Guide to the Harlan & Hollingsworth Company Plans, 1849-1896
MS0573

The Mariners' Museum Library

Contact Information:
The Mariners' Museum Library
100 Museum Drive
Newport News, VA 23606
Phone: (757) 591-7782
Fax: (757) 591-7310
Email: library@MarinersMuseum.org
URL: www.MarinersMuseum.org/library

Processed by Leland Cloud-Riddlesperger, 2017

DESCRIPTIVE SUMMARY

Repository: The Mariners' Museum Library
Title: Harlan & Hollingsworth Company Plans
Inclusive Dates: 1849-1896
Catalog number: MS0573
Physical Characteristics: 208 items including ships plans, renderings (drawings), architectural drawings (visual works), measured drawings, and deck plans.
Language: English
Creators: Harlan & Hollingsworth Company, Harlan & Hollingsworth (Firm).

HISTORICAL SKETCH

The Harlan & Hollingsworth Company traces its roots to the rail car company founded in 1836 by Mahlon Betts and Samuel N. Pusey in Wilmington, Delaware. With the addition of Samuel Harlan shortly thereafter, the firm became known as Betts, Pusey and Harlan. In 1841, Elijah Hollingsworth bought Samuel Pusey's interest in the company. The firm then became known as Betts, Harlan & Hollingsworth, which it would remain until 1849, when Betts withdrew from the firm. From 1849 to 1858 the company built rail cars and iron ships under the name Harlan & Hollingsworth. In 1858, the name changed to Harlan & Hollingsworth Company. Bethlehem Steel Corporation purchased Harlan and Hollingsworth Company in 1904; it operated as Harlan & Hollingsworth Corporation until 1917, when it became the Harlan Plant of the newly-formed Bethlehem Shipbuilding Corporation.

Although the company got its start in building rail cars, by the early 1840s it began to build ships at its Wilmington plant. It was one of the first shipbuilding companies in the country to have a foundry. Between 1844 and its demise in 1917, Harlan & Hollingsworth built over 200 vessels, ranging from river steamers to ocean going vessels and from monitors to torpedo boats. Additionally, the company built a number of steam yachts for customers such as Charles Morgan, William Astor and W. K. Vanderbilt, among others.

Harlan & Hollingsworth, along with Pusey and Jones and other shipyards, helped Wilmington become known as "the city that launched a thousand ships," as Richard Urban noted in his book of the same name.

SCOPE AND CONTENT

The Harlan & Hollingsworth Company Plans collection consists of 208 ships plans. The collection includes deck plans, measured drawings, and architectural drawings of steamboats, steamships and steam-engines built by Harlan & Hollingsworth and its successor firm Harlan & Hollingsworth Company between 1849 and 1896. There are also full-color renderings of ferries, screw and paddle steamers, and of yachts built for the company's wealthy patrons.

The collection is organized into four series, which reflect the original organization of the plans into four bound volumes. They are arranged in original order.

ADMINISTRATIVE INFORMATION

Accession Number
UNASSIGNED203

Accession Date
1933

Restrictions
The collection is open to all researchers.

Publication Rights
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Preferred Citation
The Harlan & Hollingsworth Company Plans, 1849-1896, MS0573, The Mariners' Museum Library

Processing Information
Cataloging funded by a Hidden Collections grant from the Council on Library and Information Resource (CLIR).

Other Finding Aids
There is an unpublished finding aid available in the Library. The item-level records for each plan are found online in the Museum catalog. An early typed index of the collection with in-depth data on each plan is also available and has been appended to this finding aid as the A*lphabetical Index By Ship Name*.

Note to Users
Due to the fragile and rare nature of the collection, researchers are requested to handle the materials with caution and in accordance with prescribed archival practices. When using these materials, please preserve the original order of the collection.

RELATED MATERIALS
Copy negatives of individual plans are available in Cold Storage. Users must give 48-hour advance notice before the materials are available for consultation.

The Library maintains a collection of 125 specifications books from both the Harlan & Hollingsworth Company and Corporation.

The Collections department manages 39 models and other objects related to Harlan & Hollingsworth-built ships.

Independence Seaport Museum maintains Harlan & Hollingsworth corporate records from 1917 through 1947, when the company was largely known as Bethlehem Shipbuilding - Wilmington. The Hagley Museum and Library also maintains six collections related to the Harlan & Hollingsworth Company and its predecessor and successor companies.

SERIES DESCRIPTION

Series 1: Volume 1 Plans, 1873-1895

This series contains 59 steam-engine, hull and deck plans and renderings of yachts (steam and sail), ferries, and other various steamboats and steamships. The items are organized into folders and reflect their original arrangement in alphabetical order by ship name.

Series 2: Volume 2 Plans, 1854-1896

This series contains 57 steam-engine, hull and deck plans and renderings of yachts (steam and sail), ferries, and other various steamboats and steamships. The items are organized into folders and arranged in original order.

Series 3: Volume 3 Machinery Plans, 1849-1896

This series contains 45 plans. Included are measured drawings, renderings, and architectural drawings of steam-engines built by the company. The items are organized into folders and reflect their original arrangement in alphabetical order by ship name.

Series 4 Volume 4 Machinery Plans, 1851-1895

This series contains 47 plans. Included are measured drawings, renderings, and architectural drawings. Forty-six plans are of marine steam-engines built by the company. One plan is for a land-based rolling mill engine. Some of the plans in this series are untitled. The items are organized into folders and arranged in original order.

SOURCES CONSULTED

Gause, Harry. *Semi-centennial Memoir, Harlan & Hollingsworth*. Wilmington, DE: s.n., 1886.

Hall, Henry, *Report on the Shipbuilding Industry of the United States*. Washington, D.C.: U.S. G.P.O., 1882.

Morrison, John H. *History of American Steam Navigation*. New York: W. F. Sametz & Co., Inc., 1903.

Urban, Richard. *The City that Launched a Thousand Ships: Shipbuilding in Wilmington 1644-1997*. Wilmington, DE: Cedar Tree Books, 1999.

SUBJECTS

Shipbuilding industry—Delaware—Wilmington
Steamboats—Designs and plans
Yachts—United States—Designs and plans
Steam-engines—Designs and plans
Ferries—United States—Designs and plans
Paddle steamers—Designs and plans

	Vol.	Plate
ACAPULCO (Steamer) No.39 (2) Dimensions: Length ---------- 300' 0" Beam molded ---------- 40' 0" Hold ---------- 28' 0" Machinery, direct compound engine: High pressure cylinder ---------- 50"x42" Low pressure cylinder- ---------- 86"x42" Scale: 1/8" = 1 ft. Size: 26¾ x 38. May 1, 1873. Profile and 2 deck plans, hand col. Pacific mail steamship co., ACAPULCO and GRANADA.	1	1
ADRIATIC (Tugboat) Engine of the tugs ADRIATIC and CHAMPION Dia. of cylinder ---------- 18" Stroke of piston ---------- 18" Dia. of propeller ---------- 6' Scale: 1 ½ " = 1 ft. Size: 22¼ x 39½. Apr.19, 1860. Machinery.	3	1
AGNES (Steamer) Engines no.420 & 421. 36"x34". Scale: 1" = 1 ft. Size: 23 ½ 35. Apr.12, 1876. Machinery.	3	2
AL FOSTER (Steamer) No.99 (2) Dimensions: Length between perps ---------- 213' 0" Length over all ---------- 220' 0" Beam molded ---------- 32' 0" Hold ---------- 15' 0" Machinery: Triple expansion engines (2) --------- $^{16"\text{-}26"/22"}/_{40"}$ Boilers (2) ---------- 12'6" x 12'0" long. Scale: 1/8" = 1 ft. Size: 22x32-½. July 25, 1893. 4 Deck plans, hand col.	1	2
ALMY (Steam Yacht No. 93 (1) Hull: Length on deck---------- 179' 0" Length between perps. ---------- 155' 6" Beam molded---------- 24' 0" Depth ---------- 14' 0" Machinery: Triple expansion engine ---------- $^{17"\text{-}24"/22,,}/_{42"}$ Dia. of wheel ---------- 8'x11'pitch Scale: 1/8" = 1 ft. Size: 20½ x 33-¾. Aug. 1890.	1	5

