



Telescope

MARCH ☆ APRIL, 1981
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GREAT LAKES
MARITIME
INSTITUTE

DOSSIN GREAT LAKES MUSEUM
Belle Isle, Detroit, Michigan 48207

MEMBERSHIP NOTES ●

The Institute would like to welcome Mr. John F. Polacsek of Ohio, who will succeed Robert Lee as curator of the Dossin Great Lakes Museum. Mr. Polacsek's interest in the history of the Great Lakes is highlighted by two major research projects. The first research project was from 1972 to 1974, when he acted as chief researcher on a survey of all known shipwrecks in Michigan coastal waters. The subsequent investigation of each wreck was done in order to give the sponsor, the Michigan Department of Natural Resources some idea of the historical treasures on the state's bottomlands. The research was performed primarily at the Center for Archival Collections in Bowling Green, Ohio under the direction of Dr. Richard J. Wright. Research procedures were developed and a computer information retrieval system was implemented to facilitate the identification of unknown wrecks.

A similar study was compiled in 1979 for the Ohio Department of Natural Resources. This preliminary study was not as extensive and the major Great Lakes collections provided the necessary historical data for the study and denoted type, date of wreck and location of casualty.

At the present time he is researching the history of amusement shows, circuses and theatrical companies which traveled on the waterways of America in search of an audience.

MEETING NOTICES ●

Dr. Richard Wright will be the guest speaker at this month's entertainment meeting (see notice on page 55). The next entertainment meeting will be on Friday, May 29, 1981. We will have a program of member's slides. You are invited to bring up to 10 slides dealing with our theme "Ships on the Detroit River". We will have carousels available for projection. More next month.

Business meetings are scheduled for April 24 and June 26, 1981. All meetings are at 8:00 p.m. at the Dossin Museum.

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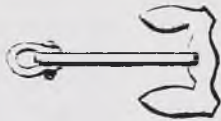
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OUR COVER PICTURE. . .The *D. G. Kerr*, one of the last standard 600-footers on the Lakes. She was built in 1916 for the Pittsburgh Steamship Company and was transferred to U.S. Steel corporation in 1952. She was sold overseas for scrap last fall and sank in the Atlantic Ocean while being towed. (See news section on December 12.) This photo was taken by Paul LaMarre, Jr. while the *Kerr* was upbound in the Detroit River in May, 1975.

THE WRECK OF THE WILLIAM BARNUM

BY
DR. CHARLES E. FELTNER



Scores of scuba divers have enjoyed exploring the wreck of the steamer *William H. Barnum* in the Straits of Mackinac. The moderate depths and proximity to the shore make diving on the *Barnum* a pleasant experience. This ship, which met her end in 1894, was launched at 4:00 on a Saturday afternoon from the Springwells shipyard of master builder J. M. Jones of Detroit.¹ The date was April 5, 1873 and ice floes were still drifting down the Detroit River. The *Barnum* was built for A. C. Burt and W. C. Ralph of Detroit, each one half owners and was named after William H. Barnum who was president of Barnum mines in Ishpeming, Michigan. She was under the command of Captain W. O. Harrison, an experienced master and according to the *Detroit Free Press*,¹ was scheduled to carry ore from Escanaba. •

Mr. Burt registered the *Barnum* at the Detroit District Custom House on May 30, 1873.² She was listed as 218.6 x 34.6 x 16.2 and 973.15 tons. The cabin capacity of 77.65 tons (7765 cubic feet) was rather large for a freight vessel of this size. The *Barnum* had two masts, one deck, round stern, plain

stem and was wooden-hulled. She was powered by a high pressure steam engine built by the Frontier Iron Works of Detroit, which was the first of a kind produced by this manufacturer. Her boilers were made by the Detroit Locomotive Works and measured 17' long by 7' 4" in diameter. The total cost of the vessel was estimated at \$80,000.¹

Only one year later the *Barnum* was involved in her first major incident. On July 4, 1874, around 9:00 p.m. on a Saturday, the *Barnum*, with the schooner *Thomas W. Ferry* in tow, collided with the bark *S. V. R. Watson* near Point Pelee on Lake Erie. The *Barnum*, upbound without cargo, struck the *Watson*, downbound with 32,500 bushels of wheat for Buffalo, on her starboard side near the bow, sinking her in 28 feet of water. According to the account of an officer aboard the *Barnum*, appropriate whistle signals were repeatedly given to the *Watson*, but she failed to heed them. In the collision, the bow of the *Barnum* suffered minimal damage but she lost a few stanchions from her stern when she was overrun by the *Ferry*. The *Barnum* rescued the crew of the *Watson* and stood by as the bark drifted about and slowly sank to the

bottom in an upright position. The *Watson* was twelve years old and was owned by W. H. Ingram of Buffalo.³

In 1878, the *Barnum* was purchased by R. P. Fitzgerald and John Plankinton of Milwaukee and P. D. and J. F. Armour of Chicago,⁴ and became part of the former "Ballentine Fleet,"⁵ which included the steamers *Charles J. Kershaw* and *David*

Ballentine and the schooner *Alexander B. Moore* (later named the schooner *Northwest*, which sank in the Straits in 1898). Her home port was changed to Milwaukee and she carried wheat from that city to Buffalo. In 1879, the going rate for the trip was 5¢ a bushel⁶ and at a capacity of around 50,000 bushels per trip, she cleared tidy profits for her owners. The *Barnum* remained in

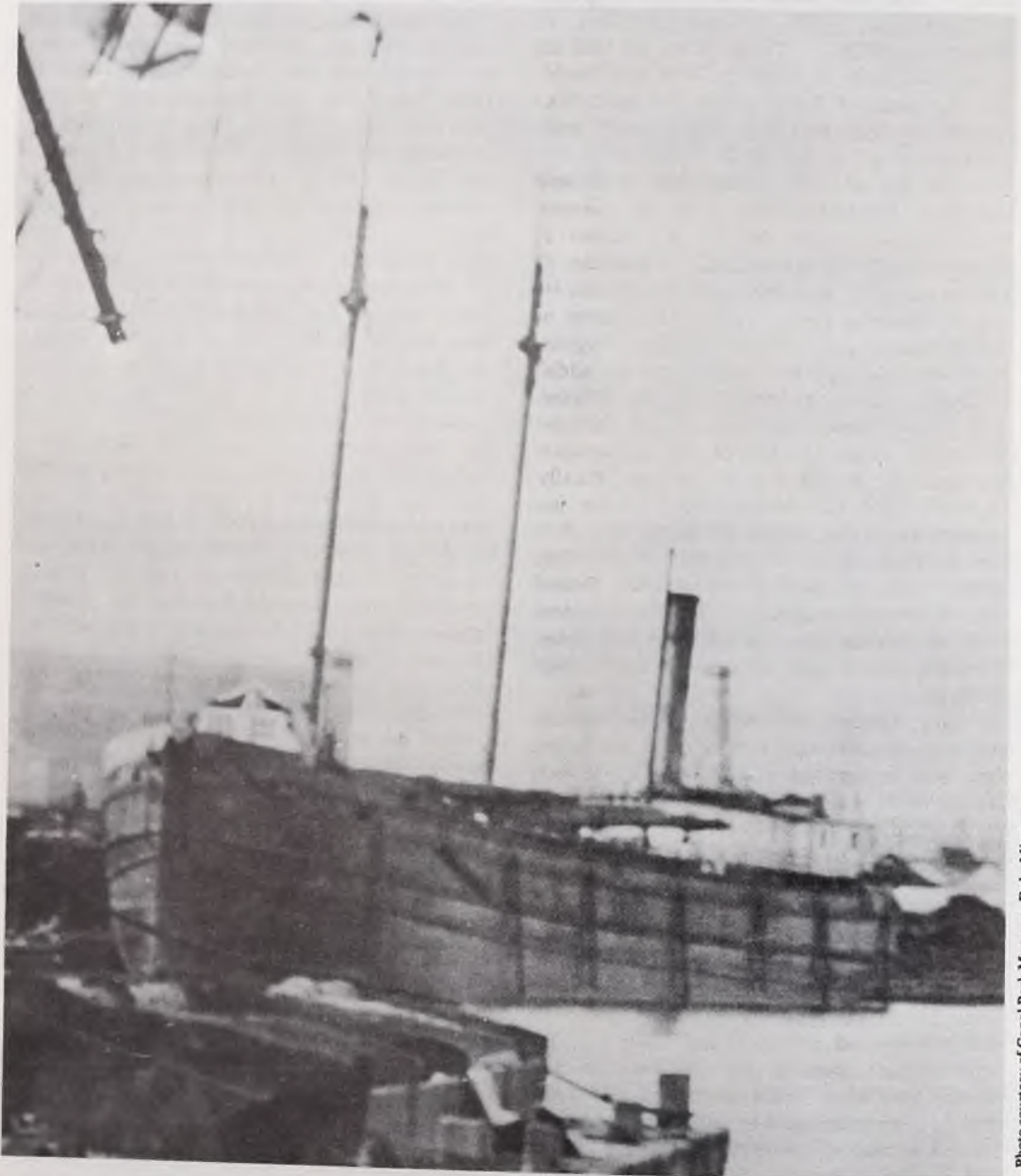


Photo courtesy of Canal Park Museum, Dul., Minn.

