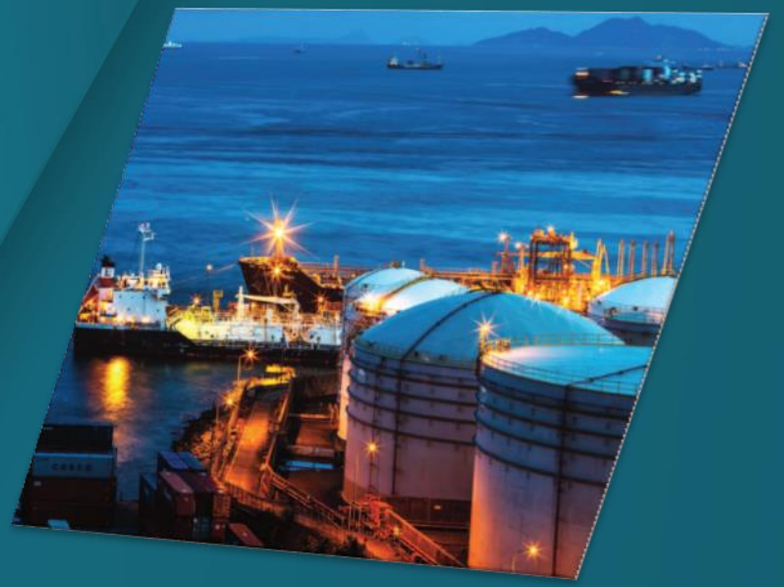
SISTEMA DE GESTIÓN DE LA CALIDAD
CONSEMAR GROUP
ISO 9001 CERTIFIED

MIEMBRO DE:
SLOM
Sociedad Latinoamericana de Operadores de Terminales Marítimo Petroleros y Monoboyas

