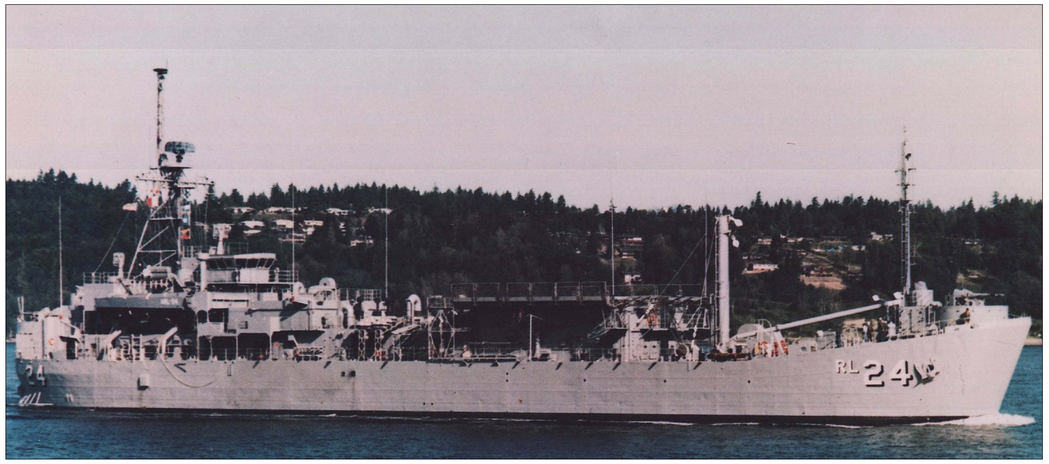
# *USS Sphinx*

## Design Type:Converted LST/ Auxiliary
## Class: Achelous
## Official Number: ARL-24

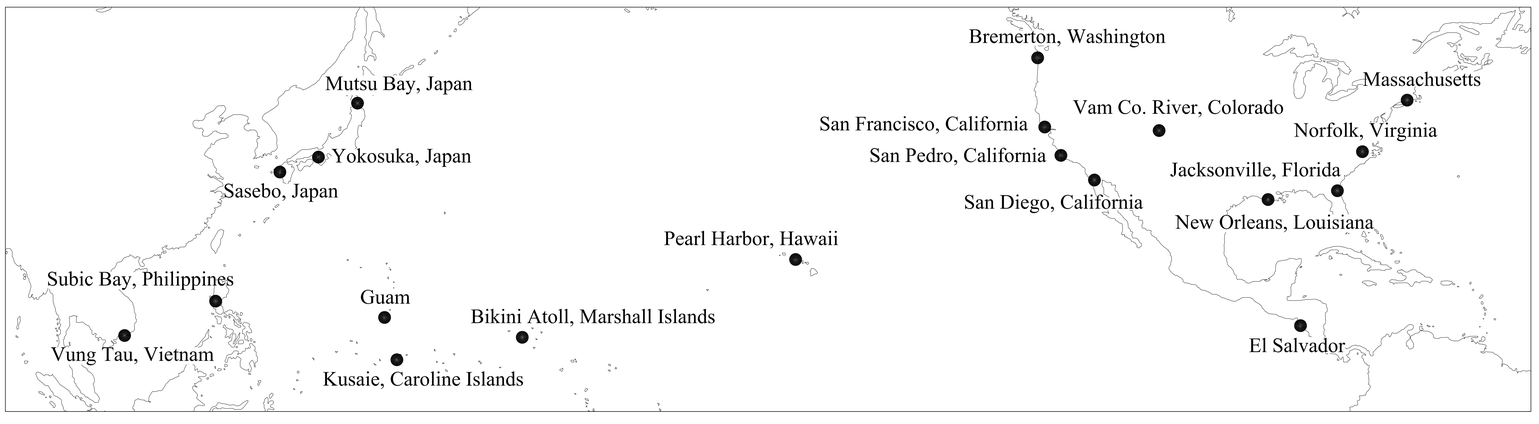
### PRINCIPLE CHARACTERISTICS

| | |
|---|---|
| BUILDER: | BETHLEHEM STEEL COMPANY |
| BUILT: | 1944 |
| LOA: | 327'-9" |
| BEAM: | 50'-0" |
| DRAFT: | 11'-2" |
| SPEED: | 12 KNOTS |
| PROPULSION: | 2 GENERAL MOTORS, DIESEL ENGINES, TWO SHAFTS, TWIN RUDDERS, 1,800 SHAFT-HORSEPOWER |
| DISPLACEMENT: | 3,960 TONS (FULL LOAD)<br>1,781 TONS (LIGHTWEIGHT) |
| COMPLEMENT: | 21 OFFICERS<br>232 ENLISTED |
| ARMAMENT: | 2 QUAD 40MM AA GUN MOUNTS W/ MK 51 DIRECTORS<br>2 TWIN 40MM AA GUN MOUNTS W/ MK 51 DIRECTORS<br>6 TWIN 20MM AA GUN MOUNTS |




*U.S.S SPHINX - c.a.1944 (U.S. NAVY PHOTO)*


*U.S.S SPHINX - c.a.1944 (U.S. NAVY PHOTO)*




NOTE: COURSES DEPICTED ON MAP ARE ABSTRACTED TO CONNECT LOCATIONS. THEY DO NOT REPRESENT THE EXACT COURSES TRAVELED.

LST-963 (*USS SPHINX)* WAS AN EXAMPLE OF THE MASS PRODUCED SHIPS BUILT DURING WORLD WAR II BY THE U.S. MARITIME COMMISSION. THE SPHINX REMAINS NOTABLE AS A VERSATILE PLATFORM UTILIZED BY THE U.S. NAVY ON AND OFF FOR FORTY-FIVE YEARS. FIRST INTENDED TO BE A LANDING SHIP TANK CARRIER (LST), THE NAVY REALIZED THAT THE SHIP COULD BE CONVERTED TO REPAIR OTHER LANDING CRAFT THAT WERE BATTLE DAMAGED AND CONVERTED IT TO AN AUXILIARY LANDING CRAFT REPAIR SHIP (ARL). ITS SHALLOW DRAFT ALLOWED IT TO MANEUVER INTO THE ATOLLS AND CONDUCT MISSIONS AFTER TROOPS HAD SECURED THE ISLAND. THE NAVY REVITALIZED THE SPHINX AFTER WORLD WAR II FOR SERVICE IN KOREA PERFORMING REPAIR WORK, AS WELL AS THE VIETNAM WAR. IN THE MID-EIGHTIES, THE U.S. NAVY FOUND THE SPHINX TO BE AN EXCELLENT VESSEL FOR SIGNALS-INTELLIGENCE COLLECTION. THE NAVY RECONFIGURED THE SHIP TO CARRY ITS LATEST HARDWARE AND IT WAS SUCCESSFULLY USED OFF THE COAST OF EL SALVADOR AND IN THE CARIBBEAN FOR FOUR YEARS. THE NAVY DECOMMISSIONED SPHINX IN 1989 AND IT WAS SCRAPPED IN 2007.

THE PROJECT WAS CO SPONSORED BY THE U.S. MARITIME ADMINISTRATION (MARAD), UNDER THE DIRECTION OF ERHARD KOEHLER (MARAD SHIPS DISPOSAL COORDINATOR) AND BARBARA VOULGARIS (MARAD HISTORIAN). THE PROJECT WAS PREPARED UNDER THE DIRECTION OF TODD CROTEAU (HAER MARITIME PROGRAM COORDINATOR). BRYANA DUBARD AND ASHLEY T. WALKER (HAER CONTRACT ARCHITECTS) GENERATED VESSEL DRAWINGS. DAVID HAAS (HAER CONTRACT PHOTOGRAPHER) CREATED LARGE FORMAT PHOTOGRAPHS.

**HISTORIC AMERICAN ENGINEERING RECORD**

***SPHINX***
**(ARL-24)**
**(LST-963)**

**HAER No. VA-130**

**Location:** James River Reserve Fleet, Newport News vicinity, Virginia

**Rig/Type of Craft:** Converted LST/Auxiliary

**Trade:** Repair Ship and Signals Intelligence

**Hull Nos.:** ARL-24, LST-963

**Class:** *Achelous*

**Principal Dimensions:**
Length (oa): 328'
Beam: 50'
Draft: 11'-2"
Displacement: 2,130 (fl) tons
Maximum continuous shaft horsepower: 1,800
Service speed: 11.6 knots
(The listed dimensions are as built, but it should be noted that draft, displacement, and tonnages were subject to alteration over time as well as variations in measurement.)

**Propulsion:** Diesel engines

**Dates of Construction:**
Keel Laying: 20 October 1944
Launching: 18 November 1944
Commissioning: 10 May 1945

**Designer:** U.S. Maritime Commission

**Builder:** Bethlehem Steel Company, Hingham, Massachusetts

**Disposition:** Scrapped by Bay Bridge Enterprises (Chesapeake, Virginia) in December 2007

**Significance:** The *Sphinx* was originally intended to be a Landing Ship Tank Carrier (LST), but the U.S. Navy realized that it could be converted to repair other landing craft that were battle damaged. As a result, the navy converted the

*Sphinx* to an Auxiliary Landing Craft Repair ship (ARL). The ship proved to be a versatile platform, and the U.S. Navy used it sporadically over a period of forty-five years to perform repair work during World War II and the Korean and Vietnam wars. Later, the ship was used for signals-intelligence collection off the coast of El Salvador and in the Caribbean. The navy decommissioned the *Sphinx* in 1989, and it was scrapped in 2007.

**Historian:** Brian Clayton, HAER Contract Historian, summer 2008

**Project Information:** This project is part of the Historic American Engineering Record (HAER), a long-range program to document historically significant engineering and industrial works in the United States. The Heritage Documentation Programs of the National Park Service, U.S. Department of the Interior, administers the HAER program.

The documentation was prepared under the direction of Todd Croteau (HAER Maritime Program Coordinator). Bryana Dubard and Ashley T. Walker generated the vessel drawings. David Haas produced the large-format photographs in 2007. Special thanks go to Erhard Koehler (U.S. Maritime Administration) for his help and assistance with the project.

