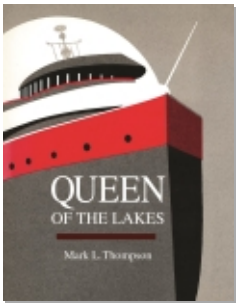
Queen of the Lakes

Mark L. Thompson



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Epilogue

As a result of the prolonged period of economic uncertainties, combined with such systemic limitations as the dimensions of the locks at Sault Ste. Marie and the depths of harbor and river channels, the size of ships on the Great Lakes has lagged far behind those found in ocean shipping. A 1977 study of vessel size on the Great Lakes noted that "in the the past twenty years the largest classes of ocean tankers have increased in deadweight[1] by a factor of about ten, while the largest classes of vessels on the lakes have increased by a factor of only two or three."[2] By the end of 1973, when the *Cort* and *Presque Isle* were the only thousand-footers operating on the lakes, there were 388 ships of 200,000 deadweight tons or more in service in ocean trades. Another 493 ships of that size were under construction, or on order, including 26 that were reported to be of more than 400,000 tons deadweight.[3] In 1974, the largest ship in the world was *Globtik London*. Built in Japan, the massive tanker was 1,220 feet long, 173 feet wide, and measured at 483,939 deadweight tons.[4] By comparison, thousand-footers like the *Cort, Presque Isle,* and *Tregurtha* are rated at less than 100,000 deadweight tons.

While most of the jumbo ocean freighters that began to appear in the early 1970s were tankers engaged in carrying crude oil from the Mideast to ports around the world, shipping companies hauling dry bulk cargoes were quick to follow suit. In 1986, a Norwegian shipping company took delivery of a bulk freighter of 365,000 deadweight tons built for them by a Korean shipyard owned by Hyandai Heavy Industries. Christened the *Berge Stahl,* the vessel was designed for service in the iron ore trade between the port of Ponta da Madeira, Brazil, and the port of Rotterdam, where the cargo would be offloaded for overland shipment to a steel mill in Germany. The immense freighter looks like a bloated version of Great Lakes thousand-footers like the *Tregurtha*. It is 1,346 feet long, with a beam of 250 feet and a depth of just over 118 feet. At maximum draft, it can carry more than four times as much iron ore as today's Queen of the Lakes. Interestingly, it does that with a crew of only fourteen, less than half as many as serve aboard the *Tregurtha*.[5]

It is unlikely that the Great Lakes will ever see ships as large as the *Berge Stahl* or the other very large cargo carriers that operate on the oceans. While the locks at Sault Ste. Marie could be enlarged to handle the length and beam of a ship the size of the Norwegian ore carrier, it would not be economically feasible to dredge the harbors and river channels to the depths necessary to handle their deep drafts. At maximum draft, the Berge Stahl draws over ninety-one feet of water. By comparison, ships on the lakes are forced to operate at drafts between only twenty-six and twenty-seven feet.

For a century, the bulk freighters plying the Great Lakes were among the largest ships of their type in the world. In fact,

when the 714-foot *Joseph H. Thompson* went into service on the lakes in 1952, the former C-4 *was* the longest freight vessel in the world. Since then, the size of the ships launched on the Great Lakes has lagged far behind the awe-inspiring dimensions of the largest of the saltwater freighters. Gone, too, is the unique fore-and-aft design that was almost exclusively identified with cargo ships on the lakes for more than a hundred years after the unheralded launching of Captain Eli Peck's little *R. J. Hackett* at Cleveland in 1869. In terms of appearances, it's hard to tell the difference between the latest generation of lake freighters and vessels launched for saltwater service. The current Queen of the Lakes, Interlake's *Paul R. Tregurtha,* looks much the same as the Norwegian-owned *Berge Stahl,* except that it is a great deal smaller than the immense ocean freighter.