	Vol.	Plate
Two deck plans, hand col.		
ALVA (Steam yacht) Engine: 45"x32" 42" / 45" Wheel: dia. 13'4", pitch 19'0". Pl. 3. Scale: l" = 1 ft. Size: 21¾ x 31¼. 1886. " 4. " ? " 22½ x 31¼. Jan. 1887. Machinery.	3	3,4
AMORITA (Schooner Yacht) No. 107 (1) Dimensions: Length on L.W[ater] L[ine]. ---------- 69'0" Length on deck---------- 99' 6" Beam molded---------- 20' 0" Depth molded ---------- 15' 6" Scale: 1¼" = 1 ft. Size: 18 x 30¼. Feb. 1895. Two deck plans, hand col. Schooner yacht, no.277.	1	6
ANNIE (Steamer) see CAPT. DEVINNEY (Steamer)		
ARCTIC (Ferryboat) No.84 Dimensions: Length between perps---------- 145' 0" Length over all ---------- 158' 0" Beam molded---------- 30' 0" Beam over all ---------- 54' 0" Depth of hold---------- 11' 7½" Machinery: Dia. of cylinder ---------- 40" Stroke of piston ---------- 10' Dia. of wheel ---------- 18' Face of wheel ---------- 7' Dip of bucket---------- 40" Draft of water------- 5' 6 ½". Scale: 1/8" = 1 ft. Size: 19 x 31¼. 1880. Profile, end view, and deck plan, hand col.	1	7
ARIEL (Schooner Yacht) No.103 (1) Hull: Length over all ---------- 109' 0" Length on L.W.L.---------- 79' 6" Beam molded---------- 21' 6" Draft ---------- 10' 0" Machinery: (No data) Scale: ¼" = 1 ft. Size: 19x31. March 1893. Two deck plans, hand col. No.273 schooner yacht.	1	8
ARIZONA (Steamer) Morgan's engine Dia. of cylinder ---------- 44"	3	5

	Vol.	Plate
Stroke of piston ---------- 11' Scale: 1½" = 1 ft. Size: 22¾ x 37. Oct.21, 1858. Machinery.		
AUGUSTA (Steamer?) Engine: Dia. of cylinder ---- 8 ½". Stroke --- 20". Dia. of cold water pumps - 6¼". Stroke - 11 ½". Dia. of warm water pumps - 5-5/8". Stroke - 11 ½". Three bilge pumps: 1= 20" stroke. 2 = 10" stroke. Scale: l ½" = 1 ft. Size: 22 x 33¼. Nov. 1856. "Augusta boat's doctor engine". Machinery.	3	6
AU REVOIR (Steam yacht) No.102 Dimensions: Length between perps. ---------- 145' 6" On deck ---------- 167' 6" Breadth ---------- 23' 6" Depth ---------- 2' 6" Tonnage ---------- 212.00 Mean draft ---------- 7' 10-5/8" Displacement ---------- 325 tons Machinery: Engine --------- $^{16"\text{-}26"\text{-}40"}/_{22"}$ 1 boiler ------ 12' 6" dia. 12' 0" long. Sail area ------ 2450 ft. Propeller ------ 7' 6" dia. 11' 0" pitch. Pl.9. Scale: 1/8" = 1 ft. Size: 12½x26. July 1893. " 10. " " " " " 14¼ x 27½. July 1893. " 11. " ¼" = " " " 25x48. Dec.1, 1892. Profile, 2 deck plans (hand col.), Sail plan.	1	9,10,11
AVALON (Steamer) No.l08 (1&2) Hull: Length between perps. ---------- 190' 0" Beam molded ---------- 31' 0" Beam over guards ---------- 54' 6' Depth at from base to top of beam --- 10' 0" Machinery: Engine ---------- 40" x 10'. Wheels ---------- 22' 0" dia. 8' 0" face. Pl.12. Scale: l/8" = 1 ft. Size: 19¾x27¾. Nov. 1887. " 13. " " " " " 24x27 ½. Nov. 1887. Profile, 4 deck plans, hand col. Choptank steamer, no.4. See also IDA (Steamer)	1	12, 13

	Vol.	Plate
B.S. FORD (Steamer) No.72 (1) Dimensions: Length between p. and p. ---------- 165' 0" Breadth molded ---------- 27' 0" Depth from base line to top of beam - 9' 0" Machinery: (No data) Scale: l/8"= 1 ft. Size: 22 ½x27. July 1877. Profile, 3 deck plans, hand col. Chester river boat.	1	14
BEVERLY (Ferryboat) see WENONAH (Ferryboat)		
BLACK DIAMOND (Steamer) Machinery: Engine for propeller Dia. of cylinder ---------- 22" Stroke of piston ---------- 24" Scale: l ½" = 1 ft. Size: 22x34. Feb.28, 1862. Renamed VESPER. Machinery.	3	7
BRANDYWINE (Steamer) Engines: Dia. of cylinders ---------- 24" and 42". Stroke ---------- 24" Dia. of wheel ---------- 8' 6" Pitch ---------- 12' 6" Scale: 1" = 1 ft. Size: 20x30. Philadelphia propeller. Machinery	3	8
BRASHEAR (steamer) See Vol. 2 p. 10, Morgan ship no. 25.		
BULWER (Steamer) see CLAYTON (Steamer)		
CALIFORNIA (Steamer) Engine: Dia. of cylinder ---------- 60" Stroke of piston ---------- 11' Pl. l. Scale: ½" = 1 ft. Size: 30x45½. Aug.16, 1869. " 2. " 1½"= 1 ft. " 30 ½x47. (No date) Machinery.	4	1, 2
CANTON (Steamer) Port engine: Dia. of cylinder ---------- 36" Stroke of piston ---------- 9' Dia. of wheel ---------- 26' Face of wheel ---------- 8' Steam pressure ---------- 60 lb. Scale: ¾" = 1 ft. Size: 18½ x 43. Feb. 1880. Phila., Wilmington & Balt, and Balt. & Ohio R.R.cos.	4	3

	Vol.	Plate
Machinery.		
CAPTAIN [H. J.] DEVENNEY (Steamer) Engine for propeller Dia. of cylinder ---------- 22" Stroke of piston ---------- 24" Dia. of propeller ---------- 7' Scale: 1½" = 1 ft. Size: 21¼x39. Aug. 3, 1861. Renamed "ANNIE". Machinery.	3	9
CHAMPION (Tugboat) see ADRIATIC (Tugboat)		
CHARLES MACALESTER (Steamer) No.113 (2) Hull: Length between perps. ---------- 195' 0" Beam molded---------- 30' 0" Beam over guards ---------- 54' 4" Depth at sides ---------- 10' 6" Machinery: Engine 44" dia. of cyl. x 10' 0" stroke. Feathering wheels 22' 6" dia. x 8' 6" face. Pl.15. Scale 1/8" = 1 ft. Size: 18x27¾. May 1890. " 16. " 1" = " " " 20½ x27¾. Dec. 1889. Profile, deck plan, and machinery, hand col. Marshall Hall steamer.	1	15, 16
CHARLES F. MAYER (Steamer) No.? Hull: Length between perps. ---------- 230' 0" Beam molded---------- 37' 0" Depth to top of deck beam ---------- 20' 6" Machinery: Engine ---------- 30"-56" / 36" Boilers (2) - 11' 6" dia. x 11' 0" long. Wheel - 12' 6" dia. 18' 6" pitch. Scale: 1/8" = 1 ft. Size: 25x33¼. Oct. 1883. Profile and 2 deck plans, hand col.	1	17
CHIH-LI (Steamer) Engines: (No data) Scale: 1" = 1 ft. Size: 30x31½. June 16, 1876. A.J. Inglis, engineers & shipbuilders, Glasgow. Machinery.	4	4, 5
CITY OF KINGSTON (Steamer) No.? Dimensions: (No data) Engine: 30"-56" / 36" Pl. 18. Scale: 1/8" = 1 ft. Size: 24x33¼. May 1884. " 19. " 1" = " " 20½x31. May, 1884. 3 deck plans, machinery, hand col.	1	18, 19

	Vol.	Plate
CITY OF JACKSONVILLE (Steamer) [Machinery] (No data) Machinery.	4	6
CITY OF LAWRENCE (Steamer) Engine front: Dia. of cylinder ---------- 65" Stroke ---------- 11' Scale: l½" = 1ft. Size: 30x45½. Jan.22, 1867. Machinery.	4	7
CITY OF NORFOLK (Steamer) [Engine]: Dia. of cylinder ---------- 50" Stroke ---------- 11' Scale: ? Size: 26½x42½. Date? Machinery.	4	8
CITY OF PANAMA (Steamer) Compound engines: 30"x56"x4'6"Stroke. Scale: 1" = 1ft. Size 29x48. Nd. Machinery.	4	9
CITY OF PORTSMOUTH (Ferryboat) No.109 Hull: Length between perps. ---------- 145'0" Length over all ---------- 158'0" Beam molded---------- 30'0" Beam over guards ---------- 54'0" Depth at base line to top of beam----- 11'7½" Depth at ends to top of beam---------- 10'7½" Machinery: Dia. of cylinder ---------- 40" Stroke of piston ---------- 10' 0" Dia. of wheels ---------- 18' 0" Face of wheels ---------- 7' 0" Scale: 1/8" = 1 ft. Size: 25x23. Mar. 1888. Profile and 2 deck plans, hand col. Norfolk ferryboat.	1	20
CITY OF READING (Ferryboat) No.110 Hull: Length over posts ---------- 145' 0" Length over all ---------- 158' 0" Beam molded---------- 30' 0" Beam over guards ---------- 55' 6" Depth from base to top of beam ------ 12 3" Depth at ends ---------- 11' 1" Machinery: Engine ---------- 42" x 10'.	1	21, 22

