唐山港引航站
TANGSHAN PORT PILOT STATION

PILOTAGE of VALEMAX at Tangshan

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Tangshan pilot station

Tangshan Port

- Tangshan port consist of two parts:

  Jingtang port&Caofeidian port

  Located at the west of Bohai sea

  270km away from Beijing

- Handling capacity of 2018:

  63.7million M/T

- 3rd largest port in China

Tangshan Pilot Station

- 46 pilots
- In 2018, we complete 7091 times pilotage
- Pilotage record: Max LOA361M
- Max Draft23M
- Max DWT403,800M/T
- In 2018, 7 Valemax ships arrived.

Part I Characters of Valemax

- The largest bulk carrier in the world

- Size: LOA more than 360m
- Breadth 65m
- Draft more than 20m
- DWT: around 400,000 mt
- Difficult to speed up or stop

The first Valemax ship at Tangshan

M/V BERGE EVEREST

Alongside on Nov 24 2015. Valemax ships discharged here since then.

M/V BERGE EVEREST

LOA 361m
Breadth 65m

Summer DWT 388,134mt
Draft 23m

Part II Port General

1.The berth for Valemax
2.Anchorage area
3.Current
4.Wind
5.Fishing boats

1.The berth for Valemax ship

Berth name No.5

790m long

Breadth 31m

Bearing 090°-270°

6 cranes

Start operation in 2012

Trestle bridge

The jetty was built on the open sea without break water

Connect to land with trestle bridge

2.Anchorage

The anchorage is very close to the berth .

Depth and bottom good for Valemax ship.

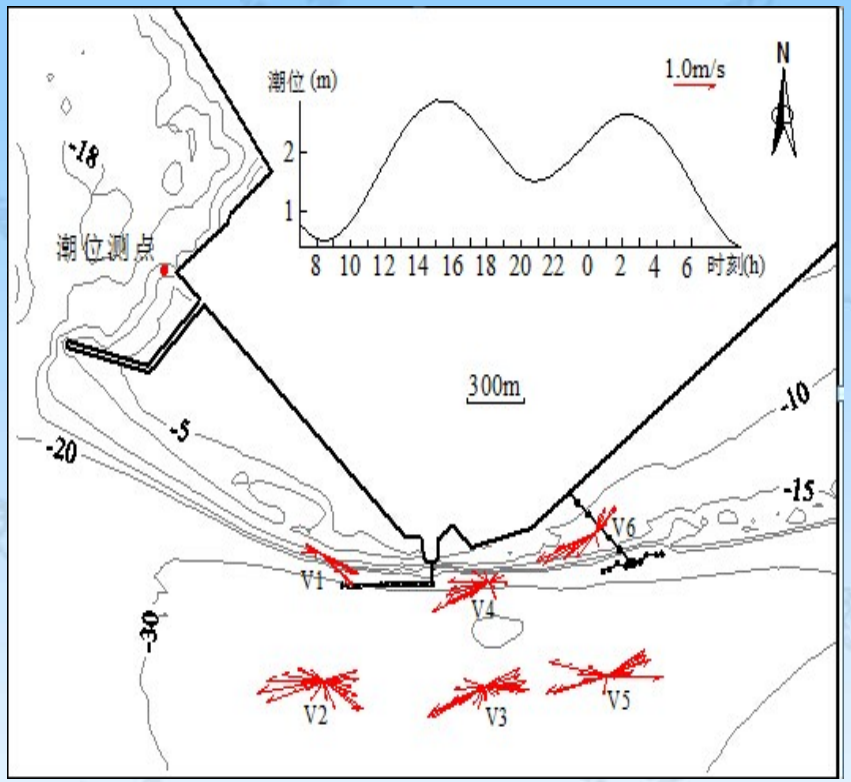
3.Tide current and strength

Current direction alongside the coast.

Rising tide, max speed 1.9kn, avg 1.1kn.

Falling tide, max speed 1.4kn, avg 0.8kn.

Rising current stronger than falling current.



4.Wind influence

Without break water, the port influenced by wind easily.

When the height of swell over 1.5m, tug can not work, that makes pilotage suspended.