The WILLIAM H. BARNUM at Wolf & Davidson Yards in Milwaukee.

the ownership of Fitzgerald *et al* through 1888 and in this period, she underwent considerable maintenance. Over the 1878-1879 winter, her owners had her completely rebuilt, raising her gunwales several feet and adding a second deck. Additionally, her cabin was reduced to 9.65 tons (965 cubic feet) to make way for deck cargo. When re-registered at the Detroit Custom House on April 15, 1879, her capacity was listed as 1212.51 gross tons.⁷ She was fitted with a new propeller in September, 1879⁶ and recalced in December, 1879.⁸ These jobs, as well as her rebuild, were handled by Wolf and Davidson Shipyards of Milwaukee. She again was recalced in 1883 and had major repair work done on her boilers in 1887.⁹

In the fall of 1888, Fitzgerald *et al* sold the entire Ballentine fleet, with the *Barnum* being purchased for \$40,000 by James J. H. Brown and others principally of Buffalo.¹⁰ Her home port was changed to Buffalo¹¹ and she became part of what was known as the Chicago grain fleet, making regular runs from Chicago to Buffalo. As an added curiosity, close examination of the original photograph shows a large white Maltese or formee' cross painted of her smokestack, the meaning of which is not known. Finally, in April, 1893, she was acquired by her last set of owners (i.e., Harris W. Baker, Detroit 1/3 Ben Birdsall, Detroit 1/4, John C. Gauntlett, Ithaca, N.Y. 1/4 and B. H. White, Detroit 1/6).¹² The home port was changed to Detroit and Mr. White was listed as her master. They continued to operate her in the Chicago grain fleet.

Over the years, the condition of the *Barnum* had deteriorated and it was reflected in her insurance ratings and valuation. Upon launching in 1873, Inland Lloyds gave her an A1 rating and an \$80,000 valuation. By 1875, her valuation had dropped to \$60,000 with an A1 rating. In 1893, she was down to \$35,000 and an A2 rating which was being seriously questioned by the underwriters. By the winter of 1893-1894, her condition was poor and the Inland Lloyds inspector, Captain Daniel McLeod, refused to give her a rating or valuation until prescribed repairs were made.¹³ The underwriters claimed the boat was not seaworthy and after much argument and negotiation a compromise was reached. The underwriters agreed to insure the vessel for \$22,000 for a single trip departing April 1 to Port Huron, where upon promise of the owners, she would be repaired and brought up to

Inland Lloyds A2 rating. The underwriters who backed this deal were Smith, Davis & Company of Buffalo, David Vance of Milwaukee and Detroit Fire and Marine each committing to \$5,000 insurance apiece. C. A. McDonald and P.H. Fleming of Chicago underwrote an additional \$7,000 to bring the total to \$22,000.¹⁴ The records don't indicate the insurance premiums demanded for this risky, one trip venture, but they were undoubtedly high.

At noon Sunday, April 1, 1894, the underwriters officially declared the season open in Chicago and the *Barnum*, along with 18 other boats left the Chicago River harbor with the steamer *E. M. Peck* in the lead.¹⁵ Amongst the group of boats in the parade out of the Chicago harbor was the steamer *Minneapolis* and her tow barges *Red Wing* and *San Diego*. The *Minneapolis*, slowed by her consorts, would not make it to the Straits of Mackinac until a day after the *Barnum*. Nevertheless, her fate was to be the same. She was cut by ice and sank in the Straits on April 4, 1894¹⁶ only a few miles from the *Barnum*.

Laden with 55,000 bushels of corn shipped by Irwin Green & Company of Chicago for export via Port Huron, the *Barnum* pushed her way northward on Lake Michigan. She was under the command of Captain William H. Smith of Marine City, Michigan. Captain Smith was born November 30, 1864 in Sombra, Ontario, virtually on the banks of the St. Clair River. By the time he was 14 years old, he was a deckhand on the ferry steamer *Scoville*, which ran between Sombra and Marine City, Michigan. For the next several years, he served on a large number of vessels at a variety of jobs including fireman, watchman, wheelsman and first mate. In 1887, he received his master's license at the young age of 23 and was married a year later to Miss Lily McDougall of Detroit, whose father, Captain Richard McDougall, was an old-time master dating back to the 1840's. At age 29, in the spring of 1894, he was on his first trip as master of the *Barnum*.¹⁷ Little did he know it would be his last.

Without barges to tow, the *Barnum* reached the Straits of Mackinac well ahead of the rest of the Chicago fleet only to encounter bad weather and extensive ice floes. As she rounded the turn at White Shoals and headed down the Straits, the rough weather proved too much for her and water began to pour into the hold as her seams opened.

Frantic efforts were made by Captain Smith and his crew to stem the inflow of water by putting canvas over the holes. But the poor condition of the vessel and the battering

of the heavy seas had taken its toll. The pumps fell behind and in a desperate cry for help, the *Barnum* sounded the distress call on her steam whistle as she passed Mackinaw City.



The author and the rudder of the BARNUM.



Photo courtesy Marine Collection, Milwaukee Public Library

The BARNUM (left) in Buffalo Harbor.

The tug *Crusader*, which happened to be in the area, came to her aid. An attempt was made to tow the *Barnum* into shallow water and beach her near Freedom, Michigan. Unfortunately, the ice extended in a solid mass far out from shore and blocked the way. The *Crusader* then turned her loose and started for Cheboygan to get steam pumps. Scarcely had the tug gotten away than the *Barnum* sounded the distress call on her whistle again. The *Crusader* returned, took the crew off the *Barnum* and stood by and watched as she sank at 6:00 in the morning on April 3, 1894.¹⁴ The insurance underwriters had lost their one shot gamble.

The crew of the *Barnum* was brought into Cheboygan and arrangements were made for passage for them on the steamer *State of Michigan* of the Grummond Line, which was bound from Mackinac Island to Detroit. Ironically, this steamer ran aground the next day on Kenosha reef in Thunder Bay off Alpena in the midst of a strong gale. With the help of the Alpena life saving crew and the tugs *Frank W.* and *Ralph* from Alpena, she was released without damage and continued her journey to Detroit and arrived at

5:15 p.m. on April 4.¹⁸ The crew of the *Barnum* stepped ashore in great relief recognizing that they had survived two shipwrecks in less than forty-eight hours.

Only one day after she sank, a wrecking crew out of St. Ignace, headed by Captain Fred Ryerse, found the wreck of the *Barnum* reportedly in 69 feet of water¹⁹ ½ mile offshore of Freedom, Michigan, which is about 5.5 miles southeast of Mackinaw City. Captain Ryerse made several dives on the *Barnum* and finding her to be in good condition, felt the vessel could be raised and salvaged. Additionally, he arranged with the underwriters to salvage the cargo of corn and sell it to the Brantford Ontario Starch Works.²⁰ Captain Ryerse, the first diver on the *Barnum*, was part of a pioneer family in St. Ignace. His grandson, Chuck Ryerse and great-grandson Jim Ryerse, a well-known commercial diver in the Straits area, are residents of St. Ignace today. Captain Ryerse did not get the corn salvaged nor the ship raised during the summer of 1894. The next spring, John Dodd of Mackinaw City dove on the *Barnum* from the steamer *North Star* to collect corn samples for evaluation. He

brought up three glass jars filled with the year-old corn and after inspection by Mr. Schmidlen from the Brantford Starch Company, it was deemed unusable and left to rot.²¹

The *Barnum* rested quietly in her watery grave for almost seventy years. Then in the summer of 1963, a merry band of innovative wreck searchers, led by Norm McCready of Indianapolis, found the *Barnum* while searching for her with Norm's 35 foot boat, the *Penmanta*. The crew consisted variously of Fred Leete, Paul DeWitt, Jim Sawtelle, Chum Laway, Dick Charbonneau, Jerry Kemler, Dean Delyanides and Ken Teyson (owner of Teyson's Restaurant in Mackinaw City).²²⁻²⁴ McCready had equipped his boat with a sonar device known as "Sea-Scanar" and a cumbersome navy surplus magnetometer, dubbed Q-8, supplied by Jim Sawtelle. They recovered many artifacts from this wreck including the brass engine builder's plate, crocks, china, chimneys from cabin lamps, deck lanterns, the compass binnacle and

various assorted blocks.²⁵ The brass engine builder's plate is on display in the marine museum on the second floor of Ken Teyson's restaurant in Mackinaw City. It reads "Frontier Iron Works- Detroit- No. 6 - Barnum".

In July, 1969, a group of divers from St. Ignace, including charter boat operator, George Yshinski, recovered the rudder from the *Barnum* and placed it on permanent display in the St. Ignace marine park near the State marina.^{26,27} Ironically, among this group was Jim Ryerse, the great-grandson of Captain Fred Ryerse who had first dived on the *Barnum* 75 years earlier.

It is interesting to note that there were 3 different values of the depth reported in which the *Barnum* sank. The *Detroit Free Press* reported 11 fathoms or 66 feet, the *Cheboygan Tribune* 80 feet¹⁵ and the *Chicago Inter Ocean* reported 69 feet.¹⁵ According to my best measurements, she lies in 74 feet. She sits upright in the water and bottom recordings show her gunwales to be at about



Artifacts found from the BARNUM. Note engine builder's plate.

55 feet, thus making her a fairly simple dive for scuba divers.

