
6. Function or Use

Historic Functions (enter categories from instructions)

Transportation/Water Related

Current Functions (enter categories from instructions)

Museum

Recreation

7. Description

Architectural Classification

(enter categories from instructions)

N/A

Materials (enter categories from instructions)

foundation N/A

walls N/A

roof N/A

other N/A

Describe present and historic physical appearance.

The Great Lakes passenger and package freight steamboat, SS Clipper is preserved and open to the public at Navy Pier on the shoreline of Lake Michigan at Chicago, Illinois. Clipper has been only slightly changed since she was modified to her present Art Moderne appearance. Clipper is managed by Holiday Cruises for her owner the Illinois Steamship Company.

Clipper as Built and Modified

Clipper was built by the American Ship Building Company of Cleveland, Ohio, and launched on December 22, 1904, as Juniata for the Anchor Line, a subsidiary of the Pennsylvania Railroad. She was the second of three nearly identical sisterships each designed to be a "really modern combination freight and passenger ship."
[1]

Juniata, official number 201768, was 361 feet in length, 45 feet across the beam, and had a depth of hold of 28 feet. She had a riveted steel hull, a wooden superstructure, and was registered with a gross tonnage of 4333 and a net tonnage of 2619. Juniata was designed to carry both passengers and freight. Package freight was carried on the main deck and loaded through large double cargo doors on each side of the hull. Passenger cabins were located on the next three decks up; the berth deck, the salon deck, and the boat deck. Juniata carried 350 passengers and 3500 tons of cargo at a top speed of 18 knots. [2]

The propelling machinery was of the most efficient type available in 1904. Four cylindrical scotch boilers supplied steam to the massive quadruple-expansion engine. The engine is still in place and appears to be in good order. It uses a high pressure cylinder 22 inches in diameter, two intermediate cylinders of 31.5

8. Statement of Significance

Certifying official has considered the significance of this property in relation to other properties:

nationally statewide locally

Applicable National Register Criteria A B C D NHL CRITERIA 1, 4

Criteria Considerations (Exceptions) A B C D E F G

Areas of Significance (enter categories from instructions)
Architecture (Naval)
Transportation
Engineering
Maritime History (1904-1970)

NHL XII-L
Business: Shipping & Transportation

Period of Significance
1941-1970
1904-1970
1904

Significant Dates
1941

Cultural Affiliation
N/A

Significant Person
N/A

Architect/Builder
Unknown/American Shipbuilding Co.,
Cleveland, Ohio

State significance of property, and justify criteria, criteria considerations, and areas and periods of significance noted above.

Built in 1905, and substantially rebuilt in 1940, the steamship Clipper is the oldest United States passenger steamship on the Great Lakes. Clipper was built as Juniata by the American Shipbuilding Company for the Anchor Line of the Erie and Western Transportation Company, a subsidiary of the Pennsylvania Railroad. In 1940 stringent new rules of the Bureau of Marine Inspection and Navigation caused her to be laid up or face substantial rebuilding. Juniata was sold and her new owners rebuilt her to not only surpass safety rules but standards of accomodation as well. The rebuilt Juniata took on the new name Milwaukee Clipper as well as a new appearance. Milwaukee Clipper was reconstructed in the "air-flow" streamlining of the Art Moderne style just as were many trains, planes, automobiles, and other manifestations of the "machine age." This reconstruction was complete to the interior design and aluminum furniture, all reflecting the new aesthetic. Many of the design elements introduced in Milwaukee Clipper are still being included in modern ocean-going passenger ships. The quadruple-expansion steam engines installed in 1905 though, are exceedingly rare, particularly in such fine condition.

The preceding statement of significance is based on the more detailed statements which follow.

9. Major Bibliographical References

SEE FOOTNOTES IN TEXT.