	Vol.	Plate
Wheels ---------- 18' 6" dia. x 7' 3" face. Pl. 21. Scale: 1/8" = 1 ft. Size: 22¾x24¼. Dec. 1888. " 22. " 1" = " " " 24x34[?]. Mar. 29, 1898. Profile, 2 deck plans, and machinery, hand-col.		
CITY OF WORCESTER (Steamer) No. Dimensions: Length between PP ---------- 325' 0" Length over all ---------- 339' 0" Beam molded---------- 46' 0" Beam over guards ---------- 80' 0" Depth of hold---------- 16' 3" Machinery: Dia. of cylinder ---------- 90" Stroke of piston ---------- 12' Dia. of wheel ---------- 38' Face of wheel ---------- 11' Scale: 1/8" = 1 ft. Size: 28¼x44¾. 1881. Profile and deck plan, hand col. Norwich steamer, no.2.	1	23
Clark, James, Company Engine for James Clark co. 10 Cylinders: $^{19½"x30½"x99"}/_{30"}$ Scale: 1" = 1 ft. Size: 20x34. Feb.22, 1896. Machinery.	3	10
CLAYTON (Steamer) Engine: Dia. of cylinder ---------- 10" Stroke ---------- 3' Scale: l½" = 1 ft. Size: 24x42 ¾. Nd. Machinery. San Juan boats, CLAYTON and BULWER.	4	10
COLORADO (Ferryboat) No. 100 Dimensions: Length over posts ---------- 170' 0" Length over all ---------- 184' 2" Beam molded---------- 36' 6" Beam over all ---------- 62' 6" Depth to top of beam at ---------- 13' 6" Machinery: Dia. of cylinder ---------- 46" Stroke of piston ---------- 10' Dia. of wheels ---------- 19' 6" Face---------- 8' 6" Pl.24. Scale: 1/8" = 1 ft. Size: 23x36½. June 1885.	1	24, 25

	Vol.	Plate
" 25. " 1" = 1 ft. " 23½x37. 1885. Profile, deck plan, and machinery, hand col. New York ferryboats COLORADO and WYOMING.		
COLUMBIA (Steamer) Engine front: Dia. of cylinder ---------- 50" Stroke of piston ---------- 11' Scale: 1½" = 1 ft. Size: 28½x45½. Mar.17, 1876. Machinery.	4	11
COOPERS POINT (Ferryboat) No.81 Dimensions: Length between posts ---------- 140' 0" Length over all ---------- 153' 0" Beam molded---------- 30' 0" Beam over all ---------- 52' 6" Depth molded at ---------- 11' 6" Machinery: Dia. of cylinder ---------- 40" Stroke of piston ---------- 10' Dia. of wheel ---------- 18' Face---------- 7' Scale: 1/8" = 1 ft. Size: 20½ x 25¾. Profile and deck plan, hand col.	1	26
CORSICA (Steamer) No.6 (1&2) Hull: Length on deck---------- 147' 0" Length between perps. ---------- 140' 0" Beam molded---------- 26' 0" Depth molded ---------- 8' 6" Machinery: Vertical jet-condensing engine - 26". Stroke - 24". Dia. of wheel ---------- 7' 6". Pitch of wheel at periphery---------- 14' 0". Pitch of wheel - 18" in dia. ---------- 11' 6". Pl.27. Scale: ¼" = 1 ft. Size: 22½ x38. June 1882. " 28. " " " " " 24x39. June 1882. Profile, 2 deck plans, hand col.	1	27, 28
COSTA RICA (Steamer) Throttle valve, starting and unhooking arrangement. Scale: 1" = 1 ft. Size: 21x30. Oct. 20, 1868. Panama ship, no. 8 Machinery.	3	11
Cothrans & Elliot, Rome, Ga. Engine: Dia. of cylinder ---------- 14"	3	12

	Vol.	Plate
Stroke ---------- 42" Scale: 1" = 1 ft. Size: 24¾x40. July 22, 1859. Machinery.		
DAUNTLESS (Ferryboat) No. ? General dimensions: Length between perps ---------- 150' 0" Length over all ---------- 163' 0" Breadth of beam ---------- 32' 3" Hold at from base line to top of beam 12' 3" Hold at ends from base line to top of beam ---------- 10' 3" Machinery: Dia. of cylinder ---------- 38" Stroke of piston ---------- 9' Dia. of wheel ---------- 9' Scale: 1/8" = 1 ft. Size: 25½X25½. Apr. 10, 1876. Profile and two deck plans, hand col. Phila. and Gloucester Ferry co.	1	29
DORCHESTER (Steamer) No.84 (1&2) Hull: Length between perps. ---------- 260' 0" Length over all ---------- 282' 6" Beam molded---------- 40' 0" Depth to 3d deck ---------- 25' 3" Machinery: Triple compound engine ----- 24"-39"-59" / 48" Propeller ----- 15' 0" dia. x 23' 0" pitch. P1.30. Scale: 1/8" = 1 ft. Size: 21x39½. Mar. 30, 1889. " 31. " " " " " " 19½x38½. Feb. 15, 1893. Profile, 2 deck plans, hand col. Merchants & Miners, no.6.	1	30, 31
EASTERN SHORE (Steamer) No.94 (1&2) Dimensions: Length between perps. ---------- 175' 0" Length over all ---------- 183' 4" Beam molded---------- 35'0" Beam over all ---------- 56' 6" Depth from base to top of beam ------ 10' 3" Engine, surface condensing: Dia. of cylinder ---------- 38" Stroke ---------- 9' Feathering wheels - 20' dia. x 7'6" face. Pl.32. Scale: 1/8" = 1 ft. Size: 19½x32¼. Apr. 1883. " 33. " " " " " " 23¼x28. Apr. 1883. Profile, 3 deck plans, hand col.	1	32, 33

	Vol.	Plate
EASTON (Ferryboat) No. 100 Dimensions: Length over posts ---------- 145' 0" Beam molded---------- 32' 0" Beam over guards ---------- 54' 0" Depth at centre ---------- 14' 4" Machinery: 2 engines ---------- 16"x5" / 22" 2 propellers ---------- 7' 0" dia. x 11' 0" ---------- pitch. Scale: 1/8" = 1 ft. Size: 27½ x27½. March 1893. Profile end 2 deck plans, hand col. Maxwell ferryboats EASTON and MAUCH CHUNK.	1	34
ELECTRA (Steamer) Engines ---------- 22"-40" / 26" Scale: l½" = 1 ft. Size: 2l½x34-l/4. June 28, 1884. Machinery.	3	13
ELFRIDA (Steam Yacht) No.86 (1&2) Hull: Length between perps. ---------- 101' 6" Length on deck---------- 117' 0" Beam molded---------- 18' 0" Depth at side ---------- 12' 6" Machinery: Engine ---------- 10½"xl6"x24" / 16" Dia. of wheel ---------- 6' 4" Pitch ---------- 8' 6" Pl.35. Scale: ¼" = 1 ft. Size: 24½x37. June 1889. " 36. " " " " " " 17x36½. June 1889. Profile, 3 deck plans, hand col.	1	35, 36
ELLEN S. TERRY (Steamer) Hartford engine. (No data) Scale: 1½" = 1 ft. Size: 25x46. Nov.2, 1857 Machinery.	4	12
EMMA A. FORD (Steamer) No.97 (1&2) Hull: Length between perps. ---------- 180' 0" Length over all, about ---------- 187'7" Beam molded---------- 30'0" Beam over guards ---------- 54' 0" Depth from base line ---------- 9' 0" Machinery: Dia. of cylinder ---------- 40" Stroke of piston ---------- 10'	1	37, 38