But in reality there's nothing *small* about the freighters presently operating on the lakes. The *Tregurtha* is longer than three football fields laid end to end. Even most of the smaller ships in the system—the *Joseph H. Thompson, Wilfred Sykes,* and the 730-class boats—are as long or longer than two football fields laid end to end. From its keel to the top of its pilothouse, the *Tregurtha* is more than 120 feet high, the equivalent of a twelve-story building. The amount of cargo the ships haul is almost beyond our comprehension. The record iron ore cargo for a thousand-footer now tops 70,000 tons, while normal loads are in the area of 60,000 tons. A mill will convert a single shipload of ore carried by a thousand-footer into enough steel to build 16,000 to 18,600 automobiles. In a nine-month shipping season, a single vessel like the *Tregurtha* will move more than 2.5 million tons of cargo down the lakes, enough to build 750,000 cars.

Making about forty-five round-trips during the season, a thousand-footer will travel 35–40,000 miles, equal to one-and-a-half times around the world. Its powerful diesel engines will burn more than three million gallons of fuel, enough to supply the needs of eight thousand private automobiles for the same period of time. Although the *Berge Stahl* can carry four times as much cargo per trip as a Great Lakes thousand-footer, it must spend the better part of a week dockside in Rotterdam while shoreside unloading equipment slowly scoops the ore out of its cavernous hold. By comparison, the *Tregurtha* and the other modern self-unloaders operating on the lakes can discharge their cargoes in only eight to twelve hours, without any assistance from shoreside equipment. The cargo handling efficiency of the self-unloading freighters on the Great Lakes is unmatched anywhere in the world maritime community.

At the same time, few saltwater captains would be bold enough to attempt to guide the *Paul R. Tregurtha* through the narrow river channels that are routinely traversed each day by ships operating on the Great Lakes system. They're used to running their ships on the wide expanses of the oceans. When their vessels approach a coastal port or the canals at Panama or Suez, the saltwater captains rely on assistance from local pilots and fleets of tugs to maneuver their ships in the confined waters. On the eight-hundred-mile trip from Lake Superior to the unloading ports on the lower lakes, the crew aboard a lake freighter will commonly maneuver the vessel into a lock at Sault Ste. Marie that is only a few feet bigger than their ship. They will carefully guide the freighter through several hundred miles of narrow, winding river channels where even a minor error in piloting could put their ship aground. Arriving off the unloading port, the captain will expertly spin his ship around, back it through the narrow opening in the piers, and maneuver the big freighter gently up against the dock—all without any assistance from tugs. The captains of the vessels in the Great Lakes fleet are simply the best shiphandlers in the world.

Taking a world view, ships on the Great Lakes may be surpassed in size and efficiency by many of the modern ocean freighters. When you take the inherent limitations of the Great Lakes system into consideration, however, the *Paul R. Tregurtha* and the other ships now sailing on the great freshwater seas of North America have achieved a level of operating efficiency that is unrivalled anywhere in the world. As today's Queen of the Lakes, the *Tregurtha* reigns as a model of unsurpassed maritime efficiency. It is heir to a long and glorious tradition of excellence. Each and every magnificent ship that has borne the title in the past has contributed in some part to the excellence embodied in the *Tregurtha*. In time, the *Tregurtha*'s title as Queen of the Lakes will pass to another monumental freighter that will carry the art and science of shipbuilding and operation to even higher heights.

Notes

1. "Deadweight tonnage" represents the number of long tons of cargo, stores, and fuel that a ship can carry at maximum draft. Because the weight of stores and fuel is included, deadweight tonnage is modestly higher than a ship's cargo carrying capacity.
2. Robert Scher, "Costs of Operating Alternative Sized Vessels," in Dennis Perkinson, ed., *Vessel Size: Its Implications for the Great Lakes-Seaway System,* proceedings of the Great Lakes Basin Commission conference, November 1–2, 1977.
3. Noel Mostert, *Supership* (New York: Crescent Books, 1975), 231.
4. Duncan Haws, *Ships and the Sea* (New York: Crescent Books, 1975), 231.
5. Hans Christian Oevstass, "Berge Stahl, World's Largest Bulk Carrier Commences Maiden Voyage," *Bulk Shipping* (Jan.–Mar. 1987): 76–77.