Previous documentation on file (NPS):

- preliminary determination of individual listing (36 CFR 67) has been requested
- previously listed in the National Register
- previously determined eligible by the National Register
- designated a National Historic Landmark
- recorded by Historic American Buildings Survey # _____
- recorded by Historic American Engineering Record # _____

See continuation sheet

Primary location of additional data:

- State historic preservation office
- Other State agency
- Federal agency
- Local government
- University
- Other

Specify repository:

Illinois Steamship Company Records

10. Geographical Data

Acreeage of property Less than one acre

UTM References

A

1	6
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4	4	9	6	3	0
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4	6	3	7	6	2	5
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Zone Easting Northing

C

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B

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--	--	--	--	--	--	--

Zone Easting Northing

D

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--	--	--	--	--	--

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See continuation sheet

Verbal Boundary Description

All that area encompassed by the extreme length and beam of the vessel.

See continuation sheet

Boundary Justification

The boundary encompasses the entire area of the vessel as she floats at her berth.

See continuation sheet

11. Form Prepared By

name/title Kevin Foster, Historian
organization National Park Service (418) date August 10, 1988
street & number P.O. Box 37127 telephone (202) 343-9550
city or town Washington state D.C. zip code 20013

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inches all with a stroke of 42 inches to expand the steam four times and develop 2500 indicated horsepower.
[3]

Over time changes were made to the passenger accommodations so that the lifeboats were moved up another deck and luxury cabins installed in the vacated space. Another change followed the Titanic disaster when safety regulations became stricter and additional lifeboats were carried. When additional changes were required following the fire on Morro Castle in 1934, the three sister ships were laid up rather than undergoing expensive modification. Juniata recieved a reprieve from the shipbreakers when she was bought by new owners and taken to Manitowoc, Wisconsin, where she was converted from a Great Lakes (coastal) passenger steamer to a cross-lake passenger and auto ferry. [4]

Juniata was extensively modernized while in the yard of the Manitowoc Shipbuilding Company. The coal bunkers were converted to carry fuel oil, the old scotch boilers were changed for modern watertube types, most of the auxiliary machinery was updated and the wooden superstructure above the main deck was replaced with a new steel construction. This new superstructure is a striking Art Moderne style structure with streamlined planes and "air-flow" design. The curved front of the bridge sweeps back and fairs into the large streamlined false funnel which graces the middle of the upper deck. The real funnel is located quite far aft and leans toward the stern at a rakish angle. The sheerline, painted white for contrast, sweeps back from the bow and breaks downward just below the bridge on its way aft.

Interior arrangements were changed as well. The main deck was modified and a heavy-duty cargo lift installed to facilitate the loading and stowage of up to 120 automobiles. New 1-, 2-, and 3-berth cabins were fitted around the outside of the berth deck and the Simmons Mattress Company built Pullman-like dayberths in the midships section. Amenities were updated; a dance hall, bar, movie theater, soda fountain, children's play room, cafeteria and main lounge area were built into the new superstructure. Tile flooring decorated with the ship's silhouette welcomed passengers to the new main lounge which extends across the width of the deck. Tubular aluminum furniture of the same pattern as that designed for the premier American ocean liner SS America was custom built for the lounges and public spaces. The rebuilt ship was given the name Milwaukee Clipper and when remeasured for tonnage was listed at 4272 gross and 3137 net tons. [5]

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Milwaukee Clipper's Present Appearance

Milwaukee Clipper is in excellent condition and has changed only slightly since she was modified in 1941. Shortly after World War II, a surface search radar was fitted but otherwise Milwaukee Clipper has changed only in the kitchen where a new mixer and oven were installed and where liquor bars of a comparable style were built in two existing lounges. The stern docking winch was broken off at the deck by a 1985 storm that destroyed a number of pilings and smaller vessels. It has not been replaced.

Notes

1

William F. Rapprich, "The Anchor Line, Tionesta, Juniata, and Octorara" Inland Seas vol. 30, no. 1, Spring, 1974, pp. 8-1.

2

Merchant Vessels of the United States (Washington, D.C.: Government Printing Office, 1906), p. 250. Rapprich, p. 8.

3

Charles H. Truscott, "Milwaukee Clipper," Telescope vol. 19, no. 5, September/October 1970, pp. 125-127. Rapprich, p. 17.

4

Truscott, pp. 126-127.

5

Merchant Vessels of the United States (Washington, D.C.:Government Printing Office, 1952), p. 369.

