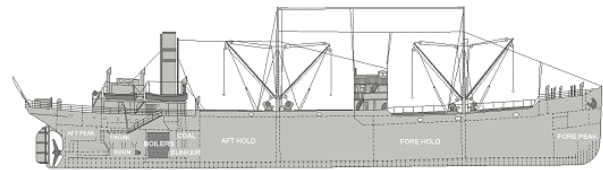


TRAMP STEAMERS

The Ships:

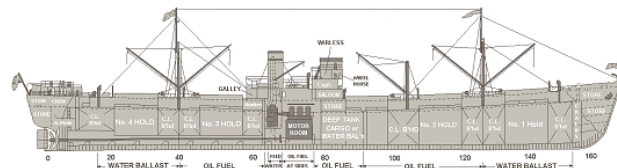
Steam ships used for merchant trade come in several sizes and use either coal or oil as fuel. Coal was used before the transition to oil and the amount of coal that could be carried initially limited the range a ship could travel. A coal burning ship is also affected by the quality of the available coal. A tramp steamer typically travels at 10 knots, to average 12 to 13 knots it takes about double the horsepower and, therefore, double the fuel. Lower quality coal lowers the "break even" point to even less than 10 knots.



Along with the change from coal to oil as a fuel, the engine room was moved from the aft to amidships.

The Three-Island Tramp Steamer is a standard design developed by the American Board of Shipping in 1917 as a general purpose cargo vessel for use in moving supplies for the war effort. Unfortunately, the first one was not completed until 1919, and thus never saw action during World War I.

"Three-Island" refers to the appearance of individual, raised structures at the bow, amidships, and the stern. Built in vast numbers at the beginning of the 1900's, this class of ship is still in service today. The engines were installed in the centre section, along with most of the accommodation, which was to assist with the stability of the vessel. When first built, most of the type had an open bridge on an exposed platform. This was later modified to the raised enclosed type, which came into service during the 1920's.



Two dry stores spaces are located forward and aft. Upper deck layout include bo'sun/carpenter stores forward and a deck house aft that serves as a crew's quarters. The wheelhouse, chart room, captain's quarters, officers' rooms and a radio room are on the bridge deck. Decks are of wood above the bridge deck and on the after deck house. Forecastle house and bridge house bulkheads are likewise wood. Collision bulkheads divide the ship and give strength. Oil fuel is stored in tanks like the sea water ballast tanks. Coal is stored in coal bunkers. Lateral stability is maintained by ballast tanks and longitudinal trim by the fore and the aft peak tanks.

White navigation lights are mounted on the main masts with green lights on the starboard (right) side and red lights on the port (left) side of the ship.

The Chain of Command:

Tramp oil steamers average 10 to 25 crew members. A typical deep-sea merchant ship has a captain, three deck officers or mates, a chief engineer and three assistant engineers, a radio operator, plus six or more sailors such as able bodied seamen, firemen, and cooks or food handlers. The size and service of the ship determine the number of crewmembers for a particular voyage. Coal steamers need a much larger crew, with additional firemen to handle the coal.

Captain: (10 shares)

Captains (or Masters) are in overall command of their vessels, supervising safety, navigation and the crew. They determine their ships' speed, continuously monitor their position using charts and navigational aids and maneuver to avoid hazards. Captains keep logs and records of the ship's movements and cargo.

The captain socially distances themselves from their crew; otherwise the captain risks a loss of respect. The difference between a Captain and a Master is that a Master actually owns the ship.

Deck Officers: (5 shares)

Deck officers aboard a vessel can be anything, such as the Marconi wireless radio operator. Mates are officers similar in rank to boatswains, sometimes above and sometimes below them, and were in charge of a watch, (i.e. shifts on duty). If a ship has no separate master, only a captain/master then the term "First Mate" is often used to mean second in command.

Boatswain: (5 shares)

The boatswain (Bo'sun or head seaman) is one of the most important men aboard any vessel. He is responsible for the general condition and functioning of the entire ship. He is also responsible for making sure every man is correctly on watch and at their station.

Chief Engineer: (5 shares)

Merchant marine vessels usually have four engineering officers: A chief engineer and a first, second and third assistant engineer (or Donkeyman). Donkeymen stand shift watches, overseeing the safe operation of engines and machinery.

Able Seaman:

Experienced sailors are designated AB - able-bodied seaman on oceangoing vessels.

Ordinary Seaman:

Seamen operate the vessel and its deck equipment under the direction of the ship's officers and keep the non-engineering areas in good condition. They stand watch, looking out for other vessels and obstructions in the ship's path, as well as for navigational aids such as buoys and lighthouses. They also steer the ship, measure water depth in shallow water, maintain and operate deck equipment such as lifeboats, anchors, and cargo-handling gear.

When docking or departing, they handle lines. They also perform routine maintenance chores, such as repairing lines, chipping rust, and painting and cleaning decks or other areas.

Firemen:

Firemen assist the engineers in the engine spaces. If the ship uses coal, there are "stokers" and "trimmers". If it uses oil, there are "wipers". "Oilers" help to maintain all the machinery.

Apprentice:

The young men who aspire to maritime career usually start as cabin boys, at an age of 12 to 15, or apprentices and work together with the older sailors to learn the trade.

Depending on the ship, several other positions may be filled. They are Cook, Purser, Steward, Doctor, Pilot, and Coxswain. (A Coxswain is in command of the ship's boat or gig.)

