

FREIGHTERS

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SOO LOCKS & SEAWAY OPEN FOR THE SEASON

MARCH 25, 2023

The 2023 season is well underway now that the Soo Locks, Welland Canal, and St. Lawrence Seaway are back in operation for the year. The St. Lawrence Seaway is marking its 65th season this year.

The opening of the season began on March 22, 2023, when the Welland Canal and Seaway opened. The Welland Canal was opened by Canada Steamship Lines' *CSL St-Laurent*, upbound for Thunder Bay, ON. Algoma Central Corp.'s *Captain Henry Jackman* opened the St. Lawrence Seaway. She was followed by the first upbound oceangoing vessel of the season, Fednav's *Federal Champlain*. The masters of each of the first vessels were presented with the traditional commemorative top hats.

The Soo Locks opened a few days later, at midnight on March 25, 2023. The first vessel of the season was Great Lakes Fleet's *Edwin H. Gott*. A large crowd of observers gathered at the Soo Locks Park for the 2023 opening, filling the observation tower. There was a steady stream of upbound vessels following the passage of the *Gott*, with the first downbound vessel being the *Lee A. Tregurtha* early in the afternoon of March 25. ▣

NORTHSHORE MINING RESUMES OPERATIONS

APRIL 17, 2023

In mid-April Cleveland-Cliffs restarted its Northshore Mining taconite production and loading facility. The plant was idled mid-season in 2023, with the last load off the stockpile being loaded out in the Fall of 2022. Due to increased demand Cleveland-Cliffs announced earlier this year that they would be resuming operations at the facility due to increased demand outlook.

Northshore Mining will not be resuming full production this year, though. It is unknown when full production will resume. ☞



Michigan Trader takes on the first load at Northshore Mining in Silver Bay following the reopening of the plant, April 17, 2023. Photo: David Schauer

☞ On April 17, 2023, Northshore loaded the first cargo of taconite pellets since production resumed. The cargo was loaded aboard VanEnkevort Tug & Barge's *Michigan Trader* / *Dirk S. VanEnkevort*. ▣

EARLY SEASON GROUNDINGS

APRIL 24, 2023

The 2023 season started with a few minor mishaps. Two ships ran aground during the month of April.

In the early morning hours of April 1, 2023, *Algoma Innovator* ran aground on the St. Clair River just south of Sarnia, ON. A radio transmission from shortly before the grounding reported the vessel was going to anchor due to a mechanical issue.

The tugs *Welland*, *Wisconsin*, and *Pennsylvania* arrived on scene later that morning to assist in freeing the *Innovator*. *Algoma Innovator* was freed around 11 AM on April 1. There was no reported damage from the incident, and she continued on her trip after being released. ☞

☞ Later in the month on April 24, *Kaye E. Barker* ran aground on a sandbar outside the breakwall at Muskegon, MI. The grounding occurred at about 10 AM. The *Barker* was inbound with a load of approximately 25,000 tons of stone loaded in Meldrum Bay, ON.

Efforts to free the vessel without additional assistance were unsuccessful. Later in the afternoon Ashton Marine brought their tug *Meredith Ashton* and a deck barge out to assist. The *Barker* lightered some of her cargo onto the barge and after receiving a little tug from the *Meredith Ashton*, was freed. No damage to the vessel was sustained. *Kaye E. Barker* was able to enter the harbor at dusk. She was followed in by the *Algoma Buffalo*, which was unable to enter the harbor due to the *Barker* being stuck in the entrance.

It is interesting to note that the *Barker* grounded in the exact same location on April 28, 2022, nearly one year prior. Shifting sand bars due to winter storms and currents can cause obstructions that are hard to predict. ▣

SOURCES:

Hughlett, Mike. "Northshore Mining on Iron Range open again after a year of idling". Minnesota Star Tribune, 25 April 2023. Accessed 28 April 2023. <https://tinyurl.com/muawerj>
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NEWS IN PHOTOS

SOME OF THE LATEST NEWS CAPTURED IN PHOTOS

Kaye E. Barker ran aground on a sand bar outside the harbor entrance to Muskegon, MI. Here *Meredith Ashton* worked to free her on April 25, 2023. Photo: Sam Hankinson