The chart recording clearly shows that portions of the main deck have collapsed or have been removed by salvors. However, the main deck is mostly intact from the bow rearward to a point behind the first main mast. Nevertheless, being double-decked, the wreck offers many opportunities for penetration by divers under relatively safe conditions. Some hardware, particularly the steam engine and boilers rearward, as well as the windlass mechanism at the bow, should provide appreciable interest to those who have a mechanical bent. The jumble of chains in the windlass area lead to the conclusion that there was considerable activity by the crew in the bow area as she was being towed or else trying to set anchor as she sunk. The stern area is largely a disarray of wreckage as extensive damage was done during the time when the rudder was removed. In the summertime, when the thermoclines are at their greatest depth, many fish can be observed patrolling the grave of the *Barnum*. If you don't own a boat and are interested in diving on this wreck, charter boat trips are offered by licensed Captains Kevin Gibbons of Cheboygan and George Yshinski of St. Ignace.

If you own a boat and want to dive on the *Barnum*, head southeast along the shoreline from Mackinaw City for a distance of about 5.6 miles until you are directly offshore from the Commodore Restaurant. It is a good idea to check this landmark out first by visiting the restaurant area by land so that you will have an idea of its appearance when offshore. At the water site, position your boat so that the front and rear gables of the north end

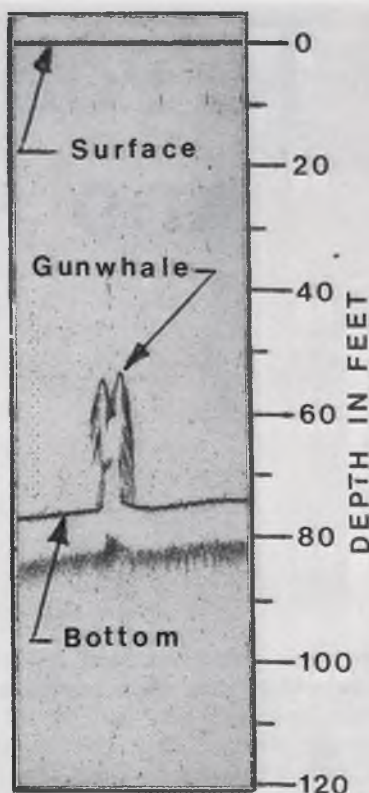


Chart recording showing the wreck of the *BARNUM*.

of the restaurant roof are nearly lined up, but with that gable nearest the water being slightly southward. Proceed on this line to a depth of 74 feet and you should be over the wreck. Often during the summer, there is a buoy attached to the wreck which makes finding her very simple. □

FOOTNOTES

1. Detroit Free Press, April 6, 1875.
2. William H. Barnum official no. 80342, enrollment no. 179 Detroit, Michigan on May 30, 1875. National Archives, Washington, D.C.
3. Detroit Post, July 6, 1874.
4. William H. Barnum official no. 80342, enrollment no. 59, Milwaukee, Wisconsin on April 3, 1878. National Archives, Washington, D.C.
5. William H. Barnum. The Herman G. Runge Collection, Milwaukee Public Library, Milwaukee, Wisconsin.
6. The Milwaukee Sentinel, September 2, 1879.
7. William H. Barnum official no. 80342, enrollment no. 53, Detroit, Michigan on April 15, 1879. National Archives, Washington, D.C.
8. Milwaukee Sentinel, December 31, 1879.
9. Inland Lloyd's Vessel Register, New York. Page 5, 1894.
10. Detroit Free Press, October 20, 1888.
11. William H. Barnum official no. 80342, enrollment no. 40, Buffalo, New York on March 11, 1889. National Archives, Washington, D.C.
12. William H. Barnum official no. 80342, enrollment no. 73, Detroit, Michigan on April 17, 1893. National Archives, Washington, D.C.
13. The Chicago Daily Inter Ocean, April 4, 1894.
14. Detroit Free Press, April 4, 1894.
15. Cheboygan Tribune, April 5, 1894.
16. C. E. Feltner, "The Wreck of the *Minneapolis*", Diving Times, Volume 3, No. 2, April/May, 1980. Published by Recreational Diving Systems, Royal Oak, Michigan.
17. J. B. Mansfield, "History of the Great Lakes - Volume II", J. H. Beers and Company, Chicago, Illinois, page 699.
18. Detroit Tribune, April 5, 1894.
19. The Chicago Daily Inter Ocean, April 5, 1894.
20. The Cheboygan Tribune, April 12, 1894.
21. The Mackinaw Witness, May 25, 1895.
22. Fred Leete, III "Electronic History - Finders", Inland Seas, Volume 19, 1963, page 292.
23. Cheboygan Daily Tribune, August 31, 1965.
24. Private communication with Mr. Ken Teyson, Mackinaw City, Michigan on June 9, 1980.
25. Petoskey News Review, October 9, 1965.
26. Private communication with Jim Ryerse, St. Ignace, Michigan, February 3, 1980.
27. Inland Seas, Volume 25, 1969, page 245.

R FOR STABILITY: ADD SPONSONS

BY
WAYNE GARRETT

Many vessels plying the Great Lakes have been improved to keep them profitable and in service longer. When that vessel was a passenger steamer that was extremely popular and competing to stay that way, frequent changes were necessary. So it was with the *Tashmoo*. This is the story of stability improvements of the "Glass Hack" through the addition of sponsons.

When Frank E. Kirby was commissioned to design a larger and faster excursion steamer for the summertime run from Detroit to Port Huron and back, he designed the hull very fine, i.e., a rather high length to beam ratio. Thus this swift thoroughbred, which was to ply the rivers and the shallow approaches to such places as the Old Club, Joe Bedore's, Tashmoo Park and Grande Pointe on her



way to Port Huron, was assigned hull dimensions of 302' 11" between perpendiculars, 311' 6" overall, 37' 6" beam and depth of 13' 6" with a loaded draft of about 9 feet. She was the pride of the White Star Steamship Company and never ceased to thrill the hand-waving folks on shore as she glided by majestically on her run up and down the river.

Not too many years passed when the first visible changes took place. The hurricane deck was extended from just in front of the pilot house to the bow. The dance floor, which was aft of the stacks on the same deck, was moved down to the main deck. A house for passengers was subsequently added aft of the stacks as well as officer's quarters aft of the pilot house. A rubber tile floor replaced the carpeting the full length of the main cabin plus other minor changes. All these superstructure changes not only added to the weight of the ship and deepened her draft, but more significantly raised the center of gravity which decreased her stability in the loaded condition.

The amount of list permissible for an excursion ship with the passenger load all on one side was established by the rules and regulations, at that time, of the U.S. Steamboat Inspection Service. Therefore, the *Tashmoo* required a considerable amount of added ballast and was faced with a reduction in passenger capacity to conform with safety regulations. The ballast added several inches to her already deepened draft which was a detriment to maintaining proper paddle wheel immersion. It also added to the dangers of grounding, especially in 1934, when the water level was low. Compared to the high in 1929, the lake level in 1934 was approximately three feet lower and about 1.2 feet below the ten year average. The need to exercise extreme caution during her landing approaches could only cause delays and raise havoc with her time table which was rather tight. Her "running-stops" were well known to *Tashmoo* fans.

Something had to be done. Even though the *Tashmoo* was 35 years old, the owners thought highly enough of her to invest in bouyancy improvements. They contracted the Great Lakes Engineering Works to effect the changes. The naval architects at Great Lakes devised the plan of filling out her hull at the water line by adding sponsons fore and aft of her paddle wheels. Even though 80 feet of her amidship beam remained the