**BACKGROUND**

When the United States entered World War II, one of the first priorities was the construction of ships. The global experience and ferocity of World War I taught the United States that World War II would be on a grander scale and in more places, involve more people, and require more equipment—total war.[1] During World War II, the U.S. Maritime Commission became a pivotal force in the development and construction of ships, much like the U.S. Shipping Board had been in World War I. Created in 1936, the Maritime Commission succeeded the Shipping Board but generally followed the same directive: the promotion of U.S. shipping interests. After the United States entered World War II, the Maritime Commission created the Emergency Program, a massive ship construction plan that utilized new and existing shipyards across the United States.[2]

During the inter-war years, the U.S. Merchant Marine went through a series of changes. After 1918, the majority of the ships in the Merchant Marine were from the mobilization endeavor to support American troops in World War I. The board approved the construction of 470 ships to support the war effort. Between 1918 and 1922, the U.S. Shipping Board added another 1,300 ships to the Merchant Marine, and these became the backbone of the fleet. In the mid-1920s, U.S. shipping companies were robust, but the U.S. stock market crash in 1929 and the Great Depression were major setbacks to the maritime industry. Many steamship companies suffered because they were unable to replace or update their aging ships—over 90 percent of the fleet was over twenty years old and had an average speed of between 10 and 11 knots.[3]

In the mid-1930s, the government intervened with new legislation to aid the beleaguered maritime industry. President Franklin D. Roosevelt's New Deal economic policy eventually helped revive the Merchant Marine when Congress passed the Merchant Marine Act of 1936, which established the U.S. Maritime Commission as the successor to the U.S. Shipping Board. The act also infused new capital and ideas for rebuilding the fleet. By 1937, the Maritime Commission had planned a long-range construction program to build 500 ships that were both contemporary and economical over a ten-year period. In 1939, the Maritime Commission determined that the production quota of fifty ships per year was too low and doubled it. The success of the German U-boat campaign at this time against English shipping had begun to alarm the United States since U.S. steamship companies traded with England and France. Fearing that Germany might target U.S. ships, the Maritime Commission accordingly raised the shipping quota again in August 1940 to 200 ships per year.[4]

During World War II, the U.S. Navy also recognized the need for a vessel that could deliver tanks and other vessels for amphibious assaults. The British developed a landing ship, tank

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[1] Russell F. Weigley, *The American Way of War: A History of United States Military Strategy and Policy* (New York, NY: Macmillan Publishing Co. Inc., 1973), pp. xxi-xxiii.

[2] René De La Pedraja, *A Historical Dictionary of the U.S. Merchant Marine and Shipping Industry Since the Introduction of Steam* (Westport, CT: Greenwood Press, 1994), pp. 563-566, 629-631. During World War II, 5,777 ships were delivered to the Maritime Commission. Contracts were issued by the commission for 5,601 vessels. Private firms built the remaining 111 ships while foreign firms built sixty-five.

[3] Brian J. Cudahy, *Box Boats: How Container Ships Changed the World* (New York: Fordham University Press, 2006), pp. 2-3; Sawyer and Mitchell, *Victory Ships and Tankers*, p. 15.

[4] Cudahy, *Box Boats*, p. 3; Sawyer and Mitchell, *Victory Ships and Tankers*, pp. 15-16.

(LST) after their hasty retreat from Dunkirk in 1940 and converted three mid-sized tankers. These were tested in Lake Maracaibo, Venezuela, to simulate beach landings because the lake contained shallow bars. The British modified the design, basing the revisions on the *Dai-Hatsu*, a Japanese landing craft dating to the 1930s that incorporated bow doors that opened when the ship landed at the beachhead and a ramp that lowered to assist in the offloading of personnel and vehicles. The ship's unique ballast system allowed operators to decrease the draft of the vessel, which helped it get close to the beach. The Allies tested the converted LSTs during the North Africa campaign in 1942, and the successful landings led the U.S. Navy to develop its own class of LSTs.[5]

**DESIGN**

At the Argentia Conference in August 1941, the American delegation conferred with the British regarding the development of a new class of LSTs. John Niedermaier from the U.S. Navy's Bureau of Ships developed rough drawings in November 1941. The navy sent the drawings to the British Admiralty for review, and they were approved. Additionally, the Admiralty requested that 200 LSTs be included in the lend-lease program.[6]

Originally, the LSTs were planned to be 280' long, but the design was stretched and the beam widened to create a vessel with a shallower draft. The wider beam allowed the bow doors to measure 12' to 14' in width, so they could accommodate most of the Allies' tanks and vehicles. A working model was tested at the David Taylor Model Basin in Washington, DC, in January 1942, and it proved to be a successful design.[7]

**CONSTRUCTION**

The U.S. Congress appropriated funding on three separate occasions for the construction of the LSTs. This required new shipyards to build them, and the Maritime Administration consequently allocated funding for the construction of shipyards as well. Since a majority of the coastal shipyards were producing deep draft vessels, new shipyards were built along inland waterways in the Midwest, which were commonly referred to as "cornfield" shipyards. From June 1943 until the end of the war, U.S. shipyards constructed 1,051 LSTs, of which Great Britain received 113 through a lend-lease agreement and Greece received four. The Maritime Commission converted 116 of the ships into various designs.[8]

Bethlehem Steel Company in Hingham, Massachusetts, began construction of the *Sphinx* on 20 October 1944. As the need for shallow-drafted repair ships grew, the U.S. Maritime Commission changed the ship's designation from LST-963 to ARL-24 on 11 September 1944 and renamed it the *Sphinx*, after the mythical creature with the body of a lion and the head of a

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[5] U.S. Navy, *Dictionary of American Naval Fighting Ships*, Vol. VII (Washington, DC: Naval Historical Center, 1991), p. 569; I.C.B. Dear, General Editor, *Oxford Companion to World War II* (Oxford: Oxford University Press, 1995), p. 662.
[6] U.S. Navy, *Dictionary*, p. 569.
[7] U.S. Navy, *Dictionary*, pp. 569-570.
[8] U.S. Navy, *Dictionary*, pp. 570-571.

human. Bethlehem Steel launched the *Sphinx* on 18 November 1944, and it headed to Merrill Stevens Dry Dock in Jacksonville, Florida, where the shipyard converted it to a landing craft repair ship.[9]

**DESCRIPTION**

The U.S. Navy followed the production techniques of the Maritime Commission by designing auxiliary ships with a universal hull that could later be converted to auxiliary vessels like aircraft repair ships, battle damage repair ships, motor torpedo boat tenders, quasi-carriers, and salvage tenders.[10] The design of the *Achelous* class, of which the *Sphinx* was a part, was based on two requirements: a light displacement around 1,700 tons and a speed of 12 knots. Ships in the class had a standard length of 328' and 50' amidships, with a limiting draft of 11'-2". They could carry 2,100 tons of cargo. There were numerous tanks in the inner bottom, bow, and stern that carried fuel oil and water for ballast. As the ship consumed fuel, pumps within the machinery room transferred seawater into the empty tanks to maintain the correct stability and trim.[11]

To achieve the designed speed of 12 knots, the ship needed two power plants rated at 1,800 shaft horsepower (shp) to turn two screws. The machine space was located forward of the aft freshwater storage tanks in the hold and contained two General Motors 12-576 diesel engines connected to reduction gears at the end of the engines. Twin shafts ran down the stern of the ship and generated 900-hp apiece to turn each propeller.[12]

Just as important as the propeller plant were the power generators needed to run the ship and repair equipment. In the auxiliary machine room, there were two generator sets onboard for internal power. The generators were diesel units that produced 450 volts of A.C. The ship required a significant amount of power to operate all the repair machinery on the second deck level as well as the navigation equipment. There were three D.C. generators on the main deck in a second auxiliary room forward of the officer's wardroom. The D.C. generators could be switched to either 120 or 240 volts as needed. Further modifications provided the ship with more power. An additional A.C. generator (450 volts) was located in the main auxiliary room, and there were two D.C. generators in the main auxiliary room and another in the second auxiliary room.[13]

The bridge deck housed a number of spaces related to the safety and navigation of the vessel. The wheelhouse was in the forward room with an engine order telegraph, gyro repeater, and helm, which sent electric signals to the steering room (on the stern of the third deck) where an electric-hydraulic ram turned two rudders. Two bridge wings extended off each side complete

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[9] U.S. Navy, *Dictionary of American Naval Fighting Ships*, Vol. VI (Washington, DC: Naval Historical Center, 1991), p. 581.
[10] Norman Friedman, *U.S. Amphibious Ships and Craft: An Illustrated Design History* (Annapolis, MD: Naval Institute Press, 2002), pp. 126-127.
[11] U.S. Navy, *Ship's Data: U.S. Naval Vessels*, Vol. III (Washington, DC: Government Printing Office, 1946), pp. 346-347; U.S. Navy, "USS *Sphinx* Ships' Plan," in Record Group 19, National Archives and Records Administration-College Park, Maryland.
[12] "Ships' Plan," Plate 9.
[13] U.S. Navy, *Ships' Data*, p. 346; "Ships' Plan," Plates 6, 9.

with peloruses. The chartroom was located aft of the wheelhouse. The radio room was on the same level but on the starboard side. There was an office aft of the bridge for the First Lieutenant. The ship's gyroscope was on the third deck in a room off the port side. Later modifications included the addition of an enclosed conning station above the bridge in the mid-1960s.[14]

A majority of the space onboard the *Sphinx* was devoted to manufacturing and refurbishing equipment. The third deck contained a number of spaces used for storing parts and machine shop equipment. The main room (a long open space forward of the centerline) consisted of five areas: a metals machine shop, electrical repair equipment, metals shaping equipment, a welding area, and a wood shop. Off the sides of the main room were stores, repair shops, and offices. The aft section of the third deck contained storerooms and engineering offices.[15]

The *Sphinx* had two forward kingposts supporting two booms and one derrick. Both could hoist and position material for loading or offloading. There were two heavy booms in the forward section of the ship that were dual purpose; they could be used to move and position deck equipment or lift and lower materials, machines, and supplies through a removable hatch on the main deck. Engineers rated the forward boom at 25 tons and the after boom at 10 tons. The derrick was aft amidships on the port side and was rated at 60 tons. All of the equipment was supplemented with electric winches that provided the mechanical power to move equipment and supplies.[16]

Berthing space for the 253-person crew (twenty-one of which were officers and 232 were enlisted) occupied a sizable amount of space. The berthing area for the crew was located on the third deck along the sides of the hull and in the stern of the ship in rooms containing bunks stacked three high. Berthing for the Chief Petty Officers (CPO) was located in the stern on the third deck and on the main deck behind the repair store rooms. Like the crew berthing, the CPO bunks were stacked three high. Officer staterooms were on the main deck aft of the auxiliary machine room and accommodated two men per room. The commodore had a personal cabin and a stateroom. The captain's quarters were on the boat deck in the aft section and consisted of a private cabin and stateroom.[17]

Five areas on the ship were designated for food services, with ample food storage space for long deployments. Food preparation took place in the galley, located in the stern area on the main deck, and there was a bakery, butcher shop, and vegetable preparation station. The crew's mess was on the third deck off the starboard side towards the stern with a small room beside it containing the first class mess. The CPO mess was at the stern of the ship on the second deck next to their berthing area. The officer's wardroom was on the main deck aft of the auxiliary machine room, and it contained a small pantry off the starboard side. Refrigerated food stores

