

TYPES OF SHIPS



NAMEPA's Mission

- Preserve and **protect** the marine environment
- Demonstrate **maritime commitment** to environmental protection and pollution prevention
- Support the **marine industry**
- Engage maritime businesses, government and public to **"Save our Seas"** by promoting sound environmental practices
- **Educate** on importance of protecting marine resources



Why are Ships Important?

- Can you believe that 90% of everything in this room (and in the world!) has been transported by sea in some stage of its life?
- Ships have been the leaders in transportation and are the safest and fastest way of transporting goods from one place to another.
- There are over 81,000 ships that make up the world fleet which act as the working power behind the maritime industry.
- In this lesson, we will learn about the different types of ships that allow all of this important trading to happen.

The Twelve Categories of Ships

- There are so many types of ships... too many to count!
- They all serve different purposes and carry different goods.
- Here are the twelve categories of ship types, according to IHS Maritime and equasis.org

1. General Cargo Ships



Source: maritime-connector.com

- **General Cargo Ships** are easily identified by the cranes on their back.
- General Cargo Ships carry everything from cut timber to heavy machinery.
- The most abundant ship out there; General Cargo Ships make up 20% of the world fleet!

2. Specialized Cargo Ships



Source: shippingandfreightresource.com

- **Specialized Cargo Ships** carry extremely heavy loads and unusually shaped cargo, such as smaller ships, oil rigs, or building structures!
- They usually have cranes and flat decks to support large objects. Some Specialized Cargo Ships may even submerge themselves underwater to carry their cargo!
- Specialized Cargo Ships make up only a very small 0.3% of the world fleet.

3. Container Ships



Source: bbc.com

- **Container Ships** are large, long ships that are specifically designed for carrying their cargo in containers.
- The containers are **intermodal**, meaning they can be transported by different **modes of transportation**, like via ship or truck.
- The containers hold things such as clothing, textiles, food products, and electronics safely inside them.
- Container Ships make up 6% of the world fleet.

4. Ro-Ro Cargo Ships

(RoRo Row Your Boat!)



Source: boatshippinguse.com

- "Ro-Ro" stands for Roll-on/Roll-off.
- **Ro-Ro's Cargo Ships** transport cars, trailers, trucks, and even train cars!
- Ro-Ro's travel far distances around the world and are very large!
- Ro-Ro Cargo Ships up 1.8% of the world fleet.

5. Dry Bulk Carriers



Source:
gcaptain.com

- **Dry Bulk Carriers** are easily identified by the hatches they have on their deck.
- The term “dry bulk” means any non-liquid cargo in large amounts, such as grain, ore, cement, or shredded timber.
- Dry Bulk Carriers make up 12.7% of the fleet.

6. Liquid Bulk Tankers



Source: gcaptain.com

- **Liquid Bulk Tankers** carry liquid chemicals or oil in large amounts.
- Because Liquid Bulk Tankers usually carry flammable liquids, there are “NO SMOKING” signs every where on board to ensure safety of the crew and cargo.
- Liquid Bulk Tankers contain large tanks below deck that store tens of thousands of gallons of liquid!
- Liquid Bulk Tankers make up 14.7% of the world fleet.

7. Liquefied Natural Gas Tankers



Source: seasport.wordpress.com

- **Liquefied Natural Gas Tankers** carry Liquefied Natural Gas (**LNG**) in special tanks that are shaped like circles. Half of the tank is seen above deck!
- Liquefied Natural Gas Tankers are very easy to identify because of their hulls have LNG written across them.
- LNG Tankers make up only 2% of the current fleet, but are becoming more common as the Liquefied Natural Gas market begins to grow.

8. Liquefied Petroleum Gas Tankers



Source: lngworldnews.com

- **Liquefied Petroleum Gas Tankers** carry **Liquefied Petroleum Gas (LPG)** and have special tanks to carry it in, much like LNG tankers.
- Liquefied Petroleum Gas Tankers are easy to identify because of the LPG written across their hull.
- LPG Tankers makes up 0.9% of the world fleet.

9. Passenger Ships



Source: worldmaritimenews.com

- **Passenger Ships** carry people and include cruise ships and ferries, big and small.
- Passenger Ships make up 8% of the world fleet, but are one of the most known types of ship in the maritime industry because of their popularity!
- How many of you have ever been on a Passenger Ship?

10. Offshore Vessels



Source: ynfpublishers.com

- **Offshore Vessels** supply important goods to offshore oil and gas platforms. They travel out to deep water to restock food and transport workers.
- Without Offshore Vessels, offshore operations would be extremely difficult to maintain.
- Offshore Vessels make up approximately 9% of the world fleet.

