 tons). Grain from railcars and motor vehicles is poured into special bins, and then goes to the warehouse via a conveyer.

A direct scheme of grain handling is also envisaged.

There is a facility to parcel mineral fertilizers into 50 kg bags, which are then packed into soft containers (cap. 2 tons).

Machinery Specifications.

The port has:

- 3 Lvov-made lift trucks, capacity 5 tons;
- 18 bucket loaders; 9 Heister lift trucks;
- 19 Toyota lift trucks, cap. 1.5 tons;
- 7 Toyota lift trucks, cap. 4 tons;
- 1 Caterpiller lift truck, cap. 4 tons;
- 3 Toyota lift trucks, cap. 10 tons;
- 9 Shinko electrical lift trucks, cap. 1.25 tons;
- 13 bulldosers;
- 2 SISU port tractors;
- 3 UNC bucket loaders;
- 2 MTZ tractors.

The port is planning to build a 150 m long berth for handling bulk cargoes.

1. Give the answers

1. Is Kherson a sea or a river port? Where is it situated?
2. What quantity of cargo per year does the port handle?
3. What size of ships can the port take?
4. How many areas is the port divided into?
5. How is grain handled?
6. How are mineral fertilizers packed?
7. What specifications of cargo handling facilities does the port possess?
8. What are the nearest prospects of the port?

2. Insert the proper forms of the verbs

1.Last year 158 vessels (to visit) the port.
2.We (to load) the timber into the warehouses as soon as we (to come) into the port.
3.The grain already (to be poured) into the bins.
4.When the stevedore (to come) they already (to pack) the fertilizers into the containers.
5.Now they (to build) a long berth for handling bulk cargoes.

3. Put questions on the underlined words

1.The port administration modernizes its technological equipment and does not save on new techniques.
2.Many vessels stopped their work due to sizeable operational losses.
3.The shipping company now offers a special tourist route.
4.The m/v Caledonia carried humanitarian aid cargoes sent by various organizations to victims of Turkish earthquake.
5.The port's facilities work very sufficiently.

Unit 12

SKADOVSK MERCHANT SEA PORT

Port Skadovsk lies on the northern shore of Djarylgachsky Bay of the Black Sea.

Today Port Skadovsk handles mainly cargo / passenger and ferry shipping on the Turkish line.

The port can handle up to 500,000 tons bulk, 100,000 tons general cargoes and up to 100,000 tons grain a year.

The port ferry complex can handle up to 7,200 heavy motor vehicles a year. The port specialized in sand quarrying and transportation, but because of the crisis in the construction sector, sand quarrying is reduced up to 350,000 a year. But the port was opened for international transportation. Shipping lines for motor vehicles from / to Turkey are well organized. The port can handle four different types of vessels simultaneously: a Ro-Ro ship, a bulk carrier (max. 3,000 dwt), a universal vessel (max. 2,000 dwt) and a tanker (the oil berths are currently under reconstruction).

The port's territory totals 8.5 hectares. The total length of its berth line is 929 m, 536 m of which are in working condition. The port has 1 cargo area and 6 berths. The operative berths are Nos. I, 2 and 3. There are no railway access lines. Storage Facilities.

The port has two sheltered warehouses at berth No. 3: one for general cargoes is 448 sq m in area, and its capacity is 3,538 cu m; the other one is for grain and has an area of 1,798 sq. m, and capacity of 9,967 cu m. The port's

southern berth No. 6 has a licensed warehouse with an area of 515.3 sq. m, and capacity of 3,538 cu m. Berths Nos. 1, 6 have open storage spaces with a total area of 10,324 sq. m. 'he port has:truck lifts of 5 tons lifting capacity - 4 units; warehouse trucks - 3 units; tractor - 1 unit; bulldozer - 1 unit.

Berth No.4, which is presently under reconstruction, will handle Ro-Ro vessels for ferry crossing, and serve as a depot for the port's fleet.

Reconstruction of berth No.5 is in planning. Supported by an investor, construction of a grain terminal is under consideration.

A passenger services complex is being built for those who arrive on Ro-Ro ferry boats and Istanbul line vessels.

1.Answer the questions

1.Where is the port of Skadovsk situated?
2.What types of cargoes does the port deal with?
3.Which complex handles heavy motor vehicles?
4.Why is sand quarrying reduced now?
5.What types of vessels can the port handle simultaneously?
6.Which berths are under reconstruction?
7.What storage facilities is the port furnished with?
8.What are the nearest development plans of the port?

2. Find the proper tense forms for the verbs

1.The port territory (to cover) 8,5 hectares.
2.Last month the ferry complex (to handle) 550 heavy motor vehicles.
3.The new berth (to be constructed) just now.
4.The investor (to support) the construction of a grain terminal in the near future.
5.This bulldozer (to work) since morning.