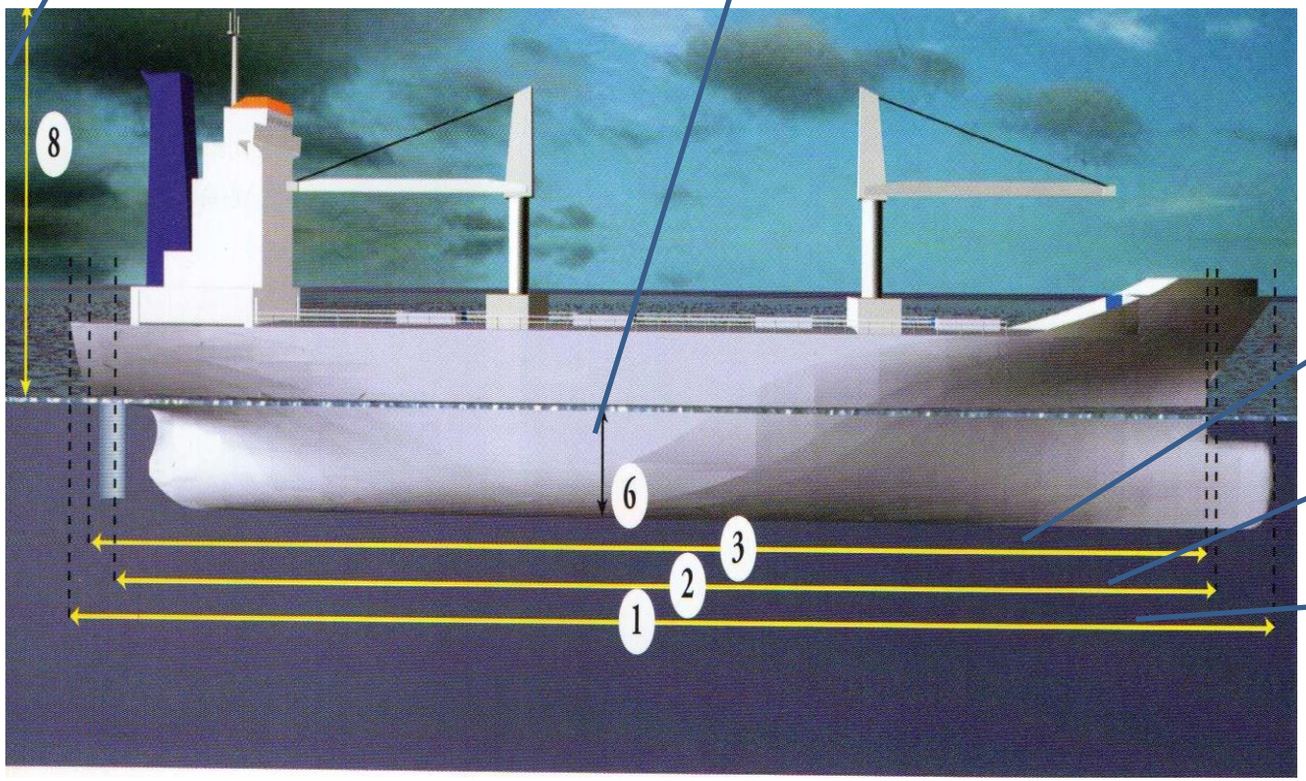
CURSO
FORMACIÓN PARA LOADING MASTER

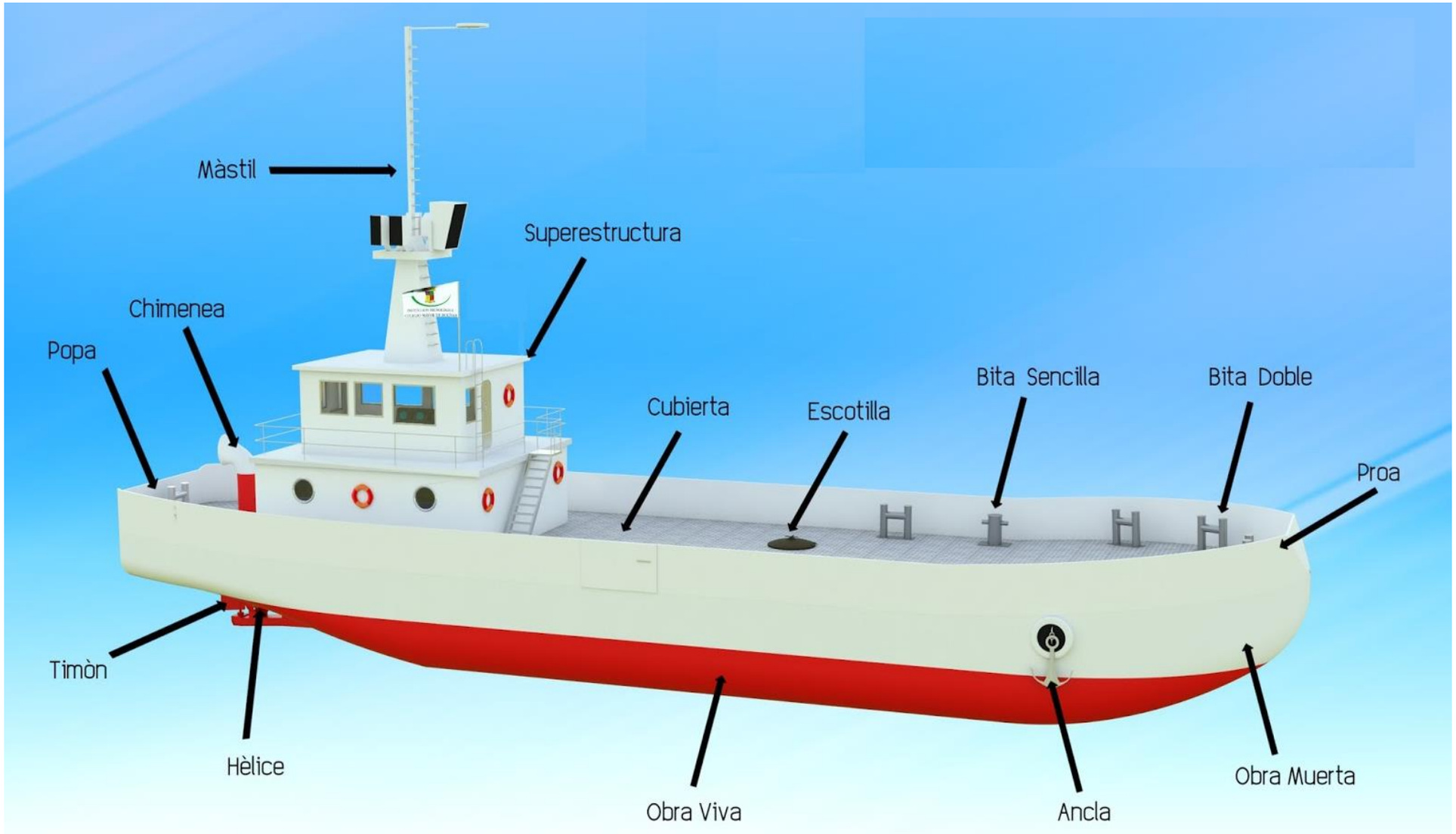


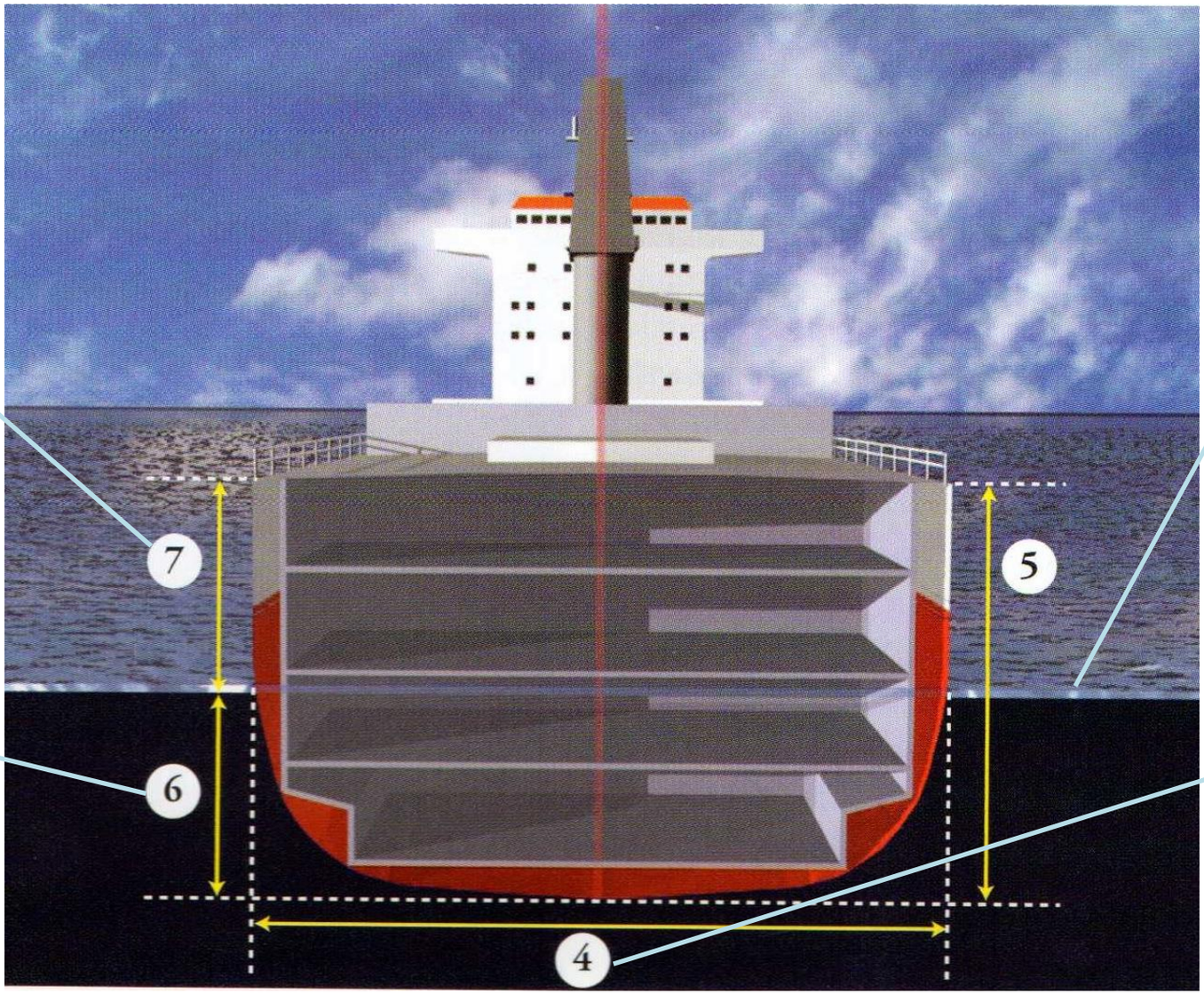
CONSEMAR Academy

Fundamentos Teóricos del Buque y su Equipamiento

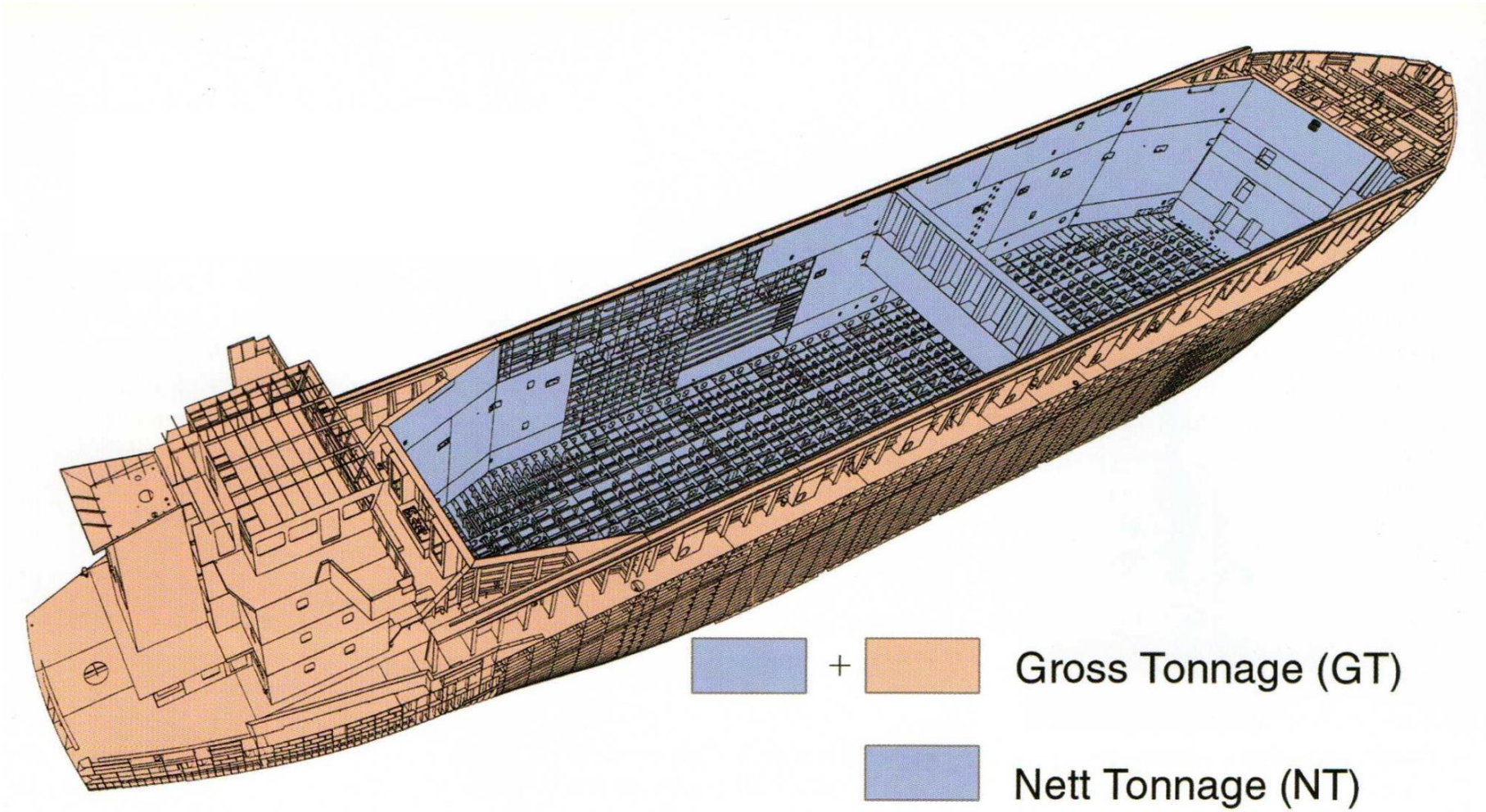
Curso de Formación de Loading Masters


Calado Aéreo
Calado
8
6
3
2
1
Eslora en la Flotación
Eslora Entre Perpendiculares
Eslora Total