2023 START OF SEASON SNAPSHOTS



(Inset, clockwise from top left): *Philip R. Clarke* fit out at the end of April for a bit of a late start to her season. She is pictured upbound on the Detroit River on her first trip of the season, May 4, 2023. Photo: Sam Hankinson; *Edwin H. Gott* was the first ship to pass through the Soo Locks for the 2023 season, seen here exiting the Poe Lock on March 25, 2023. Photo: Brendan Falkowski; *Erie Trader* and tug *Clyde S. VanEnkevort* started out the season sporting VanEnkevort Tug & Barge's new red and crème paint scheme. Here she is upbound on the Detroit River on April 11, 2023. Photo: Sam Hankinson;



LORAIN PELLET TERMINAL

THE UNIQUE STORY OF THE GREAT LAKES' FIRST SUPER PORT

Written by Sam Hankinson and Brendan Falkowski

William J. DeLancey unloading at the Lorain Pellet Terminal, 1982. Press photo, MHSD Collection



The advent of thousand-foot ships ushered in a new era of Great Lakes shipping. The massive vessels could deliver much more tonnage per trip to customers than other lakereaders which prompted the retirement of many smaller vessels.

The design of these super ships was brought about by the construction of the Poe Lock at Sault Ste. Marie in the late 1960s.

The new lock was originally supposed to be similar in size to existing locks, but the Lake Carriers Association lobbied for the lock to accommodate vessels up to 1000 feet in length. The construction of the Poe Lock prompted a wave of new vessel construction to take advantage of the new lock size. The lock influenced ship construction and the new super ships influenced port development. A "super port" was conceptualized in which thousand-footers would deliver cargo that would be transferred to smaller vessels and other modes of transportation. This idea was never fully realized, but the thousand-footers didn't need a super port to usher in a new era of Great Lakes shipping.

Thousand-footers shattered records for the sheer volume of material they could move in one trip, but were often unable to reach the final destination of the cargo. One destination was Republic Steel's mill at Cleveland, OH, located five miles upstream along the Cuyahoga River. Although thousand-footers offered the best way to transport the raw materials from the upper lakes to Cleveland, the mill was only accessible by small ships. The solution was to develop a transshipment terminal where large freighters could unload iron ore and the cargo could be reloaded onto smaller vessels for delivery up the Cuyahoga River. The result was one of few examples of a Great Lakes "super port." ➡

EARLY CONTROVERSY

As early as the late 1960s, Cleveland-Cuyahoga County Port Authority and Litton Industries, which owned the Wilson fleet that was contracted to transport Republic's ore, began looking into the idea of constructing an iron ore transshipment facility on Whiskey Island in Cleveland Harbor, before the first super ships began sailing. This idea was put to rest after the Republic iron ore float contract was awarded to Cleveland-Cliffs in 1970, with a fleet mostly composed of ships that could reach the Republic docks on the Cuyahoga.

Seeking to reduce costs of raw materials delivery, Republic Steel began exploring options for a transshipment terminal in the late 1970s and considered waterfront property in Cleveland and Lorain. Cleveland's lakefront would have been an ideal location for storing pellets, however the nearby city of Lorain reaped the benefits from the "maladministration" of then-Cleveland Mayor Dennis Kucinich. The Cleveland-Cuyahoga County Port Authority and Republic were looking to build the facility at the mouth of the Cuyahoga River on Dock 20 and city-owned Dock 24. Kucinich viewed the construction of a dock on Cleveland's lakefront as a "giant public fund rip-off" that would have created a \$153.5 million taxpayer subsidy for Republic and proposed that the facility could be built on Whiskey Island, which was already being used for iron ore storage by the C&P Railroad. The embattled mayor did have some supporters, the International ➡



➡ Longshoreman's Association. ILA Local 1317 worked Docks 20 and 24 for general cargo and claimed 100 jobs would be lost if the terminal was built in Cleveland. In December 1978, the City of Cleveland defaulted, becoming the first major American city to do so since the Great Depression. Days later, Republic Steel made its announcement that the new \$31 million terminal would be built in Lorain. The ILA sued Republic Steel and Chessie System, trying to block the sale of the property at the mouth of the Black River. A district judge ruled against the dock workers.

BUILDING THE TERMINAL

In 1980, Republic Steel formed the subsidiary Lorain Pellet Terminal Company and began construction of a \$20 million transshipment terminal at the mouth of the Black River. The new facility was on the former site of the Toledo, Lorain, and Fairport Company dock, which closed in 1979 in anticipation of the new terminal. The foreman from that outfit – Joseph Jenkins – was named Vice President and Superintendent of the Lorain Pellet Terminal Company in 1980.