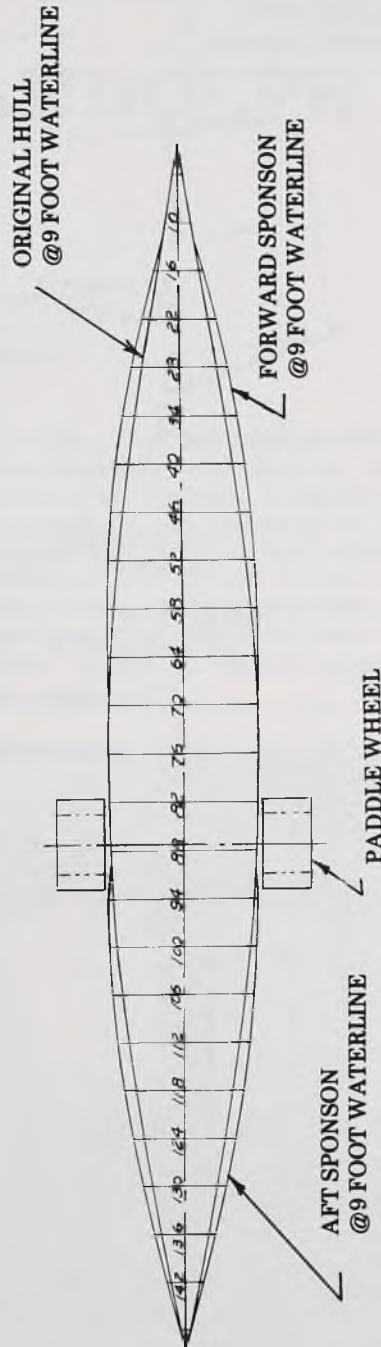
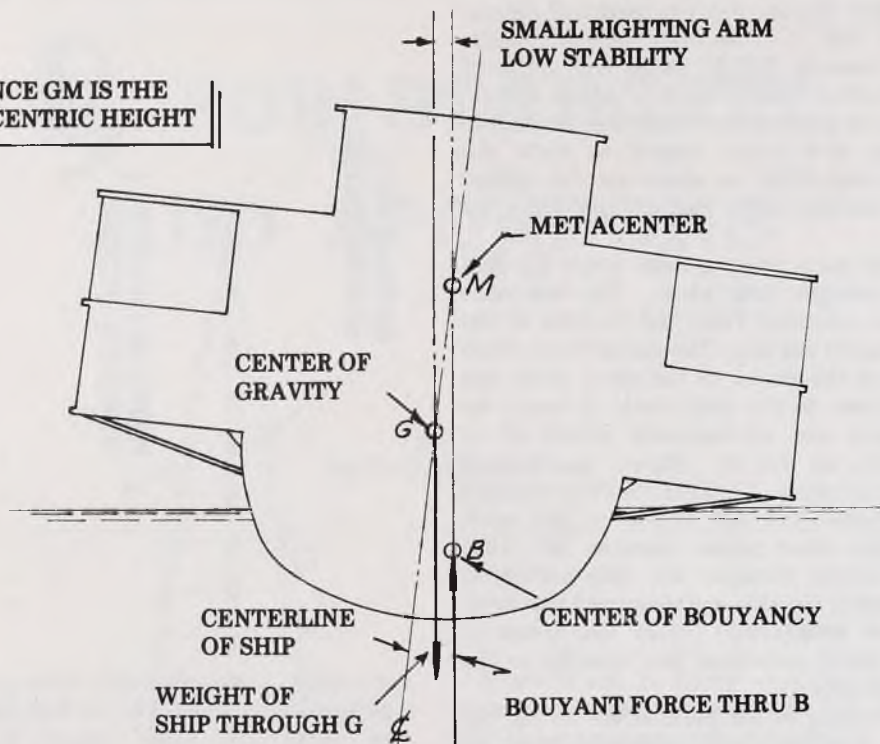
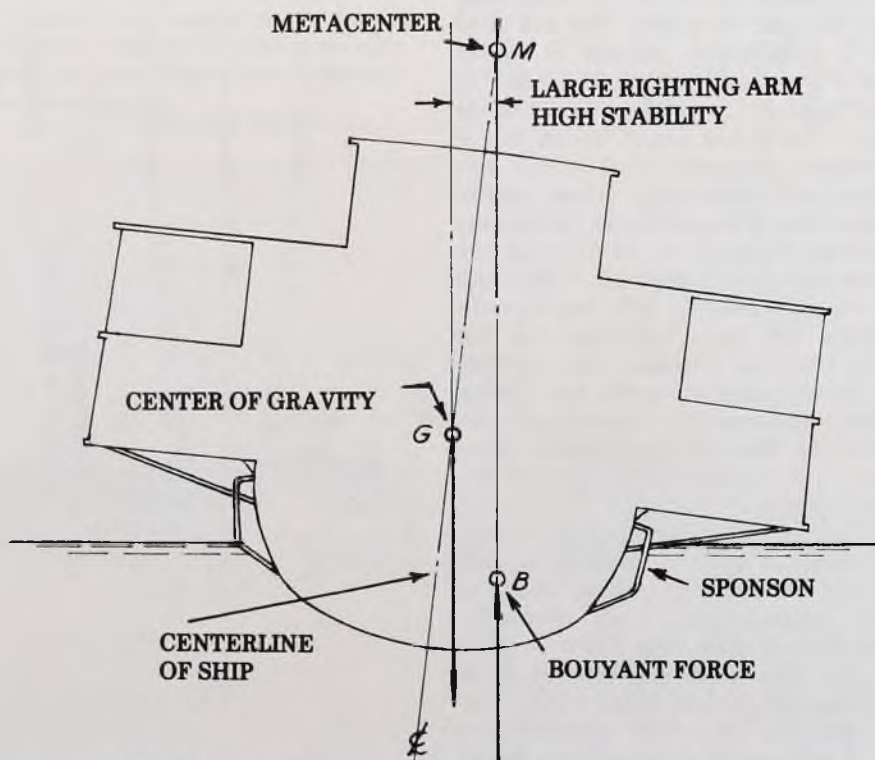


Diagram showing the sponson locations of the TASHMOO.

DISTANCE GM IS THE
METACENTRIC HEIGHT



Cross section before sponson addition.



Cross section after sponson addition shown at the same tilt.

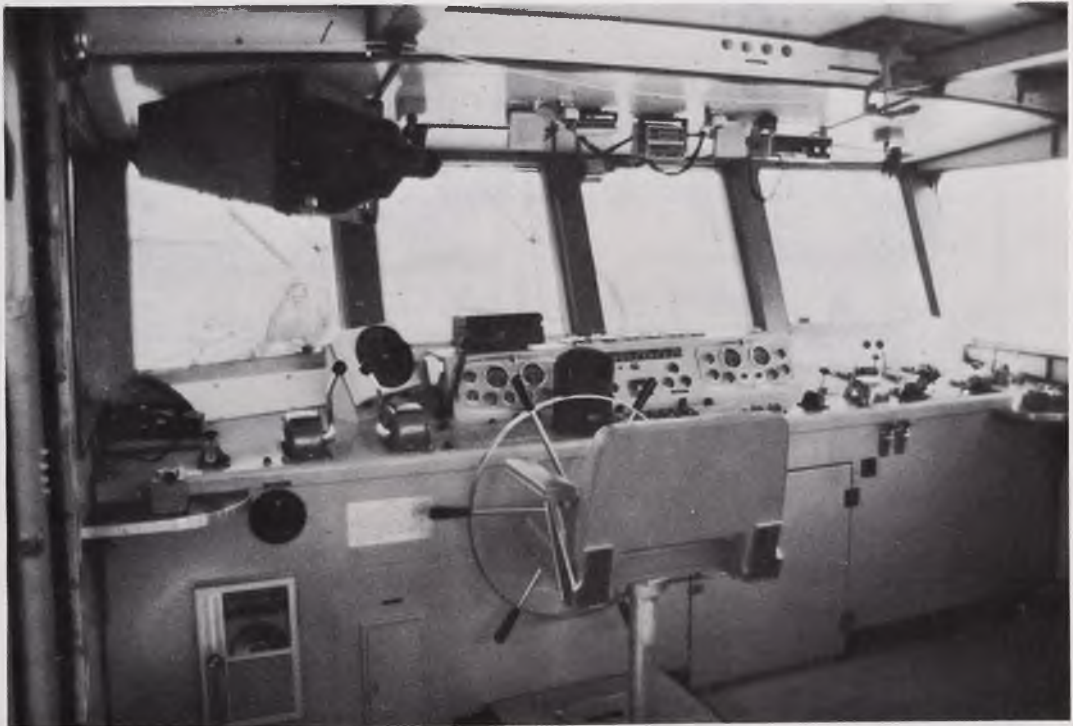
DETROIT'S FIREBOAT: CURTIS RANDOLPH

by
PATIENCE NAUTA
and
KATHY MCGRAW

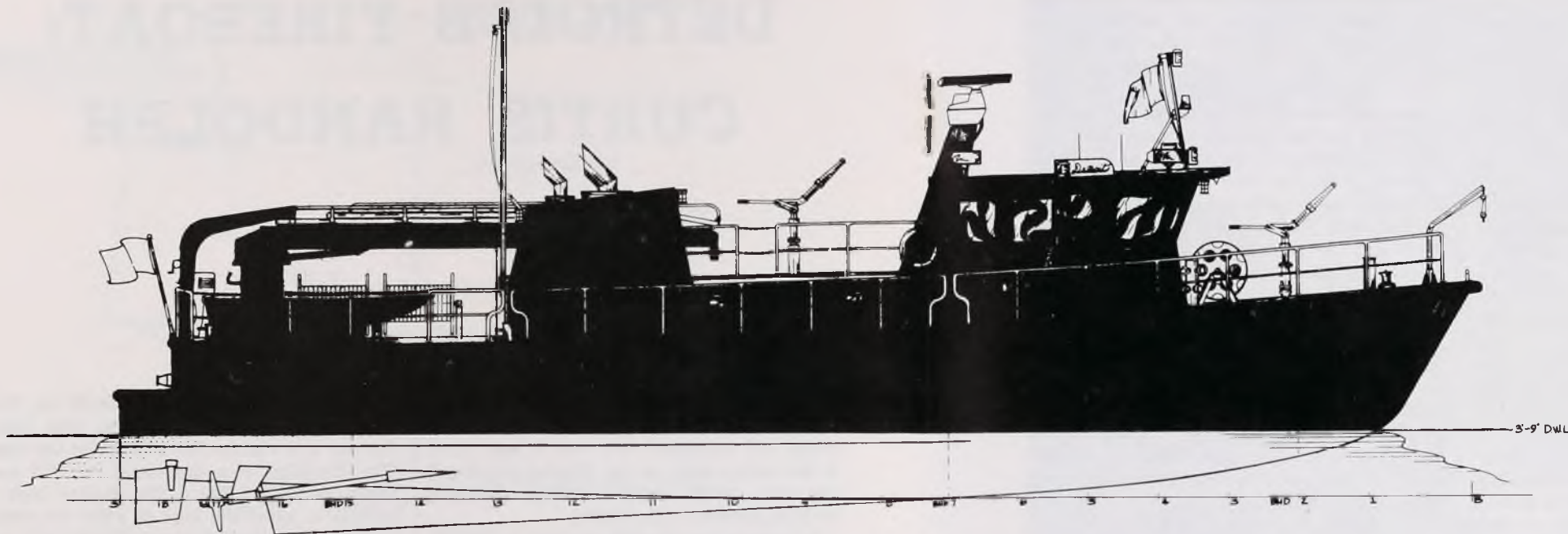
The Detroit River lost an old friend when they retired the fireboat, *John Kendall* in 1976. Many will remember how hot it was down in the engine room as the *Kendall* performed her many duties along the river, including breaking ice during the winter.

