

Aft/astern – The direction towards the stern.

Afterhouse – A deckhouse positioned near the ship's stern and aft of the wheelhouse.

ATON – Acronym for A(ids) TO N(avigation). The aids to navigation system is made up of lighthouses, buoys, range lights and fixed objects that help ships to find their way or warn them away from places that are dangerous for them to go. **Lightships** were once part of this system too but are no longer used. Lighthouse and buoy tenders keep this system working to keep mariners safe.

Ballast – Heavy material (gravel, sand, sheets of lead, seawater) placed within the ship to stabilize it.

Berth – A specific location at a pier or dock where a vessel can be moored. Also refers to the bed within a ship where a crewmember or passenger will sleep on a voyage. **Berthing** refers to the process of mooring a ship in its place at the harbor or the compartment where bunks are located.

Bilge – The lowest compartment of the ship. Excess water and other liquids that have not drained off the ship run into the bilge, ensuring this liquid stays below deck and does not endanger the crew while they are operating the vessel.

Binnacle – The binnacle is a nonferrous (not iron or steel, so nonmagnetic) housing that isolates the compass from the steel structure of the ship which can interfere with magnetic compass readings.

Bitt – A vertical post on a boat's deck used to secure a mooring line. They are typically installed in pairs.

Bitter end – The loose end of line that is fastened to something. When you coil a line you always start at the other end and coil toward the bitter end.

Boatswain (pronounced bosun and sometimes spelled bos'n) – A skilled member of the deck crew.

Boiler – The boiler heats water to the point that it evaporates into highly pressurized steam. The steam is used to power the ship – *Lilac* is notable for having retained her original, triple-expansion steam propulsion engines – as well as the boom.

Bollard – A post with two small horns used to secure a line.

Boom – A long fixed arm used for lifting. On *Lilac*, the boom was used to lift buoys onto and off of the Buoy Deck.

Bow – The front of a vessel—the pointy end.

Bowline – This knot is used to form a fixed loop at the end of a rope. It is strong and stable but also easy to tie and untie, making it one of the most commonly used knots on vessels.

Bridge – A location on a ship, usually raised and that extends from side to side, from which a vessel is steered. Usually enclosed within the pilothouse or wheelhouse and surrounded by open platforms at either side known as the “**bridge wings.**” When instruments are installed on the roof deck of the wheelhouse for additional visibility when needed, this is known as the “**flying bridge**”

Bulkhead – A ‘wall’ inside a ship or boat.

Bulwark – The side walls of the ship above the main deck. *Lilac* has removable bulwarks on her Buoy Deck to make it easier to move buoys on and off.

Buoy tender – A vessel used for maintaining and replacing buoys. Tenders built for the Coast Guard are known as buoy tenders because lighthouses were already being automated when the Coast Guard took over the duties of tending aids to navigation. See also, “lighthouse tender.”

Captain – The person in charge of a vessel. On military vessels, the captain does not always have the rank of Captain, and on *Lilac* the commanding officer was typically a Lieutenant when she was a Coast Guard vessel.

Chief Warrant Officer (CWO) – Coast Guard officer who has worked their way up the ranks rather than going through Officers Candidate School (OCS) or the Coast Guard Academy. There were typically two CWOs on *Lilac* in addition to the two commissioned officers. One CWO was the Chief Engineer, in charge of mechanical systems, and the other the Chief Bosn Mate, in charge of deck operations.

Cleat – A long narrow fixture with two horns used to secure a line.

Coaming – Raised door sill that prevents water flow between compartments.

Companionway – A hallway on a ship.

Compartment – Generic term for any room on a ship.

Condenser – The condenser cools down the steam exhausted from the engines and sends it back to the boiler so this freshwater can be re-used. Steamships that operated in freshwater were not always equipped with condensers, but for a ship like *Lilac* that worked in saltwater, it was a necessity.

Davit – A small crane on board a ship, usually installed in pairs and used to raise or lower a boat on and off deck.

Deck – The floor of a compartment or a level on the ship.