In May 1980, the Lorain Pellet Terminal (LPT) opened with a delivery of over 55,000 tons of iron ore pellets by the thousand-footer James R. Barker. While Republic promised the new facility would be pollution free, it immediately created a dust problem. The Port Authority told Republic Steel to saturate all iron ore and other cargo with water prior to unloading to reduce dust.

In early 1981, the Lorain Port Authority authorized the issuance of \$31 million in industrial revenue bonds to pay for machinery and equipment installed at the LPT. Seven months later, the authority issued an additional \$6.5 million in bonds which was intended to fund the costs of Republic Steel's 84-acre purchase of the land the LPT was built on.

1981 was the first full year of operation for the LPT. That year, Port of Lorain handled a record 13 million tons of cargo, smashing the old record of 11.2 million tons set in 1973.

SUPER SHIP SUPPLY CHAIN

While the Lorain Pellet Terminal was the first post-Poe Lock facility built on the Great Lakes, the Lorain harbor was no stranger to thousand-foot ships. American Shipbuilding Company's Lorain yard built the James R. Barker in 1976, Mesabi Miner in 1977, George A. Stinson in 1978, and the Edgar B. ➡



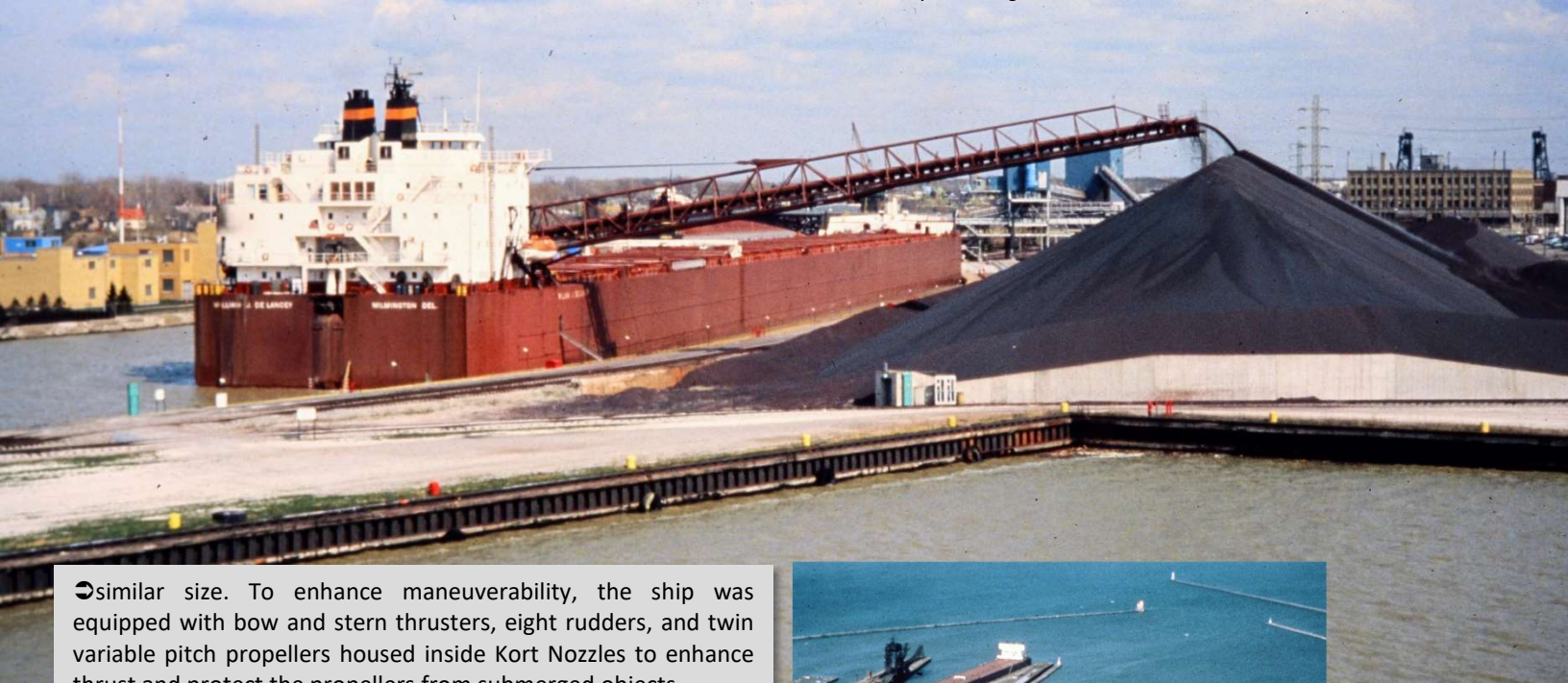
James R. Barker unloading at the stockpile just down the dock, early 1980's. Photo: MHSD Collection