To replace the *Kendall*, the City of Detroit ordered a new fireboat to be built by Peterson Shipbuilders at Sturgeon Bay at a cost of

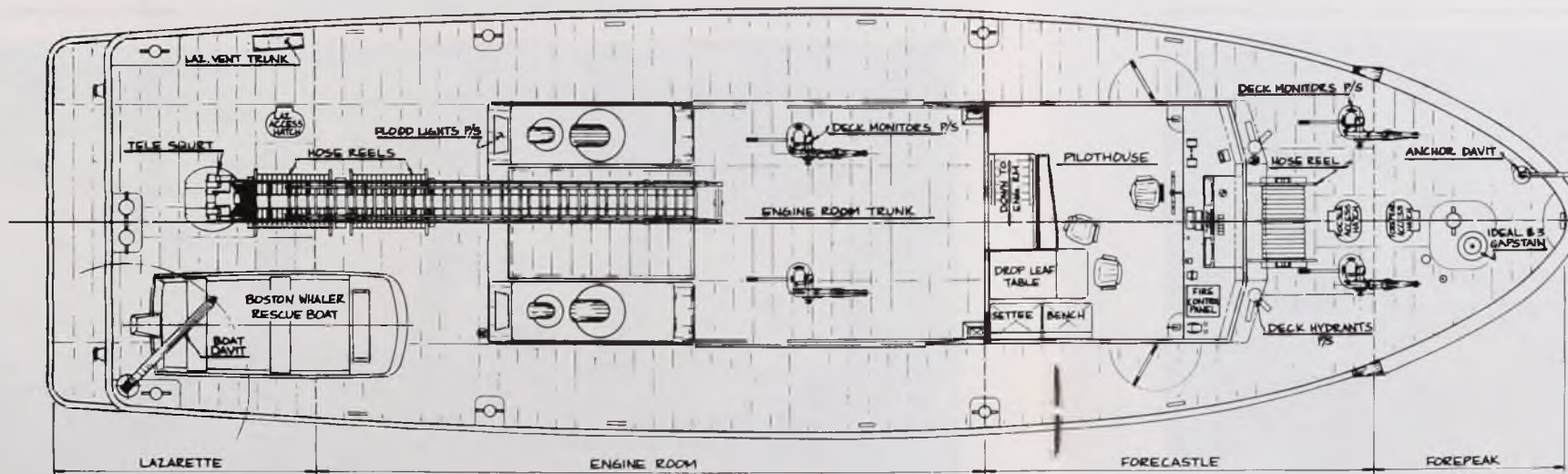
1.5 million. The boat was named for Mr. Curtis Randolph, who was the first black fireman to die in the line of duty for the City. The *Randolph* was christened in 1979 and measures 77.10 x 22 x 6. The shallow draft is needed to allow the boat to enter the many marinas along the Detroit waterfront. Still, the water depth must be at least 10 feet to allow the suction pumps to function properly. Two



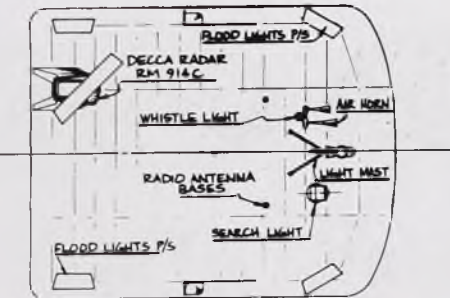
The pilot house.



OUTBOARD PROFILE



DECK PLAN



PILOTHOUSE TOP ARRANGEMENT

CHARACTERISTICS

LENGTH OVERALL	77'-10"
LENGTH DESIGNED WATERLINE	72'-6"
BREADTH, MAXIMUM	22'-2"
BEAM, MOULDED	21'-6"
DEPTH, MOULDED TO MAIN DECK	9'-3"
DRAFT, DESIGNED	5'-9"
POWER, TOTAL MAX. @ 1900 RPM	1540
SPEED, MAXIMUM	23 KNOTS
PUMPING CAPACITY @ 400 PSIG	3,000 GPM
PUMPING CAPACITY @ 150 PSIG	9,100 GPM
SCATING CAPACITY, ENCLOSED	4
DISPLACEMENT, DESIGN; IN FRESH WATER	153,000 LBS
FUEL	1,510 GALLONS
DRINKING WATER	100 GALLONS
FOAM CONCENTRATE	200 GALLONS

PETERSON BUILDERS, INC.
ENGINEERING DEPT.
AUG 15 1978
SUPERSEDES ALL
PREVIOUS PRINTS

CERTIFIED

PHONE NO. 9422-800-1	PETERSON BUILDERS, INC. STURGEON BAY, WIS. 77' HIGH SPEED ALUM FIBERGLASS FOR CITY OF DETROIT, MICH. OUTBOARD
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12 cylinder GM 12V-149 diesel engines provide 770 horsepower to propel the boat.

Pumping capacity is powered by two 12 cylinder GM 12V-71 diesel engines that provide 400 horsepower. There are 4 deck cannons and 16 low pressure outlets that pump 9,700 gallons of water per minute at low pressure. A super pump on board is capable of pumping 2,000 gallons per minute through 4 high pressure outlets. If there is a fire on the Ambassador Bridge, the super pump would pump waters upwards in pipes to the top of the bridge. Along the waterfront there are several land water headers that the *Randolph* may hook up to and supply a limitless supply of water to firemen on land.

A full crew of firemen lived at the firehouse when the *Kendall* was in service, but that has changed with the arrival of the *Randolph*. The crew consists of 4 pilots and 4 deckhands and a full time mechanic. A pilot and a deckhand work a 24 hour shift. If the *Randolph* is called, a company of firemen will be picked up at a pre-arranged location enroute to the fire. The pilot and deckhand control the boat, while a fire officer is in charge of the firemen.

The control panel has all the necessary controls to navigate from either side of the panel, in addition to pump and water distribution capability immediately available to the pilot. While the *Randolph* is normally restricted to working from the Rouge River to Windmill Point, she can work outside this area with proper authorization and has done so on occasion.

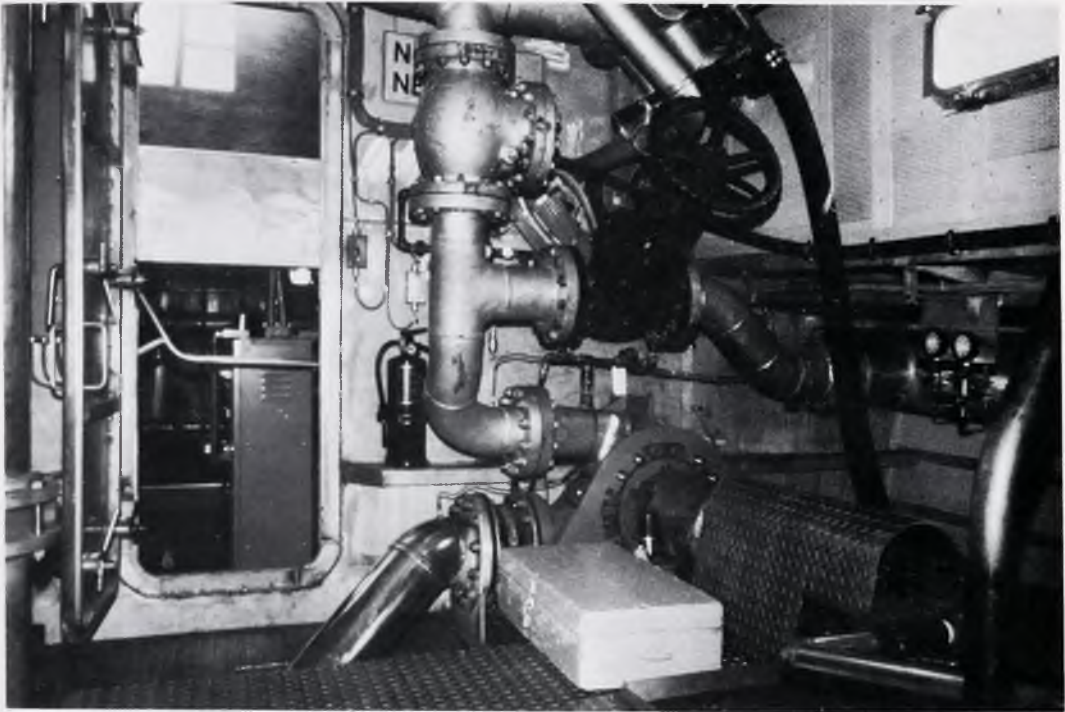
Below deck, the bow section stores the air tanks, hoses and other equipment needed by the crew. The mid-section is the engine room and the stern section houses the two 3 cylinder generators that are needed for electricity for the lights and controls. Other equipment on board is a Tele-Squirt ladder that extends from 25 to 50 feet and a Boston Whaler type rescue boat that would be used to enter shallow waters.

Since arriving, the *Randolph* hasn't responded to a major fire, but the Detroit waterfront is grateful that there hasn't been the need for her services and insurance rates reflect her presence. □

The authors would like thank Capt. Robert Schikora of the *Curtis Randolph* for his assistance in preparing this article.



