

steel construction, were built for other operators and acquired later by Richardson and his associates. Late in 1901 or early in 1902, however, W. C. Richardson & Company contracted with the American Ship Building Company for the construction of a steel-hulled bulk carrier, and she was built as Hull 411 of the AmShip yard at Cleveland, which launched her on Saturday, April 26th, 1902. She was christened W. C. RICHARDSON, in honour of her owner and operator, whose fleet by then had grown to substantial proportions.

W. C. RICHARDSON was enrolled at Cleveland and was given U.S. Official Number 81816. She was 354.0 feet in length between perpendiculars, 48.0 feet in the beam, and 28.0 feet in depth, her tonnage being calculated as 3818 Gross and 2841 Net. The hull was built on the channel system, with a steel tank top but no side tanks. In the old manner, there were no arches to support the single deck, but there were beams inside the holds for this purpose. (Hold beams in steel freighters soon fell out of favour because of the manner in which they obstructed unloading operations, and because marine architects soon developed better ways of strengthening hulls and supporting decks.) There were three watertight bulkheads.

The steamer was powered by a triple expansion engine which had cylinders of 20, 33 and 54 inches diameter, and a stroke of 40 inches. According to the 1908 Great Lakes Register (Bureau Veritas), it produced Indicated Horsepower of 1,100 at 90 revolutions per minute, while the 1905 List of Merchant Vessels of the United States showed Indicated Horsepower of 1,450. Steam at a working pressure of 170 pounds per square inch was produced by two single-ended, coal-fired, Scotch boilers, each of which measured 13.0 feet in length and 14.0 feet in diameter. There were six furnaces in total, with 108 square feet of grate surface, and 4,229 square feet of heating surface. The engine and the boilers all were manufactured new for the ship by the American Ship Building Company.

W. C. RICHARDSON was a typical freighter of the years just following the turn of the century, when steel vessel design was still in its relative infancy. She was a good-looking ship, although not to the same extent as were some of the vessels that would follow her into service in just a few years. She had a straight stem, a graceful and severely undercut counter stern, and her hull had a pleasant although not pronounced sheer. The anchors were suspended from hawseholes low in the bows, and when the steamer was loaded down on her summer marks, she dipped her anchors in her bow wash. She was given a half-raised forecastle, but a flush quarterdeck.

The forecastle head had a closed rail for its entire length, with a small upward extension of the bulwark near its forward end to provide extra protection from spray. The small, turret-style pilothouse, with five sectioned and widely-spaced windows in its front, sat directly atop the forecastle head and immediately forward of the small texas cabin, which was positioned athwartship and contained the master's office and sleeping quarters. There was an open navigation bridge on the monkey's island atop the pilothouse, from which the ship normally was operated in even the most extreme weather. To provide some (minimal) protection for the navigation officers, there was a closed rail around the open bridge to form a "dodger", and a canvas weathercloth could be raised above the waist-high rail to provide a further break from wind and spray. A canvas awning could be stretched overhead to give shade in the heat of summer, and a larger awning could be spread over the entire forward end of the forecastle head. Access to the open bridge was by means of steps at its rear, leading up from the texas roof. The latter extended out to the ship's sides to form bridge wings, and also boasted a large tank to supply fresh water.

There was a vertical steering pole set at the stem, and the tall and well raked foremast, a heavy pole, rose just abaft the texas. Although the RICHARDSON was fitted with an electrical lighting system, the navigation