➡ Speer in 1980. In February 1981, AmShip launched the William J. DeLancey, which would become the largest vessel to sail freshwater on the Great Lakes. The construction of the DeLancey represented a 25-year haulage contract between Interlake Steamship Company and Republic Steel to move iron ore pellets from the upper lakes to the LPT and on to Cleveland. The vessel was christened on April 25 in honor of the Chairman and Chief Executive Officer of Republic Steel. The William J. DeLancey was renamed Paul R. Tregurtha in 1990 after Interlake's Vice Chairman and continues to serve her original fleet.

LAST-MILE DELIVERY BY RIVER BOAT

Republic Steel partnered with the American Steamship Company to shuttle the iron ore between the LPT and the Cleveland mills. The result was the appropriately-named American Republic, also completed in 1981. The Republic was one of many new vessels built for ASC by Bay Shipbuilding Company in Sturgeon Bay, WI during the 70s and 80s.

The Republic was specifically designed to move iron ore from the Lorain Pellet Terminal up the Cuyahoga River to Republic's mill. Her pilothouse was placed as far back as possible with 360 degrees of visibility to allow for the best view of navigating the Cuyahoga River from either direction. Her condensed after cabins and loop-belt unloading elevator system configuration allowed her to move 1,000 more tons per trip than a vessel of ➡



➡ similar size. To enhance maneuverability, the ship was equipped with bow and stern thrusters, eight rudders, and twin variable pitch propellers housed inside Kort Nozzles to enhance thrust and protect the propellers from submerged objects.

Initial drawings of the vessel that would become the American Republic included a flat bow that resembled a barge, two spuds near the bow, and a loading chute near midship resembling a modern single-point loading system. This was drafted before the location of the transshipment terminal was set for Lorain. While these drawings certainly satisfy the requirements of a vessel specifically designed to efficiently haul iron ore on the Cuyahoga River, this design would have confined the ship to Cleveland and limited its ability to trade elsewhere on the Great Lakes.

The American Republic was under a long-term lease to American Steamship Co. ASC had been assessed a use tax for lease payments on the American Republic from the Tax Commissioner of Ohio and petitioned for a reassessment claiming that the vessel was used in interstate commerce and the items that the company had been taxed for were exempt. This petition was denied in March 3, 1986, and ASC appealed the commissioner's determination to the Board of Tax Appeals. The commissioner argued that since the iron ore was moving between two Republic Steel facilities in Ohio, that it was not interstate commerce. ASC argued that the movement of the ore was interstate, considering that the iron ore originated in Minnesota and shipment of the raw material would not be complete until the raw material reached the Republic mill in ➡



Aerial view of the Lorain Pellet Terminal. *James R. Barker* is unloading, while *Edgar B. Speer* is docked behind for fit out, 1980. Photo: MHSD Collection

➡ Cleveland. The case made its way to the Ohio Supreme Court which ruled in favor of ASC in 1991, holding that the lease payments on the American Republic were not subject to Ohio's use tax. ➡

ASC's lease on the American Republic expired in 2011, and the ship was acquired by new owners and renamed Great Republic. It is currently managed by Key Lakes Incorporated of Duluth, Minnesota and sails for Great Lakes Fleet.

THE TERMINAL PAST & PRESENT

Republic and Jones & Laughlin Steel were merged into LTV Steel in 1984, and first filed for bankruptcy protection in July 1986. After continuing production under bankruptcy protection and eventually climbing out, LTV again declared bankruptcy in 2000 and shut down operations for good. The Cleveland mill was restarted in 2005 after several years of inactivity. It was acquired by International Steel Group in 2002 and became a part of ArcelorMittal in late 2005. Today the mill is owned by Cleveland Cliffs.

Lorain Pellet Terminal was closed following the shuttering of LTV in 2001. In 2002, the City of Lorain acquired the LPT site from International Steel Group. The transshipment operation eventually moved to Whiskey Island as Mayor Kucinich originally proposed. The pellet terminal structure and equipment were sold to the Cleveland-Cuyahoga County Port Authority and reassembled at the former C&P Ore Dock, which last handled cargo in 1992. The Port of Cleveland took over the property and operates the facility as the Cleveland Bulk Terminal. ➡

American Republic on the Cuyahoga River with a shuttle load of ore. Photo: Peter B. Worden, MHSD Collection





➤ The future of the LPT site will likely be for recreation. Lorain County received a \$4 million brownfield grant to clean up the LPT, and once that process is complete, the 36.3-acre LPT site will be shovel-ready for development. In July 2022, Todd J. Poole, president of 4ward Planning Inc., said that the LPT would be ideal for an outdoor recreation enterprise, as it is an accessible site that could be used multiple seasons of the year. The LPT site could be home to a restaurant and host outdoor event programming.