Dog – Locking handles used to close a porthole or watertight door.

Draft – How much of the vessel is under the water line.

Executive Officer – Second-in-command on a Coast Guard ship, responsible primarily for administrative duties. Abbreviated **XO**.

Eye – A closed metal loop that can be used to secure a line, chain, or shackle.

Fender – A timber, rubber, foam, or plastic cushion affixed to the berth or floating between the berth and the vessel designed to absorb the kinetic energy of the incoming vessel.

Fo'c'sle (forecastle) – The forward part of the upper deck of a ship. Berthing for the crew is typically in the focsle.

Forward/ahead – The direction towards the bow.

Freeboard – The distance from the waterline to the upper edge of the main deck

Galley – The kitchen of a ship.

Gangway – Plank walkway bridging between a dock or pier and a ship. Technically, the gangway is the opening in the rail for the “brow” and the brow is the walkway, but gangway is commonly used.

Gunwale (pronounced gunnel) – The flat top or cap rail of the bulwarks.

Gyro compass/gyro repeater – A non-magnetic compass that navigates with a spinning wheel or disc known as a gyroscope; it takes into account gravity and the rotation of the Earth to find geographical direction. The repeaters display readings from the gyroscopic compass at locations on the ship other than the **Gyro Room**.

Hatch – A cover for an opening, most often to cover horizontal openings on decks but can refer to watertight doors.

Head – Bathroom or toilet compartment on a boat, also refers to the toilet itself.

Helm – Device, either a tiller or wheel, connected to a ship's rudder, for steering.

Hold – A compartment within the ship for carrying cargo.

Hull – The outer supporting structure of a vessel, much of which is typically under water.

Keel – The spine of any vessel. The keel runs longitudinally along the bottom of the hull; it keeps the vessel stable and prevents it from being overturned.

Knot – A unit for measuring speed on the water and is equal to one nautical mile per hour. To find the equivalent in miles per hour, as we'd use on land and which most people understand, multiply the number of knots by 1.151 miles. *Lilac's* top speed was about 11 knots (11 x 1.151 = 12.66) or not quite 13 miles per hour.

Ladder – Any stairway on a ship is referred to as a “ladder” whether it is a steep staircase or a ladder with rungs.

Lighthouse tender – Lighthouse tenders like *Lilac* hauled supplies to lighthouses, tended buoys, towed lightships, brought inspectors and transferred keepers to lighthouses, and conducted search and rescue under the U.S. Lighthouse Service (1910-1939) and its predecessors. When the Coast Guard took over these duties in 1939, these vessels were referred to as “buoy tenders.”

Lightships – Ships anchored at shoals with lights attached to warn ships away, lightships were stationed where lighthouses could not be built due to unstable or difficult landforms or where funding was not yet available to build a lighthouse. Essentially, they were floating lighthouses.

Line – On a boat or ship, rope is used to create specific lines, such as mooring lines. That is, once a rope comes on board and put to use, it is referred to as a line.

Locker – A small compartment used for storage, ranging from a padlockable cupboard for a crewmember's clothes to a deck cabinet, to a small room. The **paint locker** isolates since the solvents in paint are flammable.

Master – The person in charge of a merchant vessel. The Lighthouse Service used the terminology of the merchant marine so *Lilac* once had a Master. Even so, the person in charge of such a ship is commonly referred to as the “captain” or “skipper.”

Mess/mess deck – The compartment on the ship where the crew has their meals.

Moor – To secure a vessel by tying it to a fixed object such as a pier rather than dropping an anchor.

Overhead – The ceiling of a ship's compartment.

Pilot house/wheel house – A cabin on the ship’s deck that contains the steering wheel, compass, and navigational equipment.

Pipe bunk – A bunk with a frame made of pipe to make it lightweight and able to be hung from a system of hooks and chains.

Port – The left-hand side of a vessel when facing forward.

Portlight/porthole – A round watertight window in the ship’s hull that allows light and air in.

