

# Naha Port Entry/Departure Procedures for Large Passenger Ships

September 2019

N a h a   P o r t   A u t h o r i t y



## Revision history

	Date	Description
1st Edition	April 2019	
2nd Edition	September 2019	Reflected the results of the study by the Committee for Investigation on Safety of Navigation for 170,000 GT class cruise ship.



# Background and Objectives of Naha Port Entry/Departure Procedures for Large Passenger Ships

Naha Port is a central hub port that bears the major part of the flow of goods and traffic of ports in the Okinawa Prefecture and is situated on one of the important routes connecting islands within the prefecture (Miyako, Yaeyama and other islands in the vicinity) and ports in Japan and other countries. It plays an important role in shouldering economic and social activities of the prefecture; therefore, smooth operation of entry and departure of the ships into/from Naha Port must be ensured including better maintenance of the necessary port facilities.

For this reason, in addition to berth use adjustments during berth meetings to ensure smooth operation among ships, and to establish operating standards for the increasing number of large passenger ships (hereafter referred to as “cruise ships”) entering/leaving the port, the Naha Port Entry/Departure Procedures for Large Passenger Ships (Provisional Name) (hereafter referred to as “Procedures (provisional name)”) were studied in 2011, and these procedures have been used as general safety measures in ships up to 130,000 GT since then to confirm navigation safety measures in cruise ships.

Considering that seven years have elapsed since the study of the Procedures (Provisional Name) and that calls on ports by cruise ships have increased further and that the sizes of these ships have increased, the “Naha Port Entry/Departure Procedures for Large Passenger Ships” as comprehensive safety measures for cruise ships up to 22,000GT class will be established now, based on hearing of opinions, guidance and assistance of related personnel to clarify safety measures and operational adjustment methods related to cruise ships entering leaving/port and to ensure smooth and safe operations of ships entering/leaving Naha Port.

## 【Cruise ship berths in Naha port】



### **【Terms and definitions】**

1. Cruise ship

Refers to any large passenger ship that enters/leaves Naha port irregularly. Called “cruise ship” to distinguish it from a passenger liner that plies regularly on routes to outlying islands.

2. Passenger liner to outlying islands

Refers to passenger liner that plies on routes to outlying islands such as ferry engaged in general passenger liner services.

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# 1 Safety measures related to cruise ship entering/leaving port

## 1.1 Standards for cruise ship entering/leaving port

### 1.1.1 Standards for entering/leaving port

A cruise ship shall maintain close contact with the shipping agent on weather and sea conditions near Naha Port and the berth and shall enter/leave port in accordance with the range of standards below. However, if separate standards have been established, those standards shall be followed. (For instance, average wind speed below 12 m/s in case of Cruise Ships of the Oasis class (220,000 GT class)).

The following points shall be carefully considered before a ship enters/leaves Naha port:

- A master of a cruise ship shall make overall judgement of the average wind speed within the port based on information from the wind anemometers on the Tomari wharf No. 8 quay and on the north side of the Shinko wharf No. 10 quay, and other anemometers.  
(Refer to: Naha Port Wind Monitor Web System, <https://nahaport.meteonote.net/top>)
- If a ship enters to berth at the Shinko wharf No. 9 quay, ensure that the Naha Port International Container Terminal, Inc. personnel have checked that the gantry crane has moved to a position that does not obstruct the berthing of the said ship, through the shipping agent. (Refer to “1.5.5 Gantry crane lashing position”)

Reference: Average wind speed during which gantry crane can be moved is less than 10 m/s.

Table 1.1.1 Cruise ship standards for entering/leaving port (through To Kuchi)

Item	Below 130,000 GT Class	Above 130,000 GT Class but below 220,000 GT Class	Remarks
1. Average wind speed	Below 13m/s	Below 10m/s	Below 12m/s for Oasis Class (220,000 GT Class)
2 . Significant wave height outside port	Below 1.5 m	Below 1.5 m	Wave height at which pilot can embark/disembark a ship
3. Visibility	700 m or over	1852 m or over	

Table 1.1.1 Cruise ship standards for entering/leaving port (through Yamato Kuchi)

Item	Below 160,000 GT Class	Remarks
1. Average wind speed	Below 10m/s	
2 . Significant wave height outside port	Below 1.5 m	Wave height at which pilot can embark/disembark a ship
3. Visibility	1852 m or over	

### 1.1.2 Ensuring under keel clearance

A cruise ship shall ensure that a margin in under keel clearance greater than 10% of the draught exists in the maneuverable sea area within port.

## 1.2 Routes for cruise ships entering/leaving port

### 1.2.1 Routes for entering/leaving port

In principle, the navigation route of cruise ships entering/leaving Naha port shall be the route through To Kuchi.

However, a cruise ship that intends using Shinko wharf No. 9 or No. 10 quay, can enter/leave port through Yamato Kuchi subject to the conditions of section 1.2.2.

### 1.2.2 Conditions for using Yamato Kuchi

#### (1) Standards for cruise ships with overall length below 250 m for using Yamato Kuchi

Cruise ships with overall length below 250 m can enter/leave port through Yamato Kuchi subject to the conditions mentioned below.

- Length overall condition : Length overall below 250 m
- Wind speed condition : Below 10 m/s
- Maximum usable rudder angle : 35 degrees

#### (2) Standards for cruise ships with length overall of above 250 m for using Yamato Kuchi

Cruise ships with overall length of above 250 m can use Yamato Kuchi subject to the following conditions:

- Length overall condition : Length overall exceeding 250 m but below 348 m for 160,000 GT Class (Up to the ship size verified with maneuvering simulator)
- Wind speed condition : Below 10 m/s
- Maximum usable rudder angle, etc.: Twin-propeller twin-rudder ship with rudder angle between 35 and 45 degrees approximately  
: Ships fitted with azimuth pod/s  
: Ships turning ability equivalent to ships with rudder or propulsion devices mentioned above (ships with tactical diameter at rudder angle of 35 degrees less than 2.8 Lpp\*)

\* Lpp : length between perpendiculars. "Lbp" is also used as the abbreviation.

### 1.3 Precautions related to routes for cruise ships entering/leaving port

#### 1.3.1 Precautions related to routes for entering/leaving port through To Kuchi

Cruise ships entering/leaving port through To Kuchi shall navigate bearing in mind the following precautions: (Refer to Fig. 1.3.1)

- ① Ships with air draft of 35 m and above near To Kuchi are required to submit passage information for adjustments with aircraft. (For details of adjustment methods, refer to “Section 3.4 Coordination with aircraft using Naha airport”)
- ② Since course alteration for large vessels will be at large rudder angles near To Kuchi, make adjustments to ensure there is no competition for the water area with other ships. (For details of the adjustment method, refer to “Section 1.4 Adjustments to prevent cruise ships and passenger liners to outlying islands from passing each other”)
- ③ Since routes to Naha Fairway bifurcate and merge in the area on the east side of To Kuchi, make adjustments such that cruise ships do not compete for the water area with other ships.
- ④ In the vicinity of the Tomari wharf No. 8 quay is the water area for turning for cruise ships; therefore, make adjustments so that other ships, especially passenger liners to outlying islands do not compete with the cruise ship while it is turning in this area.

#### 1.3.2 Precautions related to routes for entering/leaving port through Yamato Kuchi

Cruise ships entering/leaving port through Yamato Kuchi shall navigate bearing in mind the following precautions: (Refer to Fig. 1.3.2)

- Since course alteration for large vessels will be at large rudder angles near Yamato Kuchi, make adjustments to ensure there is no competition for water area with other ships. Especially, make efforts to collect information on movements of ships entering/leaving Urasoe wharf, and make adjustments so that cruise ships do not compete for water area with these ships.

#### 1.3.3 Studying movements of other ships entering/leaving port and checking maneuverable sea area

##### (1) Studying movements of ships within the port

Cruise ships shall appropriately study the movements of other ships from AIS information on entering/leaving port, study movements of small craft from early warnings on passage by tugboats, and request cooperation when required.

##### (2) Checking positions of anchored vessels

Cruise ships shall check beforehand the positions of anchored vessels using the designated anchorages (S, M, L) for ships carrying dangerous cargo, and keep a safe distance from the anchored vessel when turning, entering/leaving port.

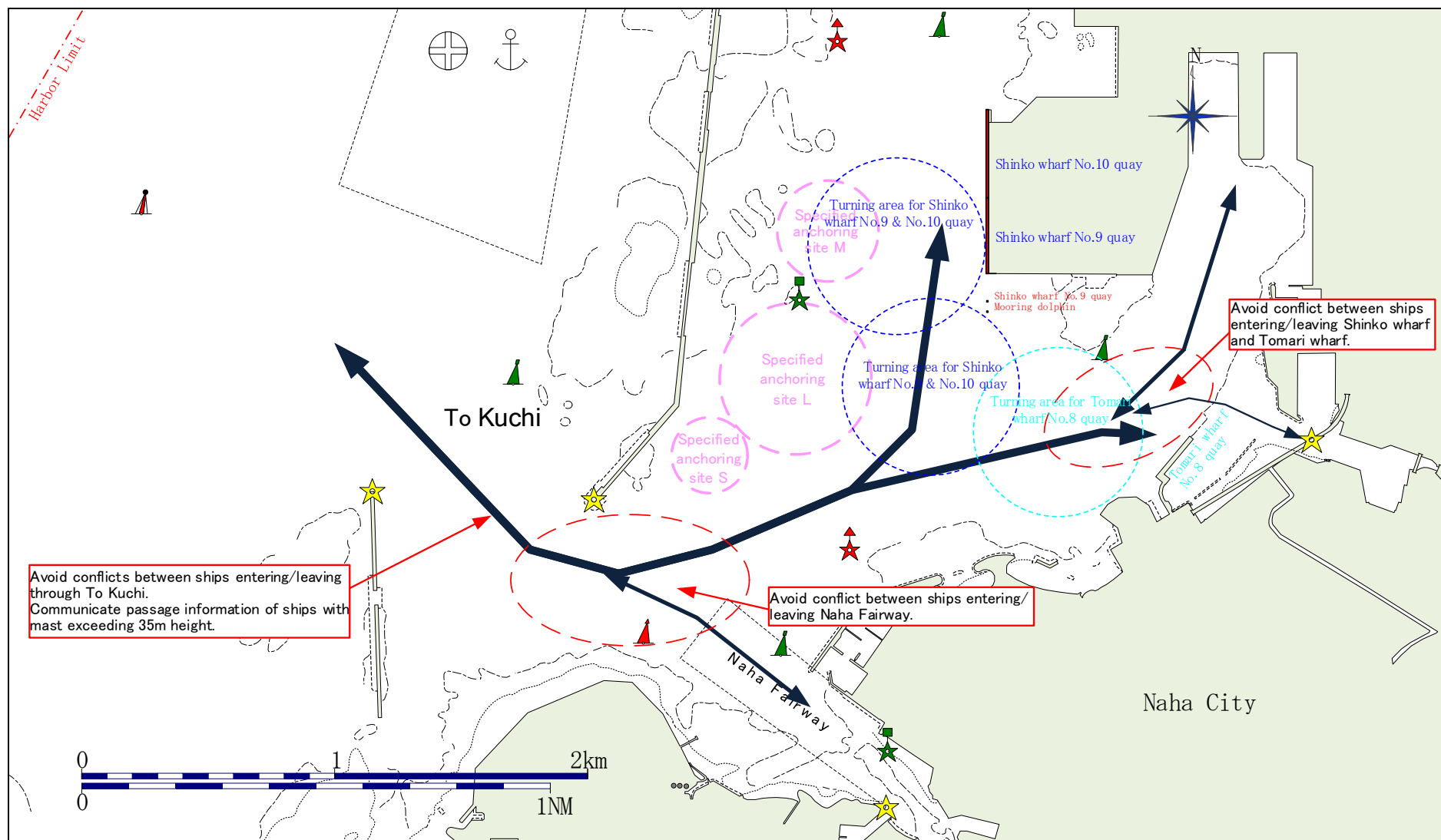


Fig. 1.3.1 Precautions related to routes for cruise ships entering/leaving port (through To Kuchi)