	Vol.	Plate
Dia. of wheels ---------- 25'6" Face of wheels ---------- 8' Pl.37. Scale: 1/8" = 1 ft. Size: 23½x36. Sept. 1884. " 38. " " " " " " 23½x37. Sept. 1884. Profile, 4 deck plans, hand col. Chester river, no.3.		
EXCELSIOR (Steamer) No.87 (1&2) Hull: Length between posts. ---------- 230' 0" Length over all ---------- 239' 0" Beam molded---------- 37' 0" Beam over all ---------- 64' 0" Depth to base line---------- 13' 0" Machinery: Beam engines (2) ---------- 40" dia. x l0" stroke. Dia. of wheels ---------- 27' 0" Face---------- 8' 9" Pl.39. Scale: l/8" = 1 ft. Size: 24½x37¾. Oct. 1880. " 40 " " " " " " " " " " " " Profile, 4 deck plans, hand col. Quantico boat.	1	39, 40
EXPRESS (Transport steamer) No.88 (l&2) Hull: Length between perps. ---------- 272' 0" Length over all ---------- 280' 0" Beam molded---------- 44' 0" Beam over guards ---------- 61'0" Depth molded at centre ---------- 14' 6" Machinery: Twin screw engine ---------- 26"-48" / 36" Boilers 11' 0" dia. 11' 6" long. Wheels 10' 6" dia. 15' 6" pitch. P1.41. Scale: 1/8" = 1 ft. Size: 13x37¾. March 1889. " 42. " " " " " " 26¾x37. " Profile, 3 deck plans, hand col.	1	41, 42
F.W. BRUNE (Steamer) Engine of the propeller F.W.BRUNE Dia. of cylinder ---------- 28" Stroke of piston ---------- 26" Dia. of propeller ---------- 8'2" Scale: 1½" = 1 ft. Size: 24¾x34. May 28, 1860. Machinery.	3	14
FAIRFIEID (Steamer) Propeller engine: Dia. of cylinder ---------- 18"	3	15

	Vol.	Plate
Stroke of piston ---------- 18" Dia. of propeller ---------- 6' Scale: l½" = 1 ft. Size: 20½x28½. June 20, 1860. Machinery.		
FALCON (Steam Yacht) No.57 (1&2) Dimensions: Length between posts. ---------- 100' 0" Length over all ---------- 106' 0" Beam molded---------- 15' 6" Depth molded ---------- 7' 11" Machinery: Dia. of cylinder ---------- 16" Stroke of piston ---------- 16" Dia. of wheel ---------- 5' 6" (later 5'7") Pitch of wheel ---------- 11' 0" Pressure of steam ---------- 100 lb. Pl.43. Scale: ¼" = 1 ft. Size: 19¼x30½. Nov. 1880. " 44. " " " " " " 22x30½. June 1880. " 45. " " = " " " 15½xl9½. 1880. " 46. " " = " " " 15½xl7½. Apr. 1880. Profile, 4 deck plans and machinery, hand col. Washington yacht.	1	43, 44 45, 46
FRANCES (Steamer) Engine fronts of the steamers FRANCES and LOUISE. Scale: l½" = 1 ft. Size: 25x43½. June 17, 1864. Machinery.	4	13
FLUSHING (Ferryboat) No. ? Dimensions: Length between perps---------- 150' 0" Length on deck---------- 162' 6" Beam molded---------- 32' 0" Beam over all ---------- 57' 4" Depth of hold from base line to top of deck Beams ---------- 13'6" Depth of hold from base line to top of deck beams at ends ---------- 11' 9" Machinery: Dia. of cylinder - 44" Stroke - 9'. Dia. of wheels - 20'. Face of buckets - 7' 6". Pl.47. Scale: 1/8" = 1 ft. Size: 23x36. Apr. 5, 1877. " 48. " ¾" = " " " 24x37¾. Dec. 8, 1876. Profile, deck plan, end view and machinery, hand col.	1	47, 48
GASTON (Steamer) No.? Dimensions: Length on 6 ft. water line---------- 205' 0"	1	49, 50

	Vol.	Plate
Beam molded---------- 31'10" Hold from base to upper deck beams 22' 0" Machinery: Dia. of high press cylinder ---------- 26" " " low " " ---------- 44" Stroke of pistons ---------- 36" Dia. of wheel ---------- 10' 9" Pitch of wheel ---------- 18' 0" P1.49. Scale: 1/8" = 1 ft. Size: 20¾x33. Oct. 1881. " 50. " 1" = " " " 18x25½. Mar. 1881. Profile, deck plan and machinery, hand col. Robinson steamer, no. 5.		
GENERAL WHITNEY (Steamer) General plan of engines: Dia. of cylinders ---------- 36" Stroke of pistons ---------- 60" Scale: ¾" = 1 ft. Size: 27½x37. Nov.5, 1873. Machinery.	4	14
GEORGIA (Steamer) 76 (2) Hull: Length between perps. ---------- 280' 0" Length over all ---------- 295' 7" Beam molded---------- 40' 0" Beam over all ---------- 52' 0" Depth from base to top of beam in centre ---------- 17' 6" Machinery: Compound engine --- $^{54"\text{-}64"}/_{42"}$ Screw - 13' 0" dia. Pitch - 19' 6". Pl. 51. Scale: 1/8" = 1 ft. Size: 22½x38. Dec. 1886. " 52. " 1" = " " " 22¾x36. Jan. 1891. 3 deck plans and machinery, hand col. Old Bay line, no.3.	1	51, 52
GLAUCUS (Steamer) No.? Dimensions: Length between perps. ---------- 230' 0" Breadth of beam ---------- 39'6" Depth of hold---------- 17' 0" Machinery: Dia. of cylinders ---------- 44" Stroke of pistons ---------- 38" Dia. of wheel ---------- 12' 6" Scale: 1/8" = 1 ft. Size: 26½x38¾. Oct. 15, 1874. Profile and 2 deck plans, hand col. M.S.S.co.	1	53

	Vol.	Plate
GRANADA (Steamer) see ACAPULCA (Steamer)		
HAMILTON (Steamer) No.? Hull: Length on 5 ft. water line ---------- 130' 0" Beam molded---------- 25' 0" Depth from base line ---------- 7' 6" Machinery: Vertical twin-screw jet-condensing engines - 16"xl6". Dia. of screws - 9' 6". Scale: ¼" = 1 ft. Size: 24x37. Nov. 1834. Three deck plans, hand col. Biggs (1) steamer.	1	54
HAMPTON (Steamer) Engine dimensions: Dia. of cylinder ---------- 38" Stroke of piston ---------- 9' 0" Face of wheel ---------- 7' 0" Dia. of wheel ---------- 23' 9" Scale: ¾" = 1 ft. Size: 28x42. May 1974 Machinery.	4	15
IDA (Steamer) No.89 (1&2) Hull: Length between perps. ---------- 190' 0" Length over all ---------- 198' 0" Beam molded---------- 31' 0" Beam over guards ---------- 54' 6" Depth of hold---------- 10' 0" Machinery: Engine - 40" dia. x 10' 0" stroke. Wheels - 22' 0" dia. x 8' 0" face. P1.55. Scale: 1/8" = 1 ft. Size: 20x33¾. 1881. " 56. " " = " " " 20x27. 1881. Profile, 3 deck plans, hand col. Duplicated for steamer AVALON. See also Choptank boat.	1	55, 56
IDA (Steamer) (Rebuilt) No. 118 (1&2) Hull: Length between perps. ---------- 190' 0" Beam molded---------- 31' 0" Beam over guards ---------- 54' 6" Depth molded ---------- 11' 0" Machinery: Engine - 40" dia. x 10' 0" stroke. Wheels - 22' 0" dia. x 8'0" face. Pl.57. Scale: 1/8" = 1 ft. Size: 20¾x28½. July 1894. " 58. " " = " " " 24x29. July 1894.	1	57, 58

	Vol.	Plate
Profile, 4 deck plans, hand col.		
INDIAN (Steamer) No. ? Hull: Length between perps. ---------- 227' 0" Beam molded---------- 38' 0" Depth to spar deck---------- 26'0" Machinery: Engine - 22"-36"-55" 48" Propeller - 13' 6" dia. x 23' 3" pitch. Scale: 1/8" = 1 ft. Size: 27½x34. April 1890. Profile and 2 deck plans, hand col.	1	59
INDIANOLA (Steamer) Dimensions: Length---------- 150' 0" Beam ---------- 26' 0" Hold ---------- 9' 9" Cuba propeller engine: Dia. of cylinder ---------- 32" Stroke of piston ---------- 28" Dia. of propeller ---- 8' 6". Pitch 15' 6". Scale: 1½" = 1 ft. Size: 26½x34½. Feb.11, 1859. Machinery.	4	16
J.M.WATERBURY (Ferryboat) No.76 Dimensions: Length from out to out of posts------- 143' 0" Length over all ---------- 155' 6" Beam molded---------- 32' 0" Beam over all ---------- 55' 6" Depth from base line to top of beam at ---------- 12' 4" Machinery: Dia. of cylinder ---------- 38" Stroke of piston ---------- 9' Dia. of wheel ---------- 18' Face of bucket---------- 7' Scale: 1/8" = 1 ft. Size: 25¼x35¼. Jan.12, 1878. Profile, end view, and deck plan, hand col. Nassau ferryboat.	2	1
JERSEY BLUE (Steamer) Engine: Dia. of cylinder ---------- 28" Stroke ---------- 28" Scale: 1½" = 1 ft. Size: 23x30. 1849. Machinery.	3	16
JOHN A. WARNER (Steamer)	4	17