[14] "Ships' Plan," Plates 5, 8.
[15] "Ships' Plan," Plate 8.
[16] "Ships' Plan," Plates 3, 5, and 6.
[17] "Ships' Plan," Plates 5-7.

were on the third deck in three separate lockers designated for butter, eggs, and cheese; fruits and vegetables; and meat. Opposite the reefers were dry storerooms filled with provisions.[18]

Good hygiene and maintaining crew morale were important aspects of shipboard life. To ensure good hygiene, sufficient space was allocated for showers, toilets, and washrooms. A generous supply of fresh water was available in holding tanks coupled to a water treatment plant. There was a permanent medical doctor stationed on the ship who had an office and a sickbay on the second deck aft of the storage room. Other amenities included a small barbershop in the forward area of the main deck, along with laundry facilities on the same deck. A store was available for the crew to purchase personal items while underway.[19]

During World War II, the ship was equipped with defensive armament for protection, as well as with lifesaving equipment. There was a 40-millimeter quad mount on the bow and another on the stern section of the ship. Gunners received target information from the Mark 51 gun director located behind each mount. The guns were produced in the United States, but the design was copied from a design by the Swedish firm Bofur. The ammunition trunks were at hold level in the stern and in the forward section of the bow on the starboard side, and hoists lifted the shells upward for the gunners. In the event of a sinking, there were multiple lifeboats and rafts on the ship. Two motorized lifeboats (36' LCVP) were installed on the port and starboard sides off the navigation bridge, and inflatable lifeboats were forward of the bridge and on the boat deck.[20]

**OPERATIONAL HISTORY**

The U.S. Navy commissioned the *Sphinx* on 10 May 1945, and it set sail for Norfolk, Virginia, for sea trials and a shakedown cruise before heading out into the fleet. The *Sphinx* left Norfolk on 12 June 1945 and headed for Hawaii, making ports of call in San Diego and San Francisco, California, before arriving in Pearl Harbor, Hawaii, on 31 July 1945. While repairing craft in Pearl Harbor, the Pacific war ended on 15 August 1945, and the navy ordered the *Sphinx* to Adak, Alaska, where it conducted repairs.[21]

While en route to Adak, the navy changed the ship's orders, and it proceeded to Mutsu Bay, Honshu, in Japan, arriving there on 14 September 1945. The *Sphinx* crew modified and repaired minesweepers before setting a course towards the central Pacific. The ship took part in "Operations Crossroads," the atomic weapons tests in the Marshall Islands at Bikini Atoll from April to August 1946. After the tests, the *Sphinx* sailed to San Pedro, California, where the U.S. Navy decontaminated and transitioned the ship to inactive status as a reserve vessel on 26 May 1947.[22]

The navy found use for the *Sphinx* again at the start of the Korean War and re-commissioned it on 3 November 1950. After a brief shakedown and training cruise, the ship sailed to Yokosuka,

[18] "Ships' Plan," Plates 6-8.
[19] "Ships' Plan," Plates 6-7.
[20] "Ships' Plan," Plates 5-6, 8-9.
[21] U.S. Navy, *Dictionary*, p. 581.
[22] U.S. Navy, *Dictionary*, p. 581.

Japan, via Pearl Harbor on 29 September 1951 to repair vessels operating out of Korea. The *Sphinx* remained in Japan until 7 May 1952 and headed back to the United States for a brief visit. The ship returned to the Far East and operated in the war from 3 March to 9 December 1954. Afterwards, the ship sailed back to San Diego and was returned to the reserve fleet on 31 January 1956.[23]

In 1967, the *Sphinx* again returned to active duty at the beginning of the Vietnam War. A joint U.S. Army-Navy board concluded in 1966 that a riverine force would be an effective deterrent for combating the Viet Cong in the Mekong Delta—a system of lakes, rivers, and streams that served as a major source of food for the country. The navy included the *Sphinx* within the force, and in January 1967, the U.S. Navy towed it to New Orleans, Louisiana, for renovations. The ship was commissioned on 16 December 1967 and set sail for Vietnam, making ports of call in San Diego, Pearl Harbor, Kusaie, Guam, and Subic Bay before arriving in Vung Tau, South Vietnam, on 6 June 1968.[24]

The U.S. Navy placed the *Sphinx* in Task Force 117, a mobile riverine force that operated in the Mekong Delta. The ship's main duty was to aid and support a flotilla consisting of eleven small ships and more than 150 river attack boats. The ship's crew undertook missions in Tien Giang and Ham Luong rivers, but mainly it stayed anchored as a prepositioned support vessel. On 21 June 1969, the *Sphinx* sailed to Sasebo, Japan, for a brief visit to the shipyard for repairs, returning to Vietnam on 25 August. As part of an upgrade, the *Sphinx* acquired a helo pad atop the boat deck.[25]

The navy ordered the *Sphinx* to the Vam Co River where it assisted with repairs and operated as the forward tactical base for the Can Giouc Interdiction Unit. The ship continued in this capacity until 17 December 1970 when the navy scheduled another yard visit in Yokosuka, Japan. En route to the shipyard, the *Sphinx* lost power in both engines so the crew radioed for assistance. The tanker *Chipola* (AO-63) responded and towed the *Sphinx* to Sasebo for repairs. The *Sphinx* returned to Vietnam on 11 March 1971, where it remained until May and then headed back to the United States. The ship arrived in Bremerton, Washington, on 2 July. The navy decommissioned it on 30 September 1971 and placed it in the reserve fleet.[26]

The *Sphinx*'s last commissioning took place in July 1985 when the navy modified the ship to carry highly sophisticated intelligence-collection equipment. The Puget Sound Naval Shipyard in Bremerton, Washington, converted the *Sphinx* by stripping it of its repair equipment and installing electronic equipment, as well as adding a new level within the superstructure to support the cryptographic and intelligence gathering equipment. The new facility, referred to as the "Ships Signals and Exploitation Space," contained the U.S. Navy's latest equipment. The

[23] U.S. Navy, *Dictionary*, pp. 581-582.
[24] William B. Fulton, *Vietnam Studies: Riverine Operations 1966-1969* (Washington, DC: Department of the Army, 1985), p. 25; U.S. Navy, *Dictionary*, p. 582.
[25] U.S. Navy, *Dictionary*, p. 582.
[26] U.S. Navy, *Dictionary*, p. 582.

navy sought to minimize its funding for the project and chose to reconvert the *Sphinx*. After the $25-million refit, the *Sphinx* headed for Central America.[27]

The ship began patrolling off the coast of El Salvador in the summer of 1985 in what became known as the "El Salvador Campaign," which was a communist guerrilla war against the national government of El Salvador. The *Sphinx* performed a number of missions in support of the government forces during the war, including amphibious counterinsurgency operations utilizing U.S. Navy SEAL teams, patrols, and signals intelligence. Due to the difficult and hazardous environment in which the Sphinx operated, the Chief of Naval Operations (CNO) Adm. James D. Watkins designated the billets aboard the *Sphinx* as "CNO Priority One," and time aboard the ship counted as "double sea duty."[28]

During the mid-1980s, the *Sphinx* performed other duties that included signals intelligence (SIGINT) directed against Cuba and the "War on Drugs" while operating in the Caribbean. The *Sphinx*'s four-year career in SIGNIT operations ended on 16 June 1989 when the ship had its final decommissioning. The navy transferred the title to the U.S. Maritime Administration for layup in the James River Reserve Fleet (JRRF).[29]

From 1989 to 2007, the *Sphinx* remained berthed in the JRRF until its sale in November 2007. The Dunkirk Historical Society attempted to acquire and berth the ship in Dunkirk, New York, with the idea of using the ship as a floating museum exhibit. The society obtained the title to ship on 2 December 2002 through a congressional act, but it lacked the dock space and funding to move the ship. As a result, the Maritime Administration assumed control of the *Sphinx*, and in November 2007, contracted North American Recycling to dismantle it. The company towed the *Sphinx* to its facility in Baltimore, Maryland, but before work could being, the company filed for bankruptcy and deserted it. Another recycling company, Bay Bridge Enterprises, acquired the *Sphinx* in November 2007 and towed it on 1 December 2007 to its facility in Chesapeake, Virginia. The company dismantled the ship for the sale of recyclable metal.[30]

## CONCLUSION

Critical to the Allied success in World War II was the U.S. Maritime Commission, which helped develop and construct a variety of military and civilian ships for use during the war. The LSTs were an example of the commission's mass production of ships. The LSTs primarily carried tanks for amphibious operations, but their design allowed the commission to utilize the ship in different configurations, such as for aircraft repair ships, battle damage repair ships, motor torpedo boat tenders, quasi-carriers, and salvage tenders. The LST repair vessel was a small component of the war effort, but it proved critical in moving personnel, supplies, and repairing

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[27] Al Grobmeier, "The 'Special Project Fleet' 1961-69, 1985-89," available at http://coldwar-c4i.net/SpecialProjectFleet/history.html, accessed 5 August 2008.
[28] George R. Sharrow, "Save the USS Sphinx (ARL-24)," *Sea Classics* 38, no. 3 (March 2005), available at http://findarticles.com/p/articles/mi_qa4442/is_200503/ai_n16057243/?tag=content;col1, accessed 24 February 2011.
[29] Sharrow, "Save the USS Sphinx."
[30] "USS Sphinx (ARL-24)."

equipment during wartime. The *Sphinx*'s long career in the U.S. Navy proves that it was a versatile platform, beginning as a LST and ending its career as a "Special Project" ship. The unique size and configuration of the vessel allowed military planners to reconfigure the ship for specific missions in four separate wars. The ship served on and off for forty-five years and earned one battle star for participating in Korea, eight battle stars for its time in Vietnam, and three awards for service in El Salvador, including the battle efficiency award, a special navy unit commendation, and the armed service expeditionary medal.

**APPENDIX: HISTORIC IMAGES**


**Figure 1:** *Sphinx* underway, n.d. From Naval Historical Center Photographic Section, U.S. Department of Navy.


**Figure 2:** *Sphinx*'s recommissioning in Bremerton, Washington, as an intelligence ship, ca. 1985. From Naval Historical Center Photographic Section, MSC Files, U.S. Department of Navy.