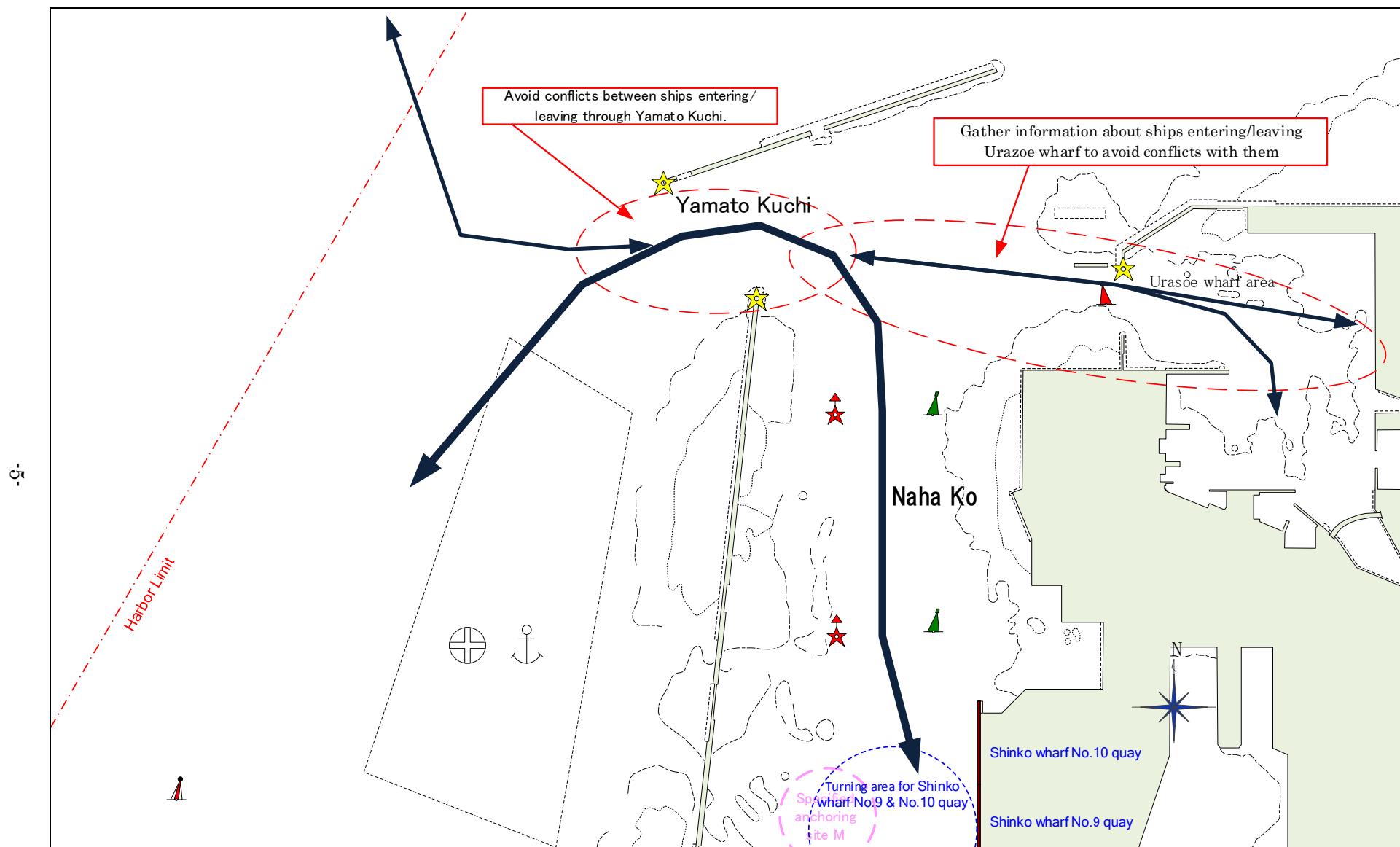


Fig. 1.3.2 Precautions related to routes for cruise ships entering/leaving port (through Yamato Kuchi)

## 1.4 Adjustments to prevent cruise ships and passenger liners to outlying islands from passing each other

Adjustments to prevent cruise ships and passenger liners to outlying islands from passing each other shall be implemented as given below.

### 1.4.1 Adjusting time zones for entering/leaving port for passenger liners to outlying islands and the operating times of cruise ships

#### (1) Concept of operational adjustments

Passenger liners to outlying islands perform schedule voyages after receiving government approval as “general passenger liner services” according to set time tables on determined routes, based on the domestic law and regulations. For this reason, these passenger liners to outlying islands take priority\* in principle, with respect to operational adjustments.

※ “Priority” here refers to the preferential order of scheduled adjustment and does not indicate the preferential relationship for navigation when ships are likely to collide in the local waters.

Table 1.4.1 shows the timings of entry/departure of passenger liners to outlying islands using the Tomari wharf area for 2018. According to this figure, the entry/departure of passenger liners to outlying islands is concentrated in the time zones listed below.

- 08:30～09:00
- 09:45～10:30
- 11:30～12:30
- 14:00～14:30
- 15:45～18:00

Consequently, operational adjustments of cruise ships must be made carefully considering the entry/departure timings of passenger liners to outlying islands given in the above time zones. Especially, meticulous care must be taken to ensure cruise ships that are expected to berth/deberth at the Tomari wharf No. 8 quay do not obstruct the course of passenger liners to outlying islands by making turns in these time zones.

#### (2) Measures when cruise ships are likely to compete with other ships for the water area

If cruise ships are anticipated to compete with passenger liners to outlying islands for entering/leaving port, efforts shall be made to make full use of AIS or international VHF and so on, to study ship positional information and operational intentions each other, and ensure navigation safety and fixed time operations of passenger liners to outlying islands.

Fig.1.4.1 shows a sketch of the communication system.

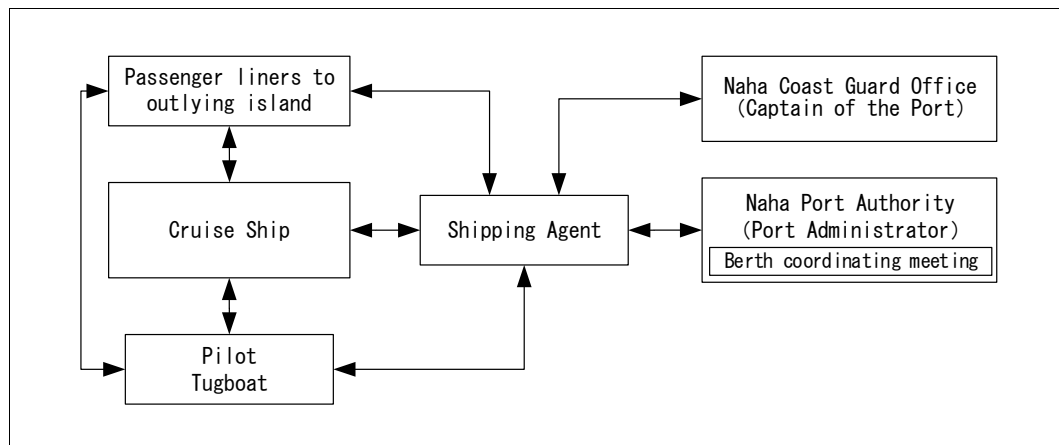


Fig.1.4.1 Sketch of communication system

#### 1.4.2 Individual roles related to operational adjustments

From the perspectives of ensuring scheduled operations and navigational safety of passenger liners to outlying islands, the individual roles related to operational adjustments taken as preconditions for cruise ships entering/leaving port to prevent passing passenger ships near To Kuchi, to avoid dangerous encounters in the water area for turning, and to avoid obstructing passage of such passenger ships, are as given below.

##### (1) Port Authority

###### **Prior response**

- ① The Port Authority shall acquire information on the operation of the cruise ship such as time of entering/leaving Naha port of the said ship from the shipping agent through berth meetings held on the day before the scheduled entry/departure of the cruise ship and the like.
- ② The Port Authority shall check whether the scheduled time of entry/departure of the cruise ship may cause passing or crossing of the course of passenger liners to outlying islands so as to affect their scheduled operation.
- ③ If the Port Authority anticipates the cruise ship to pass other passenger liners to outlying islands and affect their scheduled operation, the said authority shall adjust the timings of entry/departure of the cruise ship with its shipping agent to ensure that adverse effects on the plying of passenger ships do not occur.

##### (2) Passenger liners to outlying islands

###### **Prior response**

When passenger liners to outlying islands are requested to provide information beforehand, such as information on operation schedules and the like from related personnel such as shipping agents of the cruise ships and Port Authority, the personnel on the liners shall provide the same information.

### **Response on the day of entry/departure**

When a passenger liner to outlying islands receives a request from the shipping agent of the cruise ship, pilot or tug boat on changes (if any) to the entry/departure timings, information on position, or operational intentions of the said passenger liner on the day the cruise ship is expected to enter/leave port, the said liner will cooperate and offer the relevant information.

#### **(3) Cruise ship**

##### **Prior response**

- ① The cruise ship shall adjust its timing for entering/leaving port such that there is no adverse effect on the scheduled operation of passenger liners to outlying islands, and the passing of such liners and crossing their paths are avoided.
- ② Since time will be required for the cruise ship to turn in the turning area, it shall adjust its timing for entering/leaving port such that there is no effect on the scheduled operations of passenger liners to outlying islands.
- ③ The timing of the cruise ship for entering/leaving port shall be changed such that the scheduled operations of passenger liners to outlying islands is not affected.

### **Response on the day of entry/departure**

- ① The cruise ship shall adhere to the scheduled date and time for entering/leaving port, as far as possible.
- ② If a cruise ship acquires information on changes in the timings of passenger liners to outlying islands entering/leaving port, it shall adjust its operation and select an appropriate timing for entering/leaving port such that the scheduled operations of the passenger liners to outlying islands are not affected.
- ③ The cruise ship shall make efforts to collect information of movements of other ships through pilots, tug boats, checking AIS information, listening to international VHF and so on, and confirm that possibilities of crossing the paths and passing passenger liners to outlying islands or other ships do not occur within Naha port.

#### **(4) Shipping agent of the cruise ship**

##### **Prior response**

- ① The shipping agent of the cruise ship shall study information of operations such as scheduled timings of entry/departure of ships in Naha port through berth meetings and the like.
- ② Recognizing that the timings of entry/departure into/from the port of passenger liners to outlying islands varies with the day and the season, the shipping agent of the cruise ship shall check the timings of entry/departure of the passenger liners to outlying islands beforehand.

**Response on the day of entry/departure**

- ① After studying the information on change in timings of the entry/departure of passenger liners to outlying islands on the day of entry/departure of the cruise ship, the shipping agent of the cruise ship shall offer the said information to the cruise ship or pilot, and tug boats promptly.
- ② Upon predicting the possibility of adverse effect of the entry/departure of cruise ship on the scheduled operations of passenger liners to outlying islands, the shipping agent of the cruise ship shall adjust the operation by adjusting the timing of entry/departure of the cruise ship so that the operations of passenger liners to outlying islands are not affected.

### 1.4.3 Areas to avoid competition for each quay in use (through To Kuchi)

If a cruise ship enters/leaves port through To Kuchi, adjustments shall be made at the areas mentioned below to avoid competition for berth in use between the cruise ship and passenger liner to outlying islands.