Màstil
Superestructura
Chimenea
Popa
Cubierta
Escotilla
Bita Sencilla
Bita Doble
Proa
Timòn
Hèlice
Obra Viva
Ancla
Obra Muerta


Francobordo
Puntal
Calado
Manga
7
5
6
4

ARQUEO



El “Ship’s Particulars”

- Length overall (LOA)
- Length between perpendiculars (LBP)
- Extreme breadth
- Moulded breadth
- Moulded depth
- Keel to masthead
- Distance bow to bridge
- Distance bridge front - mid-point manifold
- Distance bow to mid-point manifold
- Distance stern to mid-point manifold
- Parallel mid-body diagram

El “Ship’s Particulars”

Date on which keel was laid or ship was at a similar stage of construction

Date launched

Delivery date as recorded in Form A or Form B Q1.8.3 of the IOPPC

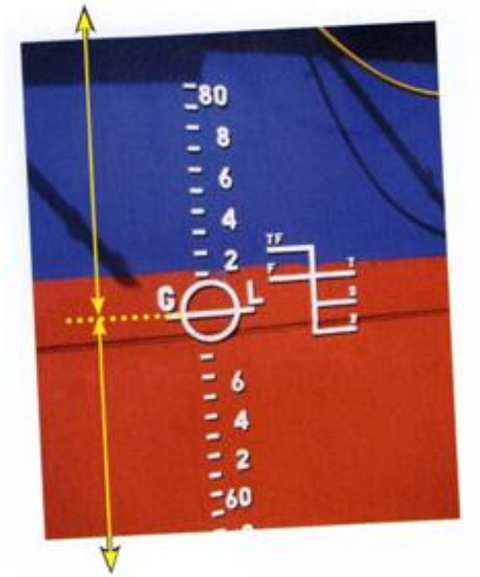
Major hull change

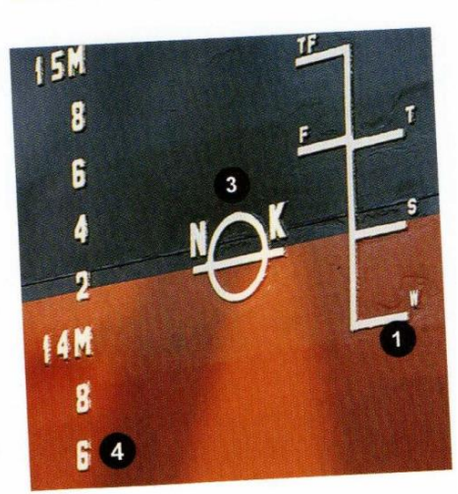
Has a major hull change been undertaken?

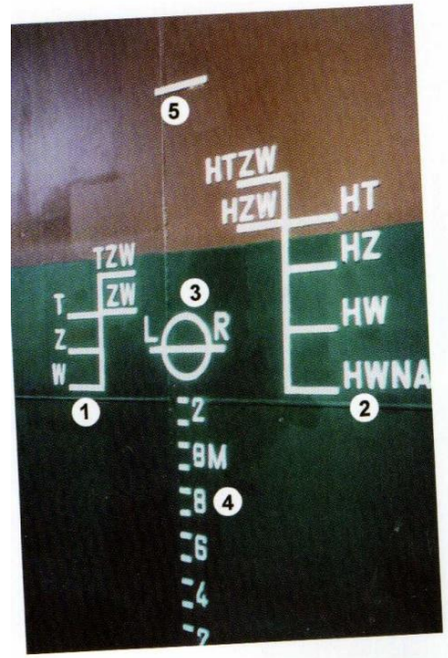
What was the date of completion of the conversion as recorded in Form A or Form B Q1.9.3 of the IOPPC?

List what changes were made

Líneas de Carga



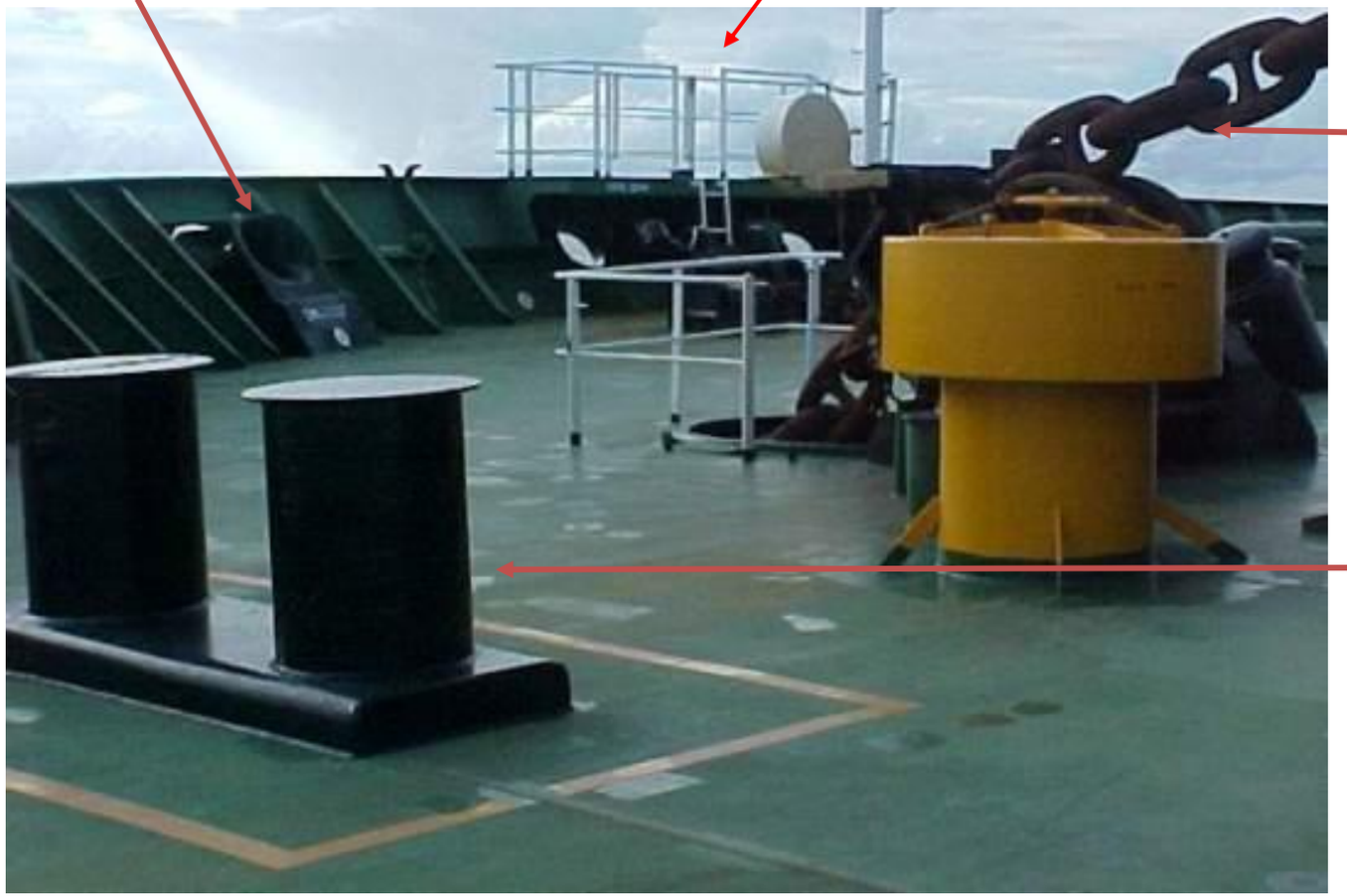




Las “Class Notations”

	Vessels have been built under ABS survey	Vessels have not been built under ABS survey
Hull and Equipment:	✠ A1	A1
Machinery, boiler and systems	✠ AMS	AMS
Shipboard automation systems	✠ ACCU	ACCU

The Fore Castle Area Or The Bow



This is the Forecastle or fore or forward part of the Ship.
At this location the vessel is anchored and Moored