3. Put questions on the word-combinations

1.A passenger service complex is being built for those who arrive on Ro-Ro **ferry boats.**
2.There are **two sheltered warehouses** at berth No. 3.
3.Berth **No. 4** is now under complete reconstruction.
4.The port has open for internation transportation for **more than 10 years**
5 Berth No. 4will serve as **a depot for the port the port`s fleet**

Unit 13

MARIUPOL
MERCHANT SEA PORT

Mariupol is a big industrial center of Ukraine.

Two leading Ukrainian metallurgical plants — one built in 1897 and the other -Azovstal built in 1933 - produce cast iron, steel, rolled metal, pipes. There are also heavy engineering and metal construction plants, ship repair yard, etc.

Today the port of Mariupol is reckoned one of the largest ports of Ukraine. It is the biggest, most developed port in the Sea of Azov. The port is rightly called "Sea Gates of Donbass".

Specifications

The port's territory comprises 67,6 hectares; and the total length of its berthage is 3,2 km. The port's capacities enable it to handle more than 12 million tons of cargoes per year.

The port provides handling of all kinds of cargoes: bulk, dry-bulk, general, heavy-lifts, oversize cargo, liquid, containers, and others.

Heavy lifts and oversize cargoes are handled by the floating cranes of 100 tons and 150 tons capacity.

The port has a special area to take lighter carrier vessels and load /unload them in the closed water area.

The port offers "board-on-board" scheme residual fuel oil transshipment handling operations to ensure ecological safety. Unloading/ loading of frozen cargoes, dangerous cargoes, bulk fertilizers are carried out by direct scheme.

The specialized coal-loading complex enables it to handle up to 5 million tons of coal per year. It is equipped with railway truck tippers, conveyer lines, cargo handling devices, and defrosters for wagons.

Its new and very dynamic container terminal provides high-speed handling of container carriers, and delivery of 20- and 40- foot containers by "door-to-door" scheme; its capacity has now reached a turnover of 50,000 TEU per year.

The international cargo-passenger complex has been put into operation. Its area is 2.1 hectares, its capacity is 130 people per voyage.

Port Facilities

The port territory includes three cargo handling areas. Its berths Nos. 3 — 13, 15, 15a, and 16 are designed for handling general and bulk cargoes. Berth No. 14 has a special coal handling complex.

The port's container terminal is situated at berths Nos. 15 and 16. These berths have a special complex for handling container cargoes, and the total area of 34,000 sq. m. They have three ship-to-shore container cranes.

The mounted container crane can handle cargo from railway wagons and motor transport.

Berths Nos. 1 and 2 are for handling passenger vessels and have a border checkpoint for passengers. The port also has a sea passenger terminal. The port operates regular cargo-passenger lines to Turkey, Greece and Israel.

Storage Facilities

The sheltered storage area is 15,300 sq. m, the open storage area is 200,600 sq. m.

The port has at its disposal:

- gantry cranes — 54 units;
- container cranes - 3 units;
- caterpillar and automobile cranes;
- 2 floating cranes of 16-tons capacity for handling bulk and dry-bulk cargoes in the outer port by board-on-board scheme;
- floating cranes of 100 and 150 tons capacity for transshipment of heavy lifts;
- pneumatic handlers - 2 units. The port has lift-trucks:
- Toyota: lifting capacity from 1.5 to 10 tons,
- Mitsubishi: lifting capacity 10 tons, TSM: lifting capacity 1.5 tons,
- Linde: lifting capacity from 1.5 to 10 tons,
- Bobket: lifting capacity 0.8 tons,
- Sisu: lifting capacity from 16 to 28 tons,
- Kalmar: lifting capacity from 25 to 32 tons, Valmet: lifting capacity from 16 to 25 tons.

Tractors:
Kamatsu, Volvo: T-150K. Port's tractors:

- Terberg, Sisu.

The port also has excavators, hold and warehouse machines, roll-trailers, etc.

Port Development

A general renovation of the port's berths is underway. This renovation is planned in stages over the next 10-15 years as follows.

The construction of the universal berth No. 16 will be completed, where containers and metal will be handled. The depth of the new berth will be 9.75 m, and its length 200 m.

The rear and edge crane lines and the railway siding of berths Nos. 15 and 16 will be connected. Next to these, there will be a 1.5 hectare area for storing empty containers. Hydraulic engineering constructions are being built on the pier between berths Nos. 5-6. The port plans to finish the reconstruction of this pier in some years with the support of investors, and to organize grain and sunflower oil transfer there. Direct scheme grain transfer capacity (export - import) will amount to 0.5 million tons, and oil transfer capacity should reach 3—4 hundred thousand tons.

Berth No. 10 is currently under reconstruction, and new technology will increase the berth's reliability. Its depth will be increased to 9.75 m.