#### (1) Cruise ships using Tomari wharf No. 8 quay

From To Kuchi to Tomari wharf No. 8 quay

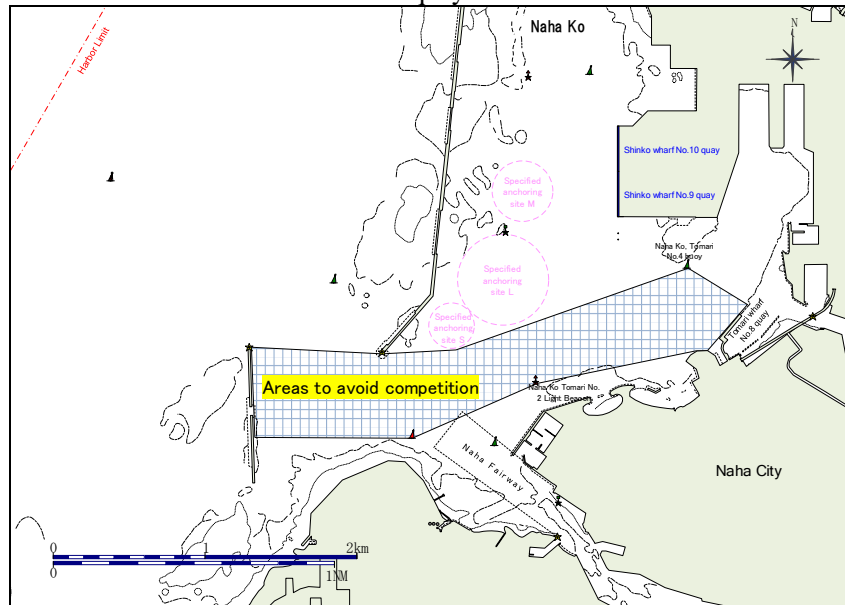


Fig. 1.4.2 Areas to avoid competition with cruise ships using Tomari wharf No. 8 quay (through To Kuchi)

#### (2) Cruise ships using Shinko wharf No. 9 or No. 10 quay (through To Kuchi)

From To Kuchi to Naha Ko Tomari No. 2 Light Beacon

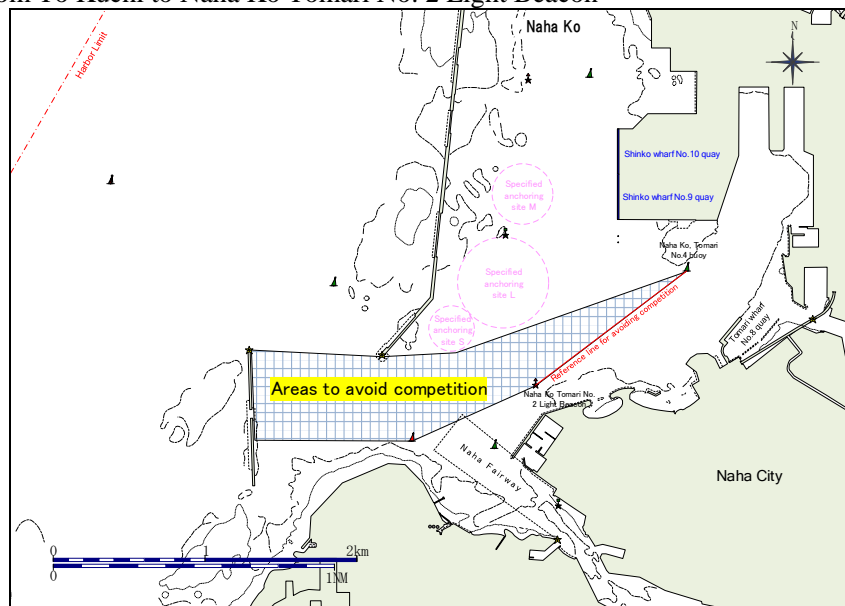
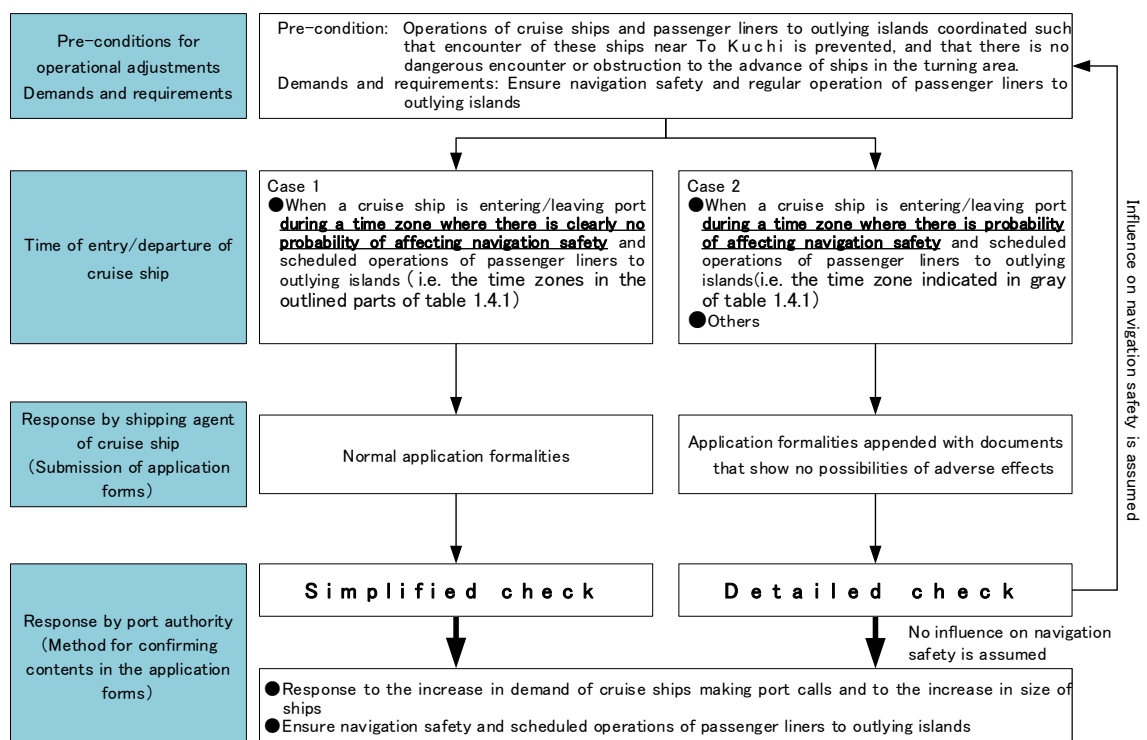


Fig. 1.4.3 Areas to avoid competition with cruise ships using Shinko wharf No. 9 (through To Kuchi)

#### 1.4.4 Measures to ensure operational adjustments for avoiding ships passing each other

To avoid a cruise ship and a passenger liner to outlying islands passing each other, it is important that personnel of relevant parties ensure to play their roles shown in “1.4.2 Individual roles related to operational adjustments” before the day of entering/leaving port and on the day. It is also important to confirm whether any effects are expected or not, when reservation of cruise ship (when submitting an Application Form Prior To Use of Port Facility [dedicated for cruise ships]) and when submitting a Pre-Arrival Procedure Form.

Hence, forms to be submitted by a shipping agent and confirmation method of submitted forms by port authority s shall be treated as follows in accordance with the time zones for entering/leaving port for passenger liners to outlying islands.



(Note) For operational adjustments for preventing the encounter of cruise ship and passenger liner to outlying islands not defined in this section\*, efforts shall be made to ensure navigation safety continuously according to relevant laws and regulations and conventional operational adjustment methods.

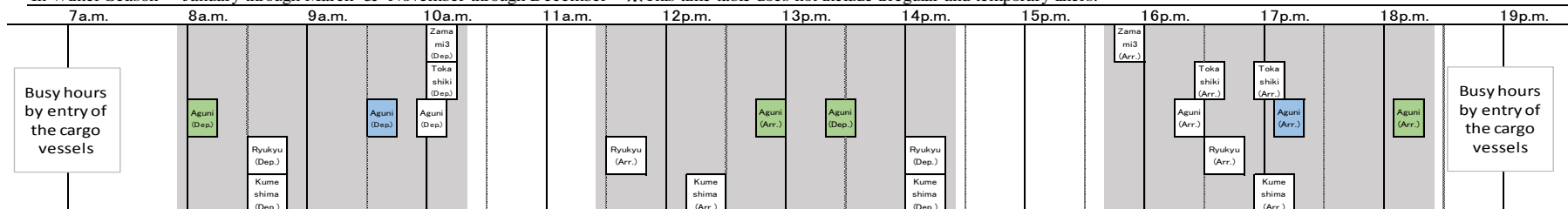
\* “Passenger liner to outlying islands not defined in this section” may refer to ferry on the Kagoshima route using Naha Pier.

Table 1.4.1 Timings of passenger liners to outlying islands (2019)

【How to use this document】

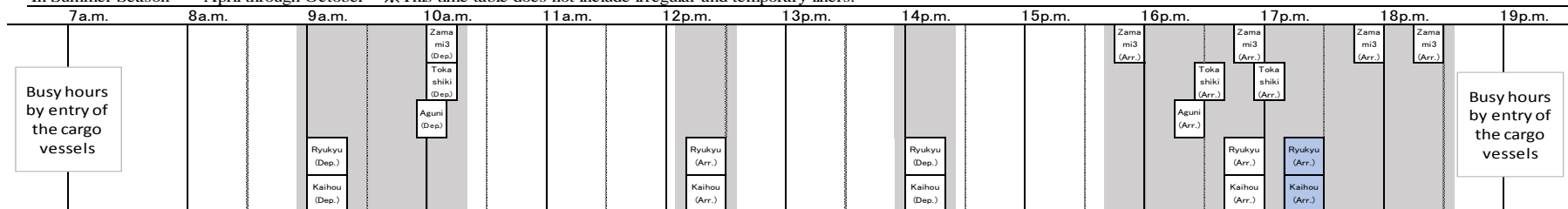
※This is a reference document to facilitate understanding of time zones of entering/leaving port of passenger liner to outlying islands. For the actually coordinating operations, check the time tables of ships entering/leaving port beforehand as the occasion demands, through berth meetings, etc.

In Winter Season January through March & November through December ※This time table does not include irregular and temporary liners.



( Above timetable refers to the timetable of the 2018 passenger liner. ) Dep. : Departure Arr. : Arrival

In Summer Season April through October ※This time table does not include irregular and temporary liners.



( Above timetable refers to the timetable of the 2019 passenger liner. ) Dep. : Departure Arr. : Arrival

January through March & November through December

	Time from departure to arrival offshore	Departure	Arrival		Time from arrival offshore to arrival
Ferry Zamami 3	About 15 minutes	10:00	16:00		About 15 minutes
Ferry Tokashiki	About 15 minutes	10:00	16:40 17:10		About 15 minutes
Ferry Aguni	About 15 minutes	8:00 13:20	13:00 18:20	Fridays	About 15 minutes
		9:55	16:30	Mondays ~ Thursdays	
		9:30	17:20	Saturdays, Sundays and Holidays	
Ferry Ryukyu	About 20 minutes	8:30 14:00	11:50 16:50		About 20 minutes
New Kumeshima	About 20 minutes	8:30	12:30		About 20 minutes
		14:00	17:00		

( Above timetable refers to the timetable of the 2018 passenger liner. )

※Special care shall be required during special holidays such as Golden week holidays, Bon holidays and new year holidays.