Aboard a merchant ship, the 'Chain of Command' runs from the Captain to the First Mate and Chief Engineer, and then downward through the Deck and Engine departments.

The Business:

Only little coastal ships are still owned by their masters. Most captains are employees throughout their entire careers. Many captains sail for many years or even their entire career for the same owners or shipping company. They can ascend in status, starting by commanding small coastal ships, later rising to larger ships, operating in the European or even intercontinental trade. So the social status of a captain does not depend so much on whether he owns the ship he commands or not, but on the size of his ship and on the trade he is involved in.

Traditionally, the ownership of a British ship is divided into 64 shares. Two equal partners would thus each own 32 shares. The sixty-fourths are negotiable; for example they can be traded just like stocks and shares, used as collateral for borrowed money or for raising mortgages.

A Charter Party is a written, or partly written and partly printed, contract between a merchant and Ship-owner, by which a ship is let or hired for the conveyance of goods on a specified voyage, or for a definite period. There are three main types of charter:

- 1) The Voyage Charter. The charterer hires the vessel for a single voyage. The owner and his crew manage the vessel.
- 2) The Time Charter. Here the vessel is hired for a specific amount of time. The owner still manages the vessel but the charterer selects the ports of destination and controls the operation of the ship. It is a more permanent arrangement than the voyage charter and more representations are made about the ship to the charterer.
- 3) The Demise or Bareboat Charter. This arrangement is completely different from the previous two. The charterer takes full control of the vessel along with the legal and financial responsibility for it. The demise shifts the control and possession of the vessel.

An amazing expansion of American shipping resulted from the emergency building program undertaken in 1917 to offset the heavy Allied losses from Germany's unrestricted submarine warfare. The Shipping Board, which had been established by Congress in 1916, began an ambitious program to set up numerous new yards, the largest being at Hog Island just below Philadelphia. Much of this activity was continued after the war suddenly ended late in 1918. By 1921, the United States had overtaken Great Britain for first place among the world's merchant fleets; it had some 700 new large steel freighters and 575 smaller ones.

About a third of those new large ships found employment in a new inter-coastal trade between the East and West coasts through the Panama Canal, opened in 1914, which cut the New York - San Francisco runs from 13,122 to 5,263 miles.

Nearly permanent in national merchant-marine policy, however, was the use of many of the new freighters on government-supported "essential trade routes" to all parts of the world. The wartime experience had shown how important it was to have regular service on certain runs to provide outlets for American exports and dependable sources of essential imports. At first, the new lines were operated directly by the Shipping Board, which absorbed the initial deficits. However, as soon as they were profitable, the ships were auctioned off at bargain rates to private operators who agreed to maintain regular service on these routes for a period of years.

The steam ships on cargo liner services were designed to carry relatively small packages of goods, for instance, chests of tea, cases of butter, bales of cloth or barrels of wine. Their holds usually had an intermediate deck, known as a 'tween deck, which gave an extra 'floor' to stow such items. It was important that cargo could be loaded quickly and remain accessible. It wasted time if some items for the terminal port had to be moved to get at cargo destined for an intermediate stop on the route.

Tramp ships transported bulk dry or liquid cargo as it was available.

The Crew:

The seafarers who served on tramp ships were the flotsam and jetsam of the Freight trade, usually poorly paid, often isolated and rootless, eking out their lives ashore between voyages in hostels or in one of the hundreds of nameless boarding houses which were to be found in every port on the Atlantic seaboard. These hostels accumulated men who had dropped out of the labor pools of the great steam ship companies for one reason or another.

It is not unusual to have 12 different nationalities amongst the company crew, Maltese, Poles, Canadian, South African, Latvian, Estonian, English, Irish, Scots and Welsh. Tramp companies were the major employers of Adenese, Yemenis, Somalis, Zanzibaris, though mainly as firemen, cooks and stewards. Crew that any passengers would not need to interact with.

Not all crew members were paid or treated equally by the great steam ship companies. The standard wages were paid to Europeans. Arabs, West Indians, and Africans were paid 20% less. *Hindrances of Outsider*. The Chinese were paid less than half the European rate. *Hindrances of Outsider and Poor*. Indian or 'Lascar' sailors were only paid about a quarter of a European seaman's wages. *Hindrances of Outsider and Poor (Major)*.

On foreign stations the Royal Navy made use of local men to do many of the more mundane tasks on board ship. They were counted as members of the ship's company, but messed separately, were paid differently (and less), and had their own petty officers. In the Far East, there were Chinese cooks and stewards – 99% from Hong Kong. In the East Indies, there were Goan stewards, and Somali stokers. In the Mediterranean there were Maltese cooks and stewards, and at the Cape there were Kroomen (mostly natives of Liberia). It was unusual for these Kroomen to be more than a small proportion of a ship's company.

People hired to replace striking workers are often derogatively termed "blacklegs" by those in favor of the strike because they were willing to work for less than the going [union] rate. Any sailor that would work for less than standard wages was treated with contempt by all other sailors. *Hindrances of Outsider*

There is a good natured rivalry between the Deck department and the Engine department on all ships, same as with the "Bridge Crew" and the rest of the sailors. Drinking, Gambling, Religion, are shared activities across all these boundaries. It is not unusual for sailors to recommend others they have previously shipped with, when an opening is available on their current ship. The Mess Deck is the area where all of the crew mingle. On smaller ships the men eat together, on larger ones they have their own "mess" area and the officers have separate Cooks.