11. Service Vessels



Source: dphotographer.co.uk



noaa.gov



safety4sea.com

- **Service Vessels** include many types of ships, such as cable-laying ships, research vessels, and icebreaking ships (all pictured above, respectively).
- Each type of Service Vessel holds very important positions in assisting development, exploring and learning, and navigating the ocean.
- Service Vessels make up about 4% of the world fleet.

12. Tugs



Source: jungwoninternational.com

- **Tug Boats** are the most important vessels in near-shore operations because they assist larger ships, such as Container Ships or Ro-Ros, move in tight spaces!
- Tug Boats help large ships dock safely and prevent accidents in ports by tugging them or pushing them in the right direction.
- Due to the importance of Tug Boats, they make up almost 20% of the world fleet!

Now Let's Test Your Knowledge!

What Type of Ship am I?



Source: freightrates.com

You're Right!

A Container Ship!



Source: freightrates.com

What Type of Ship am I?



Source: maritimejobs.org

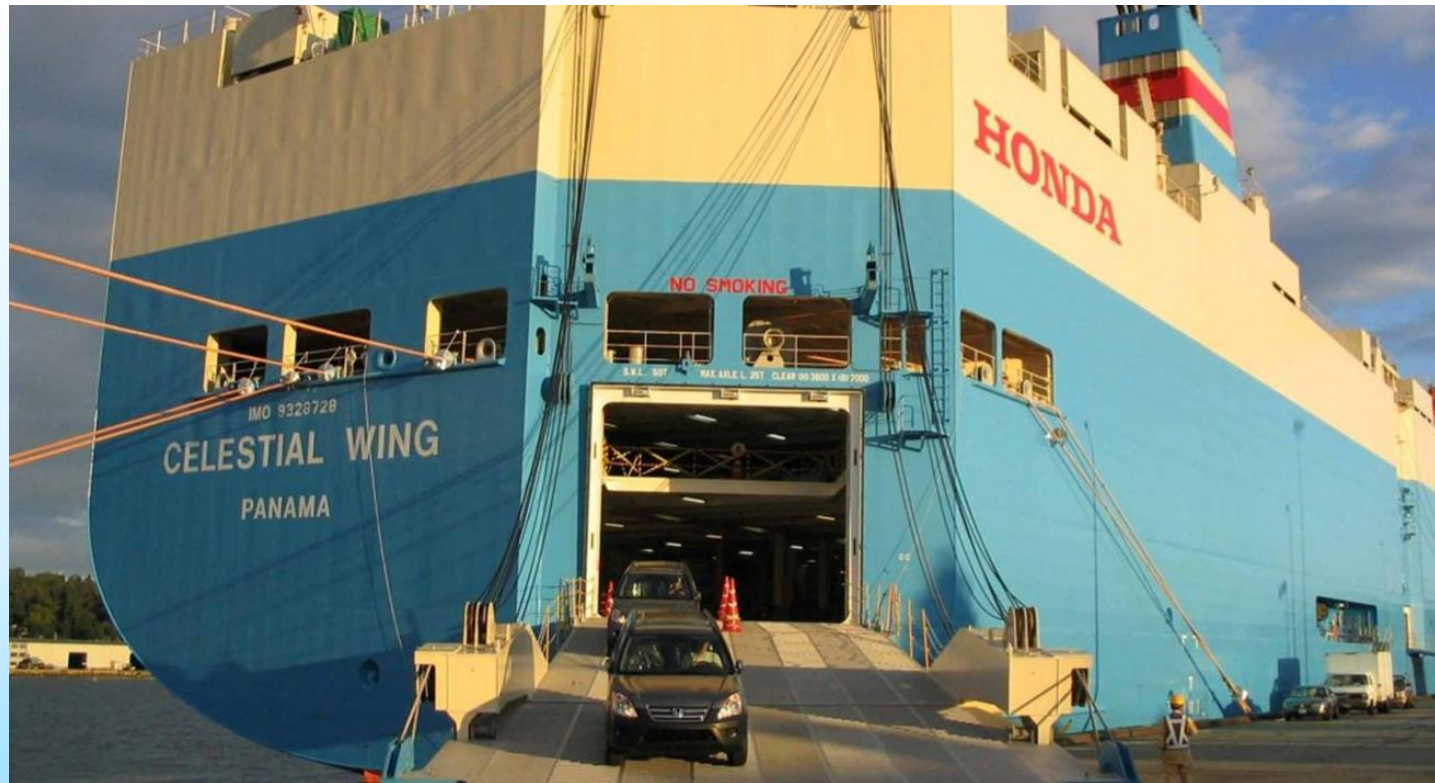
You're Right!