April through October

	Time from departure to arrival offshore	Departure	Arrival		Time from arrival offshore to arrival
Ferry Zamami 3	About 15 minutes	10:00	16:00 17:00 18:00 18:30		About 15 minutes
Ferry Tokashiki	About 15 minutes	10:00	16:40 17:10		About 15 minutes
Ferry Aguni	About 15 minutes	9:55	16:30		About 15 minutes
Ferry Ryukyu	About 20 minutes	9:00	12:30	Tuesdays ~ Thursdays, Saturdays and Sundays	About 20 minutes
		14:00	17:00		
		9:00	12:30	Mondays	
		14:00	17:30	Fridays	
Ferry Kaihou	About 20 minutes	9:00	12:30	Tuesdays ~ Thursdays, Saturdays and Sundays	About 20 minutes
		14:00	17:00		
		9:00	12:30	Mondays	
		14:00	17:30	Fridays	

( Above timetable refers to the timetable of the 2019 passenger liner. )

## 1.5 Precautions during berthing and de-berthing of cruise ship

### 1.5.1 Coming alongside speed

The cruise ship shall come alongside parallel to the berth and at an adequately safe speed, as far as possible. Table 1.5.1 and Table 1.5.2 show approximate coming-alongside speeds.

When a cruise ship that exceeds the mooring capacity (DWT or GT) of the existing berth entering port for the first time, if the safety of the ship has been studied by calculation of allowable berthing speed for the cruise ship individually and then the study results shall be applied.

Table 1.5.1 Coming-alongside speed of cruise ship (Tomari wharf No. 8 quay)

Quay	Ship type		
	Below 70,000 GT Class	Between 80,000 to 130,000 GT Class	Between 140,000 to 170,000 GT Class
Tomari wharf No. 8 quay	Below 10 cm/s	Below 8 cm/s	Below 7 cm/s

Table 1.5.2 Coming-alongside speed of cruise ship (Shinko wharf No. 9 or No. 10 quay)

Quay	Ship Type	
	Below 100,000 GT Class	Between 110,000 to 220,000 GT Class
Shinko wharf No. 9 quay	Below 13 cm/s	Below 10 cm/s
Shinko wharf No. 9 quay + Dolphin	Below 13 cm/s	Below 10 cm/s

Note: Henceforth, there is a plan to change the fender at the Shinko wharf No. 9 quay to provide it with absorption energy of 553 kN (considering performance allowance). Therefore, the calculation of coming-alongside speed was conducted at the same uniform absorption energy.

### 1.5.2 Berthing side

Berthing side of the cruise ship shall be determined beforehand considering the equipment on board the ship. If there is a change in the berthing side of the ship, the shipping agent shall inform the Port Authority.

### 1.5.3 Berthing position indicators

To identify the bridge position to the quay when the cruise ship comes alongside, the N flag shall be displayed during day time and a light displayed at an easily visible position during night time on the bridge.

#### 1.5.4 Ensuring illumination of the quay when ship enters/leaves port at night time

The Port Authority shall provide adequate illumination of the quay so that the position of the fenders and face line of the quay are clearly visible when the cruise ship enters/leaves port at night time.

#### 1.5.5 Gantry crane lashing position

When the cruise ship berths/deberths at the Shinko wharf No. 9 quay, check shall be carried out to ensure that the lashing position of the gantry crane does not obstruct entry/departure of the said ship.

The gantry crane may sometimes not be able to move to the lashing position during strong winds exceeding the average wind speed of 10 m/s. For this reason, special care is necessary for the lashing position of the gantry crane when entering port under a strong wind; at the same time, the entry into port shall be stopped if the lashing position obstructs the cruise ship. (Inquiries: Contact Naha International Container Terminal, Inc.)

### 1.6 Precautions during entry/departure of cruise ship

#### 1.6.1 Provision of nautical charts

Each ship shall be provided with at least the latest nautical charts or corrected nautical charts on board for entering Naha port.

Southern region of Okinawa Island (No. W222A), Naha port (No. W243)

#### 1.6.2 Appropriate deployment of AIS

Each ship equipped with AIS, shall perform correct AIS settings for itself and shall strive to enter the latest voyage data such as draught and destination.

The correct entry of its own AIS data (latest destination, voyage conditions, ETA, etc.) shall be checked and so AIS messages received shall be checked periodically.

#### 1.6.3 Listening to international VHF

Each ship shall always monitor and listen to international VHF and respond when called.

## 2 Safety measures related to mooring of cruise ship

### 2.1 About mooring facilities

Mooring bollards of strength shown in Table 2.1.1 are installed at each quay where a cruise ship is moored. The cruise ship shall be moored considering the strength of each mooring bollard.

Table 2.1.1 Strength of mooring bollard at each quay used by cruise ship

Quay	Tomari wharf No. 8 quay	Shinko wharf No. 9 quay + mooring dolphin	Shinko wharf No. 9 quay	Shinko wharf No. 10 quay
Strength of mooring bollard	1,000 kN (102 t)	1,000 kN (102 t) 1,500 kN (153 t)	1,000 kN (102 t)	1,000 kN (102 t)

### 2.2 Precautions during mooring of cruise ship

If a wind speed exceeding the allowable wind speed during mooring is anticipated, a quick response shall be taken within the scope of the standards for entering/leaving port.

#### (1) Wind speed conditions at Tomari wharf No. 8 quay

Table 2.2.1 Allowable wind speed conditions during mooring when Tomari wharf No. 8 quay is used

Ship type	Average wind speed
Below 140,000 GT Class	Below 13 m/s
150,000 GT Class	Below 11 m/s
160,000 GT Class	Below 10 m/s
170,000 GT Class	Below 10 m/s

#### (2) Wind speed conditions at Shinko wharf No. 9 quay

Table 2.2.2 Allowable mooring wind speed conditions when Shinko wharf No. 9 quay are used

Ship Type	Average wind speed
Below 130,000 GT Class	Below 13 m/s
Between 140,000 to 220,000 GT Class	Below 12 m/s

#### (3) Wind speed conditions when Shinko wharf No. 9 quay + mooring dolphins are used

Table 2.2.3 Allowable wind speed conditions during mooring when Shinko wharf No. 9 quay + mooring dolphins are used

Ship Type	Average wind speed
Below 100,000 GT Class (Length overall 270 m)	To port side alongside below 11 m/s, to starboard side alongside below 13 m/s
Between 110,000 to 220,000 GT Class	Below 12 m/s

### 2.3 Precautions during mooring

- If an accident such as fire occurs that may lead to harm to others, appropriate measures shall be taken immediately such as deberthing or other actions.
- Measures to evacuate at any time shall be kept ready in case there is a chance of rough weather to occur.
- Pollutants that occur on board such as oil, ash, dust and the like shall not be disposed of to the quay or into the water.

### 3 General Considerations

#### 3.1 Pilot

- (1) Ships to be piloted in restricted pilotage area

Ships 300 GT and above of foreign registry, ships 300 GT and above of Japanese registry plying in international waters, and Japanese ships of 1,000 GT and above that do not ply in international waters but use the Naha Fairway and enter the Naha wharf area are required to use pilots.

- (2) Ships to be piloted in Naha port in areas other than restricted pilotage area

Masters of ships of foreign registry unfamiliar with the area in port and who find coordination with others within port difficult, shall request pilots to board their ships as far as possible.

- (3) The Criteria for undertaking Pilotage Service of Naha Port (Extract)

An extract from the Standards for undertaking Pilotage Service is shown below. One or more tugboats shall be arranged, checks made when the ship enters port, and if necessary, discussions shall be held.

##### Safety navigation criteria

- (1) Pilotage operation shall be suspended when weather or sea conditions fall under the condition below.

Wind speed : ①Gunko area (above 10 m/s)  
②Shinko area (above 13 m/s)

Visibility : Below 700 m

A ship requesting pilotage service should keep its UKC above 10% on the whole passage planned.

#### 3.2 Tugboat

The Naha port has established regulations on the use of tugboats based on the “Regulations for Administration of Facilities of the Naha Port Authority” as follows.

##### (Usage of tugboats)

###### Article 23

When the following ships berths/de-berths mooring facilities, tugboat/s shall be used: (however, the same do not apply if the Port Authority deems that a tug boat is not necessary)

- (1) Ship of 500 GT and above that is not of Japanese registry
- (2) Japanese ship of 500 GT and above engaged in international voyage
- (3) Ships of Japanese registry of 1,000 GT and above other than those in A) and B) above.

The Master of a ship that does not have a pilot on board shall arrange to use a tugboat as far as possible.

### 3.3 Anchoring

The designated anchorages (S, M, L) have been assigned for ships carrying dangerous goods in Naha port. Ships carrying dangerous goods that have been assigned the specific sites by the Port Controller are anchored at these locations : (Refer to Fig. 1.3.1)

Accordingly, the route for entering/leaving port shall be set beforehand considering the designated anchoring areas, and the status of the anchored vessels shall be confirmed before the ship enters/leaves port.

### 3.4 Coordination with aircraft using Naha airport

To avoid conflicts between ships entering/leaving Naha port and aircraft using Naha airport, information on ships with mast height or structural height exceeding 35 m shall be made known to all.

(1) Timing for making information on ships with mast or structural height of ships exceeding 35 m known to relevant parties such as Naha airport authority

- ① The shipping agent shall notify the Port Authority the height of the mast or other structure “above the water surface” (air draft).
- ② When the height of the mast or other structure of a ship exceeds 35 m, the Port Authority shall notify the Naha Airport Office, West Japan Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism.
- ③ The shipping agent of the ship entering/leaving Naha Port shall notify the Naha Airport Office, West Japan Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism, in the event of any change in the above information.
- ④ The pilot on the ship entering/leaving Naha port shall notify the Naha Airport Office, West Japan Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism, the expected time and date for the ship to pass the specified location.

In case of a workboat, the personnel related to the construction work shall communicate to the Naha Airport Office, West Japan Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism beforehand.

(2) Navigation safety measures in case of conflicts in the conical surface

If there is a possibility of conflict in the conical surface when a ship berths within the port, an application for fixed obstacle shall be submitted to the West Japan Civil Aviation Bureau, Ministry of Land, Infrastructure, Transport and Tourism two months beforehand.

In such cases, the position of radar mast, position of funnel and their heights on the ship berthing at the quay, including the latitude and longitude data (World Geodetic System), shall be communicated correctly through the relevant application form

If a radar mast or a funnel is acknowledged as a fixed obstacle, aircraft warning light shall be affixed on the radar mast or the funnel.

### 3.5 Response during abnormal weather (Communication system during an emergency)

The ship entering port shall establish a communication system during an emergency such as in the example of the organization chart shown in Fig. 3.5.1.