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**HISTORIC AMERICAN ENGINEERING RECORD**

**INDEX TO PHOTOGRAPHS**

*SPHINX* HAER VA-130
(ARL-24)
(LST-963)
James River Reserve Fleet
Newport News vicinity
Virginia

INDEX TO BLACK AND WHITE PHOTOGRAPHS

David Haas, photographer, 2007

| | |
|---|---|
| VA-130-1 | View of bow. |
| VA-130-2 | View of stern. |
| VA-130-3 | Fore deck, looking forward. |
| VA-130-4 | Mid-deck, looking forward. |
| VA-130-5 | Bridge, looking aft. |
| VA-130-6 | Detail of bridge mast, looking forward. |
| VA-130-7 | Mid-deck ammunition rack, looking forward. |
| VA-130-8 | Stern gun turret mount, looking aft. |
| VA-130-9 | Forward view of main cargo hold. |
| VA-130-10 | Interior view of bow doors, looking forward. |
| VA-130-11 | Detail of starboard bow door, showing hinge assembly. Looking to starboard. |
| VA-130-12 | Port side steam generators, looking aft. |
| VA-130-13 | Valve array behind steam generators, looking starboard. |
| VA-130-14 | Rear view of boiler, looking forward. |
| VA-130-15 | Front view of three diesel generators, looking to port. |
| VA-130-16 | Rear view of generator and control panel, looking forward. |

| | |
|---|---|
| VA-130-17 | Side view of starboard engine, looking aft. |
| VA-130-18 | View of port side transmission, looking to port. |
| VA-130-19 | Engine room control panel, forward view. |

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HAER No. VA-130-11

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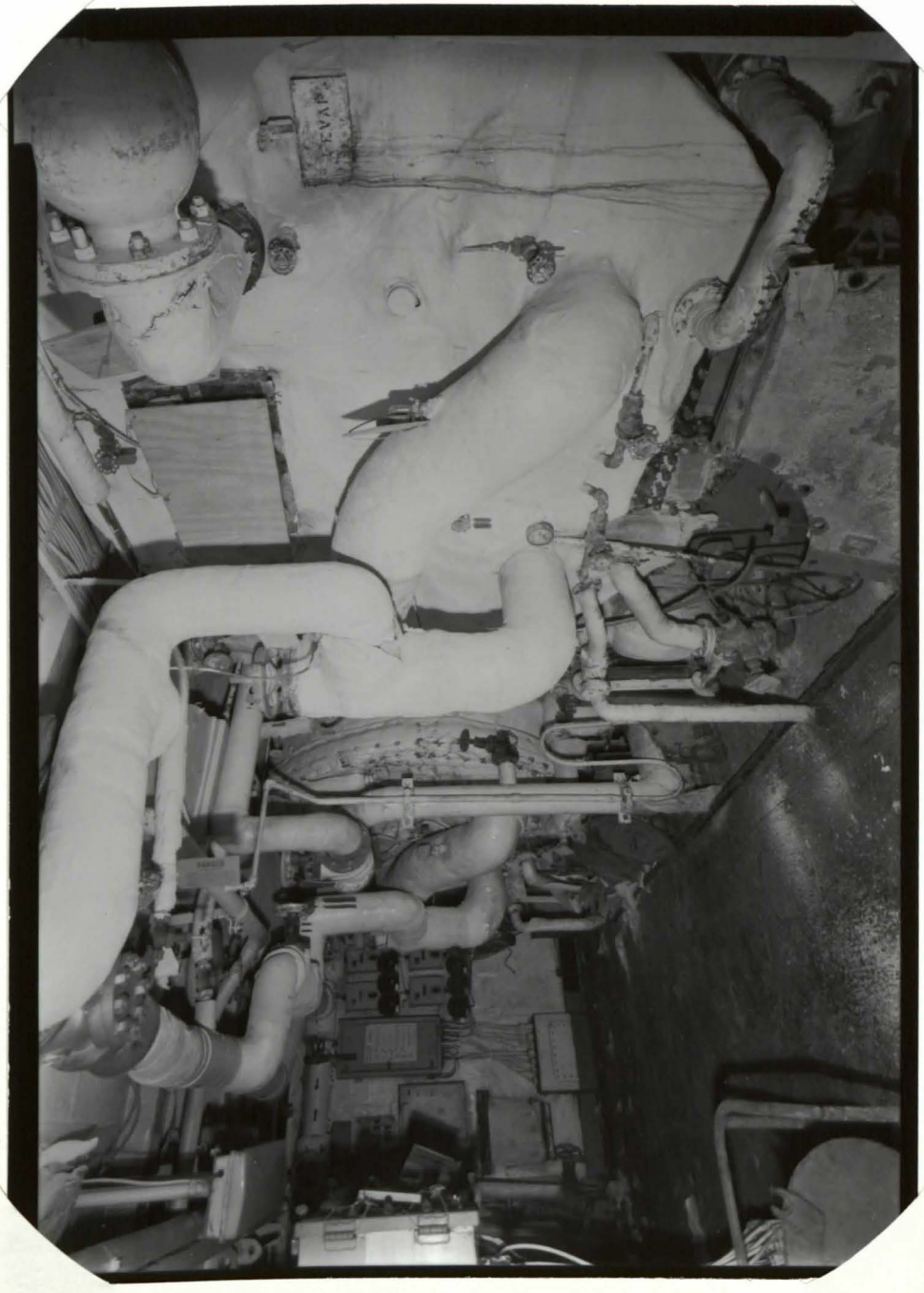

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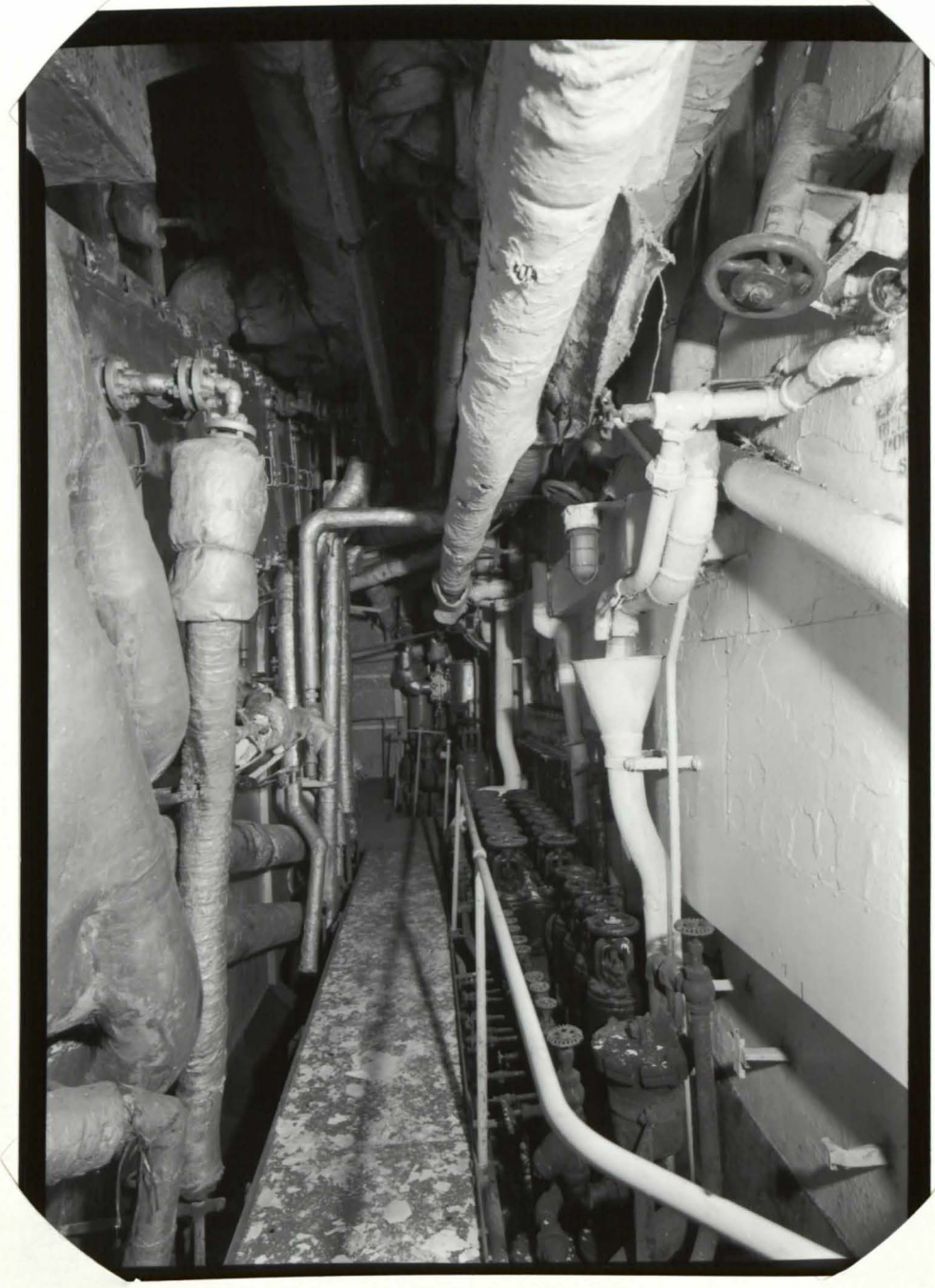

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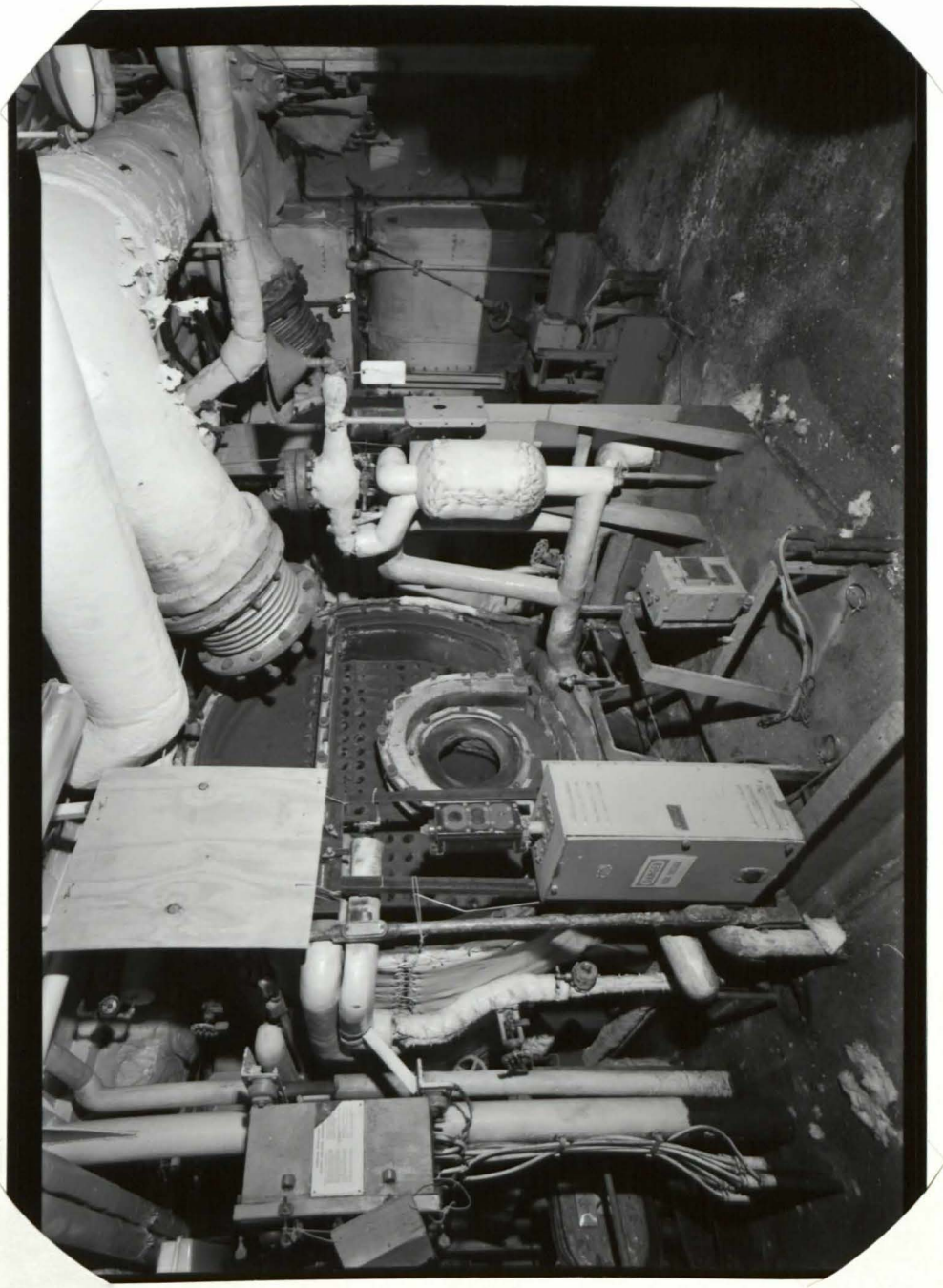