A typical Deck Mooring Winch

Hydraulic Motor, The driving Power for the winch

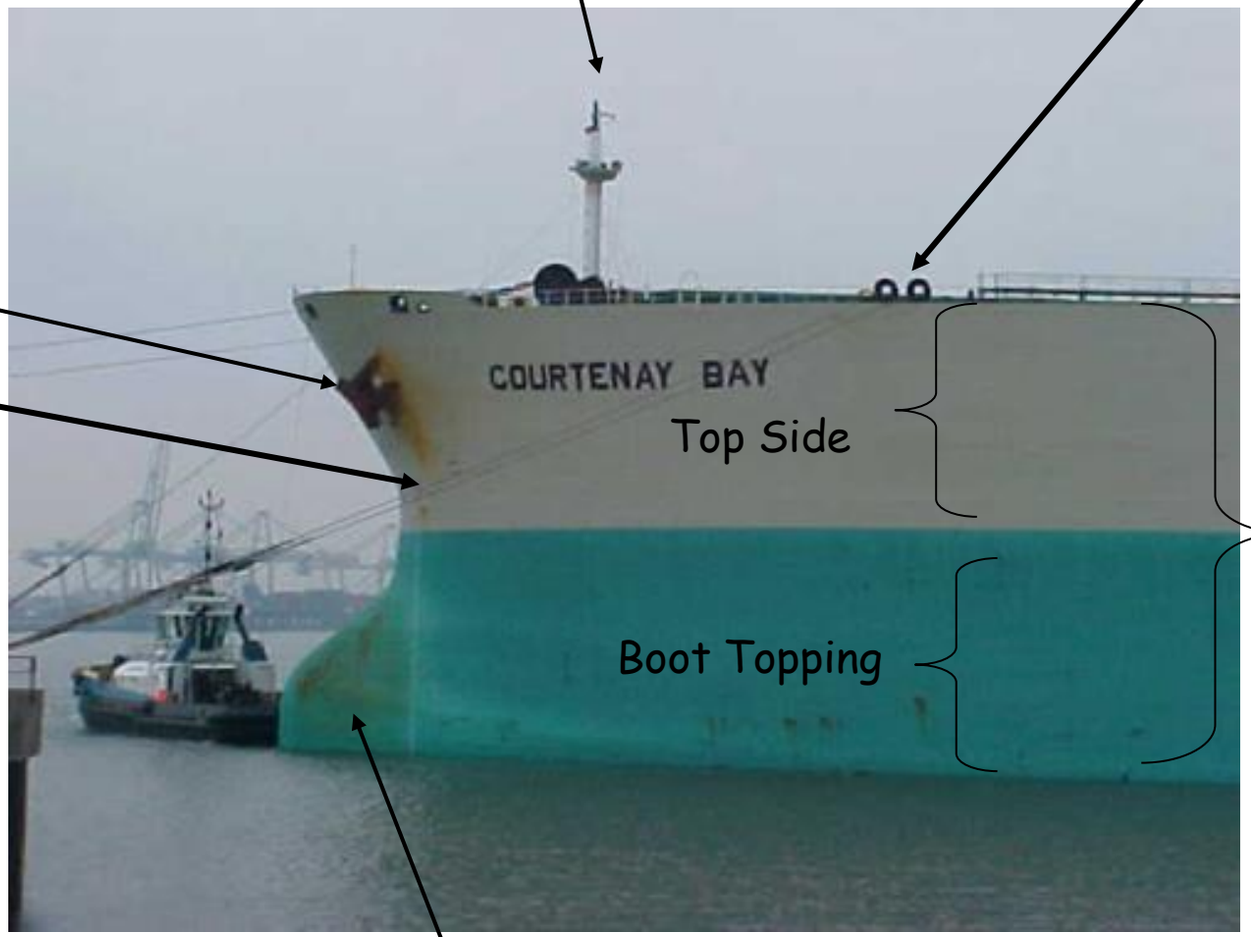
Bow Chain Stopper (Tongue Type)

Primarily used for making fast at a SBM .

Also utilized as part of the Emergency Towing Apparatus

The Chain Stopper is installed on the Foc'sle deck

The Fore Castle Area viewed from the side



A View from dead ahead

Closed Chock used for Picking up SBM chain and passing mooring lines

Starboard Anchor stowed in Hawse pipe

Port Anchor is in the water & has been used for Anchoring

A typical Hydraulic mooring Winch with Windlass

Anchor Windlass

Warping Drum

Mooring Winches with wires and tails

Operator platform

The Main Deck

Ship Side, Midship Area

Hose Handling Crane

Mid Ship store

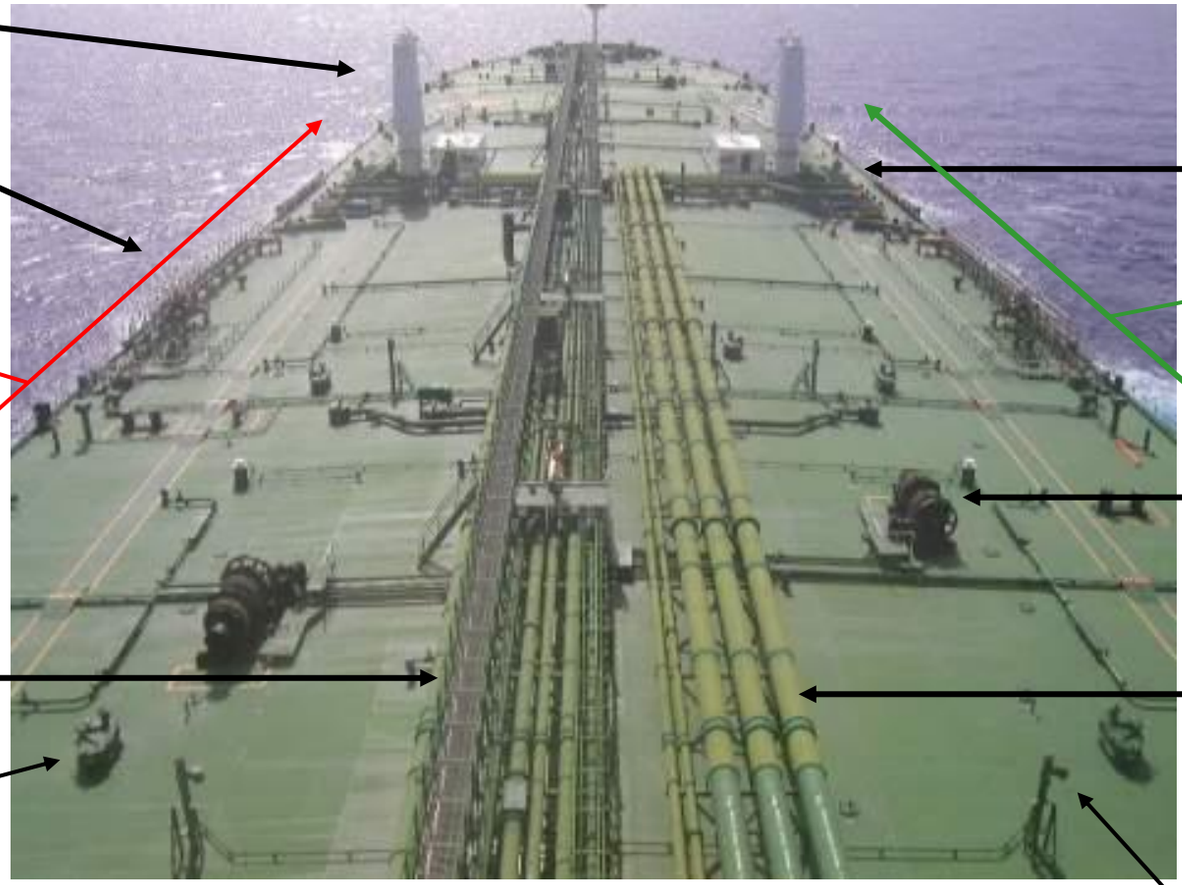
Manifold

Accommodation Ladder
Or The Gangway

Ship Side
(Starboard side)

Main deck of a vessel

Top view of the main deck of the ship



Helicopter landing area on a VLCC

Nowadays, Helicopters are extensively used
(for Pilot embarking, Crew changes and Stores supplies).

Cargo Hose Handling Crane or the Midship crane

Accommodation Ladder

A typical Accommodation Ladder.

In this picture , the accommodation ladder is used for transferring people (during a bunkering operation) between two ships.