FOOTER FUTURE

Thousand-footers are incredibly valuable to the movement of raw materials from the upper lakes to the lower lakes, but the changing composition of commodities on the Great Lakes may cause some changes in US-flagged fleets. The coal-fired power plants that some of the thousand-footers were built to service are closing, and there is no clear solution to fill the gap in tonnage.

Thousand-foot ships can carry different cargoes, as we saw in 2022 when the American Integrity delivered stone to the new Verplank Port Terminal in Muskegon. A trip such as this would have otherwise employed three to four smaller vessels to ➤

(Above, Left) Close-up view of *Great Republic* and her unique aft deckhouse. Photo: Brendan Falkowski; (Above, Right) *Great Republic* on the St. Clair River. Photo: Daniel Lindner

➤ the same amount of tonnage. Footers have handled stone cargoes several times in their history, but there is not nearly enough demand for aggregate products to keep a thousand-footer busy for an entire season.

Using a thousand-footer for some cargoes would be like forcing a square peg into a round hole, or a Poe-sized ship into the MacArthur Lock. New ship construction on the Great Lakes is not continuing the trend of building larger and larger ships. Furthermore, the new lock currently under construction will not have the same effect that the Poe did on Great Lakes shipping, but will instead provide a level of redundancy for existing infrastructure at the Soo.

It can be argued that the future is brighter for a ship like the *Great Republic* that is equipped to deliver cargo virtually anywhere on the Great Lakes. But as with the case of the future of many trends on the Lakes, only time will tell what the winds blow in. ▣

DESIGNED WITH THE CARGO IN MIND – COAL

HIGHLIGHTING CARGOES THAT HAVE INFLUENCED GREAT LAKES SHIP DESIGN

Walter J. McCarthy Jr. loading coal, Superior, WI, August 22, 2016. Photo: David Schauer

BACKGROUND

Coal has been shipped over freshwater for well over a century, proving to be a reliable power source for even longer. Coal has served a major role in the development of communities and the evolution of industry, primarily serving as an energy source for generating electricity. Not only was it used for power generation on land, but almost all steam-powered freighters burned coal up until the 1950s and '60s when the use of fuel oil became more widespread.

Lorain, Ashtabula, and Conneaut, OH, Erie, PA, and Sodus Point, NY are former coal loading ports while South Chicago, IL, and Toledo and Sandusky, OH, continue to load ships today. Coal loaded onboard ships was transported to power plants and docks across the Great Lakes for use in energy generation and refueling coal-fired steam ships.

Anthracite coal made up the majority of the coal transported on the lakes up into the 1970s. It is mined in Pennsylvania and West Virginia and transported by train to ports on Lake Erie and Ontario for further transport by ship. Following changes in environmental policies in the 1960s and 1970s coal users began to switch to the lower-sulfur level bituminous coal, mined in Illinois and in the Powder River basin in Montana and Wyoming. In 1976 the Superior Midwest Energy Terminal (SMET) transshipment facility was opened in Superior, WI, opening the door for bituminous coal mined in the Powder River basin to be shipped in by rail and loaded on ships bound for destinations on the Great Lakes and around the world. A similar terminal also opened in Thunder Bay, ON.

SHIP DESIGN

Coal is a rather unique cargo when it comes to shipboard handling. Due to its low density, coal cargoes require maximum cubic dimensions inside a cargo hold to maximize carrying capacity. Ships designed to primarily operate in the coal trade ➡

➡ have very large cargo holds with as much volume as possible. While coal cargoes may fill an entire cargo hold the ship may not even be loaded to its deepest load line draft.