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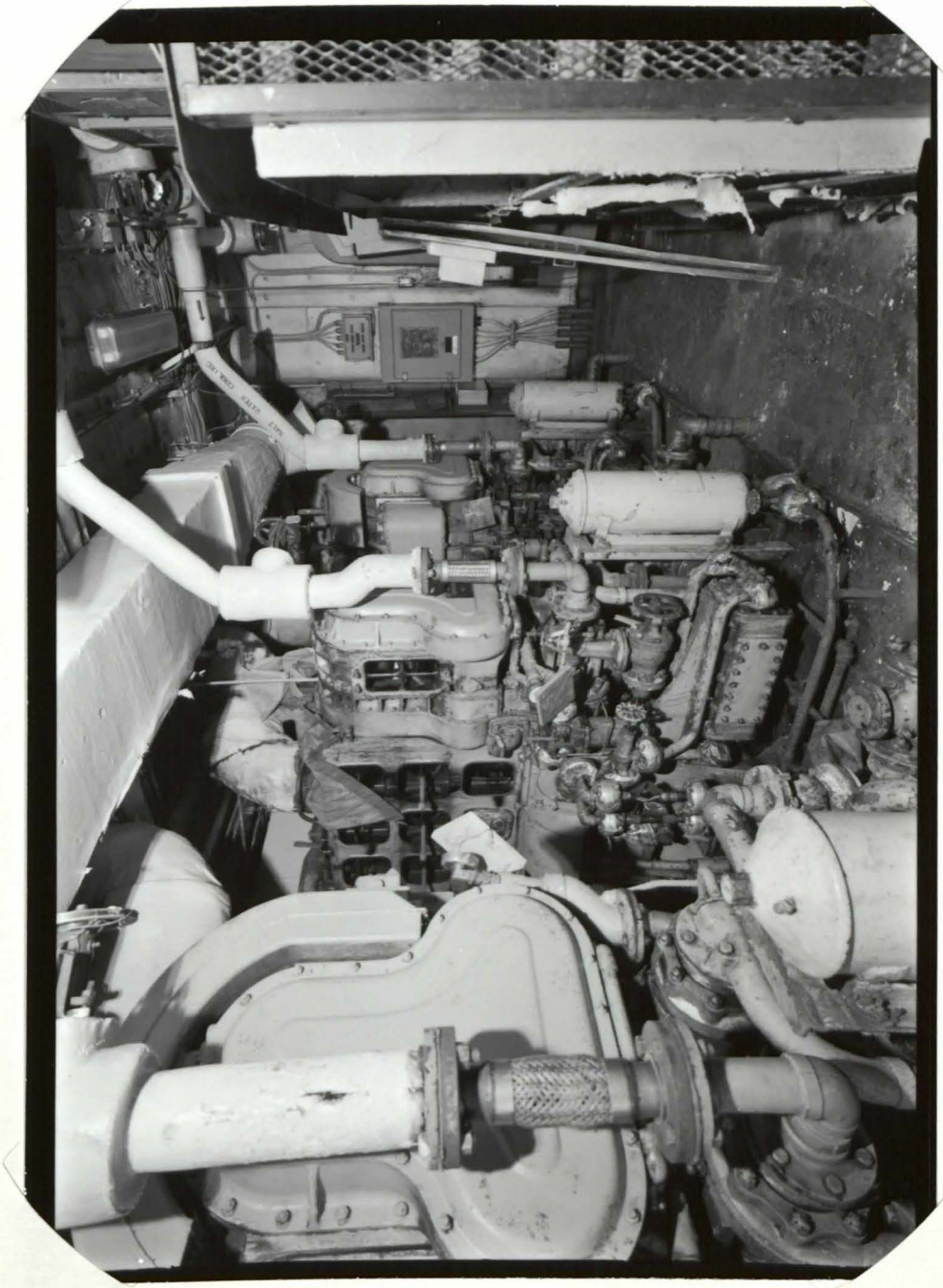

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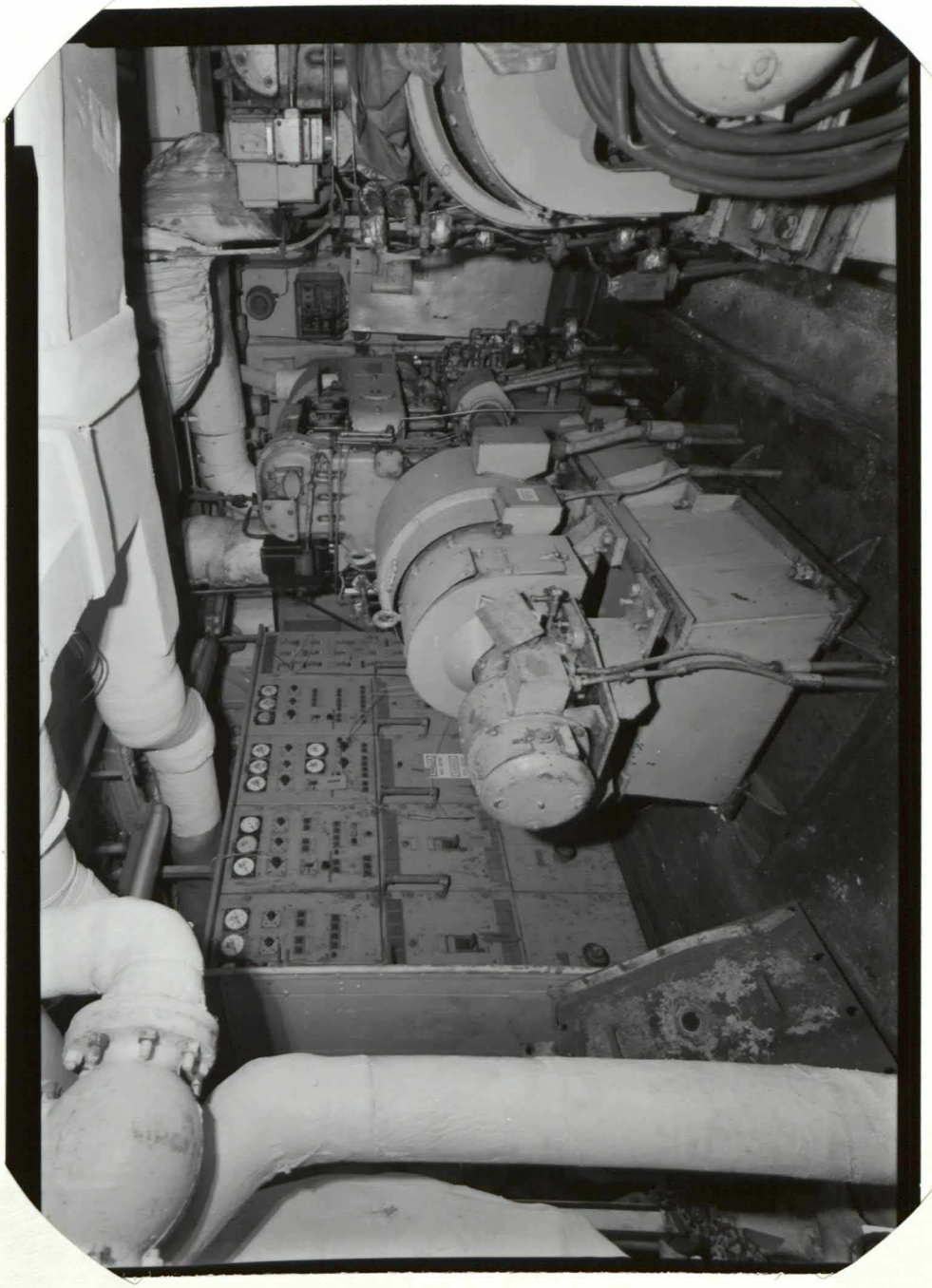