Loan Sharks, Smugglers, Stowaways, Loners, Drug Addicts, Ardent Union Members, and Company Spies, can all be found among the crew.

Watches normally last 4 hours, and change over at the following times: 0000, 0400, 0800, 1200, 1600, 1800, 2000. The 2-hour watches are called "dog-watches." They ensure that the schedule of who stands which watch rotates. Watches are measured by "bells", at one per half-hour.

Paying The Crew:

Tramp crewmembers have two options for payment - either they can take standard pay, or they can forgo pay in lieu of shares - any profit the ship makes is divided up into shares. If standard pay is taken, the crewman doesn't get any bonus on a good run, but is guaranteed his wage. If the crewman goes shares, he stands to make a tidy profit on some runs, and not on others. The Captain is always paid in shares.

Standard union pay for a seaman is \$110/month or \$3.65 per day. When a ship earns more or less than 1 KEF the bonus/penalty is applied to the \$110 for crewmen who are paid in shares. .9 KEF would mean \$99 and 1.25 KEF would mean \$137.50.

The Cargo;

How does a tramp make a living? With a small ship, operating costs alone will drive the per-ton shipping price past the market standard. Making ends meet with a tramp-freighter can be a losing proposition. There are several alternate ways for a small ship to turn a profit in a big-ship world.

Illegal Cargo:

The postal service doesn't allow you to mail drugs, escaped prisoners, endangered animals, stolen documents, or weaponry (to name a few). This is the stuff of tense, dangerous adventure, and the crew needn't be motivated by greed. Running weapons to a country embroiled in war can have real personal meaning for the PCs, especially if it's their home. Running drugs or alcohol to a country might even be a matter of revenge.

Illegal Routes:

Running blockades and defying trade embargoes is another exciting way to make a small ship pay off. Pay will have to be high, though - if the Coast Guard or Navy is "protecting" the port in question from free trade, either disguise or forged paperwork will probably be essential. Another option is well-placed bribes, which will be just as expensive, and probably require a whole adventure just to arrange!

Danger:

Cargo and trade-routes needn't be illegal if either (or both) is hazardous. The most obvious and clichéd danger is piracy. Running a cargo of cheap foodstuffs could be very profitable if it involves moving it to hungry people in pirate infested waters. But the ship had best include some (illegal) weapons. Cargo within the hold itself can range from volatile chemicals to dangerous beasts. Wily traders should be wary of offers that seem too good to be true . . .

Speed:

Ordinary civilian mercantile interests tend to be low-priority when it comes to fast ships. It's usually more reasonable just to build big, sluggish ships (and lots of them) and set up regular traffic, rather than try to turn an ox into a race horse. If the differences are dramatic enough, this opens up a strong, regular market for small, fast tramp freighters that can deliver luxury goods to those who want them in a hurry.

Maneuverability:

Smaller ships have a lesser draft and can enter shallower water than the larger deep ocean freighters. They can also navigate farther up winding rivers than bigger ships, cross shoals that bigger ships have to go around, and can wind through sandbars without waiting for high tide to cross. They can often even save on the expense of a harbor tugboat when mooring.

Cargo and Fares:

The ship's Master makes a Streetwise roll (+ 2 for the Connections Edge). Basic success allows the draw of one card and a raise allows the draw of an additional card (no effect for additional raises). Snake eyes means the wrong people were asked the wrong questions and something bad happens (get arrested, a gang thinks you're muscling in on their turf, etc.)

**The GM draws in secret (see Jokers below)* Hearts = Passengers or Livestock, Diamonds = Material Goods, Clubs = Mercenary Job, Spades = Contraband/Theft

Ace -	4 KEF	10 -	KEF	5 -	.5 KEF
King -	2 KEF	9 -	.9 KEF	4 -	.4 KEF
Queen -	1.5 KEF	8 -	.8 KEF	3 -	.3 KEF
Jack -	1.25 KEF	7 -	.7 KEF	2 -	.2 KEF
		6 -	.6 KEF		

For the Jokers, Black Joker is a Trap, and the Red Joker is some kind of unique payoff.

The black market is in goods which are stolen, prohibited or restricted. The grey market is in goods which are quite legal and freely traded, but have avoided the taxes and/or tariffs on them.

KEF (Also "keffer" or "keep 'em floatin'"):

The amount needed to run the ship and pay bills for the duration of the job in game terms. Once a month a repair roll is made modified by the average KEF the ship was running at. A Failure means the ship will suffer a wound (which counts toward total wounds), Success means every thing is "Shipshape". and a raise gives a +1 to next month's roll (no effect for additional raises).

Ship Routine Maintenance:

Running < .5 KEF is -2 to Repair Skill
Running < 1 KEF is -1 to Repair Skill
Running 1 to 2 KEF is no effect.

Running 2 to 3 KEF is +1 to Repair Skill
Running >3 KEF is +2 to Repair Skill

Any time a "wound" is taken to the ship from lack of maintenance, the GM chooses something that goes wrong. If the failed roll is snake eyes, a critical function is lost.

