Vessel research

Cargo types

There exists a wide variety of vessels, each one specialized for a certain type of cargo. However, we can divide the cargo types in three main categories:

- Dry Cargo Ships.
- Liquid Cargo Ships.
- Specialised Cargo Ships.

Dry cargo ships were the most common vessels in the merchant's fleet branch. They are known as general cargo vessels because of their ability to lift the cargo with their own cargo loading equipment. Usually, they have a derrick lifting device that facilitates the loading/unloading process.

There are different examples of the type of vessels referred above. Some are:

- Bulk carriers (coal, grains, and ores).
- General cargo vessels.
- Container vessels (manufactured goods).
- Ro-ro vessels (vehicles).

Liquid cargo ships, commonly known as tankers, can carry a wide range of liquid cargoes. They have been growing size through the time and nowadays, exist tankers able to carry up to 400 000 tons. These vessels are divided in different tanks where liquids are pumped via a pipeline system. The most recent tankers usually have these small tanks placed lower in the water in order to improve the stability of the liquids being transported.

Some examples of this type of vessels are:

- Crude carriers (crude oil).
- Product carriers (petroleum, jet fuel, diesel, asphalt, and tar).
- Chemical carriers (chemical liquids).
- Liquefied gas carriers (liquefied gas or liquefied natural gas).

Specialised cargo ships are every ship designed to carry everything that the two types above don't carry. These ships have different designs depending on the type of cargo. Some examples are:

- Passenger's vessels (persons).
- Livestock carriers (animals).
- Heavy-lift vessels (wind turbine blades, industrial machinery).
- Tugs (pulling work).

What is the bridge?

The bridge, a.k.a. control tower, is the main control centre of a vessel from where the captain and officers are able to man the entire operations of the vessel. Generally, its located in a position with an unrestricted view and immediate access to the essential areas of a ship. This part of the ship houses the main steering equipment like navigation charts, communication systems, engine control as well as miscellaneous features.

Bridge positioning

Once we already have a general idea of the different type of cargo vessels and of what is a bridge, we need to know the different positions of the "control" bridge and their impact. The bride or control tower can be allocated in three different positions:

- In the bow.
- In the middle.
- In the stern.

Stern positioning:

Most bulk and medium-sized container carriers are good examples of vessels where the control tower is located on the stern. This bridge location allows the ship captain to visualize all the cargo in his front and also provides better manoeuvrability to the pilot.

Some examples of this vessels are:

Ms berge stahl (IMO 8420804):

Middle positioning:

This research led us to believe that the bigger containers carriers usually have their control towers positioned in the middle of the ship. This strategic location provides more stability for bigger ships once the cargo is divided in a 50/50 system. It also allows good visibility to both bow and stern. Good examples of this these vessels are:

Emma Maersk (IMO 9321483):

***Cma cgm marco polo ship (IMO 9454436)*:**

Bow positioning:

This positioning is used in ships with a lower capacity of cargo, and it benefits mainly from better visibility to the route being travelled. An example of this position is:

Rhoneborg (IMO 9031064):