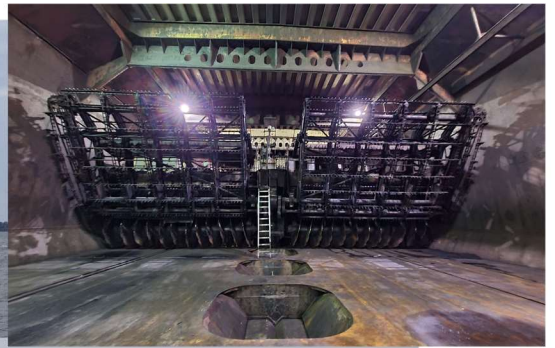
On the other hand, coal is an explosive cargo. The cargo hold, unloading tunnel, cargo elevator, and unloading boom all must be safe to be in a coal dust environment. High-risk areas are those closest to transfer points in the unloading system and the unloading tunnel. All of the equipment in these regions have to be rated explosion-proof and must be anti-sparking. Doors around the cargo handling zones must be kept closed at all times when coal is onboard, or else other spaces onboard the ship would have to be classified for hazardous materials as well.

Unloading booms must be equipped with dust covers over the conveyor and many ships have catch pans on the underside as well to prevent spillage both on the deck and into the water. Ships may also have water spray-down hoses on the boom to mitigate dust.

LOADING AND UNLOADING

Coal docks utilize a railcar dumper to unload the cargo from the train at the dock complex. Some systems loaded the ships directly from the car dumper while others pulled from a stockpile of coal on the dock. Either a conveyor or a gravity chute arm is used to load coal into the cargo hold of the ship. A chute on the end is used to direct the flow of the coal into the hold. While the dock systems are fairly simple, a significant amount of infrastructure and area is necessary for the dumper, stockpiles, and loading equipment. The coal trestle in Sodus Point, NY, operated almost identically to a conventional iron ore gravity dock. While loading coal was relatively straightforward, many ways were devised to unload it while maximizing the cubic capacity onboard the ships.

For a long time the majority of coal cargoes were handled by gearless bulkers and unloaded using shoreside equipment. Self ➡



(L-R): *American Mariner* unloading pet coke, a coal-like byproduct of oil refining, at Charlevoix, MI. Photo: Daniel Lindner; *Canadian Century* on the Detroit River, 1973. Photo: Roger LeLievre; Reclaimer machine onboard *Algoma Transport*, March 11, 2023. Photo: Brendan Falkowski; *Algoma Enterprise*, sister to *Algoma Transport* and retired in 2021, on the Welland Canal, May 26, 2019. Photo: Isaac Pennock.



➡-unloading technology was initially developed for use in the stone trades (stay tuned for the next edition to learn more about this!), but was soon found to handle coal cargoes well too. The ability for self-unloaders to handle multiple cargoes added to the novelty and versatility of these ships. Coal, unlike many other cargoes, actually lends itself well to unloading methods. It is a fairly reasonable cargo to handle, though some grades of coal can be sticky and cause trouble when unloading. Over time continuous improvements have been made to self-unloading technology, allowing for more spacious cargo hold cubic capacities onboard ships intended for the coal trade. The self-unloading conversion onboard the *George F. Rand* in 1936 unveiled a new design with lower hoppers. In 1971 Stephens-Adamson designed the revolutionary C-Loop elevator system, which created a more compact unloading elevator, allowing for improved maximization of cubic dimensions.

Building vessels with maximum carrying capacity for coal that were within the constraints of the Great Lakes/Seaway System proved to be a challenge for companies, especially Canadian. In 1964, Upper Lakes Shipping LTD. began design work on a new ship to fulfill a contract for power utility Ontario Hydro. Since vessel size was limited by the Welland Canal, maximizing cargo capacity within these constraints was high priority. The design of the *Canadian Century* condensed the accommodations and engine room to the fore and aft extremities in order to maximize cargo hold length. The cargo hold was originally of a W-shape with a single conveyor in the center and inverse slopes to either side. A reclaimer machine – a piece of equipment with large augers running along the bottom and harrows over top – moved cargo that did not flow by gravity to the centerline belt. With a few tweaks, the system proved to be a success. Subsequent vessels designed with this system were built with a flat-bottomed cargo hold but retained the reclaimer machine to move cargo to their belts. Only one self-unloader conversion was done using the W-hold and reclaimer, this being Ford Motor Co.'s *Henry Ford II*.

An alternate design incorporated in the *Cape Breton Miner*, *Ontario Power*, and later the *James R. Barker* and *Mesabi Miner* employed three cargo hold belts in a tall hold sandwiched between ballast tanks. The drawback of this system was the amount of machinery involved which became quite expensive ➡

➡ to maintain. Other ships of the era such as the 1,000-Footers designed by R.A. Stern as well as the *Paul R. Tregurtha*, had a low-placed unloading belt with slopes that ran all the way to the exterior hull of the ship with ballast tanks below.