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PASSENGER STEAMSHIPS ON THE GREAT LAKES

The first steamboat on the Great Lakes was the passenger carrying Walk-In-The-Water built in 1818 to navigate Lake Erie. She was a success and more vessels like her followed. Steamboats on the lakes soon grew in size as well as in numbers, and additional decks were built on the superstructure to allow more capacity. This inexpensive method of adding capacity, adapted from river steamboats and applied to lake craft, was at first decried by deepwater men as unsafe but later proved worthwhile and was ultimately applied to ocean liners. [1]

The screw propeller was introduced to the Great Lakes by Vandalia in 1842 and allowed the building of a new class of combination passenger and freight carrier. The first of these "package and passenger freighters," Hercules, was built in Buffalo in 1843. Hercules displayed all the features that defined the type, a screw propelled the vessel, passengers were accomodated in staterooms on the upper deck, and package freight below on the large main deck and in the holds. [2]

Engines developed as well. Compound engines, in which steam was expanded twice for greater efficiency, were first used on the Great Lakes in 1869. Triple-expansion engines, for even greater efficiency, were introduced in 1887 and quadruple-expansion engines, the ultimate type of reciprocating engine for speed, power and efficiency, appeared on the lakes in 1894. [3]

Steamboat lines were established by railroads on the Great lakes to join railheads in the 1850s. This service carried goods and passengers from railroads in the East across the length of the lakes to railroads for the journey West. Railroads bought and built steamship lines to compliment railroad services. One such railroad-owned steamship line was formed by the Pennsylvania Railroad in 1865 to connect their terminals at Buffalo, New York, to those of the Great Northern Railroad at Duluth, Minnesota. This new line, owned by the Erie and Western Transportation Co., became the well known "Anchor Line." [4]

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The "Anchor Line" ordered three sister ships; Tionesta in 1903, Juniata in 1904, and Octorara in 1909, to replace three aging, smaller passenger freighters bought in 1871. The American Ship Building Co. of Cleveland, Ohio, launched Juniata on December 22, 1904, and delivered her in time for the start of the 1905 season.

The hull was constructed of steel up to the promenade deck over the berth deck. Seven watertight bulkheads divided Juniata into eight compartments, three designed as cargo holds, one for boilers, one for engines, two for peak tanks, and one for crew accomodation. Two cargo decks took up most of the space within the hull while the berth deck supported 92 staterooms and an open stern deck area. The next deck up, the promenade deck, was open above the bulwarks and held a music room, writing room, eight parlors, and the main dining room. Juniata's superstructure was built of wood from the promenade deck upwards and supported the lifeboats, wheelhouse with an open bridge atop, captain's quarters, officers' quarters, chairman's suite, and chartroom. A pole foremast was sited behind the bridge, a pole mainmast stood amidships, and a massive, single, all-black smokestack dominated the upperworks aft. [5]

Juniata continued to work for the Anchor Line until 1915 when the anti-monopoly, Panama Canal Act forbade railroads to own steamships. The Anchor Line was sold along with four other railroad-owned company fleets, to the newly formed Great Lakes Transit Corporation. The three sister ships continued carrying passengers and freight between Buffalo and Duluth until 1933 and 1934 when Juniata and Tionesta ran a special route between Buffalo and Chicago for the "Century of Progress" World's Fair. In 1936 new regulations for fire safety, required in the wake of the Morro Castle disaster, caused the ships to be laid up. Juniata was sold and in October 1940, steamed to Manitowoc, Wisconsin, where the Manitowoc Shipbuilding Co. converted her to a safer and more modern appearing vessel.