Things That Can Go Wrong With the Ship:

- | | | | |
|-----------------|------------------------|---------------------|------------------|
| Hull: | - pressure loss | Electrical: | Controls: |
| - leaks | - water loss | - internal lighting | - damage sextant |
| - barnacles | - condenser | - navigation lights | - jam rudder |
| - rust | efficiency | - fresh water | - speed signaler |
| - warpage | - scale buildup | pumps | - wheel |
| Engines: | Superstructure: | - ventilation fan | Misc: |
| - vibration | - leaks | Fuel: | - radio |
| - oil leakage | - port hole / | - leakage (quality) | - toilet |
| - steam leakage | window breakage | - leakage (loss) | - stove |
| - loss of power | - anchor jam | - storage | - Ice box / |
| Boilers: | - crane jam | - pumps | refrigerator |

burst gasket, seized bearing, galled bolt, snapped bolt, cracked housing, worn insulation, fused contact, lost nut, contamination, heat warped, metal fatigue, lost seal, plugged, adjustment limit

Cost of Doing Business:

Sitting in a port the ship is still paying port fees, so refusing cargos is not a good idea unless you have more than one available. The principal port charges are "dockage" charges levied upon the vessel and "wharfage" charges, which are assessed against the vessel's cargo. Tramp vessels using privately owned piers are usually required to pay dockage charges of fixed amounts daily.

The cost of loading, discharging, or transporting cargo at ports may include special charges for the use of cranes or derricks. There may also be elevator charges or allowances in the shipment of grain; cargo-trimming charges; freight-forwarding charges; railroad demurrage in case freight is not unloaded from railroad cars within the prescribed number of days; railroad switching charges; fee for consular invoices in case of shipments to certain countries requiring such invoices; drayage or cartage and lighterage charges for transporting freight from one wharf to another or between a railroad station and the waterfront; storage or warehouse charges; and miscellaneous charges incurred in the preparation of shipping documents.

There are cargo charges, such as import duties collected on many imported commodities under the tariff laws. There are brokerage charges, collected by the customs brokers for entering imported merchandise through the custom house.

Pilotage Service, with certain exceptions, is compulsory upon vessels entering and clearing (American) ports. A vessel usually requires the services of tugboats, and is therefore obliged to pay towage charges. Sometimes a vessel is also required to pay a general port warden's harbor fee or specific fees for each survey on stowage of cargo or damaged goods on board a vessel or in warehouses. Also there is a charge for each survey on hull, sails, spars, or rigging and for survey certificates.

A vessel may need to pay local health or quarantine fees for fumigating services and sanitary inspection.

Additional Details:

Common and unwanted shipboard companions were cockroaches, rats and poisonous spiders.

The maximum range of Morse Code sent on the distress frequency of 500 kHz is 100 miles.

British maritime law ranked piracy, along with desertion and mutiny, as the most serious crime a sailor could commit. A condemned pirate was to be hanged within ten days of being found guilty, the only hope of a reprieve being snitching on one's former crew members, convincing a judge you had been forced into piracy against your will, or making a daring escape.

Pirates are essentially just after the money, so the last thing they want to do is actually fight with another ship and risk damage to their own ship or being injured or killed. Typically a pirate ship comes alongside its intended prey and fires a warning shot in the hope that the other ship will surrender without a firing a shot.

As for weapons on board, the captain will almost always have a revolver used for subduing any mutinies. No-one else is allowed to be armed (though most sailors will own and carry a knife), but if traveling through areas where there is a risk of piracy, some rifles will be kept in a locked room to which the captain has the only key.

Electrical power is furnished by steam-powered generators. Electrical requirements are moderate since the only demands are for navigation and radio equipment, two fresh water pumps, the degaussing system, room fans and lighting. A refrigeration compressor can be supported if one is installed on the ship.

Fresh water for boilers and drinking is provided by a salt water evaporator capable of desalination of 30 tons of sea water per day, at a cost of one barrel of fuel per ton of water.

The engineering spaces which include engine room, boilers, fire room, coal bunker and boiler house are all constructed of iron and located on the spar deck level in the after portion of the Collier ship.

When the vessel is bunkered to capacity for departure, bunker space for coal is 750 tons with an additional reserve of 500 tons in the lower 'tween-decks. Bunker space for oil is 12,240 barrels in hull tanks. Oil is Bunker "C", a heavy tar-like black fuel, although almost any oil can be used.

Fuel consumption at loaded draft is 170 barrels (or 75 tons) per day at 10 knots. Price per ton of coal \$20, per barrel of oil \$2. Speed is expressed in knots, or nautical miles per hour (1 knot = 1.853 km/hr or 1.15 mph).

Passenger Ship Travel:

Type	Speed	Price/100 Miles	Price/1,000 Miles	Max Miles/Day
Tramp	10 knots	\$5.	\$15.	275
Freighter	14 knots	\$10.	\$30.	385
Liner*	25 knots	\$20.	\$60.	690

**On a liner, First Class accommodations are available at triple prices.*

One ounce of gold is equal to \$20. A laborer can be expected to make \$1,275 a year. A comfortable room for the night can be purchased for \$5 and a good meal for 75 cents. A car can be purchased for \$1,000 and a truck for \$1,400. A gallon of gas is 20 cents and the average mileage is 30 miles per gallon. A horse can be bought for \$400, a mule for \$100.

The most dangerous cargo a ship can carry is refined iron. This is because it's heavy enough that the hold can't be completely filled, and if it shifts the ship may sink (either through capsizing due to being off-balance, or simply due to falling iron punching through the hull).

Slop chest:

This is where the ship keeps its goodies like beer, wine and cigarettes. The slop chest is always locked prior to entering any port and remains locked until the vessel returns to the high seas. The reason: all items available from the slop chest are duty free. The slop chest is the responsibility of one of the officers, usually the second or third mate. Also available are items such as shampoo, tooth paste and the like.

