

## THE SUPERS

by Brian Bernard with the Editor

Over the nine decades which so far have passed in the twentieth century, one of the most famous of Great Lakes fleets has been that of the United States Steel Corporation. This fleet has operated at various times under different names, but perhaps most notably, and for the longest period, as the Pittsburgh Steamship Company. In its prime, the fleet was composed of over a hundred vessels of assorted sizes and types. Famous steamers such as GENERAL ORLANDO M. POE, SAMUEL F. B. MORSE, RENSSELAER, MAUNALOA, FRANK ROCKEFELLER and CRESCENT CITY wore the company's familiar livery, as did barges such as MAIA, MARSALA, ALEXANDER HOLLEY, JOHN A. ROEBLING and JOHN SMEATON. As the years passed, the number of ships operated by the "Steel Trust" declined as more modern and efficient carriers were built for the fleet. Today, there are only eleven "tinstackers", all of them self-unloaders, plus one chartered tug/barge self-unloading combination.

The beginning of the 1941 season found the Pittsburgh Steamship Company's fleet made up of some seventy ships. Many were rather elderly and no longer cost-efficient for operation in the iron ore trade. Others, such as the beautiful sisterships WILLIAM A. IRVIN and GOVERNOR MILLER, built in 1938, were very recent additions to the fleet. Nevertheless, all of these vessels together were not able to fill the shortage of available tonnage that resulted from cargo demands generated by the war in Europe and on the North Atlantic. Canada had been involved in the conflict since September of 1939, and with every prospect of the United States eventually being drawn into the hostilities, every opportunity had to be taken to put as much tonnage afloat on the lakes as possible.

Representatives of the Pittsburgh Steamship Company and of the Federal Shipbuilding Company, of Kearney, New Jersey, laid down the design parameters for a new class of ship for the fleet. It was decided that five steamers would be constructed, utilizing the most modern marine technology that was available and expanding upon the success of the ships most recently built to the company's order.

The result was a class of vessel that was then the largest on the lakes. The U.S. Army Corps of Engineers was planning a new lock for the St. Mary's Falls Canal at Sault Ste. Marie, Michigan, to replace the old Weitzel Lock, which had been opened to navigation back in 1881. As a consequence, the size of the new ships was based on some of the proposed design criteria for the new lock (which would be named the MacArthur Lock, still in regular use today).

Accordingly, the ships would be built to registered dimensions of 622.6 feet in length, 67.0 feet in the beam, and 30.3 feet in depth. Molded dimensions were 623'3" x 67'0" x 35'0", while the overall length was 639 feet. Tonnage would be 10294 Gross and 6439 Net. The hulls would be built with transverse framing in the sides and longitudinal framing under the deck and in the bottom. There were to be three watertight bulkheads, and eighteen hatches on twenty-four-foot centres.

It was decided to use a two-cylinder, double-reduction geared, steam turbine engine for the propulsion of each ship, with steam provided by two watertube boilers. This decision was based upon the success experienced with the HULST class of 1938 (this class being comprised of four steamers, JOHN HULST, RALPH H. WATSON, WILLIAM A. IRVIN and GOVERNOR MILLER, the first turbine-powered straight-deckers built for the U.S. Steel lake fleet). The turbines acquired for the vessels could develop a shaft horsepower of 4,400 when turning at 90 revolutions per minute. The engines for the first three of the ships were built by the De Laval Steam Turbine Company, while the turbines for the other two came from the Westinghouse Electric & Manufacturing Company.

The two watertube boilers for each ship were built by the Babcock & Wilcox Company and generated steam at a working pressure of 445 p.s.i. They were