A General Cargo Ship!



Source: maritimejobs.org

What Type of Ship am I?



Source: sailnet.com

You're Right!

A Ro-Ro Cargo Ship!



Source: sailnet.com

What Type of Ship am I?



Source: seaspout.wordpress.com

You're Right!

A Liquified Natural Gas or LNG Tanker!



Source: seaspout.wordpress.com

What Type of Ship am I?



Source: frontierlandstation.com

You're Right!

A Passenger Ship!



Source: frontierlandstation.com

Thank You!

CAREERS IN THE MARITIME INDUSTRY



Port Careers - "Shore Side"

- Longshoremen
 - Help move cargo at port
 - Appox. \$25 - \$41/hr or \$60-90,000 if union
- Tug Boat Operators
 - No educational requirements
 - Median salary - \$97,000
- Pilots
 - Meet ships outside of ports and pilot them into berths
 - Typically a graduate of a maritime college
 - Average salary nationwide – more than \$400,000/year
- Marine Operations
 - Direct traffic at the port
 - Salary ranges from \$50k – 100K/year

Port Careers, Cont.

- Customs and Border Protection
 - Part of the Department of Homeland Security
 - Background check required
 - Approximate salary - \$80,000/year
- Freight forwarding and Customs Brokerages
 - See that cargo is move onwards towards its final destination
 - Average salary - \$39,000/year
- Truck Driver
 - Average salary - \$50,000/year
- Others
 - Marketing, Accounting, Human Resources, IT

Seagoing Careers

- Deck

- Rotating schedule (ex. 3 mo. on, 3 mo. off)
 - Third Mate - \$17k/month
 - Second Mate - \$22k/month
 - Chief Mate - \$27k/month
 - Master Mate - \$30k/month
 - Captain - \$200K +
 - Boatswain- \$50,136
 - Able Seaman- \$39,908
 - Ordinary Seaman- \$25,497

- Engineering Department

- Rotating schedule (ex. 9 mo. on, 3 mo. off)
 - 3rd engineer- \$84,479- \$97,290
 - 2nd engineer- \$106,692
 - 1st engineer- \$146,503
 - Chief engineer- \$185,603
 - Mechanic/Chief Mechanic- \$56,000
 - Oiler- \$45,560
 - Wiper- \$34,341
 - Fitter- \$43,916

Seagoing Careers, Cont.

- Catering Department
 - Chief Steward- \$39,000-\$96,000
 - Chief Cook- \$25,000-\$47,500
 - Second Cook- \$25,000
 - Dishwasher- \$18,000
- Cruise Ships

Offshore Careers

- Offshore Oil and Gas Industry
 - Offshore platforms
 - Drillships
 - Supply vessels
- Offshore Wind Energy Industry
 - Engineers
 - Windfarm installation
 - Research and design
 - Manufacturing

Corporate Careers

- Maritime Law
 - distinct body of law that governs maritime disputes
- Ship Broker
 - negotiates between shipowners and charters for the carriage of goods
- Finance
 - ex. Negotiate the sale/purchase of ships
- Hedge Funds
 - Ex. involved in owning/chartering ships
- Ship Registries
 - Vessels must be registered under the flag of a country.
- Classification Societies
 - Ensure vessels are seaworthy and in compliance with applicable regulations

Maritime Academies

- United States Merchant Marine Academy, Kings Point
- SUNY Maritime
- Massachusetts Maritime Academy
- Maine Maritime Academy
- California State University Maritime Academy
- Great Lakes Maritime Academy
- Texas A&M Maritime Academy

Maritime Academies

- CSU Maritime:
- *"Within 10 years of starting at CSU Maritime, the school's alumni who received federal financial aid earn a median annual income of \$81,000. That's higher than Princeton (\$75,100), which topped the 2015 U.S. News & World Report ranking. It's also a little more than neighboring Stanford University (\$80,900) and well above the median income earned by graduates of every school in the University of California system."*
- <http://www.latimes.com/local/education/la-me-cal-state-maritime-20151101-story.html>

The Jones Act

- Merchant Marine Act of 1920 (P.L. 66-261)
 - Regulates maritime commerce in U.S. waters as well as between U.S. ports.
 - Requires that all goods being transported between U.S. ports be carried by U.S. flagged vessels, built in the U.S., owned by U.S. citizens and *crewed by U.S. citizens* and permanent residents

Thank You!