This Accommodation Ladder is fixed to the ship and can be only used if the jetty or other ship is within its range.

Gangway

This is a portable ladder and can be used in various location on board the ship. This can be lifted and placed in position by the Hose handling crane.

Manifold Area

Manifolds

Cargo Drip Tray

Man hole

Tank Dome used for access to Cargo or Ballast tank

Manifold Reducers

Same size,

To fit to ships manifold

Different size

To fit to shore connection

These can be fitted on the manifold, to make the same manifold available for different shore connections.

Heating Coils

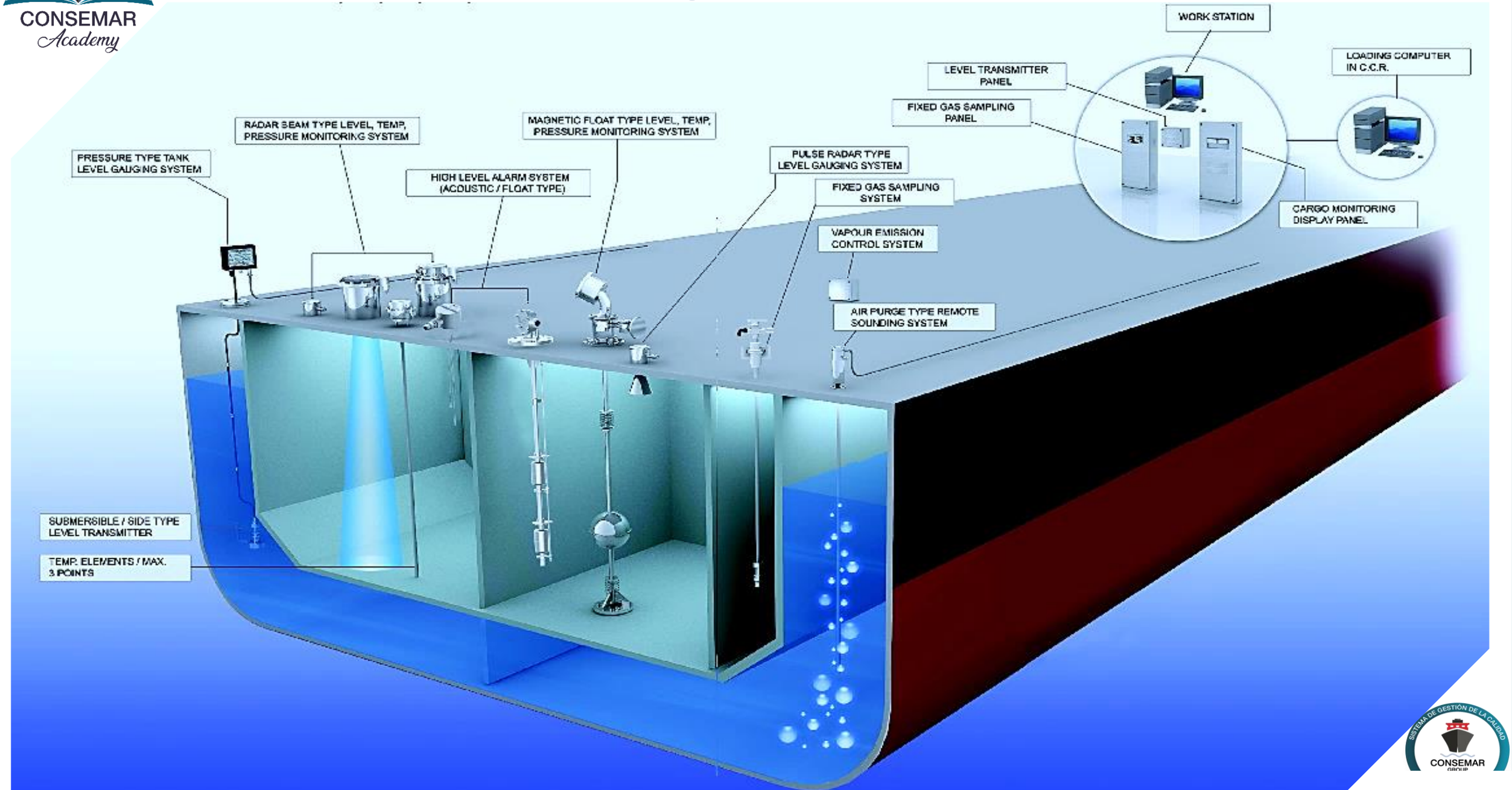
Steam (Example) runs through these coils which in turn heats up the cargo in the tank

The Pump Room

Cargo Oil Pumps

Centrifugal Pumps in the Cargo Pump Room

Ships tanks

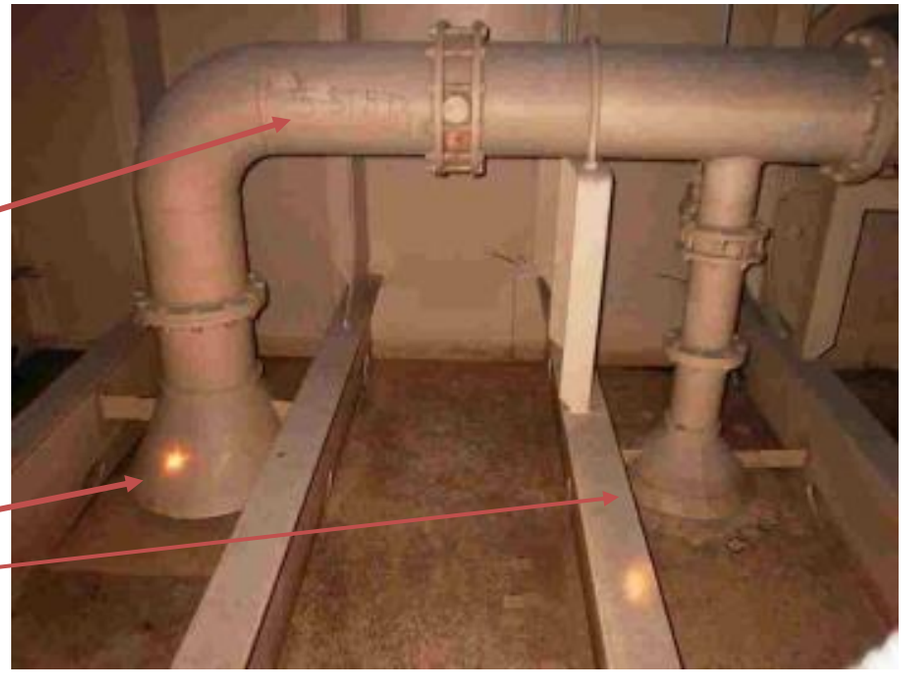

WORK STATION
LOADING COMPUTER IN C.C.R.
LEVEL TRANSMITTER PANEL
FIXED GAS SAMPLING PANEL
CARGO MONITORING DISPLAY PANEL
PRESSURE TYPE TANK LEVEL GAUGING SYSTEM
RADAR BEAM TYPE LEVEL, TEMP, PRESSURE MONITORING SYSTEM
HIGH LEVEL ALARM SYSTEM (ACOUSTIC / FLOAT TYPE)
MAGNETIC FLOAT TYPE LEVEL, TEMP, PRESSURE MONITORING SYSTEM
PULSE RADAR TYPE LEVEL GAUGING SYSTEM
FIXED GAS SAMPLING SYSTEM
VAPOUR EMISSION CONTROL SYSTEM
AIR PURGE TYPE REMOTE SOUNDING SYSTEM
SUBMERSIBLE / SIDE TYPE LEVEL TRANSMITTER
TEMP. ELEMENTS / MAX. 3 POINTS

Ships Tanks (Cargo and Ballast)

A typical Double bottom space of a water ballast tank.

A pipeline which carries the liquid in and out of the tank

Bell Mouth
Cargo & Stripping



The Poop deck

This area is also called the “Stern”

Poop deck a view from outside

Closed chalks

Mooring wires

Accommodation Block - Forward Facing

Radar Mast

Monkey Island (highest deck of the ship)

Bridge or the Wheel House

Bridge Wing

Port Holes

Pump room vent

The Wheel House and Chart Table

The ship is controlled or Navigated from this location.