	Vol.	Plate
Engine (No data) Scale: ¾" = 1 ft. Size: 29½x38. May 13, 1857. Machinery.		
JOHN W. GARRETT (Steamer) No.105 Hull: Length between posts ---------- 350' 0" Length over all ---------- 364' 4" Beam molded---------- 41' 0" Beam over guards ---------- 73' 6" Depth from base to top of beam ------ 13' 3½" Machinery: Hor. engines (2)---------- 36"x9' Dia. of wheels ---------- 27' 0" Face---------- 8' 3" Scale: 1/8" = 1 ft. Size: 28½x46½. Feb.1887. Profile and two deck plans, hand col. B.& O.R.R.transfer, no.3.	2	2
JOHNSON BROS. (Tugboat) Dimensions: Length between perps. ---------- 57' 0" Beam molded---------- 16' 0" Hold, base line to top of beam -------- 7' 6" Engine: Dia. of cylinder ---------- 16" Stroke of piston ---------- 16" Dia. of wheel ---------- 6' Pitch of .wheel ---------- 10' Scale: 1½" = 1 ft. Size: 20x33½. Sept. 1872. Moore's tug. Machinery.	3	17
JOPPA (Steamer)No. 99 (1&2) Hull: Length between perps. ---------- 190' 0" Length over all, about---------- 198' 6" Beam molded---------- 31' 0" Beam over guards ---------- 54' 6" Depth from base to top of beam at --- 10' 0" Machinery: Dia. of cylinder ---------- 40" Stroke of piston ---------- 10' Feathering wheels ---------- dia.22' x face 8'3". Pl.3. Scale: 1/8" = 1 ft. Size: 23½x36¾. May 1885. " 4. " " = " " " 24x37. May 1885. Profile, 4 deck plans, hand col.	2	3, 4

	Vol.	Plate
Choptank, no.3		
JOSE GONZALES (Tugboat) No. 53 (2) Dimensions: (No data) Machinery: " " Scale: 3/8" = ft. Size: 14½x27½. July 1878. Profile, hand col. Havana tug.	2	5
JUPITER (Steamer) Engine: Dia. of cylinder ---------- 56" Stroke ---------- 4' Scale: ¾" = 1 ft. Size: 2l½x33½. Nd. Machinery.	3	18
KAHUKEE (Steamer) Dimensions: Length on keel ---------- 85' 0" Beam ---------- 17' 6" Depth of hold---------- 7'0" Engine for David Clarke's propeller: Dia. of cylinder ---------- 24" Stroke ---------- 20" Scale: 1½" = 1 ft. Size: 20½x41½. Sept. 17, 1855. Machinery.	4	18
KATE CARROLL (Steamer) No.621 Hull: Length on 10 ft. water line ---------- 200' 0" Beam molded---------- 34' 0" Depth from base line to top of main deck beams ---------- 17'0" Machinery: Engine---------- $^{26"\text{-}44"}/_{36"}$ Dia. of screw ---------- 10' 9" Pitch ---------- 16' 0" Scale: 1/8" = 1 ft. Size: 25x35¼. May 1883. Profile and deck plan, hand col.	2	6
LADY WILMER (Steamer) Engine, 22" cyl. x 24" stroke. Scale 1½" = 1 ft. Size: 26½x25. Nd. Machinery.	3	19
LEOPARD (Collier) Dimensions: Length on load line ---------- 185' 0" Length over all ---------- 198' 0" Beam molded---------- 35' 6" Depth of hold---------- 14' 0"	3	20

	Vol.	Plate
Machinery: Dia. of cylinder ---------- 40" Stroke of piston ---------- 30" Dia. of propeller ---------- 10' Pitch of propeller ---------- 16' 6" Tire surface ---------- 1843 sq. ft. Grate surface ---------- 79½ sq. ft. Scale: 1" = 1 ft. Size: 23¾x30½. Nd. Engine of the steam screw LEOPARD. Machinery.		
LOUISE (Steamer) see FRANCES (Steamer)		
LOUISIANA (Steamer) Engine: Dia. of cylinder ---------- 32" Stroke of piston ---------- 28" Scale: 1½" = 1 ft. Size: 25¼x37¼. Nov. 15, 1860. Machinery. "For Mesr. Flanagan to Phila."	3	21
LURLINE (Steamer) Engines: Dia. of cylinder ----- 18" Stroke of piston- ---- 6' Scale: ¾" = 1 ft. Size: 22½x37. Feb. 1878. For Jacob Kamm of Oregon. Machinery. See also plate 33, v.3, Apr. 24, 1858.	3	22
MAGGIE (Steamer) Engine: Dia. of cylinder ----- 32" Stroke of piston ----- 6' Scale: 1" = 1 ft. Size: 19¼x36. July 12, 1869. Machinery.	3	23
MAINE (Steamer) Engine: H.P. cylinder ---------- 28" dia. I. P. cylinder ---------- 45" " Forward L.P. ---------- 51" " Aft L.P. ---------- 51" " Stroke ---------- 42" " Wheel, dia. 13' 5" x pitch 17' 3". Scale: 1" = 1 ft. Size: 24¾x44½. Mar.29, 1892. Machinery.	4	19
Marshall, I. and company Engine for I. Marshall & co. Dia. of cylinder ---------- 18"	4	20

	Vol.	Plate
Stroke ---------- 4" Scale: 1" = 1 ft. Size: 26½x28½. Sept. l, 1874. Machinery.		
MARYLAND (Ferryboat) Engines: (No data) Scale: ¾" = 1 ft. Size: 29x45. Apr. 18, 1853. Machinery. Susquehanna ferryboat.	4	21
MAUCH CHUNK (Ferryboat) see EASTON (Ferryboat)		
METTS (Steamer) see UNION (Steamer)		
MISSISSIPPI (Steamer) Engine: Dia. of cylinder ---------- 40" Stroke ---------- 10' Scale: ¾" = 1 ft. Size: 24¾x42. [1890] Machinery.	4	22
MONTAUK (Steamer) No. 115 (1&2) Dimensions: Length between perps. ---------- 175' 0" Length over all, about ---------- 184' 0" Beam molded ---------- 31' 0" Beam over guards ---------- 54' 0" Depth ---------- 11'0" Machinery: Beam engine ---------- 38"x9'. Pl.7. Scale: 1/8" = 1ft. Size: 19½x30. No date. " 8. " " = " " 22x33½. Mar. 1892. Profile, 4 deck plans, hand col.	2	7, 8
MORGAN (Steamer) Engine front: (No data) Scale: 1½" = 1 ft. Size: 25½x43-l/4. Sept.8, 1865. Machinery.	4	23
MORGAN CITY (Steamer) No.46 (2) Dimensions: Length between PP. ---------- 275' 0" Breadth molded ---------- 38' 4" Depth from base line to top of spar deck beams at ---------- 30' 0"? Machinery: Dia. of cylinder ---------- 50" Stroke ---------- 60" Dia. of wheel ---------- ? Scale: 1/8" = 1 ft. Size: 22x37. Date? 1876 Profile, hand col.	2	9
Morgan Ships Nos.25 & 26. Brashe[a]r & NY	2	10

