



PT 658–SPECIAL MID YEAR EDITION-NEWS FROM THE CREW

Save the PT Boat, Inc., PO Box 13422, Portland OR 97213
503-286-3083 www.savetheptboatinc.com May 2023

We're presenting this mid-year newsletter because we have so much news to share with you! Over the winter, during the drydocking of PT 658, we've made an amazing number of high-quality structural repairs to the boat, and I'm proud to report that our work is first class and the boat is moving toward relaunch in time for Rose Festival in early June. I want to thank our volunteer crew which is doing incredible work!

Over the last few months, we were privileged to have two of our wonderful donors travel from out of state to assist with work on the boat (see photos). Thanks to Randy Ayer of Massachusetts and Gary Streets from Colorado who worked on the boat for several weeks. This is gratifying for our crew and shows the many ways our donors contribute to our mission.

While news of the boat is inspiring, we also report with sadness the passing of Frank Lesage. Frank was the last founding PT veteran member of our organization and a great leader for decades. Last summer we celebrated his 97th birthday on board. We also lost one of our talented volunteers when Bob Barnum passed away. We miss them both.

We want to thank you for your unwavering support. Special thanks to Quest for Truth Foundation for their continuing generous support which makes our work possible!

Bill Weaver, President

PT 658 Undergoes Marine Survey, Hull Maintenance and Repairs

Last fall, the PT 658 crew began the critical maintenance and repairs required to keep our 78-year old wooden boat seaworthy and safe to operate. This work can only be performed while the boat is out of water, and was last completed in 2018.



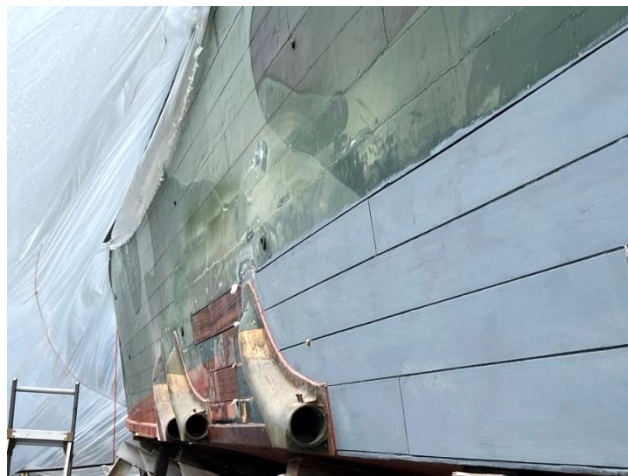
On September 29, 2022, PT 658 was hauled out for inspection and repairs. With the assistance of Clark Caffall--Combined Forestry and Marine Services, and Vigor Industrial, the boat was hoisted onto its cradle and placed on our 100-foot service barge.

Once moved, the hull was covered with heavy plastic to provide a dry workspace for the crew. Plastic also covered some deck areas to keep them dry as possible during the winter.

Facts about PT Boat Construction: The Navy’s impetus for building a wooden PT boat fleet was for economic and material shortage reasons. Due to their wood construction, ten PT boats could be built for the cost of one modest-sized destroyer escort. Wood also conserved steel that was needed to build other larger ships. Mahogany was used because it was light, strong, water-tight and insect repellent.

A PT boat’s “planing hull” design featured a sharp V at the bow that softened to a flat bottom at the stern, which allowed boats to “plane”, or lift up out of the water at higher speeds. To withstand the stresses of combat, the wooden boats were constructed with a layered hull over a wood frame, consisting of two layers of wood (3/8” spruce and 3/4” mahogany) fitted over 1 ½ inch mahogany frames spaced 15 inches apart. The interior spruce layer was laid at a 45 degree angle to the outer layer of mahogany planks. The outer layer is parallel to the waterline connected to adjacent planks using oval-shaped “joiner-plates” to join the butt joints from the inside of the boat plates that connected the end of each plank to the next one in line. The two layers are held together using two rows of copper rivets between each frame for a total of 53,000 rivets and bronze screws. The joiner-plates (referred to as “butt plates”) which connect the ends of each plank required 6,000 bronze screws.

Step by Step Process: Once PT 658 was hauled out and placed on our barge, Marine Surveyor Alison Mazon, Shipwright Jim Lyons and our crew identified work needing done.



We began by removing deteriorated planking and frames, which takes considerable effort to ensure a thorough job. Far left, Jack Coulter and Jim Waters remove damaged planks. Left, replacing planking on the port side of the hull required removal of the 150-pound bronze aft exhaust muffler.



Each ¾ inch thick mahogany plank must be precisely hand-fitted. A pattern is made and applied to a plank so that the final shaping can occur. Far left, Shipwright Jim Lyons is preparing a plank using the pattern he has already completed. Left, Jim has attached a new plank to the port side of the boat.

During this current maintenance cycle, we will replace 207 linear feet of mahogany planks and about two dozen frames inside the hull. PT Boats were riveted together with copper rivets. Riveting requires radio communication to coordinate between the person operating a rivet gun on the inside, with Bill Weaver (below right) who is bucking rivets on the outside of the hull.