5.Fishing boats

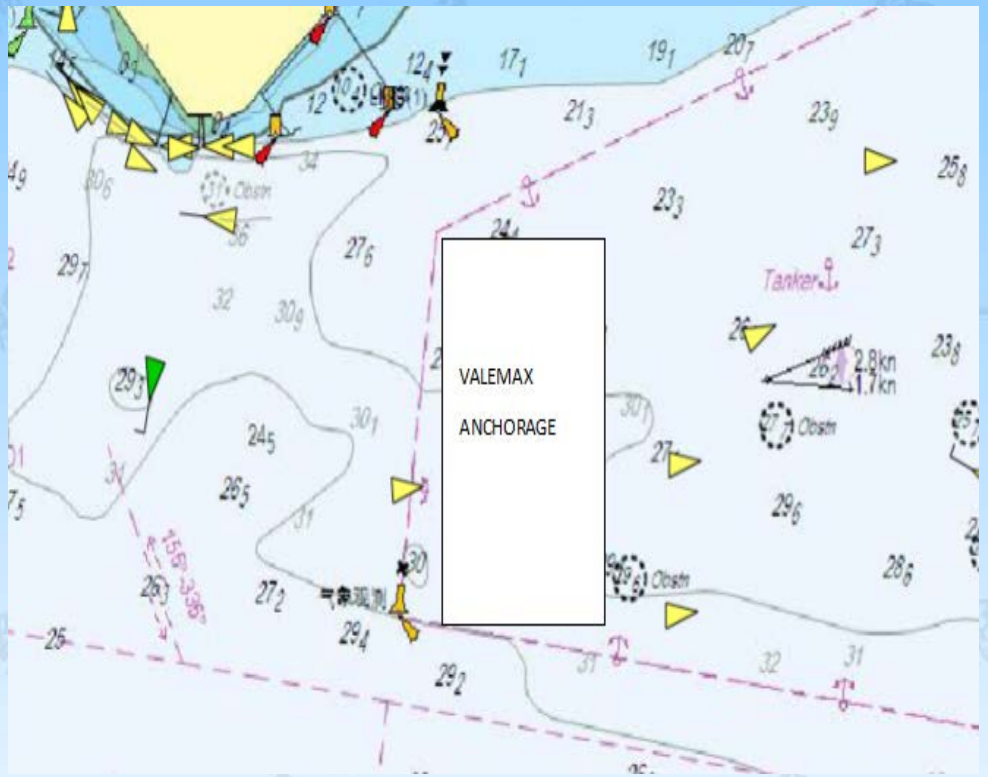
- Many fishing boats and nets exist at this area in the fishing season.

Part III Preparations before POB

1.Anchorage stand by in advance.
2.Time choice
3.Patrol boats for security
4.Enough tugs
5.Ship crew's preparations
6.Terminal crew's preparations

1.Anchorage stand by in advance

At the west edge of the anchorage, VTS officers will clear a wide enough anchorage area standing by for Valemax vessel, generally 10hr in advance according to ship's ETA.



2.Time choice:

1.Day time
2.Good visibility (not less than 2nm)
3.Good sea condition
(swell height less than 1.5m)
4.Weak current time （ Slack tide ）

3.Patrol boats for security

4.Enough Tugs

We need enough tugs to overcome the strong current and against the huge inertia

5.Ship crew's Preparations

Make sure ship's engine, steering gear, windlass, radar, ropes etc. all in good working condition.

Stand by engine in advance.

Anchor aweigh on time comply with Pilot's direction.