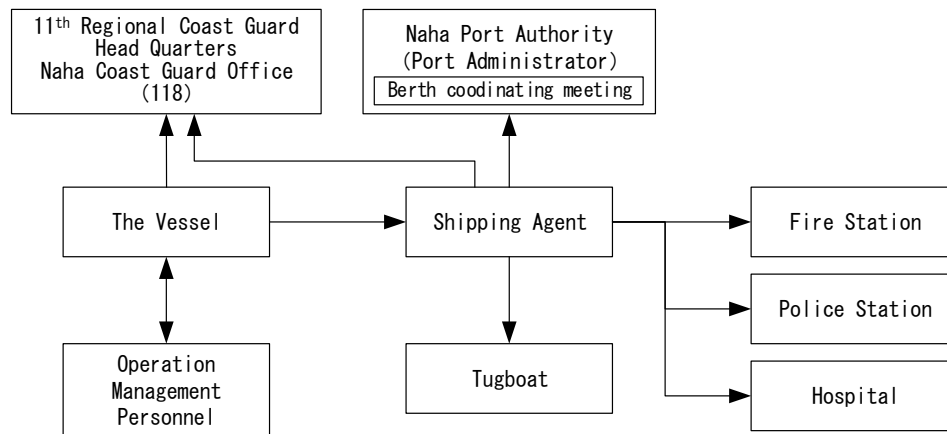


Fig. 3.5.1 Communication system during an emergency

# 4 Reference (mooring illustration)

## 4.1 Illustration of mooring at the Tomari wharf No. 8 quay

【Tomari wharf No. 8 quay】		
Side on which ship is moored	Port side	Starboard side
Mooring facility		
Tomari wharf No. 8 quay	Length overall about 335 m	Length overall about 335 m

Note: Length overall of ship capable of being moored is determined by arrangement of bollards, arrangement of mooring lines, and relationship between Tomari Passage and ship. (See Fig.4.1.1 to Fig. 4.1.4)

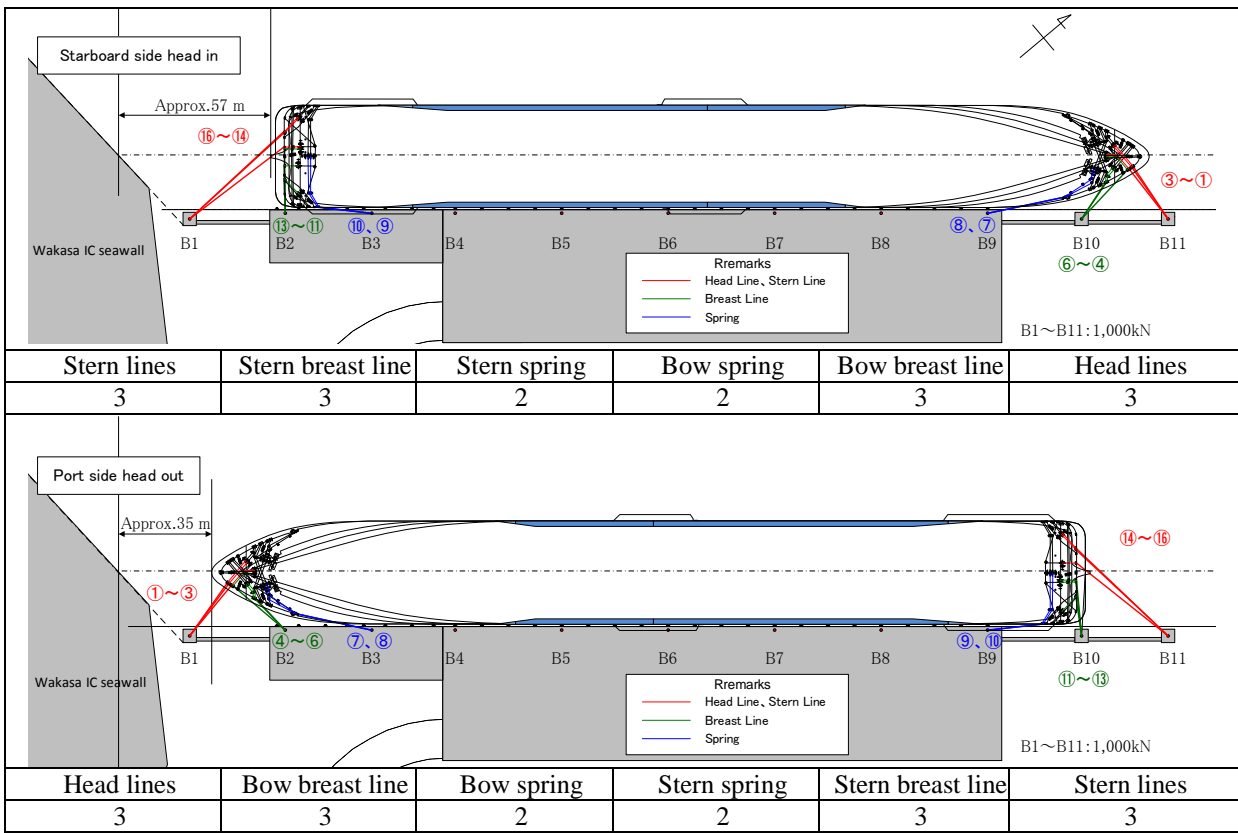


Fig.4.1.1 Sketch of arrangement of mooring lines on the Tomari wharf No. 8 quay (140,000 GT class cruise ship)

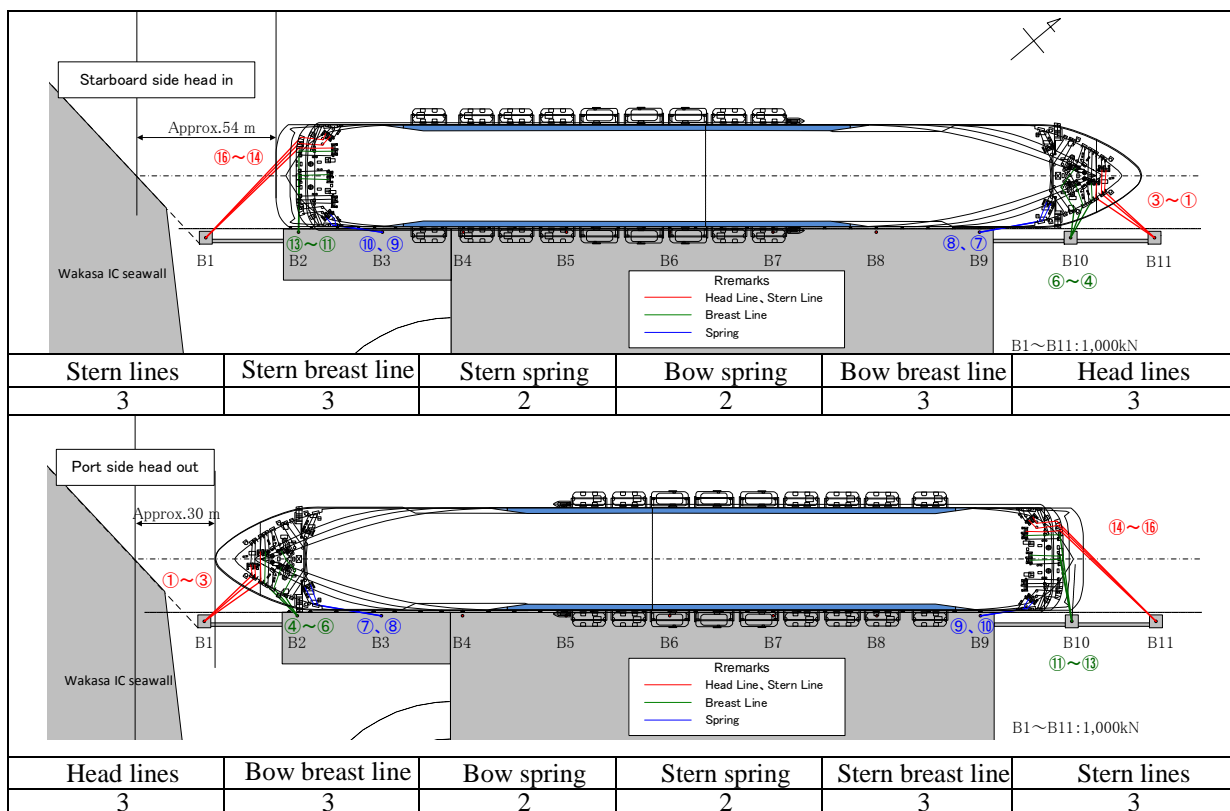


Fig. 4.1.2 Sketch of arrangement of mooring lines on the Tomari wharf No. 8 quay (150,000 GT class cruise ship)

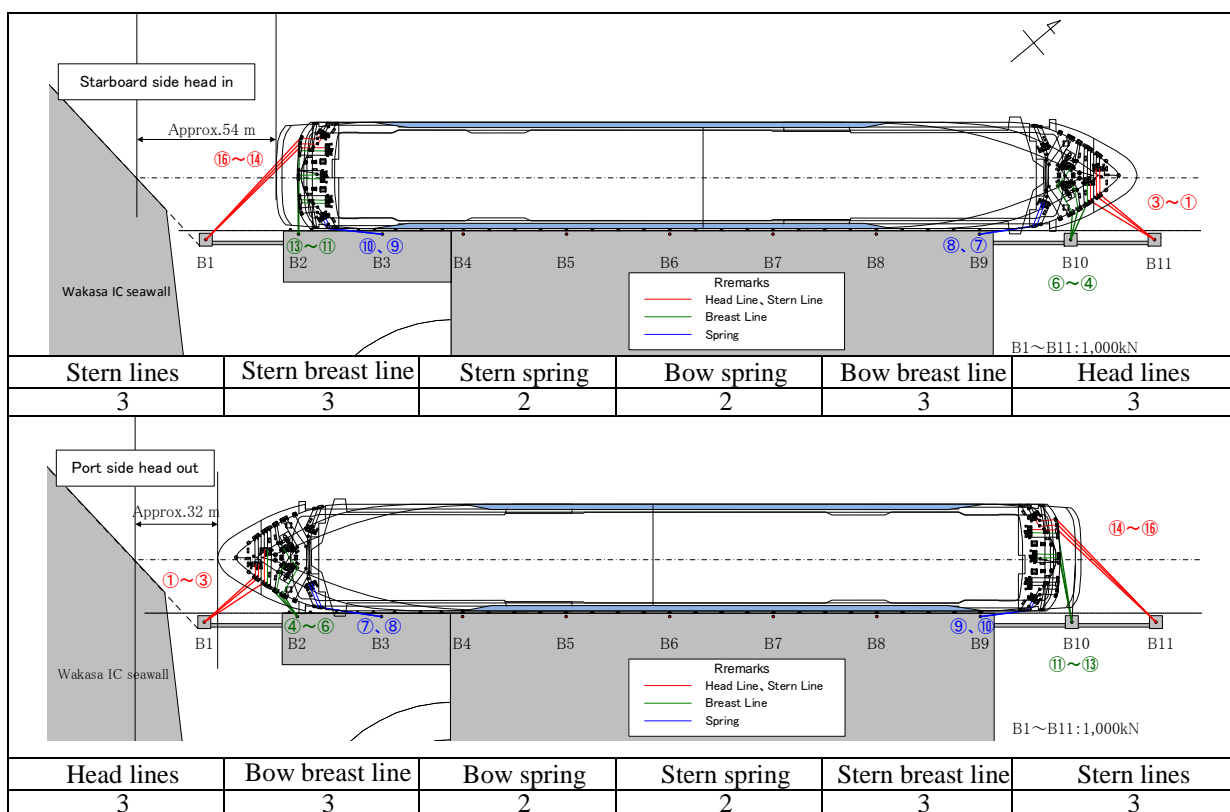


Fig. 4.1.3 Sketch of arrangement of mooring lines on the Tomari wharf No. 8 quay (160,000 GT class cruise ship)