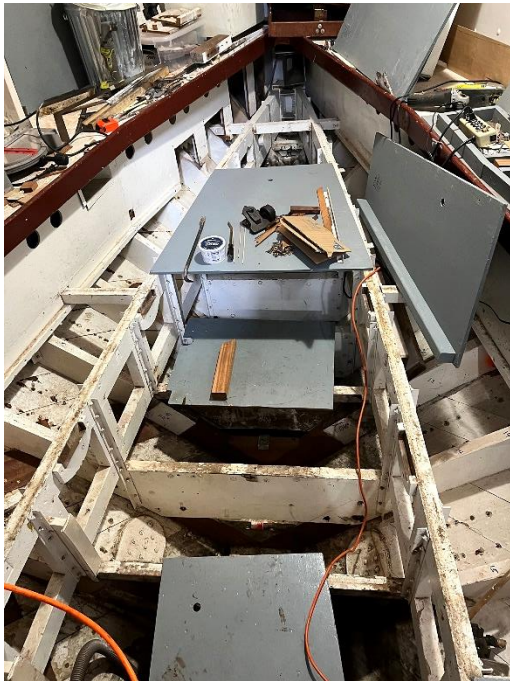
Some repairs to vertical frames in the bottom of the hull required removal of sections and replacement with new mahogany segments. Replaced segments are then bolted to the original frames with mahogany “sisters”, shown in photo below left with Ron Taylor, Steve Stanage and Gary Veenker. Below right, Steve Stanage extracts himself from a tight space with limited access outboard of the engine room.



Below left, Jim Waters and John Kihlstrum install 1¼ inch thick mahogany frame reinforcements in the bow. Approximately 20 frames will be reinforced in this manner in 2023. Caulking and sealing underwater hull seams on replaced planks is the next step. To provide a water-tight seal between the new mahogany planks, Jim Lyons (below right) drives Egyptian cotton into a seam using a traditional caulking iron and hammer. 3M 5200 sealant is then applied over the cotton. When PT Boats were originally constructed, caulking between all the planks required 3+ miles of hand-inserted cotton.



Forward crew quarters (below left) were in rough shape requiring replacement of rotted frames. Before relaunch, we will install 6 smaller automatic bilge pumps that run ¼ inch lines into notches and crevices (limber holes) to help remove the last drops of water that cause wood decay. This is a major upgrade to our bilge pumping system. (Existing bilge pump, below right.)





During the haul-out, we inspected/serviced the propellers and propeller shafts and replaced cathodic anodes (hull, rudder and propeller shafts). The center propeller was original size and larger than the port and starboard propellers, so we replaced it with the same size to match the other two to give us more consistent RPM, engine diagnostics and thrust. Our thanks to Sheffield Marine Propeller of Portland!



While work on the hull was being done, Ron Taylor (left) took advantage of a sunny winter day to paint above-water components of the boat. Once the work on the hull is completed, Ron will repaint the entire hull before it goes back into the water.

We were fortunate to have the help of Randy Ayer (below on left with Bill Weaver on right), one of our donors, who traveled from Massachusetts to work with us for two weeks. Randy is an avid PT history fan, and his help was very much appreciated by the crew. Thanks Randy!



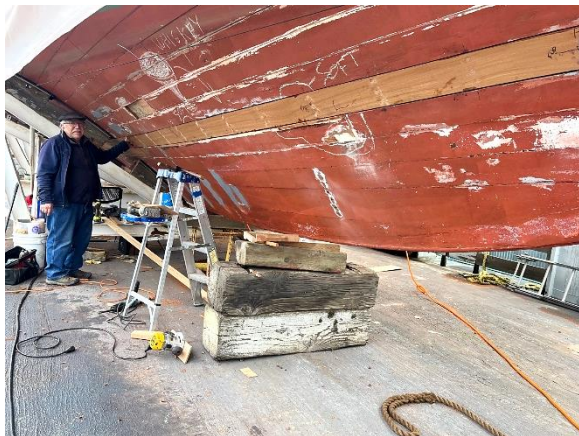
Gary Streets, (left), donor from Colorado, also came out to lend his considerable skills, and provided invaluable help to keep the project moving forward—thank you Gary!



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SPECIAL MID-YEAR UPDATE!

Nearing the Finish Line! Below left, Jim Lyons finishes installing the “Whiskey Plank.” In nautical yore, the last plank installed is celebrated with a shot of whiskey for a job well done. Below right, a March snowfall didn’t hold up the hard work of our tireless volunteers and Shipwright Jim Lyons!



One More Thing: We asked our crew to give us their daily round-trip mileage to work on the boat—they travel a combined **582** miles each day, five to six days per week (not counting Randy and Gary’s trips from Massachusetts and Colorado!)—a special group of volunteers committed to preserving history!

WE LOOK FORWARD TO RELAUNCHING THE BOAT IN MAY, AND HOPE TO SEE YOU THIS SUMMER!!