OPTIMIZING ONBOARD HANDLING SYSTEMS

For as long as it has been in demand, coal has introduced many innovations that have influenced Great Lakes ship design. Coal pushed companies to develop systems like the reclaimer machine and seek alternatives to electrically-operated machinery for cargo handling equipment.

Reclaimer systems have come a long way over the years. The first was pulled along the length of the hold using cables, much like early scraper-type unloading systems. Now the massive machines use motors to run on rails in the hold. However, the era of built-in reclaimers is coming to an end soon as the *Algoma Transport* nears retirement, with the last remaining reclaimer of its kind on the Great Lakes and possibly the world is onboard. *Canadian Century*, now *John D. Leitch*, was later reconfigured with a flat bottom hold and her reclaimer removed. She now uses a pair of front-end loaders to move cargo to her belt, a system used onboard Canada Steamship Lines' *CSL Assiniboine*, Interlake's *Mark W. Barker*, and formerly the barge *Pathfinder*.

As the world moves to other forms of energy generation, coal tonnage on the Great Lakes continues to decline year after year. While coal use diminishes in the energy sector it still serves many important roles in industry. Fly ash, a byproduct of burning coal, is used in the process of making Portland Cement. Synthetic gypsum, used in making gypsum products like drywall, is a byproduct of emissions scrubbers on coal-fired power plants. These products will also become scarcer as coal declines and companies will shift to virgin materials, which are typically more expensive. Only time will tell how these products will be sourced, but if there's one thing for sure it is that coal's legacy continues to live on through Great Lakes ship design and the industry that shaped it. ■

Special thanks to the naval architects who provided their time and resources to assist in the writing of this article. Thank you to Travis Martin, Fred Koller, and Nicholas Posh from Bay Engineering, Eric Helder from Interlake Steamship, and Nick Hunter from NETSCO.

MICHIPICOTEN

Michipicoten on the St. Clair River. Photo: Daniel Lindner



Amid the Korean War, demand for steel and other raw materials skyrocketed in the early 1950s. With this spike in demand for materials came a rise in demand for new ships. The U.S. fleet was aging by the early 1950s, with little tonnage added following the construction of the Maritime Class ships in 1943. The increased demand prompted operators to invest in new hulls, so many that by 1951 all shipbuilding berths on the Great Lakes were booked out several years. Operators had to look to other means to acquire new tonnage. Some opted to convert surplus ocean ships from World War II into freighters while others opted to build new tonnage on the East Coast. Bethlehem Steel began construction on three Great Lakes freighters at their shipyard in Sparrows Point, MD. Two were meant for their Great Lakes fleet. Interlake Steamship Co. purchased the berth for Hull #4512, the second of the three. Bethlehem kept the first and third for their fleet. Those were the *Johnstown* and *Sparrows Point*. The latter survives today as the barge *Menominee*. The three sister ships were identical, all built to the dimensions of 626' long, 70' wide, and 37' deep, with a cargo capacity of 19,595 tons. Since the only way to get the vessels into the Great Lakes was through the Mississippi and Illinois River systems, the design of the ships was constrained by lock dimensions of these waterways. Each ship was powered by a shipyard-built cross-compound steam turbine totaling 7700 SHP, with a pair of Foster-Wheeler oil-fired water tube boilers. The hull form and exterior portions of the ship resembled that of a standard Great Lakes ship, though the forward cabins were slightly taller than usual and her cruiser stern shared a similar appearance to an ocean tanker at the time.

On March 7, 1952, Hull #4512 was officially christened as Elton Hoyt 2nd {2} for Interlake Steamship Co. and launched gracefully into the waters of Baltimore Harbor. Following the launch, the deckhouses were broken down into each level and stowed on the spar deck along with her stack, masts, and other deck equipment. She was then towed from Baltimore to New Orleans and up the Mississippi River and Illinois Waterway. ➡