Basic Deck Plans:

The pilot house has a flat roof which is enclosed by a railing and serves as a lookout or navigating bridge. Below the pilot house is the captain's room which is divided into three separate compartments. Below this level is the captain's quarters on the starboard side and the first and second mates and watchman's quarters on the port side separated by a hallway. The captain's quarters occupies the entire port side of this level that includes a day room, separated from the berth and head. Forward on the port side cabin is the lamp room followed aft by the wheelman or watchman's quarters followed by a combined first and second mates quarters.

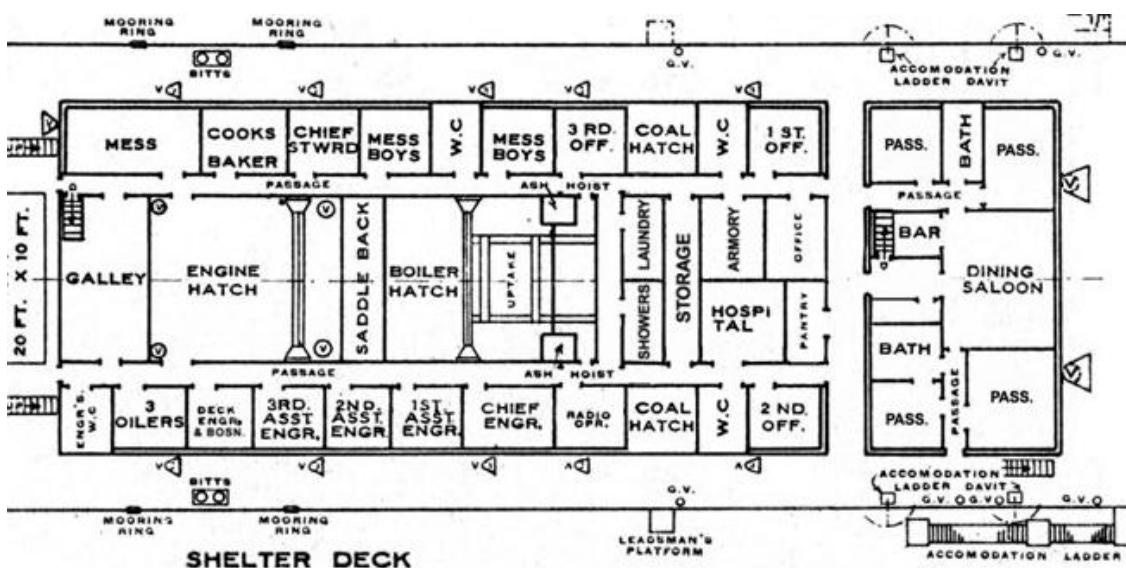
The aft superstructure and living quarter arrangement is built around the engine room which protrudes above the level of the spar deck. The after cabin included an engineer's room on the forward starboard side followed by a large washroom/head, the engineer's quarters, two state rooms and a water closet on the aft starboard side. Directly aft of the engine room above the spar deck are the deck hands' quarters and water closet. On the starboard side is a large ice room and water closet. Just forward and on the port side of the engine room are the fireman's quarters.