Equipment storage area below in bow section.



Author's Photo

The super pump which is similar to those that pump water out of mines.



Author's Photo

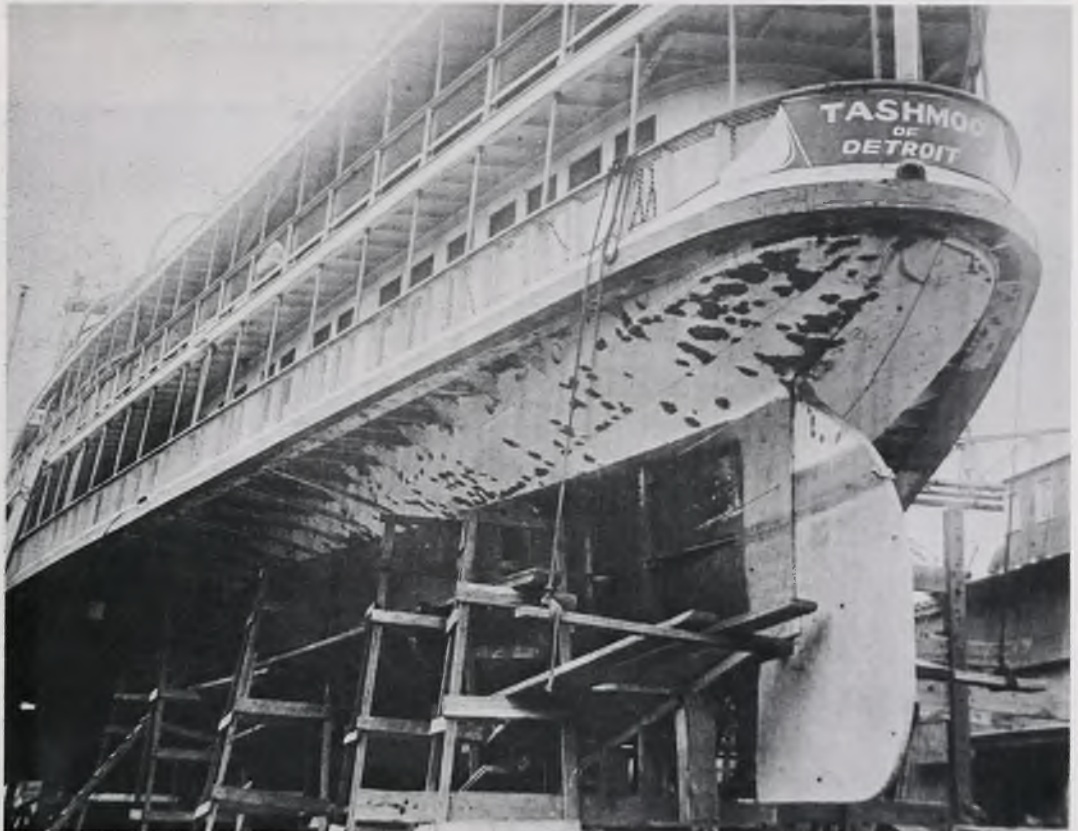
Engine room looking forward and showing 2 of the 4 diesel engines.

Continued from page 40.

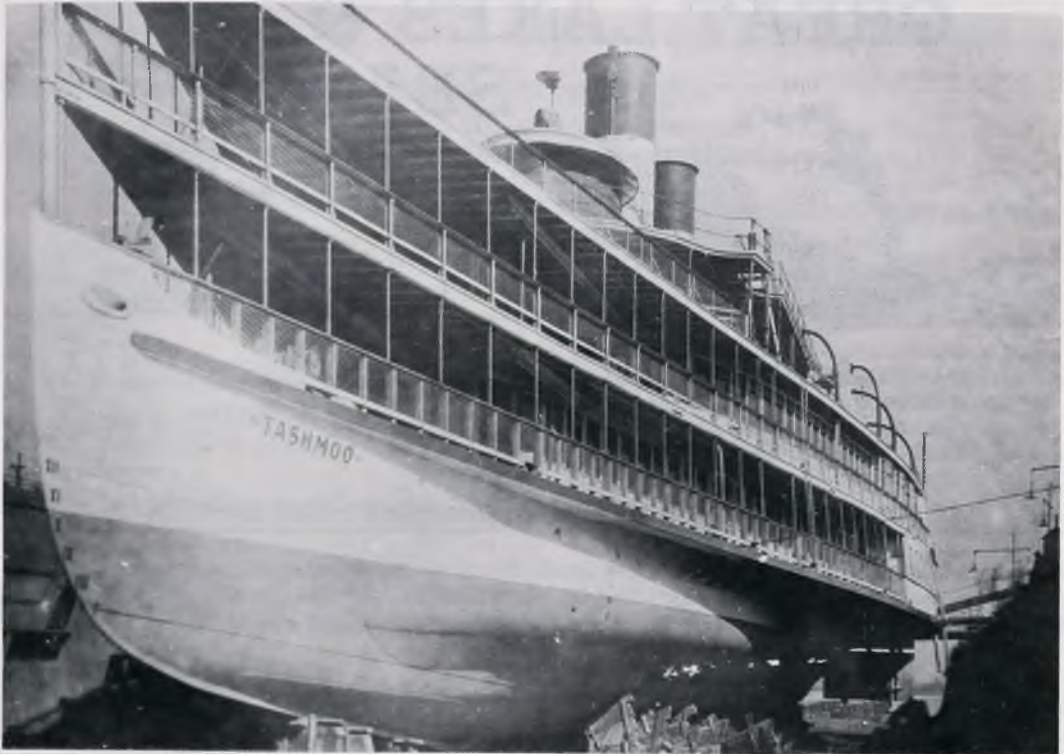
same because of her paddle wheels, the effective increase in beam not only increased her bouyancy but improved her stability. Also, her increased wetted surface was kept to a minimum so that the added drag would not be too great. Her sponsons were faired in from her paddle wheels to her hull ends to maintain a smooth flow and were carried far enough below the water line to increase her bouyancy by 60 tons over her added weight. This hull modification and removal of the extra ballast resulted in a loaded draft reduction of 9 inches. The effective increase in beam improved her stability by increasing the metacentric height, G.M. As seen in the transverse section drawings, an increase in metacentric height adds to the ship's righting arm, hence righting movement and so improves stiffness or stability. Modest increases in beam greatly increase the metacentric height. In short, the greater the beam, the greater the intial stability. Canoe-like or narrow beamed hulls like the *Tashmoo*'s are

less stable than barge-like wide beamed hulls because of the shift in the center of bouyancy during a list. A canoe hull is like a round log which is unstable and will roll over with ease because the center of bouyancy doesn't shift very much. On the other hand, the wide beamed hull, like a two by four, readily returns to stable equalibrium because its center of bouyancy shifts greatly when tilted.

On April 3, 1935, the *Tashmoo* was put into drydock at River Rouge for her sponson addition. The hull lines previously available were not accurate enough to lay out the frame contours for the fit required, therefore the final lofting had to be taken, or lifted off the hull while in drydock. Templates for each sponson frame were fitted to the hull at the existing frame lines to obtain the proper fit and used to form the sponson frames. These frames were welded in place on the shell. Then the sponson shell plates were made from measurements taken from the frames



View of the sponsons aft of the paddlewheel.



Dosain Museum Collection

View of the sponsons forward of the paddlewheel.

in place and welded throughout to be water tight. The existing guard braces were not cut but where they passed through the sponson shell, a watertight collar was welded. Bilge drains were connected to each sponson and watertight manholes were fitted in the old shell for inspection access. (It should be pointed out that welding at this time was still fairly new in marine construction, as evidenced in contemporary technical journals.)

The work was carried on both day and night until she was floated on April 20, only seventeen days since she entered drydock. While the hull modifications were taking place, the owners took the opportunity to make cabin changes. The dance floor was moved from the main deck to the promenade deck. It measured 108 feet by 27 feet and the ship then boasted the largest dance floor of any excursion steamer on the Great Lakes. Improvements included a washed air ventilation system for the dancers plus a speaker system which could deliver music to all points on the dance floor.

Little did the White Star Steamship Company know that in a little over a year the dance

floor would serve well until the stricken steamer reached the safety of the Brunner-Mond coal dock near Amherstburg on that fateful night of June 18, 1936. Even though she had been holed by a submerged object on her way back to Detroit, the passengers kept on dancing unaware that she was taking on water until the *Tashmoo* was safely docked. But in the meantime, the owners were justly proud of the improvements made in the *Tashmoo* and while the country was slowly working its way out of the big depression, the future looked bright. For a while in that spring of 1935 the "Glass Hack" proudly continued her run up the river right on schedule. □

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The author would also like to thank Professor Harry Benford for his assistance in preparing this article.

GREAT LAKES & SEAWAY NEWS



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Nov. 1. . .High winds and rough water in the Straits of Mackinac were blamed for a crash into the St. Ignace dock by the rail ferry *Chief Wawatam*. Estimated damage was \$87,000 and the ferry is out of commission. Rail traffic has been rerouted through Wisconsin.

. . .The *James Norris* cleared the Port Weller Drydock and work on her conversion to a self-unloader will continue at the fit-out wall.

. . .The Canadian goelette *Eric G.*, idled at Murray Bay, Quebec since about 1974, was recently renamed *Le Goeland Bleu*.

Nov. 2. . .The self-unloader *Silverdale* on Port Weller Drydock for inspection.