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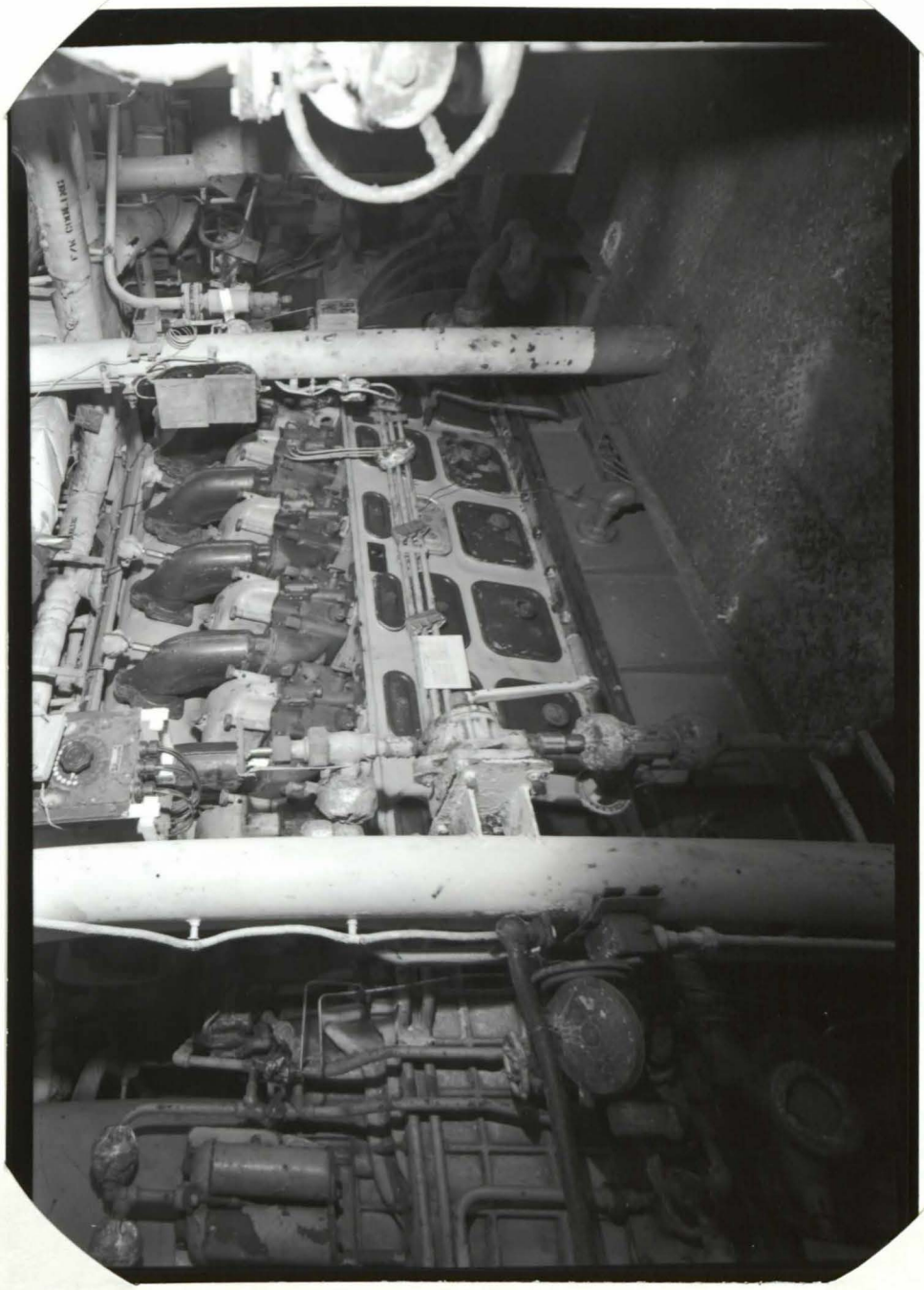

HISTORIC AMERICAN ENGINEERING RECORD
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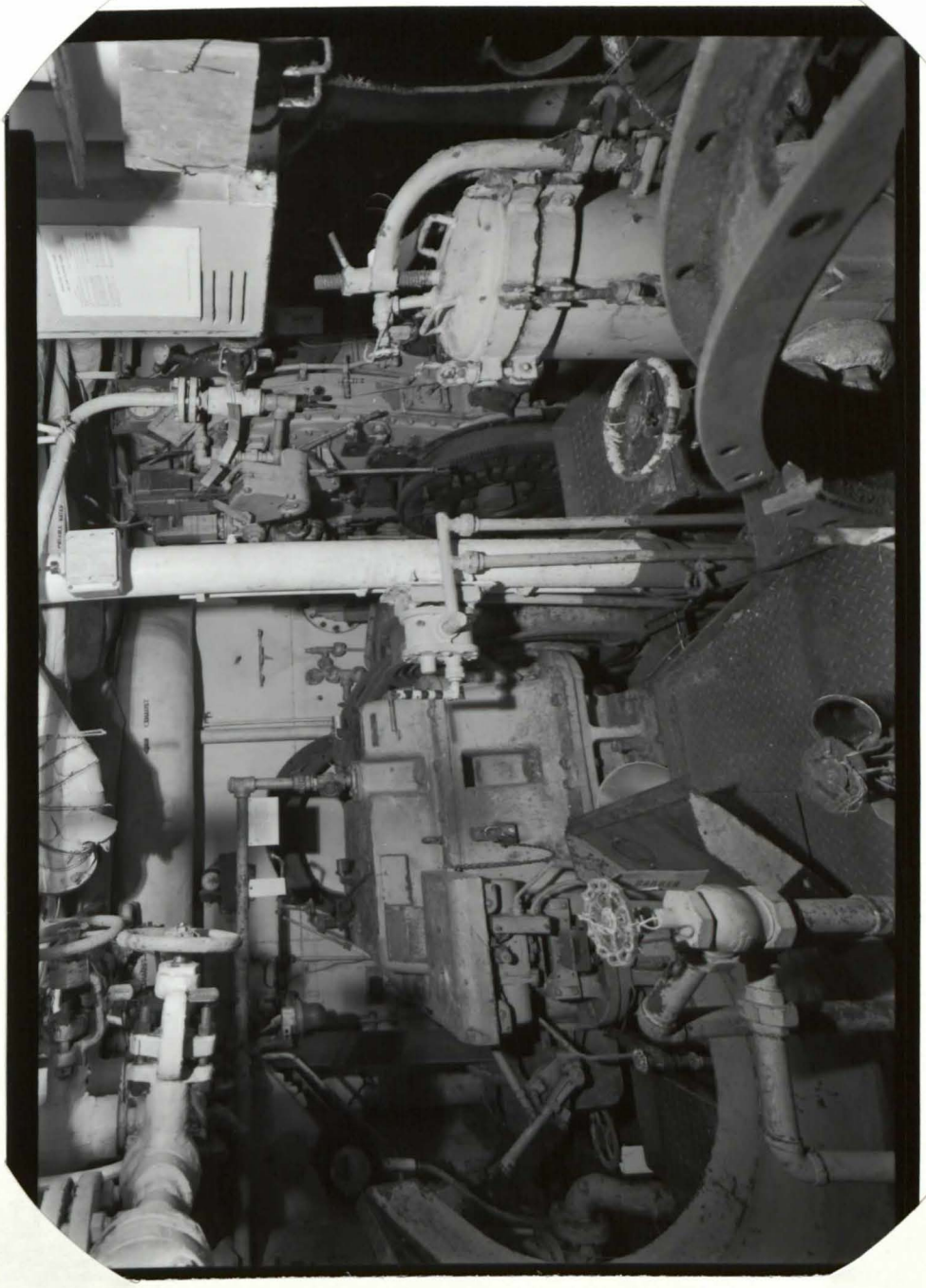

HISTORIC AMERICAN ENGINEERING RECORD
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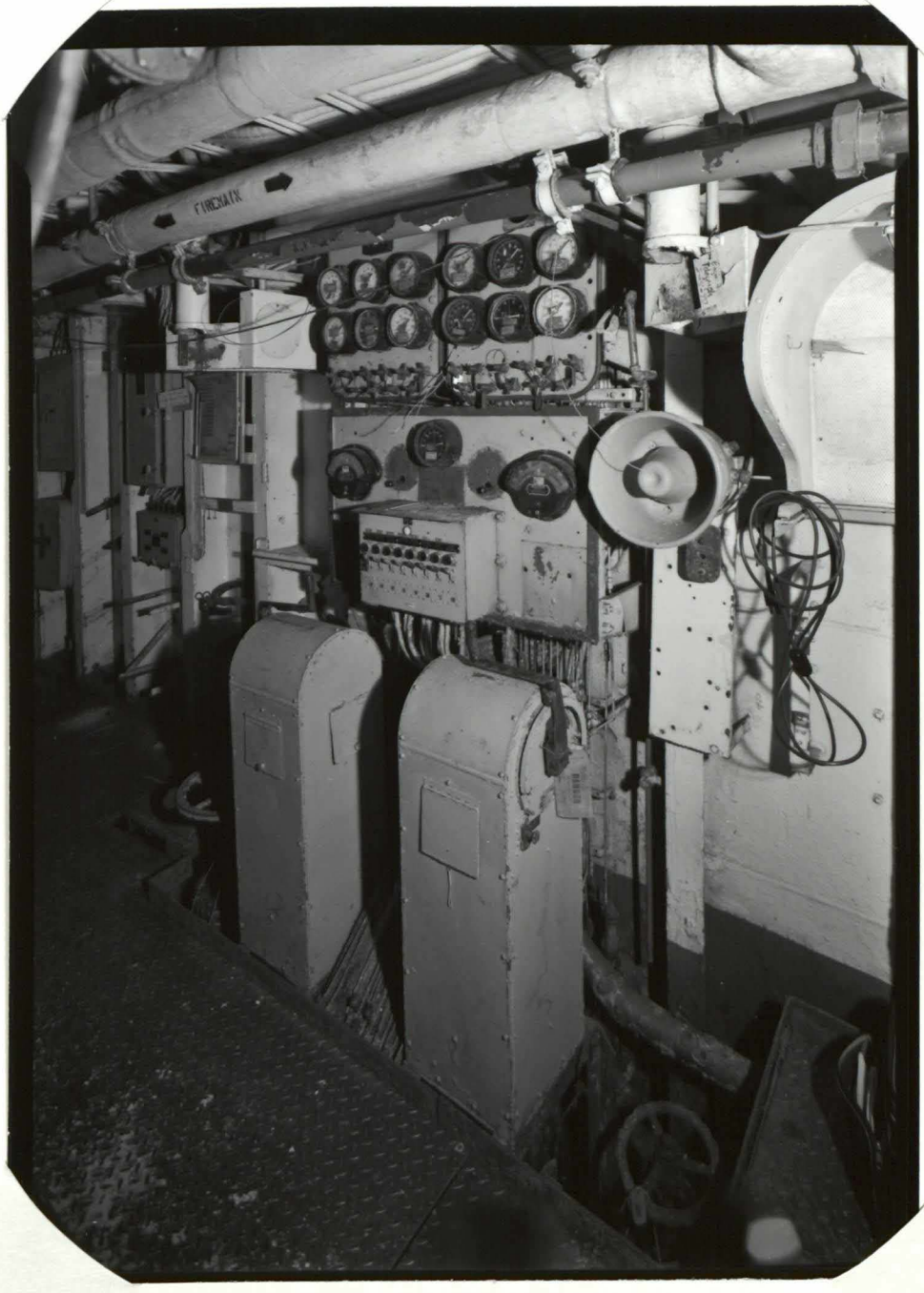
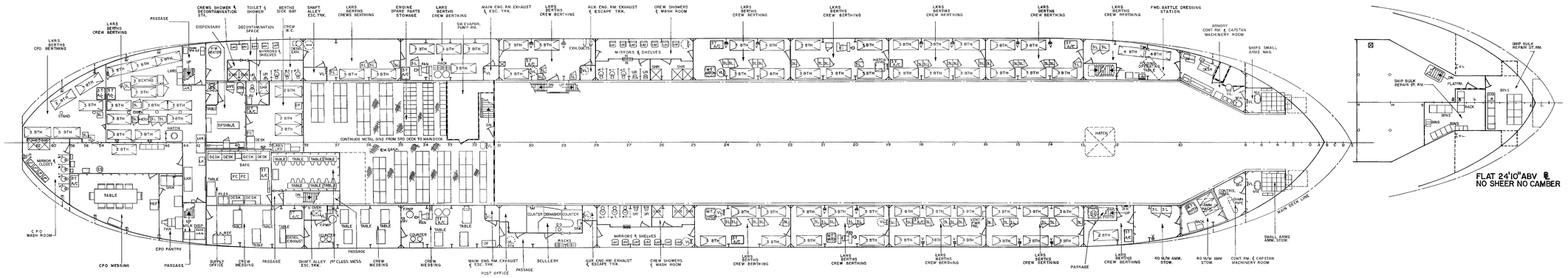
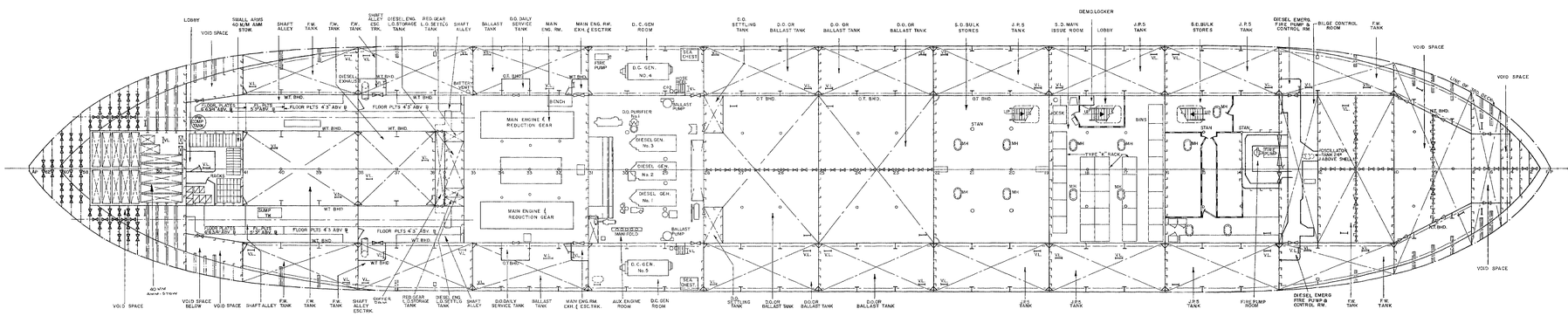