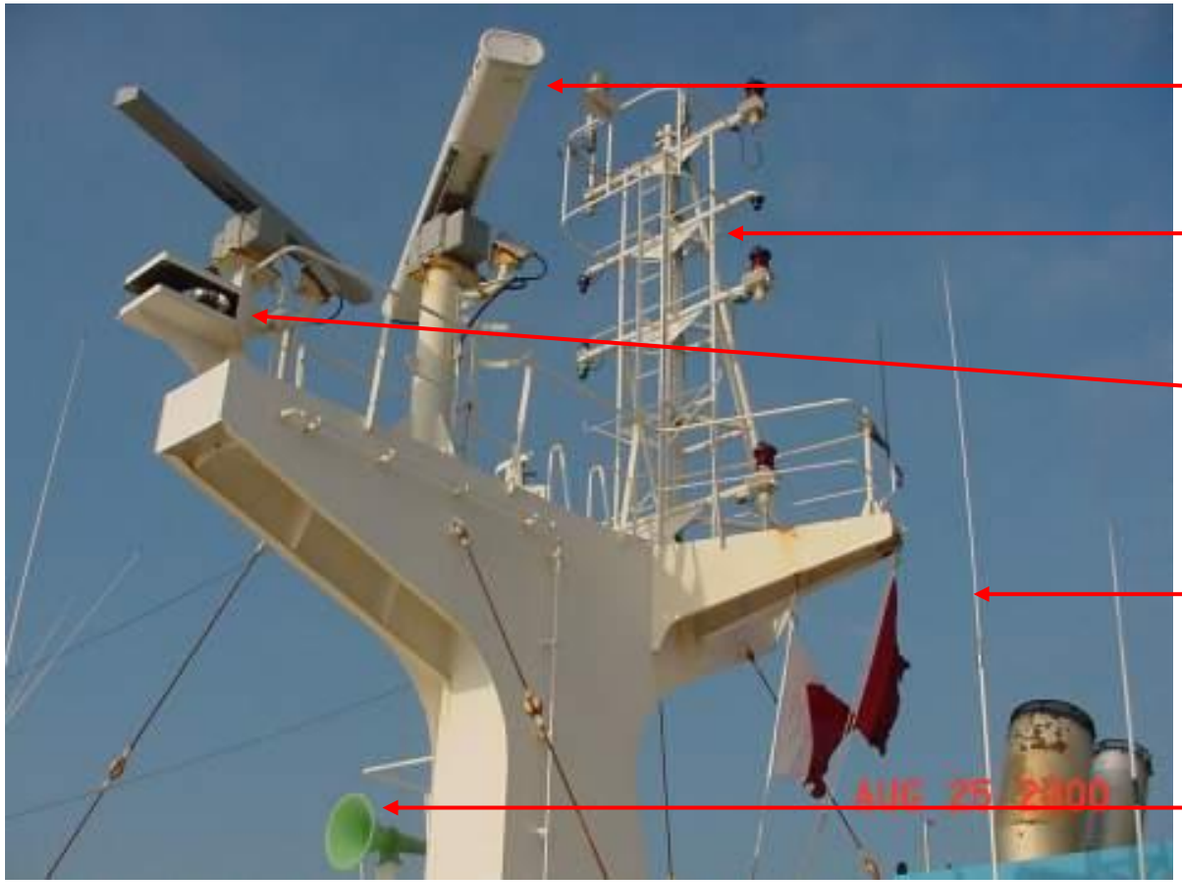
While the vessel is at Sea, there is an officer and lookout man inside the wheelhouse at all times.

The Steering Wheel On The Wheel House

GMDSS Room - Radio Room

Communication of the ship is carried out from Radio Room

The Main Mast Or the Radar Mast



Radar Scanner

Christmas Tree

Navigation light

Radio Antenna

Fog Horn

Cargo Control Room (CCR)

Pumps and Valve operations for Cargo And Ballast are controlled from CCR

Areas inside the accommodation

Cabin, Is were the Ship's Crew rest during their off duty hours

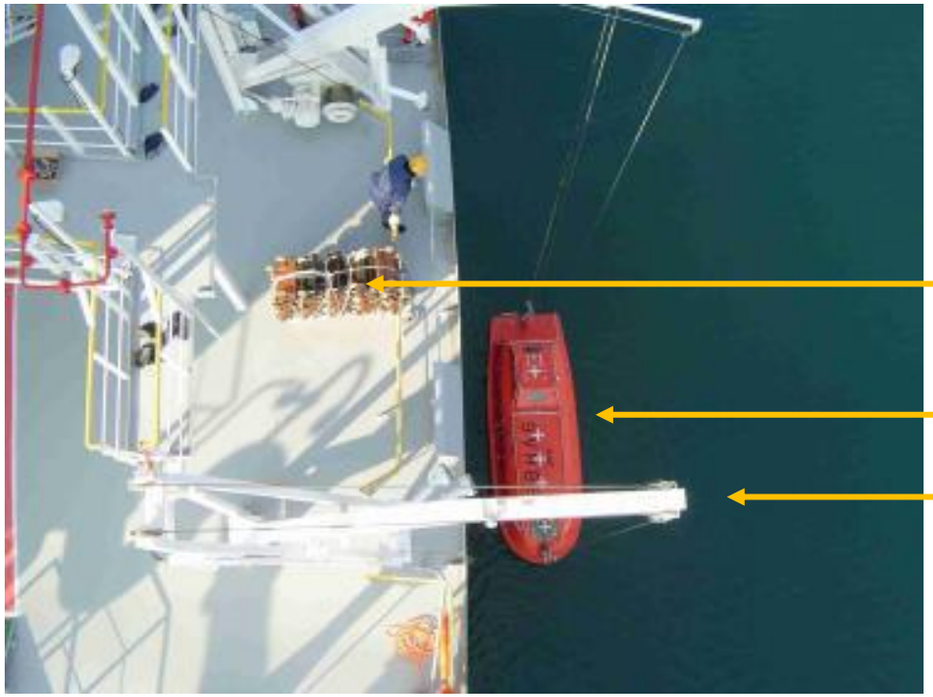
Mess room, Is were the Ship's Crew Eat their Meals

Areas inside the accommodation

The living room SOMETIME Smoke room.
In their off-time, the crew relax there,
watch TV, movies or play board games

The Ships Galley or Kitchen.
Food for the crew is prepared there

Lifeboats and Liferafts



Embarkation Ladder

Life Boat Being Launched

Life Boat davit

Life Rafts

Life boat in Water

Free-Fall Lifeboat

Launching Appliances

The Engine Control Room (ECR)

Machinery located in the Engine Room can be controlled and monitored from the ECR

Main Engine of the Vessel

This is the Ships Main Engine or Propulsion Plant of the vessel.

This piece of machinery generates the power to move the ship through water.

Auxiliary Engine or The Generator

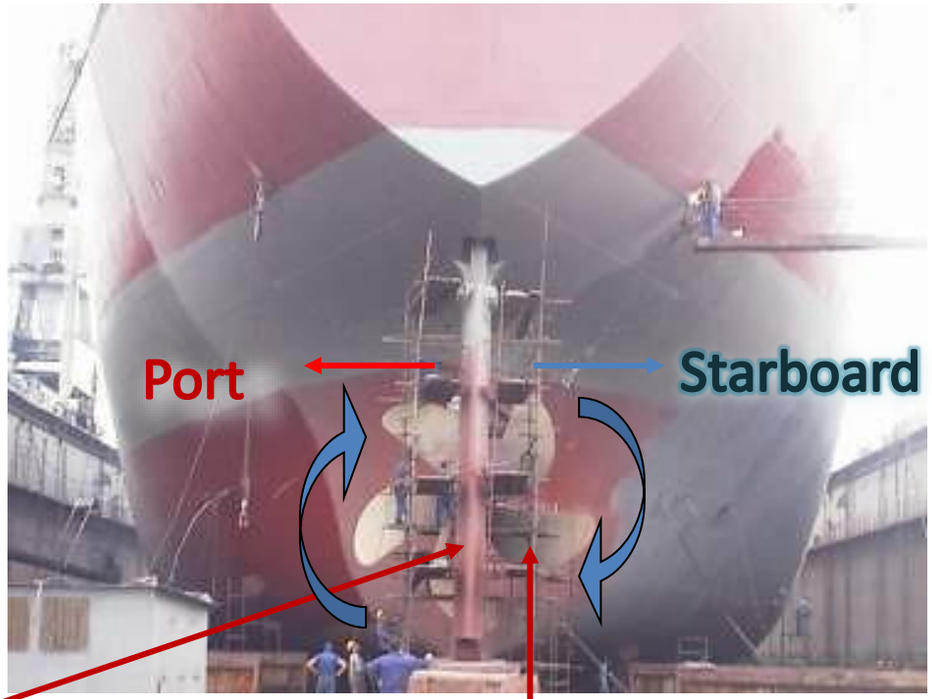
Generates Electricity on board the vessel

Vessel's Funnel

The Hot Exhaust Gases from the Main engine, Generator engine and Boiler are exhausted to the atmosphere through the funnel

¿Que hace que un buque se mueva a proa y a popa?