. . .The old bulker, now a barge *Peter A. B. Widener* windbound for days, finally cleared the Welland Canal.

Nov. 3. . .The Canadian m/v *Bill Crosbie* was floated out of St. John's N.F. harbor bottom up and sunk about 12 miles out to sea by Sea Tec (NFLD). She was towed out by the Canadian motor tug *Irving Birch*.

. . .The motor bulk carrier *Chrysalis*, from Duluth, has completed discharging her cargo at Basrah, Iraq and will sail with only part of a crew at first opportunity. She arrived at Basrah on September 14 and was caught in the war between Iran and Iraq.

. . .The American tanker *Amoco Wisconsin* on a loaded voyage, blew a cylinder head on her engine and drifted in Lake Michigan. Her master radioed Selvick Marine Towing Corporation of Sturgeon Bay and a tug towed her to Traverse City, Michigan. The tug *Lauren Castle* was sent to assist her.

Nov. 4. . .*Lauren Castle* took the *Amoco Wisconsin* in tow.

Nov. 5. . .The tug *Lauren Castle* either ran into or hit the *Amoco Wisconsin*. She was holed and sank in 390 feet of water about 1½ miles northeast of Lee's Point in Grand Traverse Bay. One crew member of the tug was missing. Time about 1:30 a.m. Later: the *Amoco Wisconsin* was towed to Sutlane Bay by the Coast Guard.

. . .The Canadian bulker *Marhill* loaded a storage cargo at Toronto.

. . .A 34% drop in ore shipments in September help push total shipment of bulk commodities

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from Great Lakes ports to 25 % below corresponding levels for 1979.

Nov. 6. . .The Panamanian vessel *Ocean Leader* up the Welland Canal.

. . .Chief Engineer Bill Stephen, 51, was the missing crew member from the *Lauren Castle*.

. . .Cleveland Tanker's tanker *Saturn* arrived at the Delray Power Plant dock of the Detroit Edison Company on the Detroit River. She will load about 45,000 barrels (42 gallons to a barrel) of Bunker "C" oil.

Nov. 9. . .*Silverdale* cleared and *Nordale* entered the Port Weller Drydock.

. . .*Peter A. B. Widener* collided with the tanker *Rhone* on the St. Lawrence River. She returned to Montreal for repairs and plans to bring her to the lakes again this fall are shelved.

. . .*Saturn* cleared Delray and headed for Whiskey Island near Cleveland at 12:59 a.m.

. . .The 57 foot tug *Tina Marie* sank in the Cuyahoga River in Cleveland. She was blocking traffic and leaking some oil. The tug is laying about eight feet beneath the surface and is under the Willow Avenue Bridge near the former Erie ore dock about a half-mile from Lake Erie.

Nov. 11. . .The motor sandsucker *Lakewood* develops mechanical problems and was towed to Fairport, Ohio. Later: she was towed to G & W Welding Company dock in Cleveland for repairs.

. . .*Ocean Leader* ran aground in the St. Marys River near Sault Ste. Marie. With the aid of several tugs, she was freed and proceeded to Thunder Bay, Ontario for loading.

Nov. 12. . .The old passenger vessel *Milwaukee Clipper* is to be towed from a Sturgeon Bay, Wisconsin shipyard to Chicago.

. . .The old laid-up bulk carrier *Clarence B. Randall* is to be drydocked this month for general inspection and closing of submerged openings for conversion to a barge.

. . .Interlake's bulk carrier *J. L. Mauthe*, upbound in the Detroit River, lost her steering off Zug Island and contacted an object, sustaining a four-foot gash in her port side bow, five feet above the waterline. She anchored off the Delray Power Plant.

Nov. 13. . .*J. L. Mauthe* turns around and proceeded down river to Nicholson Terminal Dock Company for inspection and repair.

. . .Tugs *South Carolina*, *Ste. Marie II* and *Ohio* passed up the Welland Canal without the *Peter A. B. Widener*.

Nov. 14. . .A million-plus dollar contract to build two 180 foot ABS barges in the next nine months has been signed by Sainte Marie Yard and Marine Company. They will be delivered to their owner Offshore Barge Rentals at Houston, Texas. Work will start December 1.

Nov. 15. . .The old laker *Alva C. Dinkey* and *Governor Miller* in tow of the supply vessel *Cathy B.* passed Gibraltar eastbound, headed for San Carlos, Spain.

. . .The tug *Tina Marie* was to be raised today according to the U.S. Coast Guard.

Nov. 16. . .The *Nordale* resumed service after inspection at Port Weller.

. . .The Canadian bulk carrier *Lac Des Isles* entered the Port Weller Drydocks for survey.

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Nov. 17. . *Lac Des Isles* is too expensive to repair and the veteran laker is through.

. . .The old Canadian icebreaker/supply vessel *Wolfe*, which sustained very serious fire damage at Charlottetown, P.E.I. last January 9, was taken in tow by the Canadian tug *Point Valiant* and headed for Sorel, P.Q.

. . .Scrapping of the *C. H. McCullough, Jr.* is almost complete at Thunder Bay, Ontario. Work was begun on the *Thomas F. Cole*.

Nov. 19. . .The research vessel *Alcoa Seaprobe* is for sale by the Boston Metals Company. She was built in 1970-71 on the Lakes.

Nov. 19. . .The *Lakewood* has a misaligned shaft. She will be taken from Cleveland to Port Weller, Ontario for repairs.

. . .From Piraeus comes a report that the Greek motor bulk carrier *Larry L.*, from Chicago to Leningrad, was struck by the bulk carrier *Castillo Manzanares* as the *Larry L.* was berthing in Leningrad. Damage was not serious.

Nov. 20. . .Bay Shipbuilder's *Hull 727*, a 407 foot tank barge named *Hannah 6301* was launched at Sturgeon Bay, Wisconsin.

. . .*Point Valiant* and *Wolfe* divert to Gaspe, P.Q. because the *Wolfe* was beginning to take water in her engine room.

. . .Cleveland-Cliffs Iron Company will resume operations on a partial basis on January 1, 1981 at its Republic Michigan mine. It has been closed since June 28, 1980.



LAC DES ISLES has ended her service on the Lakes and has been sold to Marine Salvage.

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. . .The Goderich Elevator has had a record year. They have loaded 9 million bushels of corn. Much of it was loaded into salties. The previous record of 7 million bushels was set in 1979.

. . .A 36 hour walkout by 132 pilots on the St. Lawrence River between Montreal and Trois Rivieres, P.Q. has stopped shipping on that part of the river. About 50 ships are affected.

Nov. 21. . .The *Lakewood* was drydocked at Port Weller for repairs.

Nov. 22. . .The old Canadian canaller *Charles R. Huntley* was reported enroute from Whilty, Ontario to St. John. N.B. for dredging duties. She has been inactive in recent years.

Nov. 23. . .*Lakewood* is off the Port Weller Drydocks.

Nov. 24. . .The *Coastal Transport* has been in a collision with the service launch *Salée P.* at the mouth of the Mississippi River. Three persons are missing from the launch.

Nov. 25. . .The tug *Point Valiant* and Canadian Coast Guard vessel *Wolfe* arrived at Sorel, P.Q.

Nov. 26. . .The *Milwaukee Clipper* arrived at Chicago and tied up at the Navy Pier.

Nov. 28. . .The Canadian Lock at the Soo closed for the season.

Nov. 29. . .The Canadian laker *Lac Ste. Anne* entered Port Weller Drydocks for inspection.

. . .The tanker *Congor*, under tow upbound in the Seaway. She has been disabled with a blown cylinder head.

. . .The Canadian bulk carrier *Meldrum Bay*, upbound at Whitefish Bay Light, became caught in the trough and nearly rolled over. One crewman was seriously injured and much of the wheelhouse equipment was left in shambles.

Dec. 1. . .Columbia's self-unloader *Wolverine* went aground in the St. Marys River near Nine Mile Point at experimental Bouy 62. Upper Lakes' *Frank A. Sherman* went aground near Point Louis between Bouys 21 and 23. Both vessels freed themselves.

. . .The Greek m/v *Panaghia P.* on a ballast voyage from Algiers to Baie Comeau had an engine breakdown at position latitude 49° 08' 00", longitude 63° 43' 30W. Her master has requested tug assistance.

. . .The self-unloader *Buffalo* went aground near Bouy No. 4 off Peach Island in the Fleming Channel of the Detroit River. Grounding was due to loss of power due to malfunction in pitch propellers. Later: she freed herself, drifted downstream from Belle Isle using her bow and stern thrusters for steering. When cleared of the channel she anchored for repairs and then proceeded to Cleveland.

. . .Installation of the Lake Erie-Niagra River ice boom will start on or about December 8.

Dec. 2. . .Canadian tug *Point aux Basques* departed Seven Islands and headed for *Panaghia P.*

. . .As of 24:00 hours today there are 117 ocean vessels in the Seaway system. All ocean-going vessels intending to use the Welland Canal will have to do so by 24:00 hours on December 4.

Dec. 3. . .*Pointe aux Basques* has *Panaghia P.* under tow.

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Dec. 4. . .From Halifax Radio comes a report that Halco's vessel *Halifax* had lost her steering and was rolling in excess of 35% and was in danger of sinking. Her last position was reported at latitude 48° 11' N. longitude 63° 36' W. Wind was in the vicinity of 50 knots and she had asked for assistance. Later: seven crewmen were taken off by Canadian Forces helicopter, but air operations had been cancelled due to heavy weather. The m/v *Lindo* and Canadian tug *Irving Birch* were on the scene and kept in touch with the *Halifax* by direction-finder. Canadian tug *Irving Maple* also enroute.