Berths Nos. 6 and 7 designed for handling mineral fertilizers will be reconstructed. Their depth will be increased to 9.5 m (from currently 6.4 m). Enlargement of their storage area up to 12,000 sq. m is also planned via landfill of the bank. All this will result in a new and modern complex, equipped with new cranes, capable of transferring up to 1 million tons of metal per year, apart from handling fertilizers.

1. Answer the questions

1.What industry is highly developed in Mariupol?
2.What do they call Mariupol merchant sea port?
3.How large is the port's territory?
4.Is Mariupol a universal port?
5.Is ecological safety ensured in the port?
6.Is the port able to handle coal and fertilizers?
7.What does the container terminal provide?
8.Is there a passenger terminal in the port?
9.What port and cargo storage facilities are there?
10.What are the port's prospects and plans for the future?

2. Sum up the answers and speak on the text.

3. Find the proper tense forms of the verbs

1.Now the port (to provide) almost all types of services their clients and partners (to need).
2.Port Mariupol (to handle) coal for more than 110 years.
3.Its unique coal-handling terminal (to include) two car dumpers and equipment for heating the cars with coal in winter.
4.Probably a liquid cargo terminal also (to appear) in the port of Mariupol very soon.
5.The port's Director just (to sign) a contract with Novolipetsky Metallurgical plant.

4. Think of the questions on the word-phrases

1.**Last year** the port of Mariupol received the right to operate passenger ocean-going ships.
2.The reconstruction of the old passenger terminal building cost 2,25 million **UHR**.
3.Successful port development suggests **unlimited possibilities in handling coal.**
4.The port of Mariupol consists of the **outer and inner** roads.
5.Coal can be handled **by cranes**.

Unit 14

BERDYANSK MERCHANT SEA PORT

The port is situated on the north-eastern coast of Berdyanskiy Zaliv, a bay on the northern coast of the Azov Sea.

Specifications

Today the main bulk of cargoes handled in port Berdyansk are meant for export. The most important cargo freight is scrap metal and metal products (wire, ingots, sheet metal, etc.).

The main suppliers are Zaporozhie and Donetsk integrated iron and steel works. The metal transfer works are operated according to the plant know-how, which factor guarantees cargo security and increases the handling rate up to 2 times.

Of no less importance is transfer of clay for making porcelain, coal and grain.

Port Facilities

The port's general area comprises 274,816 sq. m, including 168,160 sq. m of the operational area.

Each port berth has railway and road approaches. There are 9 berths in the port.

Since spring 2000 the port has had a special vegetable oil transfer complex, which capacity is up to 3,000 - 4,0000 tons a day by direct scheme. The port has 5 receiving hoppers for hopper discharge.

The port has a passenger terminal. It also has a floating passenger berth, 200 m length and a passenger quay for yachts and pleasure boats. The port operates only local passenger transportation, but it can take passenger liners of 170 m length and 7.9 m draught.

Storage Facilities

Sheltered storage area: 8,876 sq. m.

Open storage area: 50,830 sq. m.

Shed area: 1,700 sq. m.

The port has:

- Fork-lift trucks Toyota and Mitsubishi - 4 units (1.5 tons), 22 units (4.5 tons), 5 units (10 tons), 5 units (2 tons);
- 2 lift trucks Valmet - 22.5 tons capacity;
- 3 bucket loaders Komazu - 1.6-2.3 cu.m bucket capacity;
- 3 port truck tractors Terberg;
- 4 caterpillar bulldozers.

Port Development

Specialized berths construction for vegetable oil, mineral fertilizers and containers transfer is in the project.

By 2005 they are going to construct a grain elevator with 10,000 - 15,000 tons capacity.

1. Try to find the answers

1.Where is the Berdyansk merchant sea port situated?
2.What is the most important cargo type being handled in the port?
3.What plants supply the port of Berdyansk with metal products?
4.How are the metal transfer works done?

5.What port facilities does the port comprise?
6.What cargo storage facilities are available?
7.Are there any railways and roads attached?
8.What are the port's development plans?

2. Use the answers for retelling the text

3. Insert the verbs in the proper tense forms

1.For many years the port (to specialize) in handling mineral fertilizers in bulk.
2.The use of modern technologies (to allow) to reduce the lay time of vessels.
3.Nowadays the list of cargoes handled in the port (to undergo) great changes.
4.They (to construct) a grain elevator if they (to find) an investor.
5.Ports of Ukraine always (to work) on expanding their capacities.

4. Ask questions on the underlined words

1.Every ton of transit brings Ukraine an average of 50 - 55 UHR of income.
2.Transit handling in the sea ports has been growing on the account of oil products.
3.The Ministry of Transport of Ukraine granted the ports the right to offer discounts up to 30%.
4.In August 1999 a new grain terminal was put into service in the port.
5.Creation of the new terminal is the result of cooperation between the port and the British Company.

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