# *USS Sphinx*




SECOND DECK

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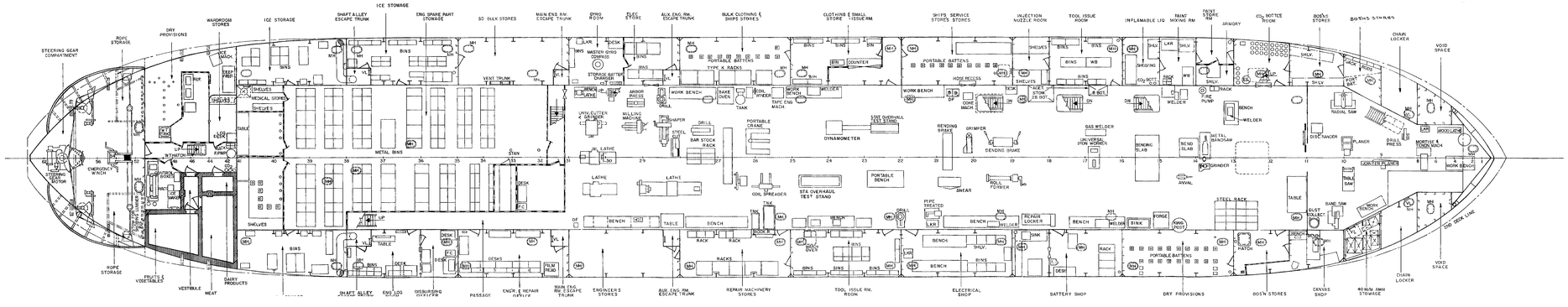
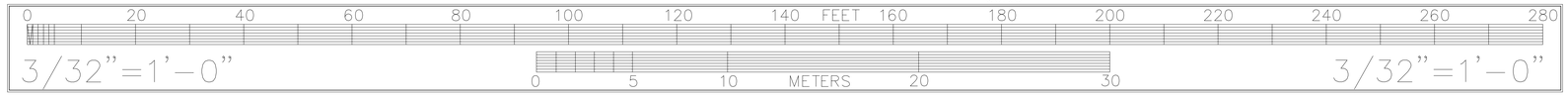



THIRD DECK

NOTE: EACH DRAWING IS SCANNED FROM ORIGINAL DESIGN DRAWING BU. SHIPS NO. ARL 24 $\frac{845}{S0103}$-2563375. MEASUREMENTS WERE NOT VERIFIED IN THE FIELD.

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USS SPHINX - 1944
JAMES RIVER RESERVE FLEET
NEWPORT NEWS COUNTY

NEWPORT NEWS VICINITY

VIRGINIA

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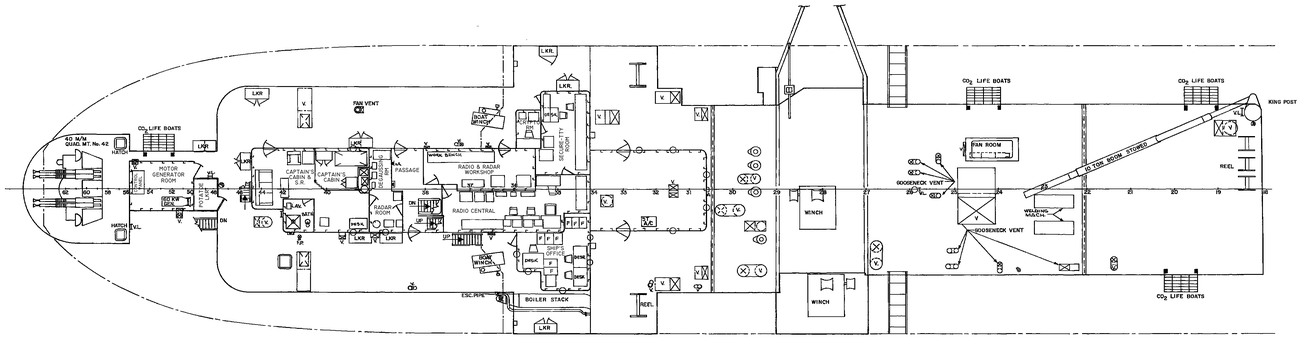
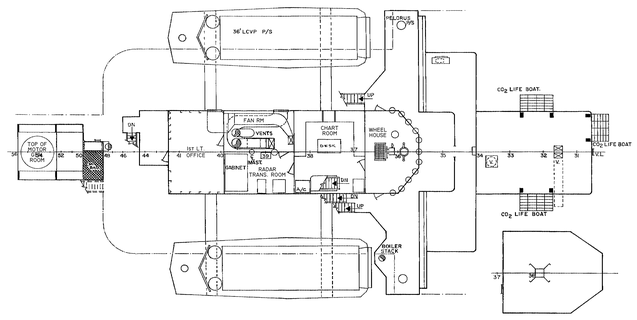
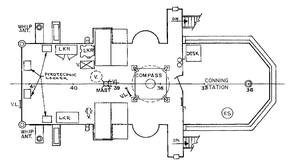
# *USS Sphinx*



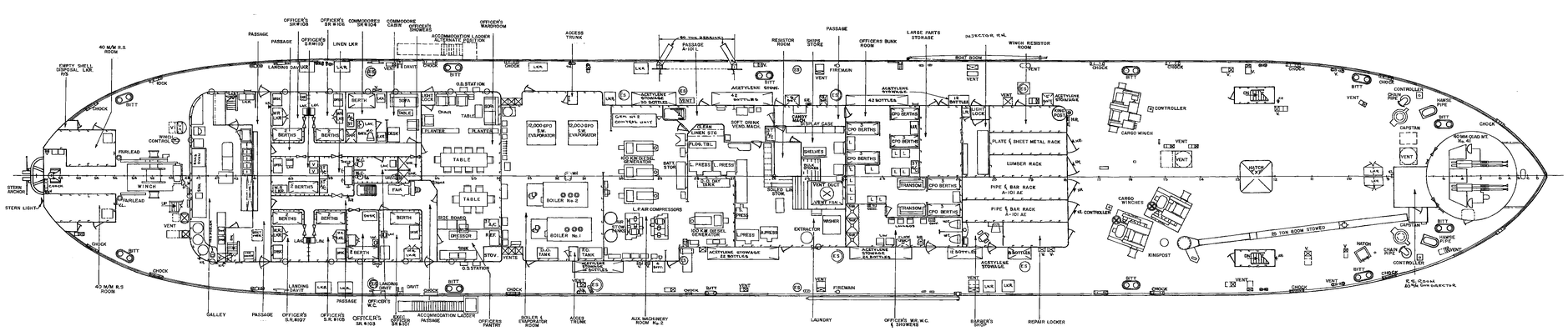

BOAT DECK
01 LEVEL




NAVIGATION BRIDGE
DECK




TOP OF
NAVIGATION BRIDGE
DECK




MAIN DECK

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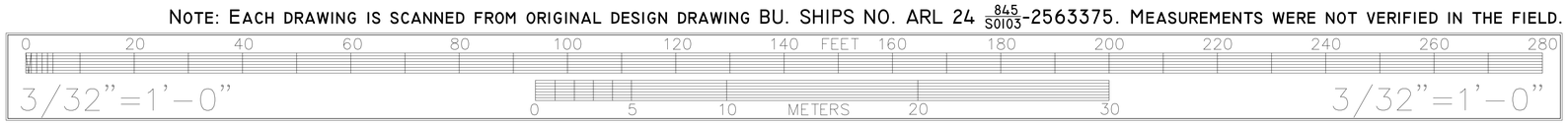


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HISTORIC AMERICAN ENGINEERING RECORD
VA-130

