
Attention and guidance of ships entering and leaving Jiaxing port

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Abstract

The basic conditions of Jiaxing port and the distribution conditions of navigation aids are summarized and analyzed, and the matters needing attention of ships entering and leaving the port are discussed. Under certain conditions, the ship handling means are guided.

Keywords

Ship, Jiaxing port, Entering and leaving.

1. Introduction

Jiaxing port, located in Jiaxing, Zhejiang Province, adjacent to Hangzhou Bay, is the only port in the northern region of Zhejiang province. It is also a kind of open port in China. It combines with Ningbo Zhoushan port, Taizhou port and Wenzhou port to meet the needs of Shanghai Pudong New Area and Suzhou Industrial Park. The development of Jiaxing port has entered a new height.

2. The natural conditions of Jiaxing port

Tide: The tide in the Jiaxing port area is irregular semi diurnal tide with typical strong tides. The tide of Jiaxing port rises to 6.2 meters, the tide rises to 4.7 meters, the average tide is 2.2 meters, the average super difference is 4.76 meters, the average tide is 5 hours and 29 minutes, and the average ebb tide lasts 6 hours and 56 minutes.

Trend: The Gulf of Hangzhou is a strong tidal area. The Jiaxing port is adjacent to the northern part of Hangzhou Bay. The trend of the round trip time is 5 hours and one hour before and after the climax. The average velocity of flood tide is 3.6 knots, and the average velocity of ebb is 3.8 knots.

Waves: The port of Jiaxing is in a semi closed sea area, which is basically not affected by the waves outside the harbour. The waves in the harbor area are dominated by wind and wave, and 97% of the wave level in the past year belongs to the 0 - 2 wave. The annual average of the wave is 1.4 seconds. The regular waves are southeast, the strong waves are eastward, the annual average wave height is 0.2 meters, and the maximum wave height is 4.8 meters.

Wind: The characteristics of the monsoon in Jiaxing port area are obvious. The northerly winds prevail in winter, and the southerly winds prevail in summer. The spring and Autumn period is the transitional period between the two seasons of winter and summer. In the past years, the average wind speed in summer is greater than that in winter. The annual average wind speed is 3.2 meters per second, the maximum wind speed has appeared 31.7 meters per second, the gale generally appears in 6 to September.

Fog: The average number of foggy days over the years averages about 38 days. Most of them occur in March to April and October to December. In these two periods, the fog and radiation fog are the main ones, which occur at night or early in the morning, almost at about 10 am.

3. Channel conditions of Jiaxing port

At present, there are two channels in the port. Hangzhou Bay south channel area: the Hangzhou Bay south channel can be selected from the port of the Hangzhou Bay entrance to the Jiaxing port. The channel is from the green Huashan to the middle of the Hangzhou Bay, from the east of the great fetch mountain to the south, to the west of the Ma'anshan lamp pile in the southeast of the rugged Island, and through the Chuang mountain lamp pile, the beach lights pile, the Wang Panshan lamp pile, from the king's plate North of the mountain will be transferred to Jinshan waterway of Shanghai, and will enter the port area along the Dushan port. The navigable area of the channel is about 2 kilometers wide, of which the shallow section of the rugged island to the Wang Panshan section is less than 10 meters in depth of about 70 kilometers, and the water depth of the channel is mostly above 8 meters. The water depth of the shallow point is 7.4 meters since 1975. The water depth of the channel is basically stable and the large vessels of 11 meters of water can enter the port through the channel.

4. Anchorage condition

The port of Zhapu is tested for anchorage. The anchorage is located in the south of Chappu town in Pinghu, Zhejiang, and the outer waters of Chapo port. It is (30 34'10 "N, 121 degrees 04'51" E), (30 [34'10 "N, 121 degrees 05'28" E), (30 degrees 32' 23 "N, 121 degrees 05'28" E) and (30 [30] 23 ", 121 degrees") and other 4 connection waters. The depth of the anchorage is over 9 m, and the sediment is silt. The anchorage is a special anchorage for quarantine, waiting and pilotage of foreign ships.

Jijia anchorage. The anchorage is centered at (30 degree 39'. 8N, 121 degrees 14'. 6E) and 500 m radius. The water depth is 14. 0-14. 4 m and the bottom sediment are sand and mud. The anchorage network is more and close to the coastline. Therefore, various precautions should be taken in advance.

Chenshan anchorage. The anchorage is (30 34'. 6N, 121 14'. 0E) for the radius of the center and 1000 m, the depth of water is 10 - 12 m, the bottom is mud bottom, and the grasping force is good, it can be anchored for 10000-ton dangerous goods ship. The anchorage can accommodate 2 tons of ships at the same time.

Haiyan anchorage. The anchorage is located at 2 to 3 N mile southeast of Wuyuan Town, Haiyan County. The water depth is 2 to 3 m and the bottom quality are hard mud bottom. The anchorage area is wide open and cannot avoid strong winds. It can only be temporarily anchored by small ships. Attention should be paid to the reefs on the southeast side of the anchorage.