Rudder and Propeller



Rudder is Used for steering the ship, moves in Port or Starboard directions

Main Engine rotates the Propeller which like a fan pushes the water and makes the ship move through the water.

Rudder and Propeller

Propeller

Rudder

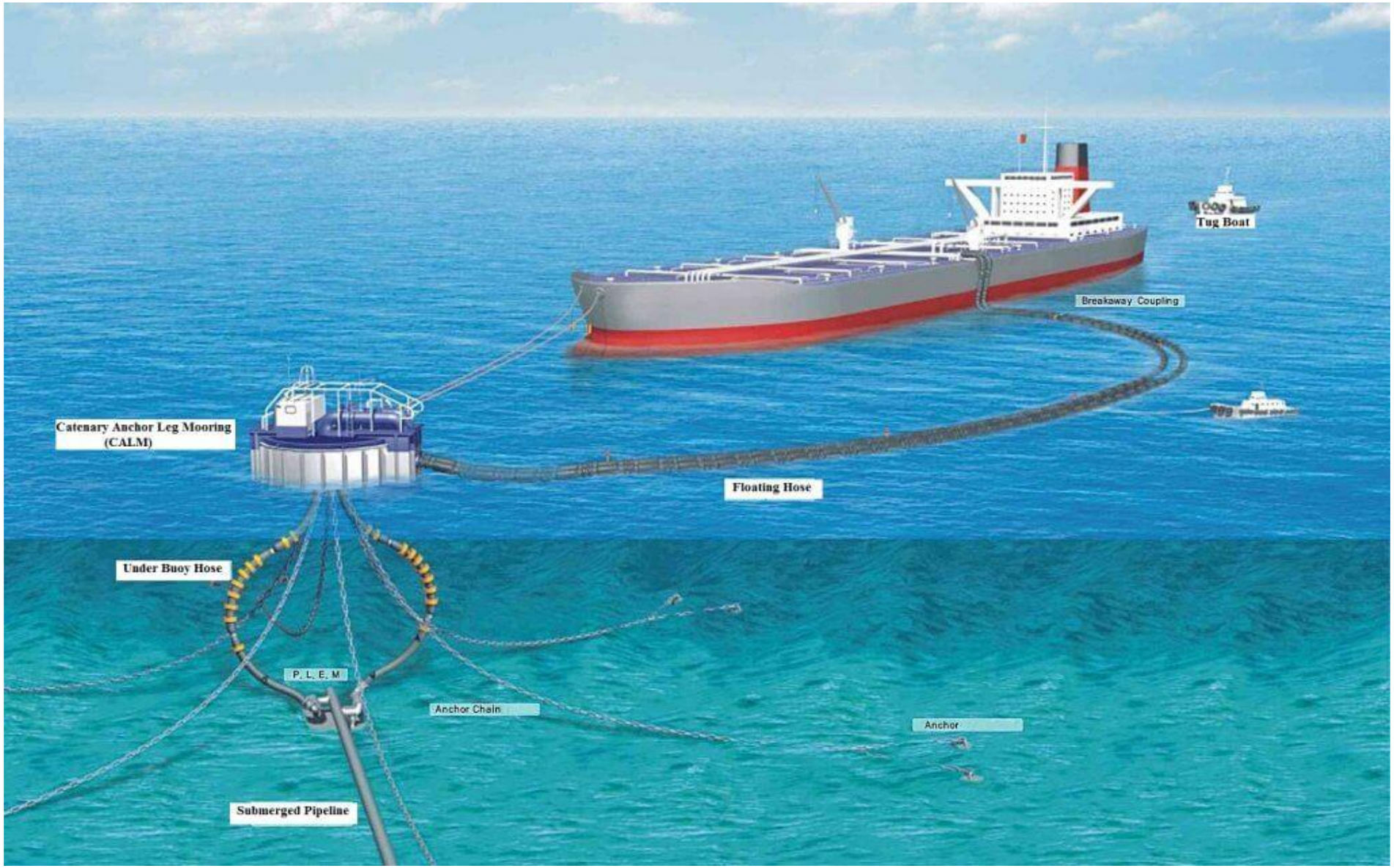
¿Cómo un buque está amarrado en forma segura a un muelle o a boyas?

Ship made fast to a Single Mooring Buoy (SBM)