6.Terminal Preparations

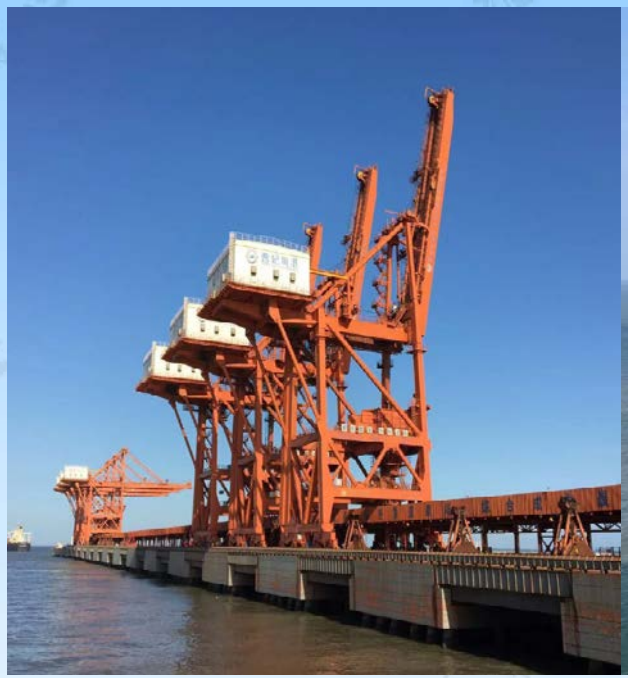
1.Ensure the berth's length enough

2.Keep berth front edge clear

3.Windlass in good condition

4.Cranes in the safe position

5.Lines men enough etc.



Part IV Pilotage

- 1. Pilot on board on time.
- 2. Information exchange with Master.
- 3. Route plan.
- 4. Tugs arrangements.
- 5. Berthing
- 6. Mooring arrangement.

1. Pilot on board

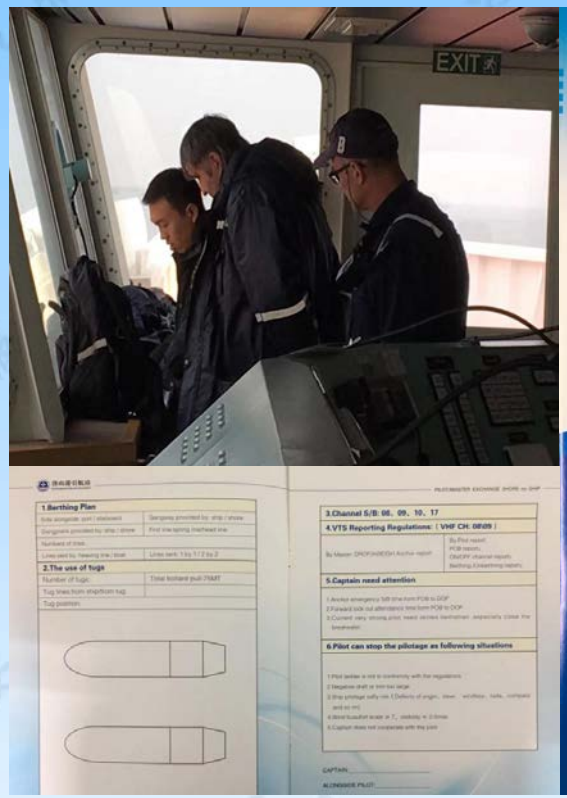
Pilot arriving on time, ensure the ship have enough time to get to berth by weak current time.

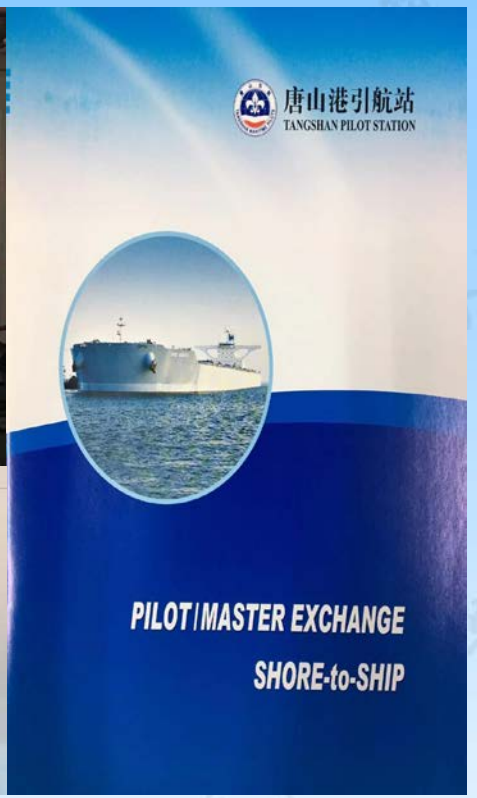
2.Information exchange

Information exchange between Pilot and Master.