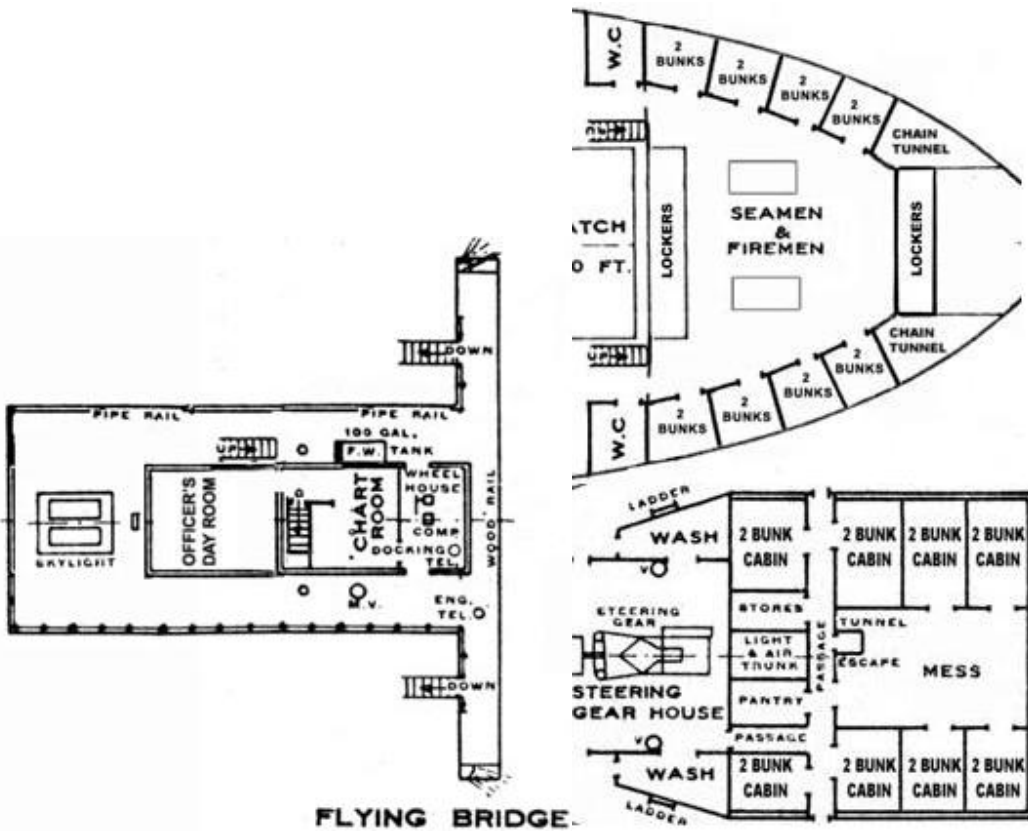
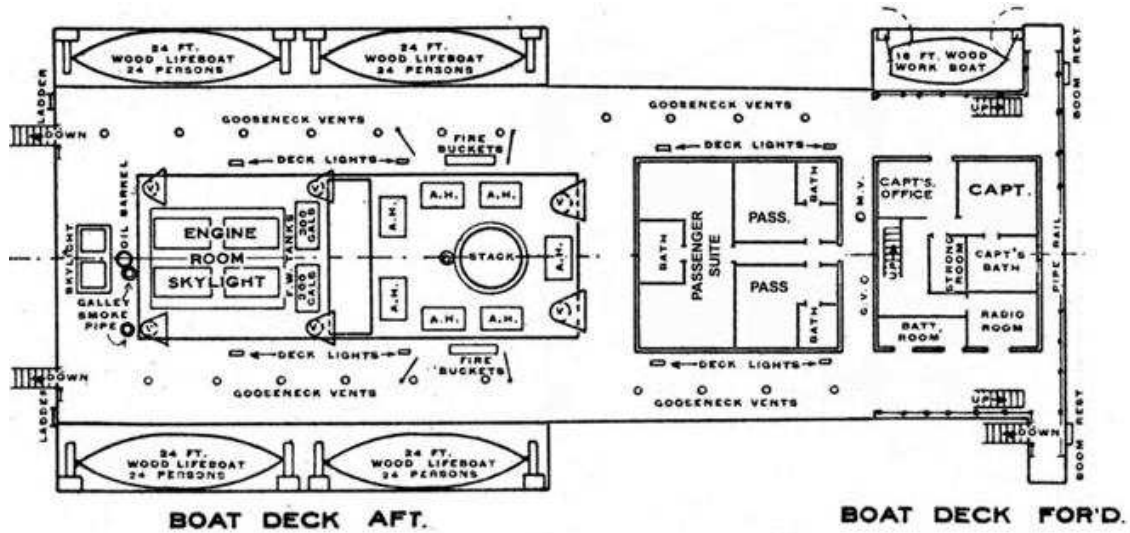
Ships had no sewage disposal system. You flushed the toilet with water from the ocean, and it went untreated right back into the ocean. Naval Architects designed the "Sanitary Overboard Discharges" to come out under the house, just where the gangway went down, or where you lower the lifeboat or pilot ladder. There are "splash boards" aka "s--- chutes" to place over the end of the pipe to deflect the discharge away from the gangway and into the ocean.

Steam engines last for years, much longer than the hull of a ship, which is exposed to salt water and after 20 to 30 years needs shell and deck plating replaced.

You can keep the ship going using brackish water in the boilers, provided that you can "blow down" the boilers daily, which entails a half-hour or so of running at dead slow speed.

Top Down Deck Drawings:



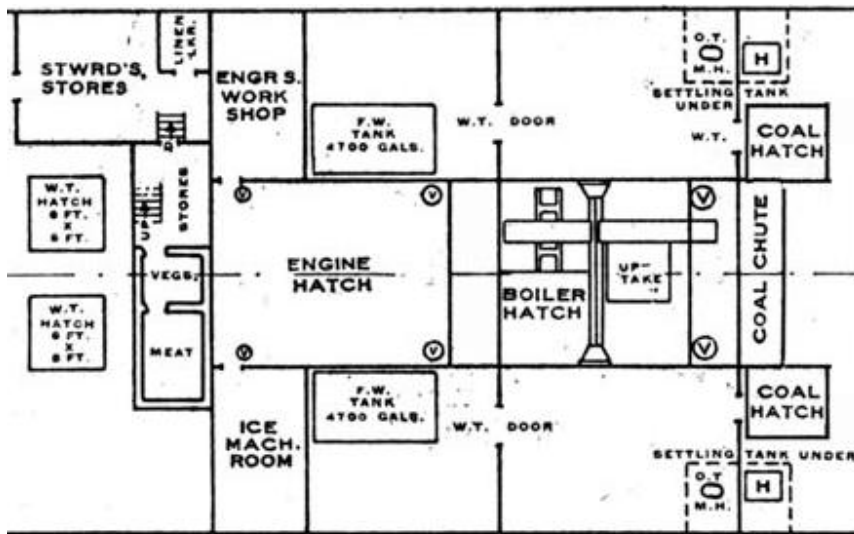


Original ship drawings available at the following URL:
<http://www.louislamourgreatadventure.com/PongaJimMerchantMarine3.htm>

Even in port a "head" of steam needs to be maintained to run the steam cranes and power the electric generators.

Commands are yelled or whistled through speaking tubes between compartments of the ship.

Life Vests are made of cork.



UPPER DECK

Being a cook onboard a ship is not easy. The chef doesn't have many fresh ingredients to work with, as few ships have better than ice boxes. Which are fine for short trips but, not for unplanned extensions. Refrigerators can be purchased and are available on the newer ships. Bread can be made fresh, many canned goods are available and dried or salted meat is common. Cattle, sheep, chicken and pigs can be brought on board at the start of journeys to provide some fresh meat, also fresh vegetables, but they won't usually last for the length of a long voyage.