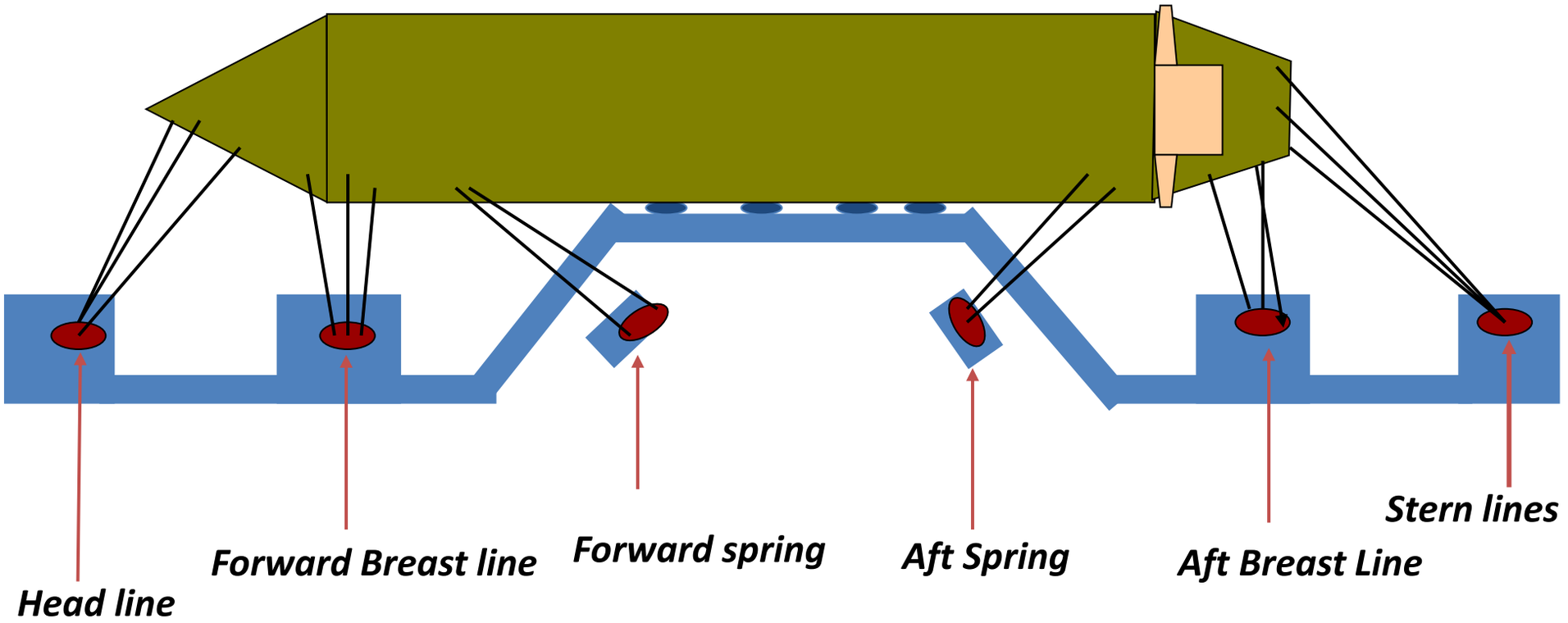
SBM chain made fast to the ship

Single Buoy Mooring

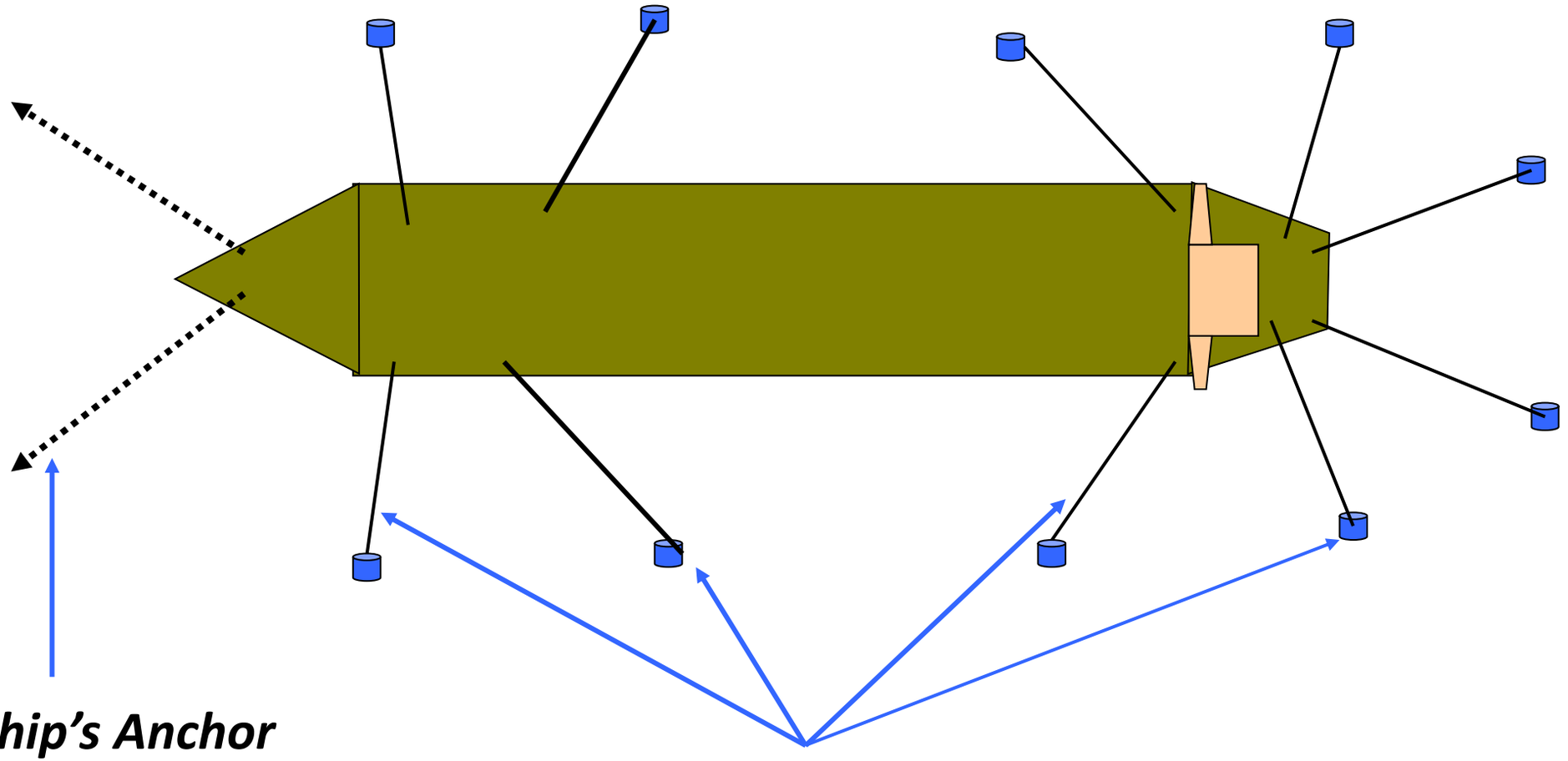
View of a Single Buoy Mooring Maneuver



Vessel Mooring (Alongside)



Composite Buoy Mooring (CBM) or Multi Buoy Mooring



Ship's Anchor

Mooring lines

¿Qué puede pasar si un buque no está amarrado en forma segura?

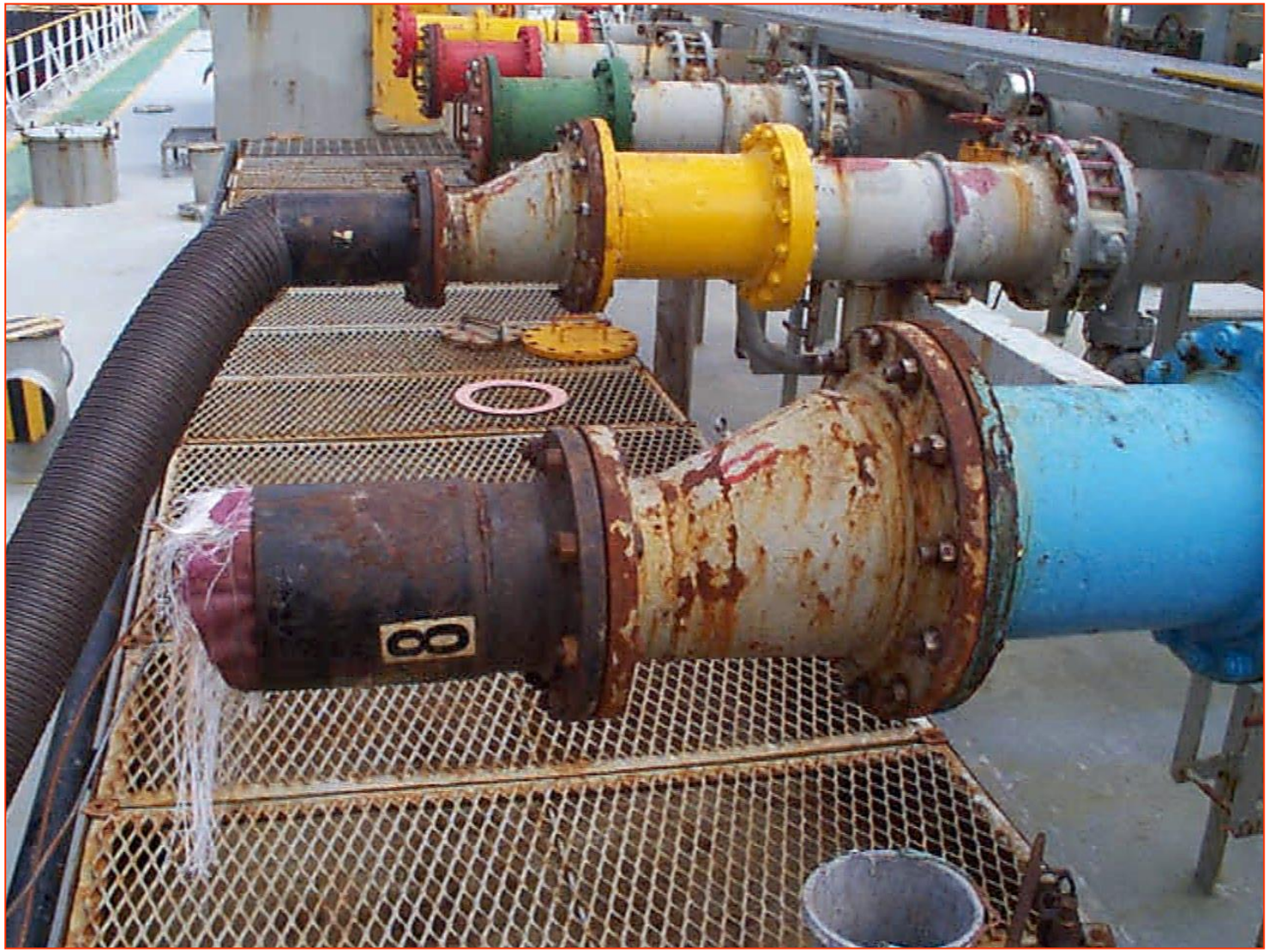
Mooring - Safety

Example when a ships moorings has not been done properly.

This case, the cargo hose parted as vessel surges alongside

- The vessel “AAA” was alongside discharging gasoline.
- While the discharging was in progress, another vessel passed at high speed, causing vessel “AAA” to surge heavily alongside the berth.
- The surging parted the tails of forwarding springs.
- The shore gangway was damaged, and the cargo hose parted, spilling approximately 500 bbl. of Gasoline into the water.

One Hose parted due elongation



Damage to shore gangway

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