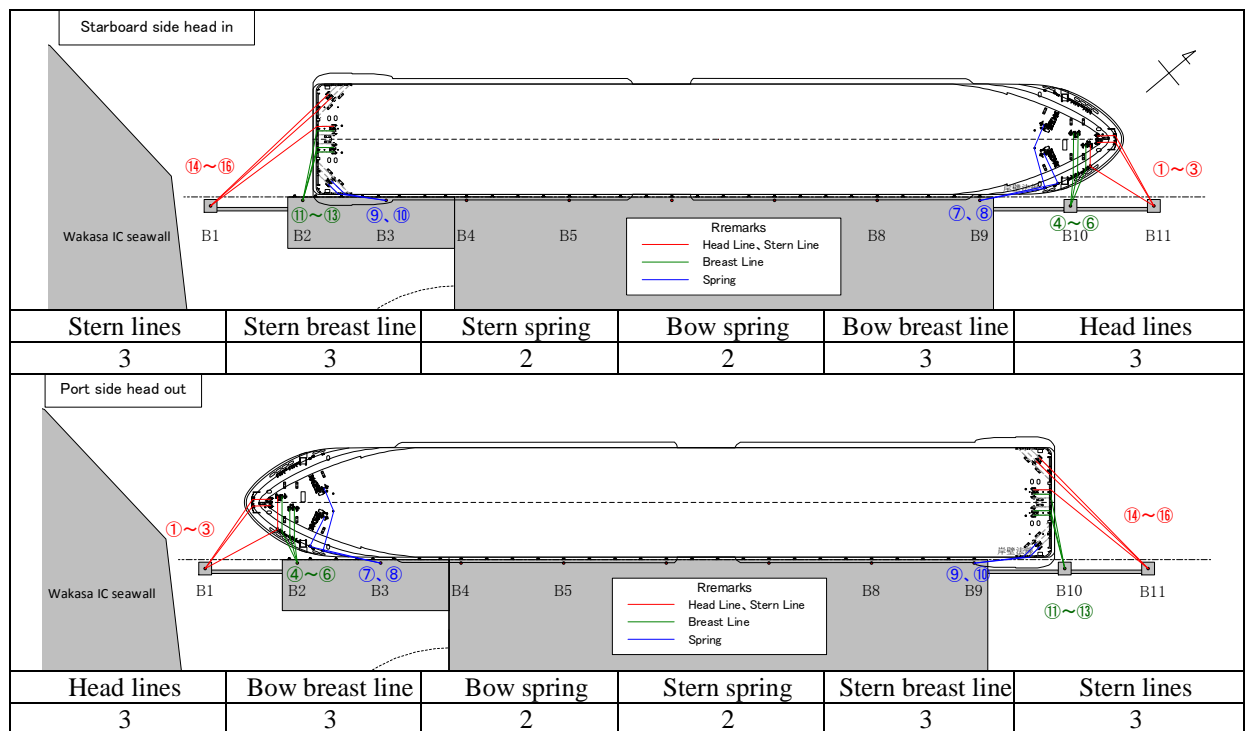


Fig. 4.1.4 Sketch of arrangement of mooring lines on the Tomari wharf No. 8 quay (170,000 GT class cruise ship)

## 4.2 Shinko wharf No. 9 quay-related matters

### 4.2.1 List of length overall of ships that can be moored at Shinko wharf No. 9 quay

The length overall of cruise ships that can be moored depending on the status of mooring of container ships at the adjacent quay (Shinko wharf No. 10 quay) are shown in the table below.

#### 【Port side】

Status of container ship Facilities for use by cruise ship		Mooring status of container ship on Shinko wharf No. 10 quay		
		90,000 DWT Class at Shinko wharf No. 10 quay	Below 40,000 DWT Class at Shinko wharf No. 9 quay	No other moored ships
Mooring facility that can be used	Shinko wharf No. 9 quay	Length overall below 260 m.	Length overall below 290 m.	Length overall below 362 m.
	Shinko wharf No. 9 quay & Mooring dolphin	Length overall 270m ~ below 362m		Length overall below 362 m.

(Note) Maximum length overall of 362m is based on the longest ship among active cruise ships of which mooring methods have been checked as of February 2019.

#### 【Starboard side】

Status of container ship Facilities for use by cruise ship		Mooring status of container ship on Shinko wharf No. 10 quay		
		90,000 DWT Class at Shinko wharf No. 10 quay	Below 40,000 DWT Class at Shinko wharf No. 9 quay	No other moored ships
Mooring facility that can be used	Shinko wharf No. 9 quay	Length overall below 235 m.	Length overall below 265 m.	Length overall below 362 m.
	Shinko wharf No. 9 quay & Mooring dolphin	Length overall 270m ~ below 362m		Length overall below 362 m.

(Note) Maximum length overall of 362m is based on the longest ship among active cruise ships of which mooring methods have been checked as of February 2019.

#### 4.2.2 When a 90,000 DWT class container ship is moored at the Shinko wharf No. 10 quay

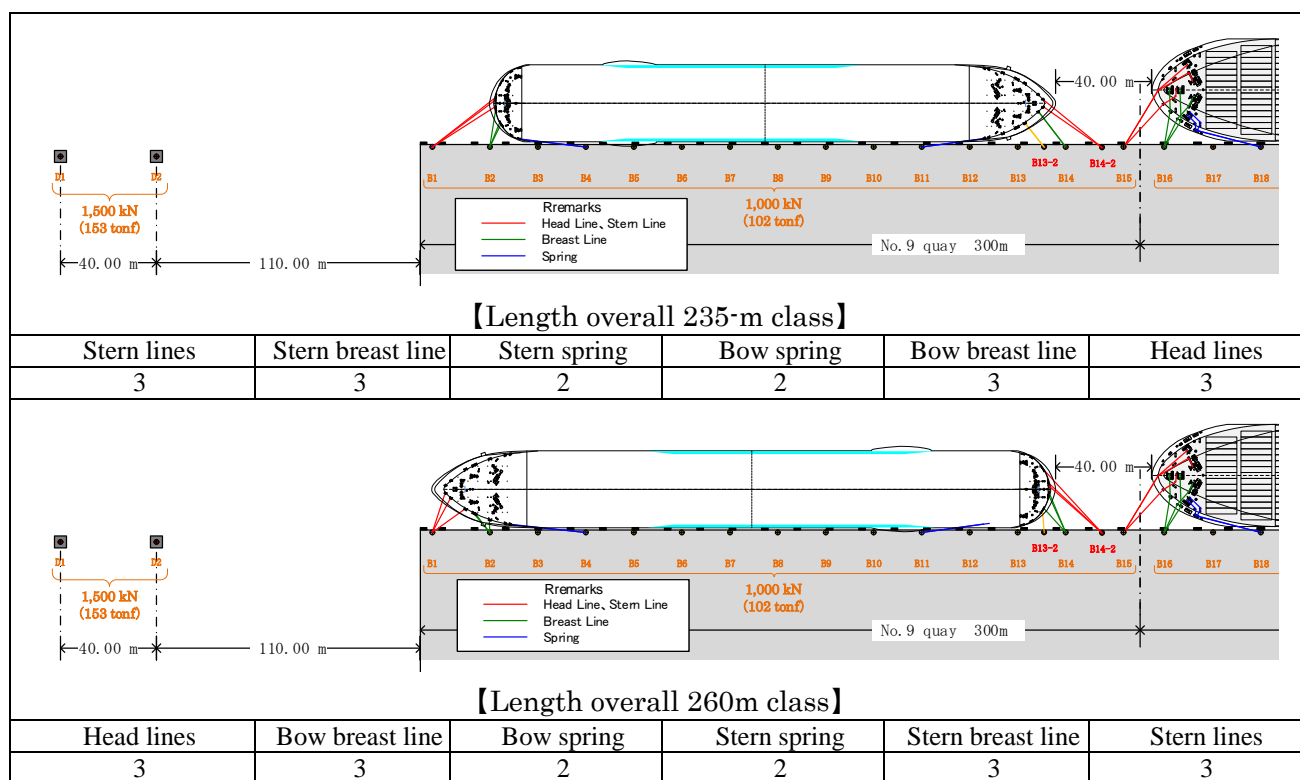
【When a 90,000 DWT container ship is moored at the Shinko wharf No. 10 quay】

Side on which ship is moored	Port side	Starboard side
Mooring facility		
Shinko wharf No. 9 quay	Length overall below 260 m	Length overall below 235 m
Shinko wharf No. 9 quay + Dolphin	Length overall between 270 m and 362 m	Length overall between 270 m and 362 m

Note: When mooring simultaneously with a container ship, the distance between the ships while mooring shall be more than 40 m, and the mooring lines of both ships shall not use the same mooring bollard.

- (1) Mooring sketch when only Shinko wharf No. 9 quay is used (when 90000 DWT class container ship is moored)

The sketches of mooring arrangement for cruise ships between length overall of 235m to 260 m are shown in Fig. 4.2.1. These mooring arrangements are for a situation in which a 90,000-DWT class container ship is simultaneously moored at the quay. The distance between the ships will increase further when a 40,000-DWT class container ship is moored at the same quay.



\*The sketches of these mooring arrangements are for a situation in which 90,000-DWT class container ship is simultaneously moored at the quay. The distance between the ships will increase further when a 40,000-DWT class container ship is moored at the same quay.

Fig. 4.2.1 Sketch of arrangement of mooring lines on the Shinko wharf No. 9 quay (when 90000 DWT class container ship is moored)

(2) Sketch of mooring arrangement at the Shinko wharf No. 9 quay + mooring dolphins

The sketches of mooring arrangement for cruise ships between length overall of 270 m to 362 m are shown in Fig. 4.2.2 to Fig. 4.2.6. These mooring arrangements are for a situation in which 90,000-DWT class container ships that are simultaneously moored at the quay. The distance between the ships will increase further when a 40,000-DWT class container ship is moored at the same quay.

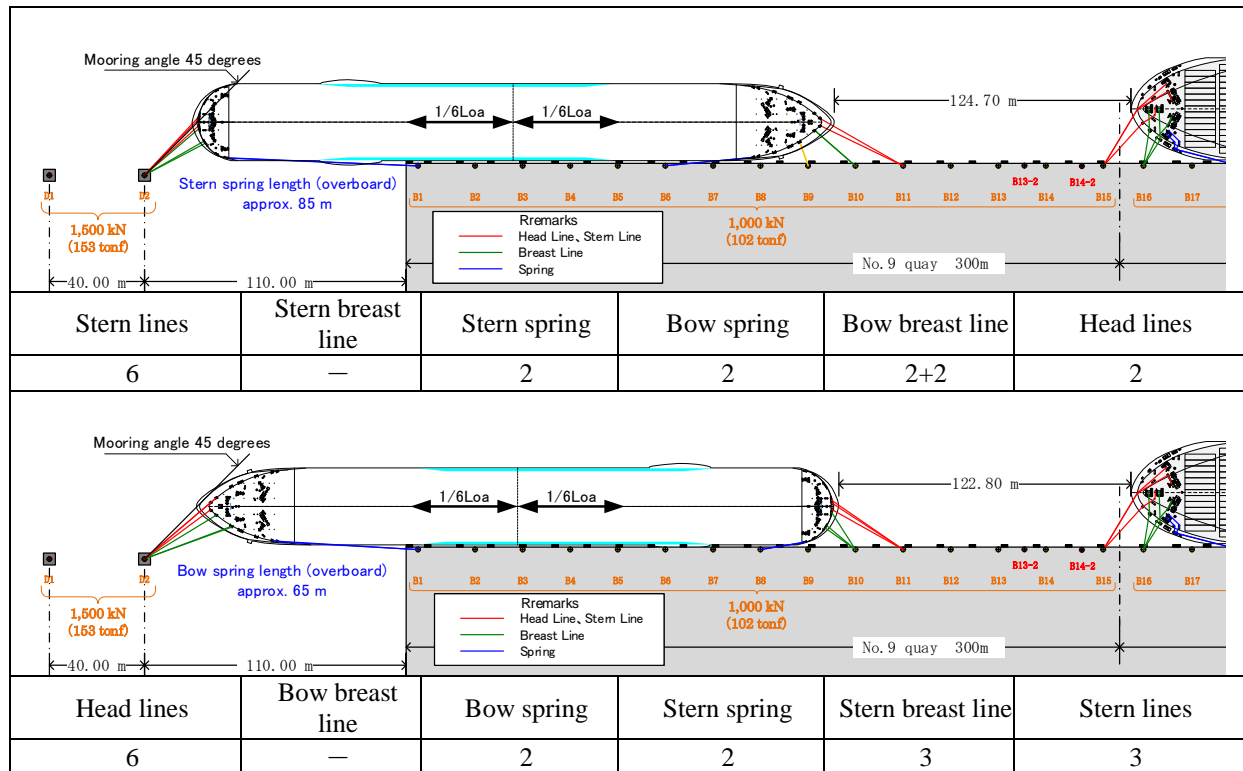


Fig. 4.2.2 Sketch of arrangement of mooring lines on the Shinko wharf No. 9 quay + mooring dolphins (270-m length overall class cruise ship)