Cockroaches were a very big problem on board ships, especially in the galleys. About every six months to one year the entire ship needs to be closed down and fumigated.

Each vessel has an assigned Plimsol mark which is painted on the side of a vessel at her lowest point of sheer, and is supposed to mark the lowest depth to which the ship may safely be loaded. The distance between this mark and the deck line is called the freeboard. The freeboard must be entered in the Articles of Agreement between the owners and the crew. A copy of this agreement is always hung up in the forecabin. There is no law that fixes where the Plimsol mark is painted, it is left to the owners to decide.

Traditionally, the ship's bell is maintained by the ship's cook, while the ship's whistle is maintained by the ship's bugler. In actual practice, a deck seaman or signalman maintains it. In the event of a fire, the bell is rung rapidly for at least five seconds, followed by one, two or three rings to indicate the location of a fire - forward, amidships, or aft respectively.

Being cut, smashed, burned, poisoned, scalded, having something broken, a disease, inhaling toxic fumes, having an allergic reaction, or diarrhea are all conditions made worse by being a long way from medical attention.

Cards, checkers, chess, dominoes, darts, music, painting, carving, sculpture, metal work, and weaving/knot tying are all activities to occupy the long hours off watch and on ship.

Wine and distilled spirits are often secretly made by the crew, so alcohol is always available.

A "pier-head jump," is joining a ship's crew just by showing up as the ship docked and hoping that they had a job available.

Ships:

Size: The size of the ship or boat. **Acc/Top Speed:** The listed Acceleration is for ship-to-ship scale. **Toughness(Armor):** Resistance to damage and penetration. **Spaces:** Each space is an undefined measurement used for placement. **Crew:** The crew number includes the minimum staff required to run the ship, and includes bridge crew, engineers, seamen, supply officers, and such like. **Cost:** The cost of the ship, modification, or enhancement.

Size	Acc/TS	Tough	Spaces	Crew	Cost	Year
Lifeboat	1/2	8(2)	1	1	\$500	
Gig	2/12	13(2)	3	2	\$750	
Coaster	2/10	12(4)	6	4	\$100K	
Tramp	2/12	12(4)	10 (5KT)	8	\$500K	1880
Three-Island	2/10	14(4)	15 (6KT)	14	\$1,000K	1900
Liberty	2/11	16(4)	20 (8KT)	30	\$1,500K	1930

Configurations:

Ice Breaker	Armor to bow of ship (+3)
Coal Boiler	Provide steam for power.
Oil Boiler	Changes the fuel needed to provide steam for power.
Dual Tubing Boiler	Reduces the time to full steam pressure.
Hull Corrugation	Provides stabilization and improves fuel use.
Fin Plates	Improves maneuverability
Flat Bottom	Reduces draft but makes the ship more unstable in rough seas.
Tankage	Configuration for transporting liquids
Refrigeration	Configuration required for transporting perishables.
Passenger Cabins	Configuration required for transporting passengers.
Crew Cabins	Bunking spaces for the crew.
Sick Bay	Space for medical supplies and stretchers.
Galley	Facilities for cooking and storage of food.
Mess Deck	Space reserved for tables and seating to eat.
'Tween Deck	Configuration for increased access of small cargo items. (Restricts individual item size but speeds retrieval.)
Wheelhouse	Contains steering wheel and engine controls
Fuel Bunkers	Provides storage for fuel. If coal, requires 2 spaces initially.
Engine Room	Space for access to the ships engines.
Water Evaporator	Produces water for drinking and for the boilers.
Electric Generator	Produces electricity for the ship.
Steam Crain	Mores heavy loads on and off the ship.
Conveyor	Moves stuff around the ship such as grain, coal, or packages.
Pump Room	Contains pumps for saltwater ballast, oil, or fresh water.
Anchor Room	Contains chain and the anchor for mooring.
Tool Cage	Stores the hand tools for engine room work.
Gear Locker	Stores ropes, mops, paint, and other deck maintenance gear.
Cargo Well	Deep cavity for storing cargo.
Collision Bulkhead	Sections the ship and reinforces it.
Water Ballast	Allows a ship to adjust its depth without having to remove cargo.
Radio	Allows communications using Morse Code while at sea.
Radar*	Allows the detection of objects in front of the ship.
Sonar*	Allows the detection of underwater objects.
Refrigerator	Allows frozen and chilled food to be available for the crew.

**Possible Weird Science devices that were actually developed late in the 30's.
Some ships were built with steel mesh reinforced concrete hulls, for example the Cuyamaca.*

Material Goods Ideas:

Raw	Rare	Art
Refined	Unique	Currency
Corrosive	Viscous	Records
Poisonous	Abrasive	Documents
Contagious	Perfume	Archeological
Flammable	Pharmaceutical	Ancient
Odorous	Novelty	Recordings
Perishable	Explosive	Books
Heavy	Liquid	Firearms
Voluminous	Fragile	Textiles
Dense	Desiccated	Machinery
Waste	Insidious	Tools
Scrap	Alcoholic	Ammunition
Obsolete	Cryogenic	Electronics

Passengers or Livestock Ideas:

- Wild animal(s) escape(s) containment and is loose on the ship.
- A Marshall is delivering convicts.
- A gentlemanly poker shark seeking to swindle gamblers.
- A down on his luck actor with a stash of counterfeit money going across the border with it.
- The lone survivor of a plane crash seeking to return to the crash site to retrieve a fortune.
- A spy who is exchanging military and government secrets with foreign agents.
- A squad of soldiers fleeing defeat in North Africa and following a megalomaniacal officer obsessed with carving out a kingdom of his own in the remote interior of the continent.
- A poet that has had enough of the world and wants to go live on a deserted island.
- A saboteur is aboard the ship.
- A hard-nosed doctor who has been sent to battle plague, (their serum has been stolen.)
- An army deserter being blackmailed into accepting a dangerous job.
- A hotel guest who snatched a bible from his room and now finds himself the target of some very desperate and dangerous people.
- A correspondent that was imprisoned and accused of espionage has escaped from prison and is fleeing their pursuers.
- A wet-behind-the-ears college student seduced by a beautiful man / woman into escorting them to a distant city via ship in exchange for \$5,000, is pursued by killers.
- A passenger that can expose the murderous past of a crew member.

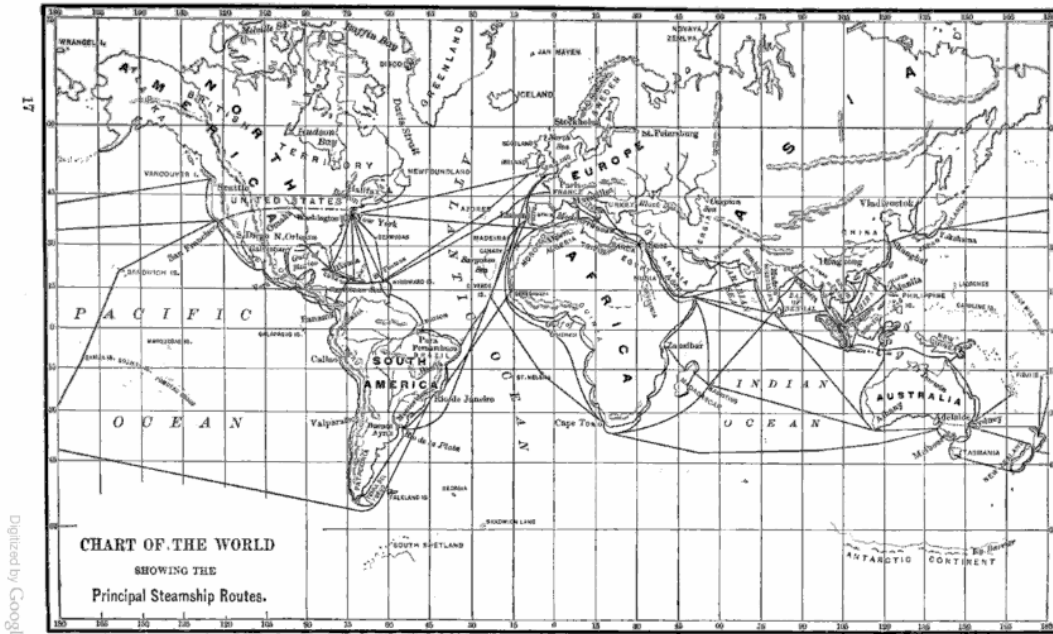
Mercenary Job Ideas:

- Join a Treasure Hunter and help to follow an old map.
- Help a fortune seeker after a source of rare bird skins.
- Help a diver enmeshed with a gang of treasure hunters.
- Agree to be bait for a naval frigate ordered to deal with pirates preying on merchantmen.
- Rescue a beautiful girl who lives on an abandoned plantation and is terrorized by a sadistic foreman.

Contraband/Theft Ideas:

- Transport a Secret Message to the contracted person.
- Transport priceless art items hidden as standard cargo.
- Smuggle stolen goods aboard when the current cargo is "grey" contraband.
- Transport a fabulous emerald for an embittered bodyguard of a murdered wealthy widow.
- Transport the ill gotten gains of a politician to a safe country.

Trade Routes:



<http://books.google.com/books?id=1ylw5sqwJwoC&pg=RA2-PA226&lpg=RA2-PA226&dq=coal+bunkers+steam+freighter&source=web&ots=excPGJF4e6&sig=k5DxTsEbrjb8oFrZcgcro3ywfV4> Page 257

Miles From Panama Canal To:

Vancouver, Canada	4032
Portland, OR	3869
San Francisco, CA	3245
San Diego, CA	2843
Valparaiso, Chile	2616
Callao, Peru	1346
Havana, Cuba	1003

New Orleans, LA	1403
Vera Cruz, Mexico	1420
Jacksonville, FL	1535
Baltimore, MD	1901
New York, NY	1974
Boston, MA	2157
Rio de Janeiro, Brazil	5349
Buenos Aires, Argentina	5450

From New Orleans, LA To:

Buenos Aires, Argentina	6318
Rio de Janeiro, Brazil	5218

From San Francisco, CA To:

Honolulu, HI	2097
Nome, AK	2705

From New York, NY To:

Buenos Aires, Argentina	5868
Rio de Janeiro, Brazil	4778

The Panama Canal is approximately 51 miles long and the Suez Canal is approximately 101 miles long.

**** Note:**

The information provided in this document is a collage and while based on actual facts, some liberties have been taken to make it easier to use for gaming. Such as approximations and rounding of numbers and dates.

A good source of tramp steamer stories is those of Tod Moran by Howard Pease and Jim Mayo by Louis L'Amour.