	Vol.	Plate
Dimensions: Length between perps. ---------- 275' 0" Beam molded---------- 37'0"(?) Depth molded ---------- 22' 0" (?) Machinery: (Data incomplete) Scale: 1/8" = 1 ft. Size: 23x38. Mar. 1875. Profile and deck plan.		
MOUNTAIN BUCK (Steamer) Engine: (No data) Scale: 1" = 1 ft. Size: 2l½x34½. Dec.20, 1860. Machinery.	3	24
NAPA (Gunboat) Engines: Dia. of cylinders ---------- 22" Stroke of piston ---------- 30" Scale: 1" = 1 ft. Size: 22¾x32½. Aug.23, 1864. Machinery.	3	25
NEUSE (Steamer) No.941&2 Dimensions: Length between perps. ---------- 200' 0" Length over all ---------- 205' 6" Beam molded---------- 31' 6" Depth at centre ---------- 11' 6" Machinery: Engines (2) ---------- 12"x20"x30" / 20" Pl.11. Scale: 1/8" = 1 ft. Size: 19¼x32½. Apr.28, 1891. " 12. " " = " " " 23¾x34¼. Apr.25, 1891. Profile, 4 deck plans, hand col.	2	11, 12
Newbern boat. Details of stern pipes and hangars. Scale: 1½" - 3" - 6" - 1 ft. Size: 22¼x35¾. Apr.8,1890. Machinery.	3	26
NEW HAMPSHIRE (Steamer) see MAINE (Steamer)		
NEWTOWN (Ferryboat) No.83 Dimensions: Length between perps. ---------- 143' 0" Length over all ---------- 155' 6" Beam molded - 32' over all---------- 56' 0" Depth from base line to top of beam - 12' 4" Machinery: Dia. of cylinder ---------- 38" Stroke of piston ---------- 9' Dia. of wheel ---------- 18' 6" Face of wheel ---------- 7'	2	13

	Vol.	Plate
Scale: 1/8" = 1 ft. Size: 17½x32½. Dec. 1879. Profile, end view, and deck plan, hand col. Nassau ferryboat, no.2		
NEW YORK (Ferryboat) No. 116 Dimensions: Length over posts ---------- 175' 0" Length over all ---------- 189' 2" Beam molded---------- 36' 6" Beam over guards ---------- 62' 6" Machinery: Engine---46" dia. cyl. x 10' stroke. Wheel---20' 6" dia. x 8'6" face. Scale: 1/8" = 1 ft. Size: 27¼ x 34. Sept. 22, 1892. Profile and 2 deck plans, hand col. New York ferryboat, no. 7.	2	14
NEW YORK (Steamer) No.89 (1&2) Hull: Length between perps. ---------- 200' 0" Length over all on deck, about-------- 209' 0" Beam molded---------- 31' 0" Depth to top of beam amidships ------ 14' 0" Machinery: Engine ----- $^{18½"\text{-}27"\text{-}42"}/_{24"}$ Boilers ---- 10' 6" dia. 13' 0" long. Wheel ----- 9'0" dia. 13' 6" pitch. Pl. 15. Scale: 1/8" = 1 ft. Size: 12½x29. April 1889. " 16. " " = " " " 23x29. April 1889. Profile, 4 deck plans, hand col. Cassatt steamer, no. 5.	2	15, 16
NEW YORK (Steamer) see p. 20 Morgan ship no. 26.		
NIGHTHAWK (Steamer) Starboard engine: Dia. of cylinder ---- 16" Stroke of piston ---- 6' 0" Dia. of wheel ------- 22" Face of wheel -------- 7' 0" Scale: 1" = 1 ft. Size: 22½x36½.Nov.11, 1867. Machinery.	3	27
NORFOLK (Steamer) No.70 (1&2) Hull: Length on 8 ft. water line---------- 110' 0" Beam molded---------- 23' 6" Depth from top of keel to top of deck beam at lowest place ---------- 13' 0"	2	17, 18

	Vol.	Plate
Machinery: Compound engine ---------- 22"-40" / 26" Wheel ---------- 9' 6" dia. 16" pitch. Pl. 17. Scale: ¼" = 1 ft. Size: 23¾x36½. March 1885. " 18. " " = " " " 23x36. March 1885. Profile, 3 deck plans, hand col. N.Y., Phila. & Norfolk R.R.Co.		
NORFOLK (Steamer) see WASHINGTON (Steamer)		
NOURMAHAL (Steam Yacht) No.66 (1&2) Hull: Length on deck---------- 232'5" Length on water line ---------- 221' 0" Beam ---------- 30' 0" Depth molded ---------- 20' 0" Machinery: Engine---------- 34"x60" / 36" Dia. of wheel ---------- 12' Pitch of wheel ---------- 19' Pl. 19. Scale: 1/8" = 1 ft. Size: 23x37¼. Aug. 1884. " 20. " " = " " " 23x36¾. Aug. 1884. Profile, 2 deck plans, hand col. Astor yacht.	2	19, 20
OLD DOMINION (Steamer) Engine: Dia. of cylinder ---------- 75" Stroke of piston ---------- 11" Scale: ½" = 1 ft. Size: 26½x46. April 1872. Machinery.	4	24
OLD POINT COMFORT (Steamer) No. 102 (1&2) Hull: Length between stem and stern post - 175' 0" Length over all ---------- 182' 8" Beam molded---------- 31' 0" Beam over all ---------- 54' 0" Depth from base to top of beam ------ 11' 0" Machinery: 38" cylinder x 9' stroke x 60 lb. steam. Feathering wheel, 20' 6" dia. x 8' face. Pl.21. Scale: 1/8" = 1 ft. Size: 22½x35. Nov.1885. " 22. " " = " " " " " " Profile, 4 deck plans, hand col. Cassatt steamer. N.Y., Phila., & Norfolk R.R.co.	2	21, 22
OREGON (Steamer?) Engines:	4	25

	Vol.	Plate
Dia. of cylinders ---------- 16" Stroke of piston ---------- 5' 6" Scale: 1" = 1 ft. Size: 24½x4l½. Apr.27, 1858. Machinery. "Oregon engines for Jacob Kamm".		
Oregon steam navigation company. Engines for a stern wheel steamer: Dia. of cylinder ---------- 18" Stroke of piston ---------- 7'0" Scale: ¾" = 1 ft. Size: 21x37¼. Feb. 1878. Machinery. Ordered by John Gates.	3	28
Oregon steam navigation co. Engines: Dia. of cylinder --------- 28" Stroke of piston --------- 8' Scale: ¾" = 1 ft. Size: 25x38½. May 1878. Machinery. Gates' Oregon eng. 28"x8'.	3	29
OLYMPIAN (Steamer) No.95 (2) Hull dimensions: Length between perps. ---------- 260' 0" Length over all ---------- 269' 0" Beam molded---------- 40' 0" Beam over guards ---------- 72' 0" Depth of hold from base to top of Beam ---------- 14' 3" Machinery: Dia. of cyl. 70" x 12' stroke. Dia. of wheel, 32' 6" x 11' 3" face. Pl.23. Scale: 1/8" = 1 ft. Size: 23¼x37. June 1883. " 24. " " = " " " 24¾x36. " " Profile, 3 deck plans, hand col.	2	23, 24
ORION (Collier) No.80 (1) Hull: Length between perps. ---------- 260' 0" Length on deck, about ---------- 278' 0" Beam molded---------- 38' 0" Depth molded ---------- 24' 8" Machinery: Engine ---------- 30"x56" / 54" Boilers --------- 11' 6" dia. x 11' 0" long. Wheel ---------- 13' 6" dia. x 21' 3" pitch. Scale: 1/8" = 1 ft. Size: 17x37½. July 1887. Two deck plans, hand col.	2	25

	Vol.	Plate
Boston collier, no. l.		
PACIFIC (Dredge) Surface condenser of pumps. Engine: Cylinder ---------- 10" dia. 12" stroke Air pump ---------- 12" " 10" " Circulating ---------- 7" " 10" " Feed ---------- 2¼" " 8" " Condensing surface - 352 sq. ft. Scale: 1½" = 1 ft. Size: 14½xl9-l/4. Dec. 1885. Machinery. National dredging co.	3	30
PANAMA (Steamer) Propeller engine: Dia. of cylinder ---------- 18" Stroke of piston ---------- 18" Scale: 1½" = 1ft. Size: 20x42. June 4, 1858. Machinery.	4	26
PEERLESS (Ferryboat) Engine: Dia. of cylinder ---------- 38" Stroke of piston ---------- 8' Scale: ¾" = 1 ft. Size: 25x36¼. June 17, 1872. Machinery. Gloucester ferryboat.	3	31
PILOT (Steamer) No.58 (1&2) Hull: Length between perps. ---------- 112' 0" Length over all ---------- 122' 3" Beam molded ---------- 23' 0" Depth from base to top of main deck beams ---------- 12' 9" Machinery: Compound engine ---------- 22"-36" / 26" Steam pressure ---------- 75 lb. Dia. of screw ---------- 8' 6" Pl.26. Scale: ¼"=1 ft. Size: 24½x36¾. Dec.1880. " 27. " " = " " " 18½x35. " " " 28. " " = " " " 16¼x23. " " Profile, 2 deck plans, machinery, hand col.	2	26, 27, 28
POCAHONTAS (Steamer) No.117 (1&2) Hull: Length between perps. ---------- 195' 0" Length over all ---------- 207'6" Beam molded ---------- 33' 0"	2	29, 30