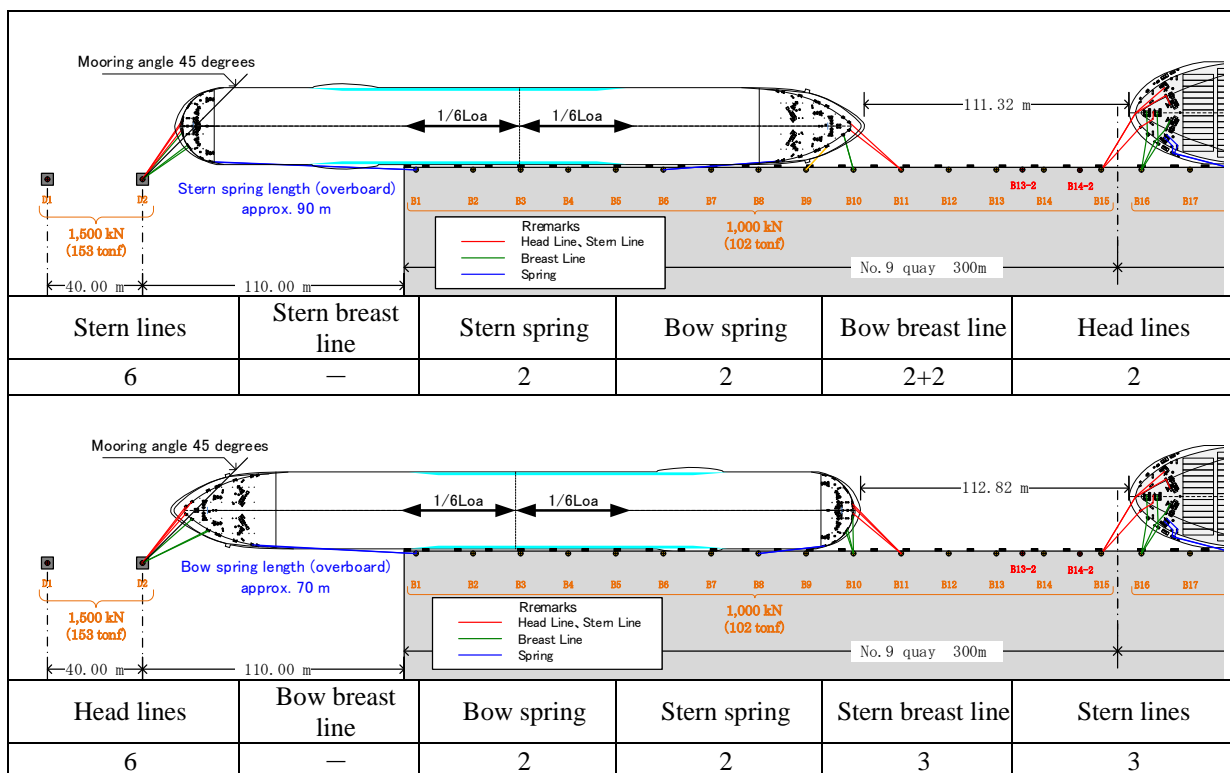


Fig. 4.2.3 Sketch of arrangement of mooring lines on the Shinko wharf No. 9 quay + mooring dolphins (290-m length overall class cruise ship)

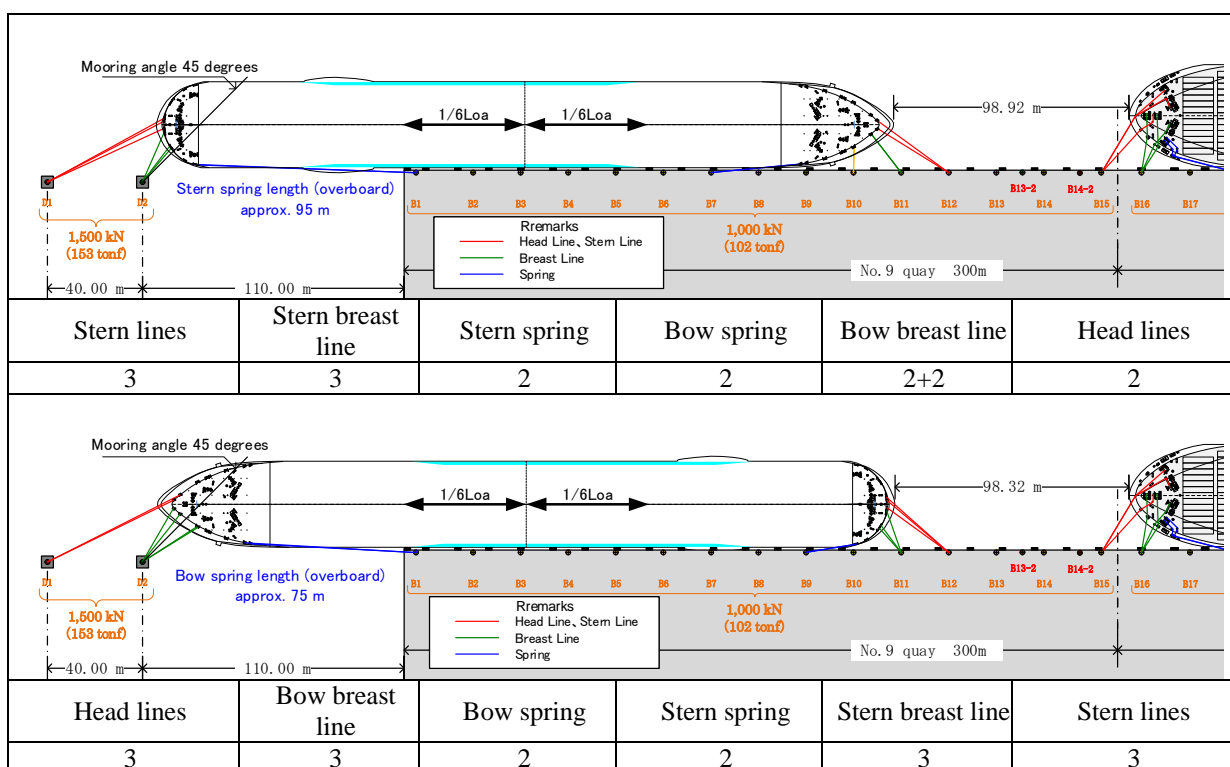


Fig. 4.2.4 Sketch of arrangement of mooring lines on the Shinko wharf No. 9 quay + mooring dolphins (310-m length overall class cruise ship)

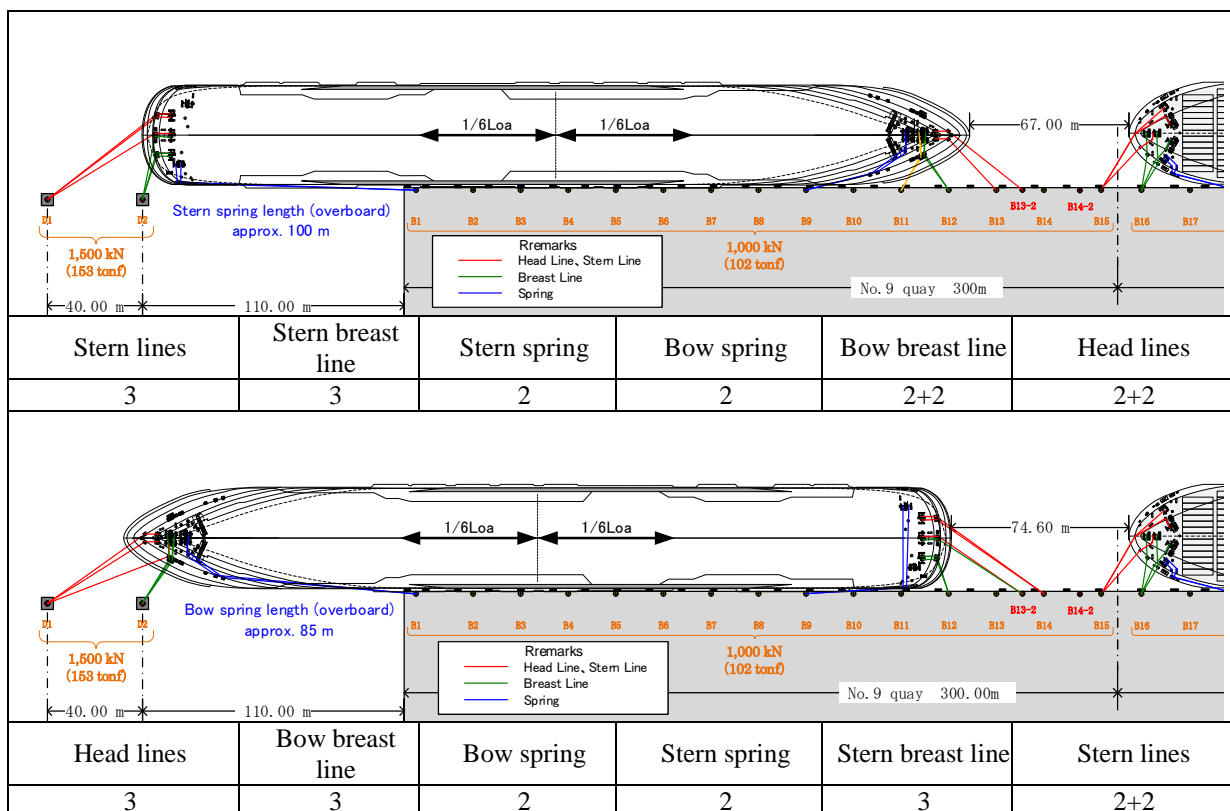


Fig. 4.2.5 Sketch of arrangement of mooring lines on the Shinko wharf No. 9 quay + mooring dolphins (348-m length overall class cruise ship)