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Conversion

Juniata was rebuilt extensively to conform to the new regulations. The wooden superstructure was removed and the promenade deck forward of the pilothouse cut down to the level of the berth deck. The new superstructure is one deck lower than the old. The scotch boilers were replaced by modern three-drum water tube boilers and the coal bunkers rebuilt to carry fuel oil rather than coal. New accommodations were built to reflect the shorter trip. Thirty-six cabins lined the hull beneath the bridge and 56 Pullman-type upper and lower berths for reserved seats and night trips were installed inboard. The convertible berths were a new venture for the Simmons Mattress Co. which hoped to obtain railroad car contracts by proving their ability in a similar contract. The measurements for the finished berth sections did not take deck camber into account and when they arrived at the ship they did not fit. Simmons corrected the work but did not carry on to do similar work for railcars. [6]

The most spectacular feature of the conversion was the Streamline Art Moderne styling of the interior and upperworks. Many transportation-related buildings and vehicles were designed in this style, including at least four steam vessels for service on protected waters. Sweeping curves and graceful fairings replaced flat planes not to reduce wind resistance but "to produce a design that embodied something different and daring which would appeal to the taste and attention of the travelling public, already quite familiar with the applications of artistic air-flow design in rail and motor transportation." [7]

Internal furnishings followed the same aesthetic as the exterior. The Warren and McArthur furniture company built tubular aluminum chairs, sofas, tables, and desks for the ship of the same pattern as those aboard SS America, flagship of the American merchant marine. Geometric patterned tile flooring was laid in several lounges and a two-deck-high wall mural of the routes served by the vessel was painted above the grand stairway. Glass panels, chrome, and mirrors reflected the bright light produced by "lumaline" incandescent lamps and indirect wall fixtures.

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A number of new services were offered to passengers. A casino, a 120-seat movie theater, "marine lounge," "harem lounge," and children's nursery were fitted. The main deck was reconfigured to allow easier handling of the larger automobiles of the day. Passengers could drive their car to the dock, steam across the lake and drive away. [8]

The rebuilt vessel was given the name Milwaukee Clipper and began service between Milwaukee, Wisconsin, and Muskegon, Michigan, June 4, 1941. The new service differed from the old in carrying only automobiles as cargo. Contracts with auto manufacturers allowed Milwaukee Clipper to operate at a profit without a full passenger load after most all-passenger vessels were forced into retirement.

Milwaukee Clipper continued in service until 1970, though reduced in later years to a three-month summer season. From 1970 to 1977 Milwaukee Clipper was laid up at Muskegon, Michigan. On June 3, 1977, she was sold to the Illinois Steamship Company, a subsidiary of the Great Lakes Transit Company, and towed to the Bay Shipbuilding Company of Sturgeon Bay, Wisconsin. A large number of rivets were replaced, some hull plates renewed and other work on the machinery completed. Financing for further hull and propulsion plant work could not be secured without Coast Guard certification to carry passengers and that certification could not be granted until all work was completed. Unable to carry passengers on cruises, Milwaukee Clipper was moved to Navy Pier on the Chicago, Illinois, waterfront where she serves as a restaurant and nightclub. The interior has been maintained in much the same condition as when the ship was converted in 1940. Two liquor-serving bars have been added and some equipment in the galley has been updated with minimal effect to the interior and the exterior color scheme has been changed from mint green and white to white with a red sheerstrake. The name Clipper appears on the bow though it appears that Milwaukee Clipper is still the legal name of record. [9]

NOTES

1

John H. Morrison, History of American Steam Navigation, (New York: Stephen Daye Press, 1958), pp. 366, 369.

SEE CONTINUATION SHEET

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2
Ibid, p. 371.

3
Ibid, p. 377.

4
K. Jack Bauer, A Maritime History of the United States: The Role of America's Seas and Waterways (Columbia, S.C.: University of South Carolina Press, 1988), pp. 193-195.

5
William F. Rapprich, "The Anchor Line, Tionesta, Juniata, and Octorara," Inland Seas vol. 30, no. 1, (Vermilion, Ohio: Great Lakes Historical Society, 1974), pp. 3-19.

6
Ibid, pp. 3-19. Notes on visit to Clipper, Interview with James Gillon.

7
Jeffrey L. Meikle, Twentieth Century Limited; Industrial Design In America, 1925-1939, (Philadelphia: Temple University Press, 1979), p. 152.

8
Notes on visit to Clipper.

9
Charles H. Truscott, "And Now, The Clipper; Going..Going...Gone?," Telescope, vol. XXVII, no. 6, November\December 1978, pp. 160-166.