	Vol.	Plate
Beam over guards ---------- 57' 0" Depth at side ---------- 11' 0" Machinery: Engine -------- 46" dia. x 10' 0" stroke. Feathering wheels ----- 22' 6" dia. x 8' 6" face. Pl.29. Scale: 1/8" = 1 ft. Size: 21x28¼. June 1893. " 30. " " = " " " 24½x27¼. " " Profile, 4 deck plans, hand col. Richmond steamer.		
POCOMOKE (Steamer) No.114 (1&2) Dimensions: Length between perps. ---------- 170' 0" Length over all ---------- 178' 0" Beam molded---------- 33' 0" Beam over guards ---------- 54' 0" Depth molded ---------- 9'6" Machinery: Feathering wheels ---- 18' 0" dia. 7' 6" face. Beam engine -------- 32" dia. cyl. x 9' 0" stroke. Pl.31. Scale: 1/8" = 1 ft. Size: 23x36. May 1891. " 32. " " = " " " 24x36¼. May 1891. Profile, 4 deck plans, hand col.	2	31, 32
PRINCESS ANNIE (:) (Ferryboat) Engine for Norfolk ferryboat Cylinder, 36" bore, 61 stroke. Scale: ¾" = 1 ft. Size: 24x39. Sept. 10, 1853. Machinery.	3	32
PROTECTOR (Fireboat) No. 47 Dimensions: Length over all ---------- 122' 0" Length between perps. ---------- 114' 0" Depth molded ---------- 12' 0" Beam ---------- 22' 0" Machinery: Dia. of cylinder ---------- 28" Stroke ---------- 28" Dia. of propeller ---------- 8' Scale: ¼" = 1 ft. Size: 24x34¾. Dec.23, 1875. Profile and two deck plans. New Harbor protection co. of New Orleans.	2	33
Reybold's engine. (No data) Scale: ¾" = 1 ft. Size: 30x40. Feb. 10, 1853. Machinery.	4	27
RICHARD MAGGER (Steamer?)	3	33

	Vol.	Plate
Engine: (No data) Scale: 1" = 1 ft. Size: 24¼x37¾. Mar.29, 1858. Machinery.		
RICHARD PECK (Steamer) No.73 (1&2) Dimensions: Length between perps. ---------- 298' 6" Length over post and stem ---------- 300' 3" Length over all ---------- 316' 0" Beam molded---------- 48' 0" Beam over guards ---------- 62' 0" Depth molded ---------- 17' 10" Machinery: Engines (2) ---------- 24"-38"-60" / 30" Dia. of wheels (2)---------- 10' 6" Pitch ---------- 15' 6" Pl.34. Scale 1/8" = 1 ft. Size: 27x40½. Aug. 1892. " 35. " " = " " " 26x44¾. Aug. 1892. Profile, 5 deck plans, hand col. New Haven steamer.	2	34, 35
RICHARD WILLING (Steamer) No. ? Hull dimensions: Length from stem to inside stern post 140' 0" Beam ---------- 23' 0" Hold ---------- 8' 9" Machinery: Dia. of cylinder ---------- 28". Stroke, 26". Dia. of boiler ---------- 6' 6" x length 21'. Scale: l/6" = 1 ft. Size: 22x34. Nov. 1854. Profile and two deck plans, hand col. For machinery, see v.4 - 28.	2	36
RICHARD WILLING (Steamer) Machinery: Dia. of cylinder ---------- 28" Stroke ---------- 21" Dia. of boiler ---------- 6' 6" x 21' long Scale: 1½" = 1 ft. Size: 24x45¼. Nov.14, 1854. Machinery. Engine for Shriver's propeller. For profile and deck plans, see v.2 - 36.	4	28
RICHMOND (Steamer) Engine: Dia. of cylinder ---------- 50" Stroke of piston ---------- 60" Dia. of wheel ---------- 13' 2" Scale: ¾" = 1 ft. Size: 27½x35. Mar. 1873.	4	29

	Vol.	Plate
Machinery.		
ROANOKE (Steamer) No.30 (1) Dimensions: Length between perps. ---------- 165' 0" Length over all ---------- 172'6" Breadth of beam, molded ---------- 27' 0" Depth of hold from top of 12" cross floors ---------- 10' 0" Machinery: Dia. of cylinder (condensing) --------- 34" Stroke of piston ---------- 34" Dia. of wheel (propeller) ---------- 9' 0" Pitch of wheel ---------- 16' 6" Scale: 1/8" = 1 ft. Size: 20¾x32. Jan.27, 1871. Profile; two deck plans, hand col.	2	37
ROCKAWAY (Ferryboat) No.82 Dimensions: Length from out to out of posts ------- 150' 0" Length over all ---------- 162' 6" Beam molded ---------- 32' 0" Beam over guards ---------- 57' 4" Depth of hold ---------- 13' 6" Machinery: Dia. of cylinder ---------- 44" x 9' stroke. Dia. of wheel ---------- 20' x 7' 6" face. Scale: 1/8" = 1 ft. Size: 11½x27. 1879. Deck plan, hand col. E.R. ferryboat, no.3.	2	38
ST. JOHNS (Steamer) Engine: Dia. of cylinder ---------- 66" Stroke of piston ---------- 12' Dia. of wheel ---------- 33' 6" Face of wheel ---------- 9' Scale: ½"=1 ft. Size: 24¾x38½. 1878. Machinery.	3	34
ST. MARYS (Steamer) Standard engine: Dia. of cylinder ---------- 30" Stroke ---------- 8' Scale: 1" = 1 ft. Size: 28x43¼. Nd. Machinery. Florida boat.	4	30
SAN CARLOS (Steamer) No. ? Dimensions:(No data)	2	39

	Vol.	Plate
Machinery: " " Scale: ? Size: 17½x36¾. Profile, hand col. (1854)		
Sand's propeller engine. Dia. of cylinder ---------- 18" Stroke of piston ---------- 18" Scale: l½" = ft. Size: 17x36½. May 17, 1858. Machinery.	3	35
SALVADOR (Steamer) Engine: Dia. of cylinder ---------- 48" Stroke of piston ---------- 54" Dia. of propeller wheel ---------- 13'6" Pitch of propeller ---------- 18'6" Scale: ¾" = 1 ft. Size: 29½ x39. Mar.4, 1862. Machinery.	4	31
SATURN (Collier) No.9l (1&2) Hull: Length between perps. ---------- 275' 0" Beam molded---------- 40' 0" Depth at centre ---------- 26' 2" Machinery: Engine ---------- 24"-59"-59" / 48" Propeller - 14' 0" dia. 21' 6" pitch. Pl.40. Scale: 1/8" = 1 ft. Size: 19¾x39. Nov.1889. " 41. " " = " " " 22¾x38. " " Profile, 2 deck plans, hand col. Boston collier, no. 2.	2	40, 41
SAUGUS (Gunboat) Engine: Dia. of cylinder ---------- 48" Stroke of piston ---------- 24" Dia. of wheel ---------- 14' Pitch of wheel ---------- 20' Scale: 1" = 1 ft. Size: 26½x46¾. Sept. 5, 1864. Machinery.	4	32
SHINNECOCK (Steamer) No. ? Dimensions: Length between perps ---------- 226' 0" Length over all ---------- 238' 0" Beam molded---------- 35' 0" Beam over guards ---------- 62' 0" Depth molded ---------- 14' 3" Engine: Inclined compound ---------- 28"-56" / 8' 6"	2	42

	Vol.	Plate
Boilers (4) -- 10' 0" dia. x 11' 0" long. Scale: 1/8" = 1 ft. Size: 26¾x34. June 1896. Four deck plans, partly col.		
SPARTAN (Steamer) No.63 (1&2) Hull: Length between perps on 12' w.l. ---- 215' 0" Length over all, about ---------- 235' 0" Breadth of beam, molded ---------- 38' 0" Depth from base line to underside of upper deck ---------- 26'0" Machinery: Engines ---------- 50"-56" / 54" Allowable pressure ---------- 80 lb. Pl.43. Scale 1/8"= 1 ft. Size: 24¼x37½ Sept. 1883. " 44. " " = " " " 24x36¾. " " Profile, 2 deck plans, hand col.	2	43, 44
SOUTHAMPTON (Steamer) Engine: Dia. of cylinder ---------- 48" Stroke of piston ---------- 10' Scale: ½" = 1 ft. Size: 21½x37. June 22, 1869. Machinery.	3	36
SUE (Steamer) Engine front: Dia. of cylinder ---------- 32" Stroke of piston ---------- 9' Scale: l½" = 1 ft. Size: 23½x37¾. June 17, 1867. Machinery.	3	37
SUSQUEHANNA (Steam yacht) No.78 (1&2) Hull: Length between perps. ---------- 150' 0" Beam molded ---------- 22' 0" Depth ---------- 13' 0" Machinery: Engine ---------- 17"-28"-42" / 22" Boiler ------- 10' 0" dia. x 18' 9" long. Propeller ---- 8' 0" dia. x 11' 0" pitch. Pl. 45. Scale: 1/8" = 1 ft. Size: 15½x25½. July 1887. " 46. " " = " " " 15x25. July 1887. Profile, 3 deck plans, hand col. Stickney yacht.	2	45, 46
SWAN (Steamer) Pumping engine for Savannah boat Pl.38. Scale: 3" = 1 ft. Size: 21x29¼. Aug. 25, 1856.	3	38, 39