New anchorage. The new anchorages which have been built and used in Jiaxing harbor include: (1) the mountain anchorage of burial mountain, usually called "colored flag mountain anchorage", in which the yellow lantern floating anchor 1 and 2 are rectangle, about 6 N mile in length, 2 n mile in North and South width, 9 to 10 m in the southern side, 11 to 16 m in the north and North, closer to the northwest side, close to the color flag mountain and coffin. Near the reefs there are trenches of water that reach tens of meters. This anchorage is fast and the maximum yaw angle of the ship can reach 400. The rudder can be actuating to suppress the deviation, and the effect is good. The anchorage is mainly used for quarantine, poking and pilotage of 20 thousand to 70 thousand-ton large seagoing vessels. 2. The Dushan anchorage is a yellow light floating anchor 1,2 and 3 waters. The water depth is about 10 m, and it is also used for quarantine, waiting, and pilotage of 10000-ton class seagoing vessels. 3. Baita Mountain anchorage is mainly used for small sea going boats in Haiyan port area. The 3 new anchorages have not been officially announced, and the boundary of the region is not divided. The ships that need anchorage can contact the Jiaxing VTS center in advance through the VHF 10 channel and get permission to go in and out of the anchorage.

No anchorage area. The China Petroleum Chemical Co submarine pipeline in Hangzhou Bay starts from Baisha Bay of Pinghu, and from south to Cixi half excavated gate, 1 groups of 3. The oil pipeline is an important part of Ningbo and Ningning's crude oil import and export pipeline, with a total length of 53. S km. There is a warning sign near the oil pipeline. The pipeline crossing the channel section of Dushan port area has only 1 and 2 lights floating. The ship must pay attention to it. It is not allowed

to be anchored in the waters near the oil pipeline and to engage in activities or operations that affect the safety of the oil pipeline.

5. Matters attention from ships entering and leaving Jiaxing port

(1) the work of the cab should give full play to the team spirit and supervise each other and try to find a good working environment to find the wrong cab, keep the cab quiet, clean and tidy (including the crew wear), create a good working environment, be conducive to sound communication and ensure the correct implementation. As captain of a ship, the captain must have a high sense of responsibility to monitor the whole process. At the same time, it should be emphasized that the entry and exit navigation is a team work of the ship's captain, pilot, pilot, engineer, sailor, and so on. We should pay more attention to and cooperate with the team, verify, supervise and remind each other, give full play to the wisdom and strength of the collective, do the best to avoid mistakes and ship safety. It can be guaranteed. The captain should set up a good image and prestige among the crew, but it can not make the crew doubt it, and the mistake is not to rectify, and that will lose a lot of security opportunities. The captain should encourage the crew to give advice, share information, cultivate the habit of reminding each other, so that safety can be more secure.

(2) How to deal with pilot errors

Pilot work is a high risk, complex and full of uncertain factors. Pilot is under considerable pressure during the work of the ship. He is one of the representatives of the port during the compulsory pilotage. Therefore, the pilot should have sufficient respect for the pilot. Although the pilot of the ship is generally very experienced, well skilled and worthy of our trust, there may be an error due to some factors, and the captain's reminding is very necessary. Unless the situation is urgent, it is necessary to use the fastest and most direct way to remind, even to take over the power of command. Otherwise, the reminder can still be more humanized to avoid unnecessary misunderstandings. For example, if you are worried about the current high speed, let's remind you in some ways: consciously or repeatedly telling the pilot how fast the speed is. Again, remind pilot that our host can only get out of a few speeds below the speed of a few knots; remind pilot, we have a few miles or miles from the dock. How many sea miles of the same forward ship and so on.

6. Suggestions for entering and leaving Jiaxing port

In these geographical conditions of the port area, the phenomenon of "shore suction" and the larger "hull sinking" will be produced in the movement of ships, which will affect the displacement of the ship to a certain extent. As a ship in the port area, the influence of these external forces should be considered as the movement of the ship, berthing and anchoring.

(1) ensure that the main engine is in good working condition and change the required speed in time. The change of speed depends on the degree of influence of wind on the ship and the permitted condition of the geographical environment.

(2) reasonable external assistance, and the use of tugboats. According to the ship's maneuverability and tonnage, especially the specific external environment and external force, the number of tugs is selected.

(3) vessels entering and leaving the port of Jiaxing should sail along the right side of the center line of the fairway. There are more fishing nets and fishing gratings outside the channel, and the navigation conditions are not ideal. From the Yangtze River Estuary / Huang Zeyang Jing Jinshan channel to the Jiaxing port, there is a certain intersection between the tidal current direction and the channel. During the rising and falling tide, the flow is urgent and the flow pressure difference is great. It is necessary to pay close attention to the trend of the flow and the change of flow velocity. When avoiding, we should fully consider the lateral movement of wind pressure difference on ship navigation and take precautions as early as possible so as to ensure that the safety distance between two ships is cleared. At the same time, we should pay close attention to the influence of the tide on ship speed and adjust the speed in time according to the actual situation, so as to prevent an urgent situation.

7. Conclusion

The deep-water navigation from the outer sea to the shallow waters will bring some changes to the ship's manipulation. Although the Jiaxing port has a large tide and an urgent tide, it can safely and safely enter the port of Jiaxing as long as the navigation law and safety precautions are mastered in Jiaxing port .

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