

Old photos bring reminders of coal's past

By Patrick Lapinski

A recent donation of photos to the Duluth Seaway Port Authority brought clues about the origins of a once-prominent coal dock and reminded us that the history of our Port is never too distant.

The Island Creek Coal Company (originally U.S. Coal & Oil) of West Virginia was built from the ground up with the acquisition of 30,000 acres along the Copperas Fork of Island Creek in Logan County, W. Va. In 1904, the first trainload of coal was shipped from the rich seam known as the Logan Field. Within a few years Island Creek employed thousands of workers across 10 mines, many living in the company mining community of Logan.

Island Creek controlled not only the mining of its coal, but also its distribution. Its primary markets were metropolitan areas along the Eastern Seaboard from Philadelphia to Boston. However, as the industries and people of the iron ranges of northern Minnesota became an important market in the early 20th century, the Port of Duluth-Superior grew as a western distribution hub for Island Creek coal.

The Island Creek Coal Dock Company (incorporated in Maine) built its first dock in the Duluth harbor in 1912 at the foot of 50th Avenue West. In a report to their shareholders, Island Creek officials said they expected the Duluth dock to handle

around 1.5 million tons of coal annually and store 750,000 tons on the 38-acre site. An estimated \$500,000 was to be spent on developing the dock and coal-handling equipment. Simultaneous to the construction at Duluth, Island Creek leased an existing dock on the Superior side of the harbor with a capacity of 100,000

ported in *Coal Trade Journal* put the overall coal handling capacity in the Twin Ports in 1915 in the neighborhood of 20 million tons. In 1918, six years following Island Creek's debut in the harbor, its annual coal receipts reached 11 million tons. A decade later, a U.S. Army Corps of Engineers harbor study noted that the import of coal accounted for "92.6 percent of the traffic received at Duluth-Superior in 1929."

Thus, in 1912, Island Creek was right in the middle of the mix of local coal docks along with others such as Pittsburgh Coal, Reiss Coal, Clarkson, Northwestern Fuel, Northern Coal and Dock, the Boston Coal Dock & Wharf Company, M.A. Hanna, Berwind Fuel, Carnegie Fuel, and the Great Lakes Coal & Dock Company.

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Island Creek coal started its trip to Duluth-Superior in the mines of West Virginia.

tons. Island Creek would soon be in a strong position to gain its share of what it called the "lake trade."

The use of coal as a fuel gained prominence in the mid 1880s. Before that, wood was the primary source of fuel for heating. The first dock in Duluth was opened in 1881 by the Northwestern Fuel Company. Between 1881 and 1884 three more docks were built in the harbor, and the boom was on. In 1886, receipts for coal in the harbor totaled 736,000 tons but by 1900 had surpassed 2.5 million tons.

Undocumented estimates re-

In today's era of self-unloading vessels, little infrastructure is needed on a dock to handle the receipt of bulk commodities. In the heyday of coal docks in the harbor, however, a sizable investment in handling machinery was needed to make the operation work efficiently. It was the era of the traveling bridge crane.

The simple structure of a coal dock consisted of a large open storage space, usually about 500 to 600 feet wide by 1,000 to 2,000 feet long. Railroad tracks flanked each side of the dock, and at least one side was dedicated to mooring space for ves-

sels. The back side of the dock usually consisted of utility poles for electrical lines and access roads for dock equipment. The inside of the dock was used for storage, bituminous coal stored outside. Anthracite, or "hard" coal, was stored in an enclosed shed.

Moving the coal was accomplished with a moveable steel bridge, or trestle. It was supported on either end with steel legs mounted on flanged wheels riding atop steel rails running parallel to the dock. The bridge operator could easily move the rig along the dock when unloading a ship or distributing coal to the storage yard. A typical bridge spanned 250 feet at a height of about 50 feet. It was not unusual for large docks to be equipped with two of these bridges, which could also be coupled to cover 500 feet.

On the ship mooring side, the traveling bridge was fitted with a cantilevered steel boom on a hinged apron that could be lowered over the rail lines on the dock and across the deck of a ship. This portion was raised to an upright position when vessels approached and departed the dock. The opposite end of the bridge was also cantilevered to extend over the rail lines and roadway to accommodate shore-side rail and truck loading.

The actual unloading was accomplished with a grab bucket suspended from an operating station on the bridge crane. The bucket, averaging two to five tons per lift, was lowered into the cargo hold of the vessel to

retrieve the coal. After the bucket was lifted from the hold, the coal was deposited into a screening plant or distributed in the storage yard. In some cases the screening plant was attached to the traveling crane.

Each coal dock operating at Duluth-Superior had its own specific methods for screening, storing and distributing coal. The general man-

um efficiency they could unload about 600 tons per hour. In those days an average cargo was 8,000 to 12,000 tons, so it would take 12 to 24 hours to unload a vessel.

By the mid-1920s Island Creek ceased direct operation of the dock at Duluth yet retained a strong presence in the harbor. In 1938 Island Creek returned to the fore-



The trestle, or moving bridge, was a key component in handling cargo at the early-20th century coal dock.

ner of coal handling, though, was similar. For instance, some docks would use a fixed operator station housed atop the traveling crane, while other docks might use a man-trolley where the operator rode in a moving cab. Later, as technology evolved, conveyor belts were suspended from the bridge to distribute the coal along the dock.

Less than a handful of firms had expertise in the manufacturing of bridge cranes. The Island Creek dock at West Duluth used two Heyl-Peterson cranes equipped with six-ton clamshells. Operating at maxi-

front when it purchased a majority interest in the Carnegie Coal Corporation, which included two large docks at Duluth and Superior operated by a subsidiary, the Carnegie Dock & Fuel Company. With its colorful brand name of Scarlet Flame, Island Creek continued to serve the Upper Midwest for many years.

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Photos courtesy Great Western Dock & Terminal