	Vol.	Plate
" 39. " " = " " " 24½x37½. Oct. 14, 1856. Machinery.		
TANGIER (Steamer) No.68 Dimensions: Length between perps. ---------- 155' 0" Length over all ---------- 163' 0" Beam molded---------- 29' 0" Beam over all ---------- 47' 0" Depth from base to top of beam ------ 9' 9" Machinery: Dia. of cylinder ---------- 32" Stroke of piston ---------- 9' Dia. of wheels ---------- 17' Buckets---------- 6' 9" x 34" Pl. 47. Scale: 1/8" = 1 ft. Size: 24x30¼. May 1875. " 48. " ¾" = " " " 27x36¾. Feb. 1875. " 49. " 1½" = " " " 24¾x39¾. Feb. 1875. Profile, 2 deck plans, hand col., and machinery. Eastern Shore steamship company.	2	47, 48, 49
THOMAS SPARKS (Steamer) Engine for Capt. R.F. Roper: No data. Pl.40. Scale: 1½" = 1 ft. Size: 14½x20½. Apr. 3, 1854. " 41. " " = " " " 21x32. Apr. 3, 1854. Machinery.	3	40, 41
TWILIGHT (Steamer) Engine front: (No data) Scale: 1½" = 1 ft. Size: 25x36¾. May 4, 1868. Machinery.	4	33
UNION (Steamer) Engines & boil for steamboat UNION (METTS) (No data) Scale: 1½" = 1 ft. Size: 31x40½. July 23, 1853. Machinery.	4	34
VENGOECHEA (Steamer) General dimensions: Length---------- 155' 0" Beam ---------- 26' 0" Hold ---------- 5'6" allowing 8" for timber & floors. Standard engine: Dia. of cylinder ---------- 21" Stroke of piston ---------- 6' Dia. of wheels ---------- 1' Face of wheels ---------- 6' 6" Scale: ¾" = 1 ft. Size: 23½x34-l/4. June 29, 1864. Machinery.	3	42

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VESPER (Steamer) see BLACK DIAMOND (Steamer)		
VICTOR (Yacht) No. 101 Dimensions: Length over all ---------- 45' 0" Beam molded---------- 10' 0" Width over guards ---------- 3' 0" Depth from top of floor to top of beam ---------- 4' 0" Machinery: Dia. of cylinder ---------- 6" Stroke of piston ---------- 8" Dia. of wheel ---------- 36" Pitch of wheel ---------- 63" Pl.50. Scale: 3/8" = 1 ft. Size: 17x25. Aug. 1878. " 51. " 3" = " " " 17½x21½. Aug. 1878. Profile, deck plan, and machinery, hand col. Rehoboth yacht.	2	50, 51
VICTORIA (Steamer) Engine: (No data) Scale: 1" = 1 ft. Size: 21x43. Aug.12, 1854. Machinery.	4	35
W.W.HARLEE (Ferryboat)? Cape Fear ferryboat engine: Dia. of cylinder ---------- 26" Stroke ---------- 6' Scale: 1" = 1 ft. Size: 22½x43. June 8, 1855. Machinery.	4	36
WASHINGTON (Steamer) No.95 (1&2) Hull dimensions: Length between perps. ---------- 246' 0" Length over all ---------- 260' 0" Beam at water line ---------- 37' 0" Beam over all ---------- 46' 0" Depth from base to top of beam at centre ---------- 16' 6" Machinery: Triple expansion engine ----- 22"x56"x55" cyls. / 28" stroke Screw, 11' 0" dia. x 14' 6" pitch. Pl. 52.Scale: 1/8" = 1 ft. Size: 21½x36. May 1891. " 53. " " = " " " 24x36¾. Oct. 8, 1892. Profile, 4 deck plans, hand col. Washington boats, WASHINGTON and NORFOLK, nos. 1 & 2	2	52, 53
WENONAH (Ferryboat) No.91 Dimensions:	2	54

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Length over posts ---------- 145' 0" Length over all ---------- 153' 0" Beam molded---------- 30' 0" Beam over guards ---------- 54' 0" Depth molded ---------- 12' 0" Engine: Dia. cyl. ---------- 44". Stroke ---------- 10' 0" Scale: 1/8" = 1 ft. Size: 24x23. Jan. 1881. Profile and 2 deck plans, hand col. Camden & Phila. ferryboats, nos.3 &4, WENONAH and BEVERLY.		
WESTOVER (Steamer) No.31 Dimensions: (No data) Machinery: " " Scale: 1/8" = 1 ft. Size: 9¾x23½. Dec.27, 1873. Two deck plans, hand col.	2	55
WHITNEY (Steamer) Engine: Dia. of cylinder ---------- 60" Stroke of piston ---------- 11' Dia. of wheel ---------- 29'6" Face of wheel ---------- 8' Scale: ½"=1 ft. Size: 25¾x46. Feb.18, 1871. Machinery.	4	37
WILLAMETTE (Steamer) Marine engine: 31" cylinder, 7' stroke. Scale: ¾"=1 ft. Size: 21x24½. Nd. Machinery.	3	43
WILLET ROWE (Tugboat) Engine: Dia. of cylinder---------- 28" Stroke of piston ---------- 23" Scale: 1" = 1 ft. Size: 16x32½. July 2, 1863. Jos. Eneas's steam tug. Machinery.	3	44
WILLIAM CRANE (Steamer) No.33 (1) General dimensions: Length on 6 ft. water line ---------- 20' 0" Beam ---------- 37' 9" Hold ---------- 24' 6" Machinery: Dia. of cylinder ---------- 60" Stroke ---------- 44"	2	56, 57

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Dia. of wheel ---------- 13' 3", pitch 21'. Pl.56. Scale: 1/8" = 1 ft. Size: 28x40. Aug. 24, 1871. " 57. " ¾" = " " " 30x35. Aug. l, 1871 Profile, 2 deck plans and machinery. Merchant and Miners' trans.co.		
Wilmington steamship company Details for propeller engine for steamer: Dia. of cylinder ---------- 22" Stroke ---------- 36" Scale: 1½" ft. 3" = 1 ft. Size: 29x39. May 12, 1874. Machinery.	4	38
WYANOKE (Steamer) Engine Dia. cyl. ---------- 70". Stroke ---------- 11' 0" Scale: 1" = 1 ft. Size: 25x34. May 2, 1870. Side and front elevation of engine. Machinery.	4	39
WYOMING (Ferryboat) see COLORADO (Ferryboat)		
WYOMING (Towboat) Cut off of the engines. Scale: l½" = 1 ft. Size: 21x37¼. Oct.4. 1852. Machinery.	3	45
MACHINERY FOR UNIDENTIFIED SHIPS		
Compound engine. Dia. of high pressure cylinder--------- 20" Dia. of low " " ---------- 34" Stroke of piston ---------- 42" Scale: l½" = 1 ft. Size: 25¾x45½. No date.	4	40
Compound engine. 22"-40" / 26" Scale: 1" = 1 ft. Size: 16¾x26¼. Aug.1888	4	41
Engine?	4	42
Engine?	4	43
Engine: Cylinders---------- 24" & 44" Stroke ---------- 6' 0" Estimated I.H.P. =? at 40 rev. W.press. = 100 lb. Scale: 1" = 1 ft. Size: 26¾x43. Feb.1895. (For vessel unnamed)	4	44
Engine for Dr. Warren's boat: Dia. of cylinder ---------- 29" Stroke of piston ---------- 9' Scale: ¾" = 1 ft. Size: 27x45.	4	45

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Engines of 4000 I.H.P. estimated: Cylinders ---------- 32"-52"-82" / 54" W.Press.---------- 160 lb. Revs.---------- 90. Scale: ¾" = 1 ft. Size: 25½x36. Mar.1894.	4	46
Christiana rolling mill engine: Dia. of cylinder ---------- 30" Stroke of piston ---------- 60" Scale: ¾" = 1 ft. Size: 28x31½. May 28, 1874.	4	47