Ensure the ship in good working condition.

Inform Master the arrangements about pilotage route, tugs, ropes etc.





3.Route plan

A. Pilot on board.

B. Tugs arrival, starting making fast.

C. Tugs all make fast, start turning to wharf.

D. Front edge of the berth.

4.Tug arrangement

Port side: 4 tugs make fast

Starboard side: 1 tug make fast

Make fast all tugs before arrival way point C.

5.Berthing

Arrival way point C, speed not more than 4kt, turn to D, distance

CD ≈ 2nm ,CE ≈ 1.5nm.

Pilot adjust the position of this point C by the following:

1.Diameter of the ship's turning cycle

2.Ship's speed and course

3.Current's speed and direction

4.Wind's speed and direction

5.Tugs towing affects

Turning

Turning from way point C to D, ship made an arc trail, this help Pilot easy to adjust the ship's speed and heading.

Attention:

1.Current pushing strength and direction

2.Head turning speed

3.Berth approaching speed

4.Berth abeam distance

Front berth edge 1

Arrival way point D:

Ship's speed about 1.5kt, cast off stbd side tug

Heading about 275°

Distance ahead about 0.5nm

Berth abeam distance about 0.4nm

Adjusting the heading and speed by engine and tugs, proceed to the front edge of the berth slowly.

Front berth edge 2

Arrival the front edge of the berth:

Ship's ahead speed about 0.4kn, abeam speed about 0.4kn

Distance abeam less than 0.3nm

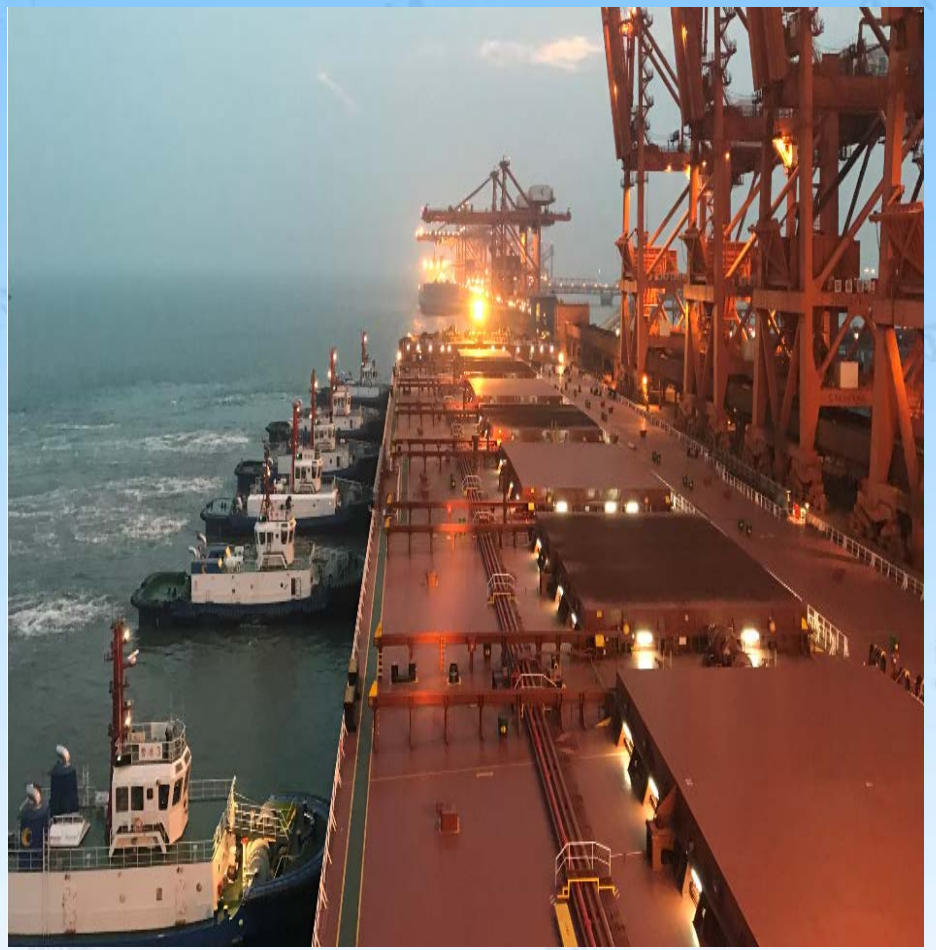
Distance to go ahead about 0.1nm

Push the vessel alongside by tugs:

Control touch speed less than 2cm/s

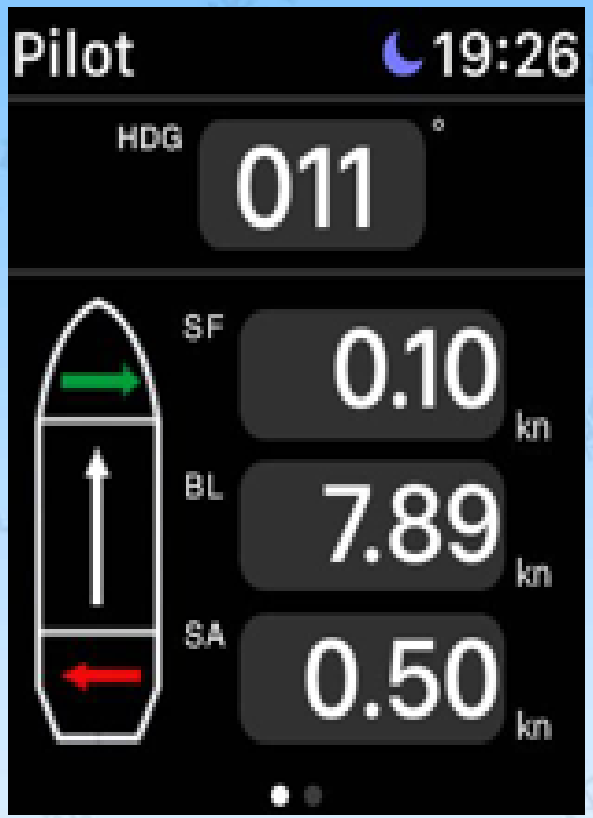
Keep ship's heading 270° when touching.

Adjust ship in position.



Speed data

The speed data come from ship's AIS, and display on Pilot's Apple watch.



6.Mooring arrangement

Forward:

2 spring lines

4 breast lines

6 head lines

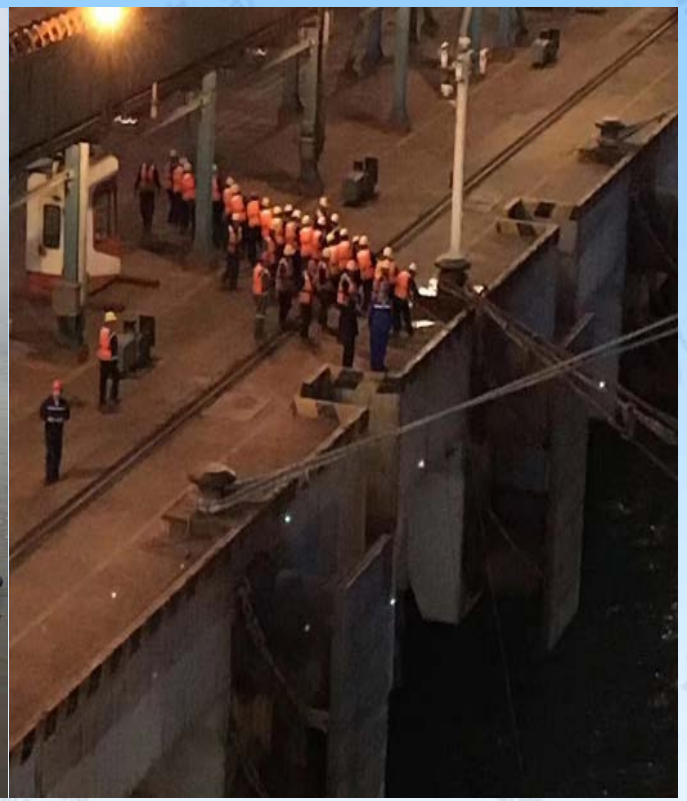
Aft:

2 spring lines

4 breast lines

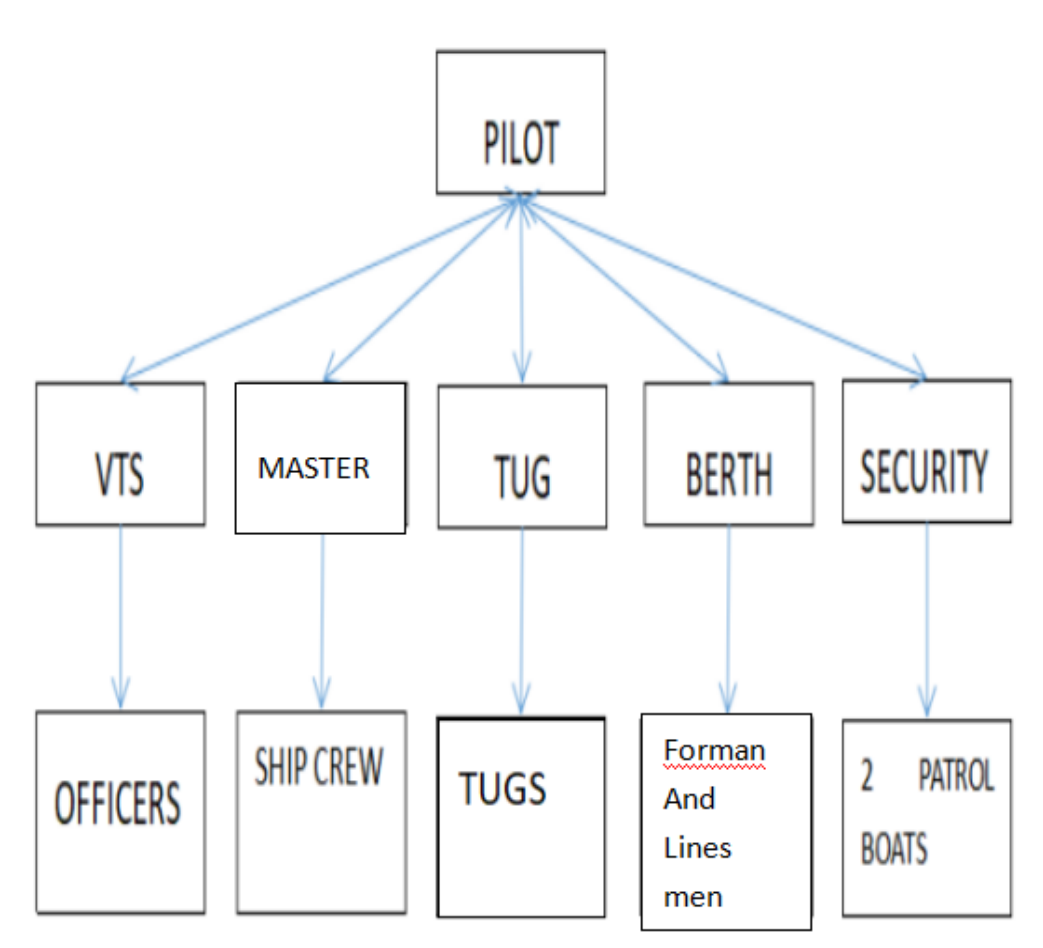
6 stern lines

Make fast all lines, then cast off all the tugs.



Part V Teamwork

Pilotage of Valemax ship is a team work, more than 100 people involved in the whole pilotage process.



Team work

This handling work that can only be done as a team, and no one can do it alone.The successful completion of the pilotage is inseparable from the full preparation, good communication and smooth cooperation of each team.

The ship’s Master and Pilot should have rich experience, good organization and management ability, fully consider the possible risks, mobilize resources, and control the risks to the minimum.

Thank You

The End