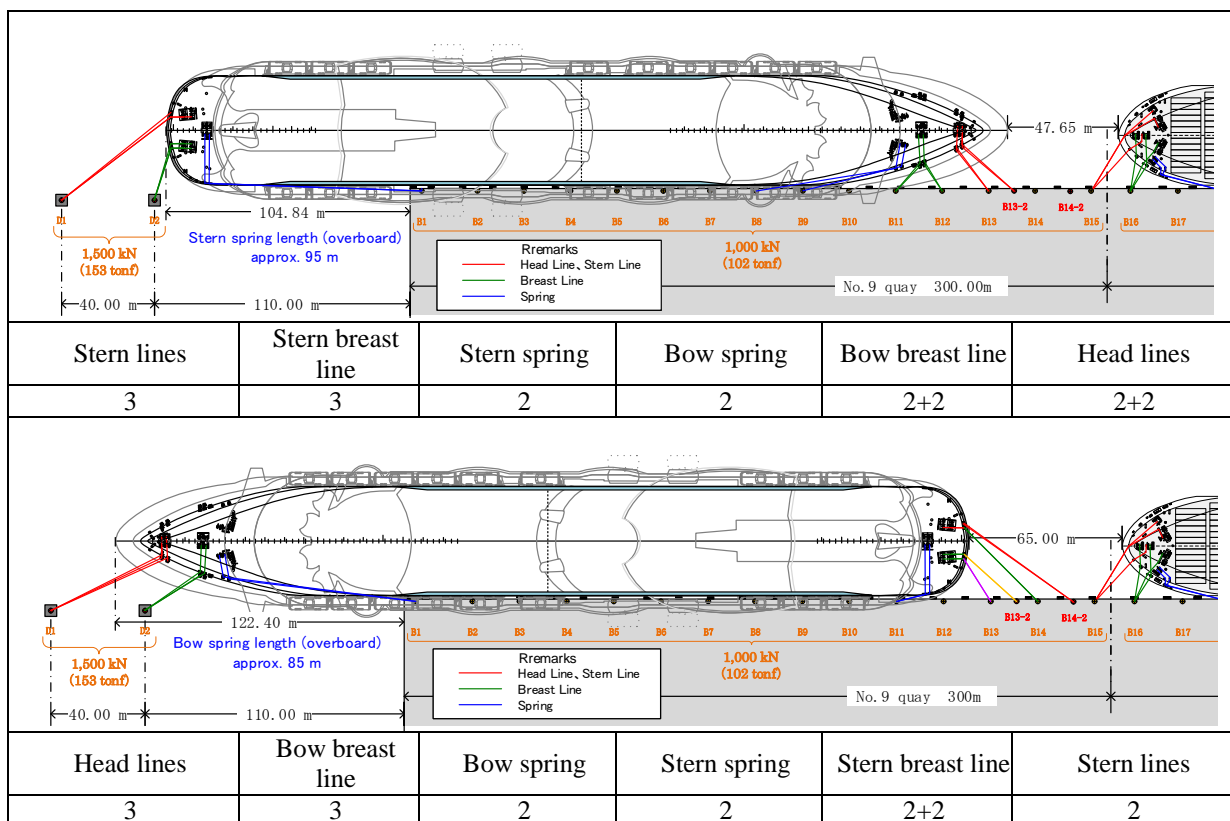


Fig. 4.2.6 Sketch of arrangement of mooring lines on the Shinko wharf No. 9 quay + mooring dolphins (362-m length overall class cruise ship)

#### 4.2.3 When a 40,000 DWT Class container ship is moored at the Shinko wharf No. 10 quay

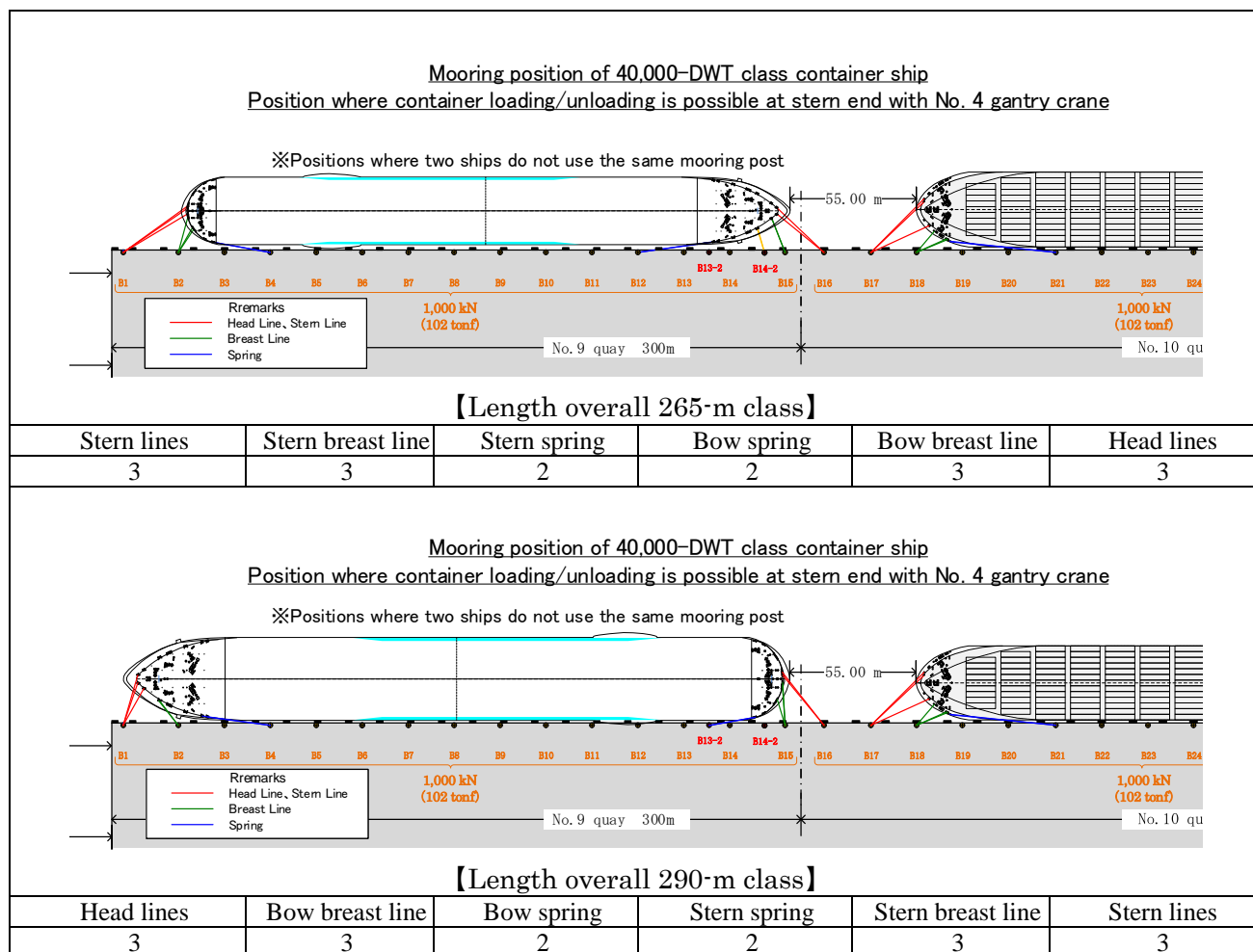
【When a container ship of below 40,000 DWT is moored at the Shinko wharf No. 10 quay】

Side on which ship is moored	Port side	Starboard side
Mooring facility		
Shinko wharf No. 9 quay	Length overall below 290 m	Length overall below 265 m
Shinko wharf No. 9 quay + Dolphin	Length overall between 270 m and 362 m	Length overall between 270 m and 362 m

Note: When mooring simultaneously with a container ship, the distance between the ships while mooring shall be more than 40 m, and the mooring lines of both ships shall not use the same mooring bollards.

- (1) Mooring sketch when only Shinko wharf No. 9 quay is used (when 40000 DWT class container ship is moored)

The sketches of mooring arrangement for cruise ships between length overall of 235m to 260 m are shown in Fig. 4.2.7. These mooring arrangements are for a situation in which 40,000-DWT class container ship is simultaneously moored at the quay.



\*The sketches of these mooring arrangements are for a situation in which 40,000-DWT class container ships is simultaneously moored at the quay.

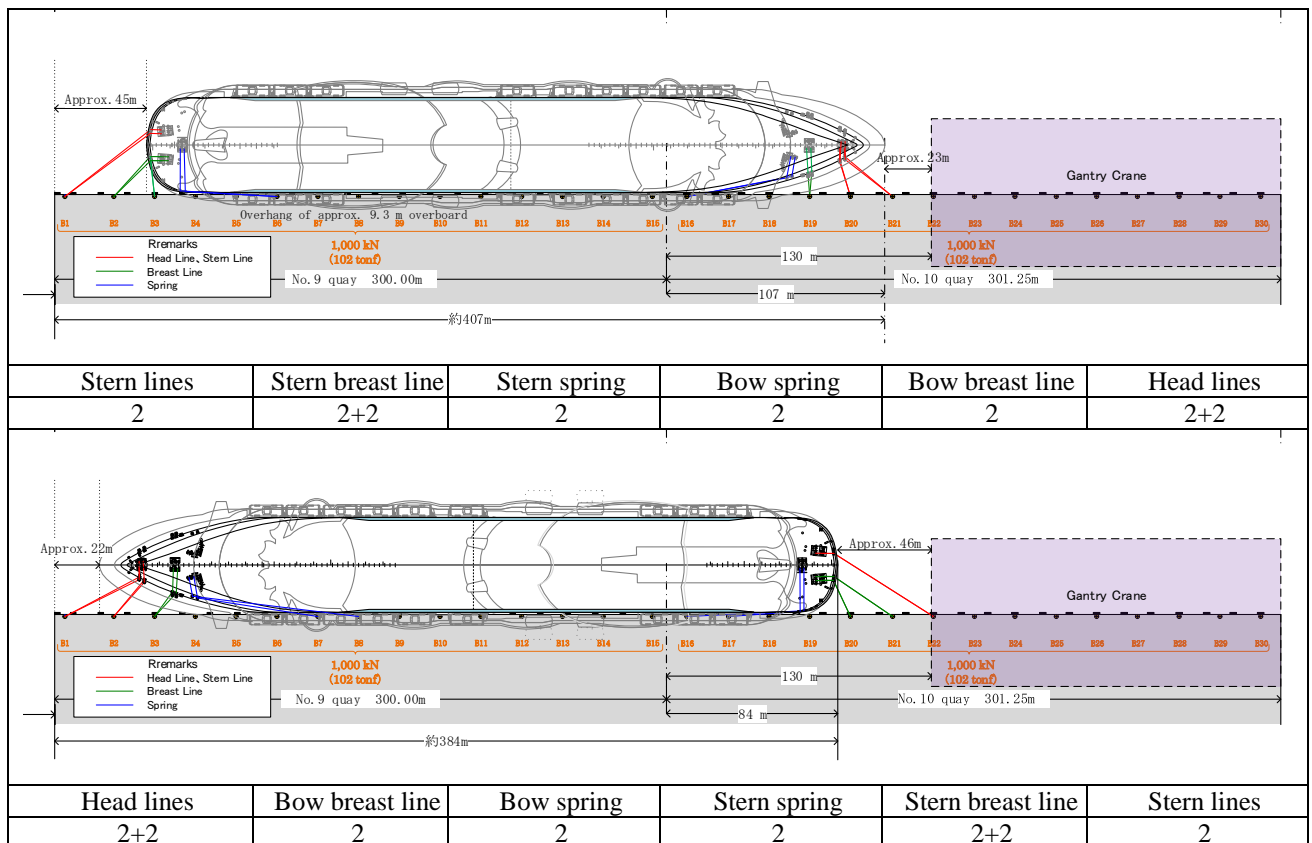
Fig. 4.2.7 Sketch of arrangement of mooring lines on the Shinko wharf No. 9 quay (when mooring 40,000 DWT class container ship)

#### 4.2.4 Sketch of mooring arrangement at the Shinko wharf No. 9 quay + No. 10 quay

The sketches of mooring arrangement for cruise ships with length overall of 362 m are shown in Fig. 4.2.8. These mooring arrangements are for a situation in which the cruise ship is using the adjacent quays, both of the Shinko wharf No. 9 quay and No. 10 quay.

【When no other ship is moored at the Shinko wharf No. 10 quay】

Side on which ship is moored	Port side	Starboard side
Mooring facility		
Shinko wharf No. 9 + No. 10 quay	Length overall below 362 m	Length overall below 362 m



\* The sketches of these mooring arrangements are for a situation in which no container ship is simultaneously moored at the Shinko wharf No.10 quay.

Fig. 4.2.8 Sketch of arrangement of mooring lines on the Shinko wharf No. 9 quay + No. 10 quay (362-m length overall class cruise ship)