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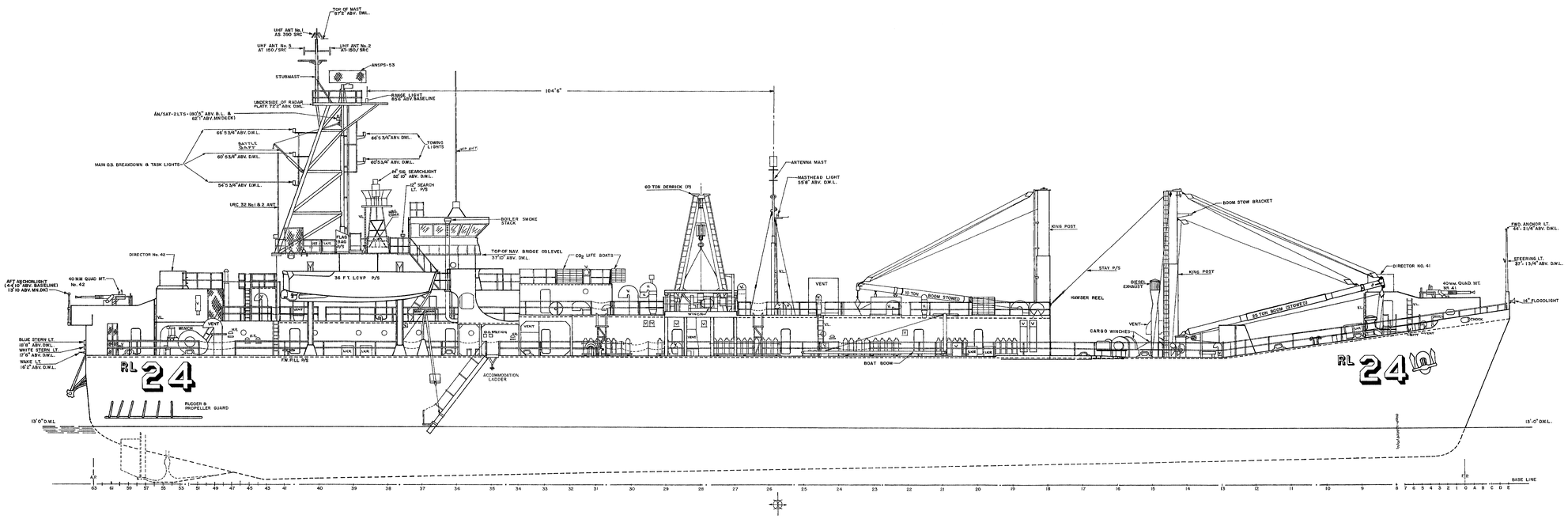
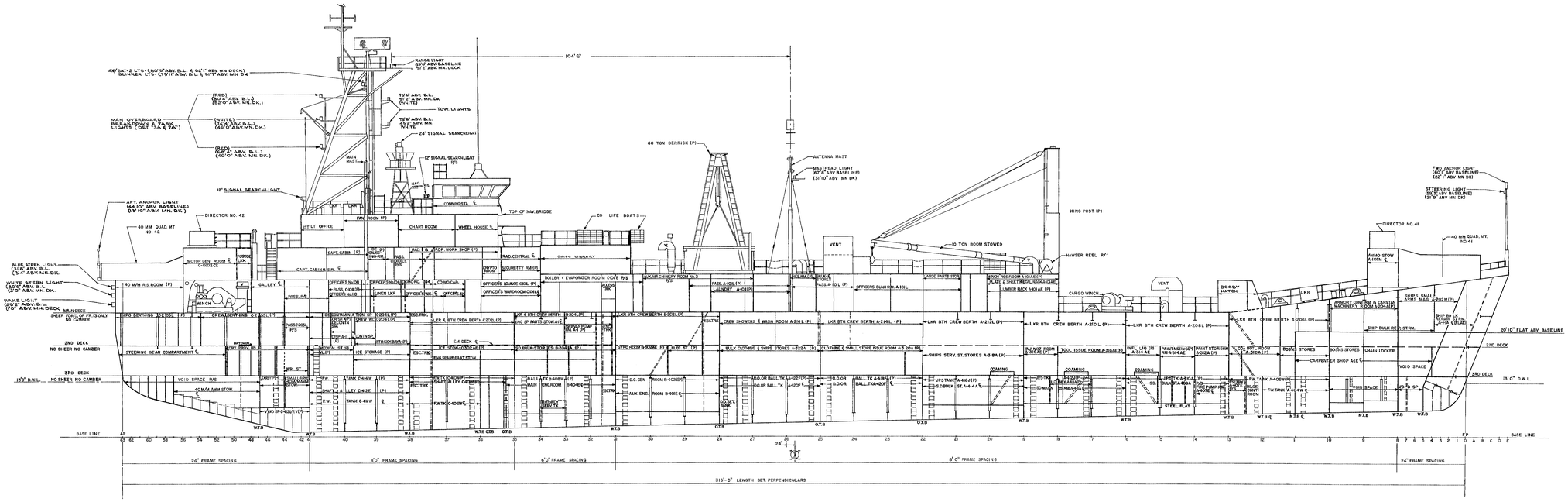
# *USS Sphinx*




OUTBOARD PROFILE




INBOARD PROFILE

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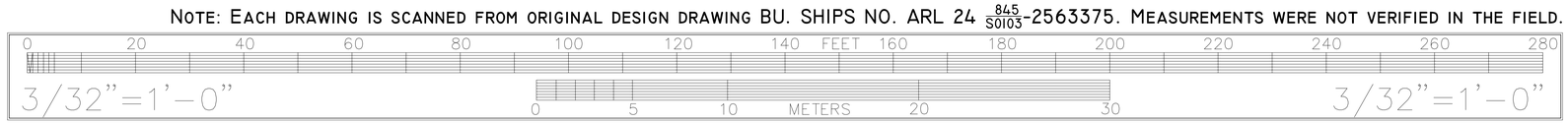


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USS SPHINX - 1944
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HISTORIC AMERICAN ENGINEERING RECORD
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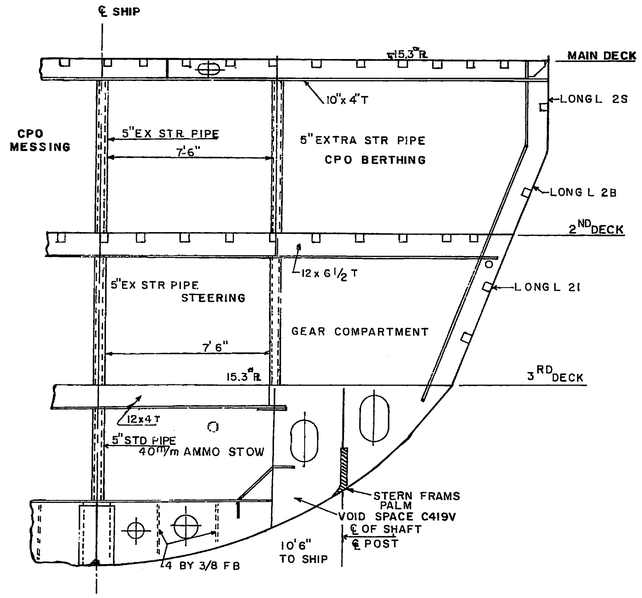
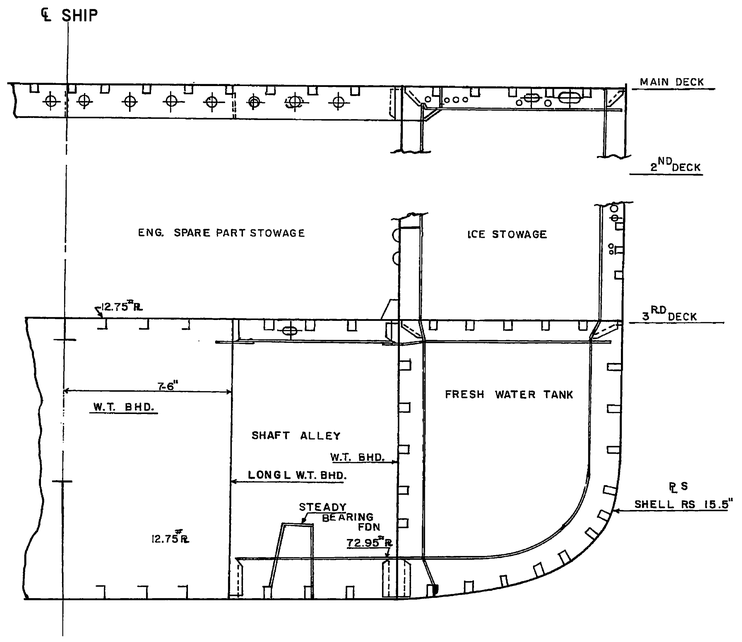
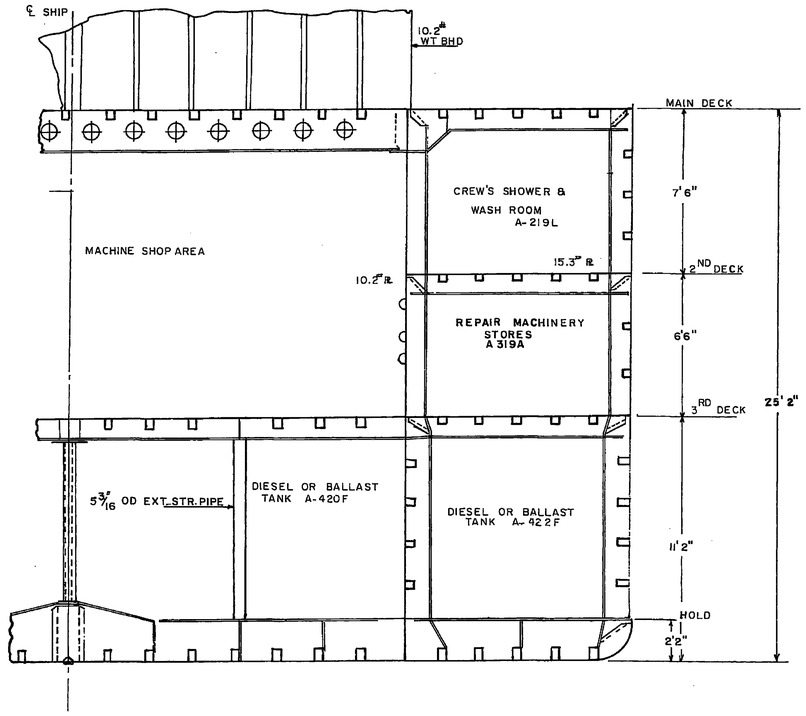
# *USS Sphinx*




FRAME 55
LOOKING AFT




FRAME 36
LOOKING AFT




MIDSHIP SECTION FRAME 26
LOOKING FWD

SCALE: 3/8" = 1'-0"

0 2 4 8 FEET
0 1 2 METERS

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HISTORIC AMERICAN ENGINEERING RECORD
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SHEET 5 OF 5
VIRGINIA
USS SPHINX - 1944
JAMES RIVER RESERVE FLEET
NEWPORT NEWS COUNTY
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