Radar – Radar detects the presence, direction, distance and speed objects out of visual range by transmitting radio waves that reflected from the objects. Coined in the 1940s from RA(dio) D(etection) and R(anging).

Reciprocating engine – Also known as a **piston engine**, is typically a heat engine that uses one or more pistons moving up and down or back and forth in a linear motion to convert high temperature and high pressure into a rotating motion. *Lilac’s* engines use steam to push and pull pistons and the connecting rods convert this to a circular motion to turn the propeller shafts.

Reefer – Short for refrigerator.

Rigging – The lines, cables, and chains used to secure and support equipment. **Standing rigging** refers to the rigging that supports the ship’s masts or other stationary objects, while **running rigging** refers to the rigging that adjusts the position of the sails.

Rudder – A flat vertical piece of the ship hinged to its stern that is turned by the wheel to steer the ship. In *Lilac’s* case, the steering gear is steam-assisted.

Quarters – Sleeping compartment(s).

Scupper – An opening in the ship’s sides or decks so that excess water can easily flow overboard or a pipe that carries this flow.

Sea chest – An opening in the ship’s hull controlled by a valve through which water can pass. For instance, *Lilac* has two sea chests that served the circulating pump to draw in saltwater for cooling in the condenser and then expel it after use.

Shackle – Rigging hardware made up of a U-shaped piece closed with a threaded pin, used for lifting or securing objects.

Ship – Generally, vessels larger than 100’ long are considered ships. At 174.5’ long with a 32’ beam, *Lilac* is a ship. A typical rule of thumb when making the distinction between a boat and a ship is that a ship is large enough to carry boats. *Lilac* carried two 24’ launches on her Boat Deck

Sister ship – A ship built by the same shipyard from the same plans. Although sometimes referred to as *Lilac's* sister ship, *Arbutus* was built with a different hull shape and so is more accurately called a “near-sister.” *Arbutus* served New York Harbor and was christened by Elizabeth Putnam, the sister of *Lilac's* sponsor.

Sonar – Sonar equipment uses sound waves to calculate water depth or the position of objects in the water. A word coined in the 1940s from SO(und) N(avigation) and R(anging).

Sponsor – A female civilian who has the honor of christening a vessel at its launch. In this nautical tradition, the sponsor is believed to bring good luck to the ship and is considered a permanent member of the crew. *Lilac* was sponsored at her christening in 1933 by Kristi Putnam, daughter of George Putnam who at the time was Commissioner of the US Lighthouse Service.

Starboard – The right-hand side of a vessel when facing forward.

Stateroom – Private accommodations on a ship. All staterooms are in the category of “quarters” and the officers’ quarters on *Lilac* are made up of four staterooms in the afterhouse and the commanding officer’s stateroom in the Wheelhouse.

Stern – After end of a vessel.

Superstructure – The part of a boat or ship that sits atop the hull.

Telegraph/Engine order telegraph (EOT) – A communications device used to send orders from the bridge to the engine room to modulate direction and speed of the engines. These simple mechanisms use brass bicycle chain wire for ease of repair and have multiple back-ups to ensure communication does not fail.

Triple-expansion – A type of **reciprocating** steam engine where steam is exhausted into three successively larger cylinders to accommodate higher volumes at reduced pressures for efficient use of fuel used to make the steam. *Lilac's* two propulsion engines are triple-expansion.

Turnbuckle – A piece of rigging hardware made up of two eyebolts screwed into the two ends of a threaded fitting. These eyes can be screwed in or out to bring them closer together or further apart in order to adjust the tension of the attached rigging.

Ventilator – Equipment that moves air, but most often on a ship means that equipment and ducting which brings fresh air to compartments below deck. On *Lilac* the large **air scoops** on the boat deck bring air to the Boiler Room and Engine Room.

Windlass – An apparatus for moving heavy weights by use of a belt or crank that turns a horizontal cylinder. A **winch** is affixed to the ends and a cable is wound around the winch – this cable is what pulls the weight.

Wire rope – Spun steel cables used for heavy-duty rigging.