. . .From Brunsbuttel comes a report that the *Larry L.*, Leningrad for U.S., passed by here on December 1.

. . .66 ocean-going vessels were still around the St. Lambert's Lock of the Seaway. 37 ocean-going vessels were above Port Weller.

Dec. 5. . .*Halifax* was taken in tow and headed for Seven Islands.

Dec. 6. . .Interlake's self-unloader *Herbert C. Jackson* anchored in the lower St. Marys River after discovering a 4 foot crack in her hull. A temporary patch was put over the crack and she continued her voyage.

. . .A heavy fog covered the St. Marys River and the Coast Guard closed the river at 10:00 p.m.

. . .*Halifax* arrived at Seven Islands. During towing operation the towline became entangled with port propeller and damaged the shaft. This will necessitate drydocking on completion of discharging of cargo. She proceeded to Seven to Levis, P.Q., where cargo was discharged, on one engine. A tug escorted *Halifax* from the pilot station at Escoumins, P.Q.



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. . . Due to gale force winds, the *Panaghia P.* couldn't berth at Montreal until today. A survey will now be conducted.

Dec. 7. . . *Mare Felice* was the last salty to head up the Welland. The number of deep sea ships above Port Colbourne, Ontario was down from last year at this date.

Dec. 8. . . The St. Marys River was reopened at 7:45 a.m.. 35 downbound vessels and 27 upbound vessels were at anchor.

. . . The Canadian tug *Point Valiant*, enroute to Pictou, N.S., was diverted to Pugwash to assist in refloating the Canadian vessel *Kingdoc*.

Dec. 9. . . Refloating of the *Kingdoc* completed and *Point Valiant* resumes her voyage.

. . . *Lac St. Anne* off Port Weller Drydock. She went to the fit-out wall for further work.

Dec. 10. . . The Dutch semi-submersible heavy-lift vessel *Super Servant 2* sailed from Montreal for Brownsville, Texas.

. . . *Agawa Canyon* was drydocked at Port Weller.

Dec. 12. . . The Canadian tanker *Imperial St. Clair* hit the Mission Point ice boom in the St. Marys River during low visibility.

. . . When anchoring at Quebec City, the *Super Servant 2* damaged her stern mooring winch by overrunning the cable. No repairs will be made at Quebec City.

Dec 12. . . U.S. Steel's old bulk carrier *D.G. Kerr* sank in the Atlantic Ocean, eight miles east of Santa Maria Island at 23:15 hours g.m.t. She was being towed by the Canadian tug and supply vessel *Federal 6*. She was bound for Spain.

. . . While unloading at McLouth Steel Corporation at Trenton, Michigan, the self-unloader *Roger M. Kyes* communications spar was hit by a crane. This caused all radar and radio equipment to be disabled. After unloading, she proceeded to Nicholson's Terminal Dock at Ecorse, Michigan for repairs.

Dec. 13. . . The ocean-going vessel *Amalia* was the last of this seasons overseas visitors to pass down the Welland Canal.

Dec. 14. . . *Ocean Leader* had an engine shut down at latitude 41° 41' N, longitude 65° 45' W due to seawater contamination of fuel oil tank. A tug has been called. She was on a loaded voyage from Montreal to Trinidad.

Dec. 15. . . As of 6:00 a.m., seven ocean-going vessels remained within the St. Lawrence Seaway system. None were above the Welland Canal. The Seaway is closed to navigation.

Dec. 16. . . The tug *Mary E. Hannah* picked up Hannah's new barge *Hannah 6301* at Bay Shipbuilders yard at Sturgeon Bay, Wisconsin.

Dec. 17. . . The last ocean-going vessel cleared the St. Lambert Lock of the Seaway at 02:05 hours.

Dec. 18. . . The West Neebish Channel of the St. Marys River was closed due to heavy build up of ice.

. . . *Panaghia P.* cleared Baie Comeau for Halifax to complete loading of cargo and also to make

● GREAT LAKES & SEAWAY NEWS

outstanding engine repairs.

Dec. 20. . .The Canadian tanker *Lakeshell* went aground on Telegram Rock in Parry Sound Channel of Georgian Bay. About 1,000 gallons of gasoline have been spilled.

. . .The Greek vessel *Athanasia Comninos* struck the north pillar of the Quebec Bridge across the St. Lawrence River. There was extensive damage to the bridge and to the vessel. The radar, communication equipment and one smokestack have been torn away. Vehicle and rail traffic have been stopped. Later: bridge was reopened after 6 hours. *Athanasia Comninos* cleared the Quebec Bridge and was under tow of tugs *Leonard W.* and *Capt. Ioannis S.*. With the Canadian icebreaker *D'Iberville* as an escort, they headed for a Lauzon shipyard for repairs. No one was injured.

. . .*Ocean Leader* under tow of the Canadian tug *Irving Maple* arrived at Brooklyn, N.Y.

Dec. 21. . .Quebec Radio reported that the Canadian m/v *St. Yves* was taking water behind the forecandle and port bow below the waterline. Her pumps are working and she headed for Point au Pic in the St. Lawrence River and was escorted by the Canadian icebreaker *Pierre Radisson*.

Dec. 22. . .The self-unloader *Detroit Edison* suffered extensive bottom damage when she ran aground in the vicinity of Gray's Reef in Lake Michigan. Repairs will be made in South Chicago.

. . .C.S.L.'s self-unloader *H. M. Griffith* while manoeuvring to leave Section 12 in Quebec harbor, struck C.S.L.'s bulk carrier *T. R. McLagan*, docked at Section 26. The *Griffith* struck the stern anchor of the *McLagan* and made a hole about 1 foot wide in her forward port side above the waterline.

Dec. 23. . .The Canadian vessel *D.C. Everest* laid up in Toronto with a storage cargo. She has been sold to Johnstone Shipping.

. . .*Agawa Canyon* cleared Port Weller Drydocks.

. . .*Cape Breton Miner* entered Port Weller Drydocks for major refit. She will receive new ballast tanks, new diesel generators and low friction lining walls will be installed on the hoppers in the cargo holds.

Dec. 24. . .Marine Salvage now owns the *Lac Des Isles*, which is moored at Toronto.

. . .The bulk carrier *Raymond H. Reiss* has been sold to Marine Salvage and laid up at Ramey's Bend of the Welland Canal.

Dec. 25. . .Captain Thomas Small died at the age of 107 years.

. . .U.S. Steel's 1000-footer *Edwin H. Gott* was stuck in the Poe Lock for 14 hours.

Dec. 27. . .Heavy ice cover has formed on the St. Clair River. Three vessels are trapped.

Dec. 28. . .A man went overboard off the bulk carrier *Golden Hind* in the Welland Canal. He swam to an iceflow and was rescued from there.

. . .The 3 vessels are freed from the ice pack in the St. Clair River.

Dec. 29. . .The *Presque Isle* became stuck in the ice in the St. Clair River, but was freed later after an 10 hour battle by the U.S. Coast Guard.

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Dec. 30. . . U.S. Steel's *Cason J. Calloway* cleared the Poe Lock at 6:30 p.m., thus being the last vessel to use the Soo for 1980. She was loaded and headed for Gary, Indiana.

. . . The tug *Daryl C. Hannah* and a barge are stuck in the ice in the St. Clair River near Algonac State Park. Three tugs and four Coast Guard cutters are working their way up the ice jammed river to aid her.

. . . *Algoway* was the last ship up the Welland Canal and *Judith M. Pierson* was the last ship down the Welland Canal for the 1980 season.

Dec. 31. . . Most of the *Pinedale* is gone at Hamilton, Ontario.

. . . From Ryeka comes a report that the Yugoslav m/v *Dunav* was believed to have sunk off central Japan. The *Dunav* was last heard from on December 28, when she sent a distress signal saying she was taking in water in stormy seas about 700 miles southeast of Chiba. Her last reported position was latitude 31° N, longitude 156° 43' E. The *Dunav* had a crew of 31 on board. She was on a voyage from Hamilton, Ontario via Los Angeles to Tsingtao.

MISCELLANEOUS . . .

. . . The ocean-going tanker *Stolt Capricorn* arrived under tow at Kaohsiung, Taiwan from La Plata via Manila on July 22, 1980 where she will be broken up. She was a Seaway visitor for a few years.

MARCH MEETING . . .

Richard J. Wright Ph.D., Director of the Center for Archival Collections (formerly the Northwest Ohio & Great Lakes Research Center) of Bowling Green State University, Ohio will be our speaker on Friday, March 27, 1981 at 8:00 p.m. Dr. Wright originated and was a coordinator of the salvage of the engine and boiler of the steamer *Indiana*. He served as the project historical consultant during the planning and actual salvage stage as well as the continuing follow up details. His presentation of the fascinating salvage operation will provide a lively and interesting view of the preservation of Great Lakes relics.

Dr. Wright's credentials are very impressive: he has had a lifelong interest in Great Lakes Shipping dating from his early summers at Conneaut, Ohio to the present. He is the author of "Freshwater Whales", the history of American Shipbuilding Company. He has contributed many articles to *Telescope* and many other journals of Great Lakes history as well as numerous articles and talks on Great Lakes and Ohio history.

Be sure to mark your calendar for March 27, 1981 for an interesting evening. □



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