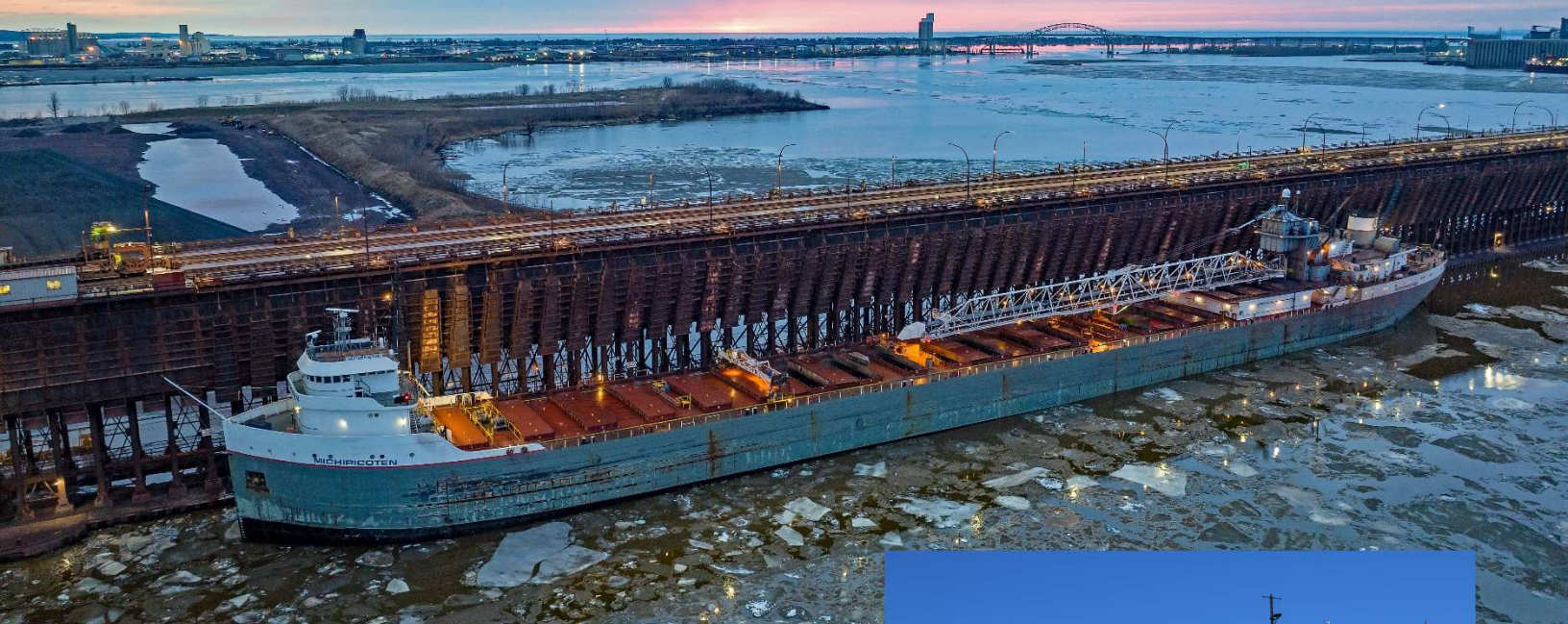


(Above Right): *Elton Hoyt 2nd* on the St. Marys River, 1970s. Photo: Roger LeLievre

➡ She went through downtown Chicago, meeting the freshwater of the Great Lakes for the first time after passing through the Chicago Sanitary & Ship Canal Lock. She was taken to American Shipbuilding Co.'s (AmShip) yard in South Chicago, IL, where her cabins, masts, and stack were assembled and erected during her final fit-out. Elton Hoyt 2nd entered service on August 15, 1952, light for Superior, WI, to take on her first cargo of iron ore.

After a few seasons of service, Interlake made arrangements for the Hoyt to be lengthened. At the end of the 1956 season, she was sent to AmShip's South Chicago shipyard to be lengthened by 72'. The Hoyt was placed in drydock and her hull was cut in half. A new midbody addition was constructed and placed between the original fore and aft sections, connecting the hull together and strengthening. Elton Hoyt 2nd emerged at the beginning of the 1957 season at 698' long and with a capacity of 23,350 tons.

In 1957 Interlake's parent company Pickands-Mather opened its Erie Mining taconite production plant and loading facility at nearby Taconite Harbor, MN. Construction of the innovative ➡



(L to R): *Michipicoten* departing Duluth, MN, for Soo, ON. Photo: Jack Hurt;
Michipicoten departing Grand Haven, MI, June 2019. Photo: Sam Hankinson;

➡ facility was organized by the *Hoyt's* namesake. *Elton Hoyt 2nd* would transport ore from Taconite Harbor to ports across the lower Great Lakes for many of her earlier years.

In February 1978 Interlake Steamship was awarded a major ore hauling contract for Republic Steel. This prompted the company to construct their third 1,000-Footer, the *William J. DeLancey*, and convert their ships *Charles M. Beeghly* and *Elton Hoyt 2nd* to self-unloaders. The *Hoyt* was the first to undergo conversion, laying up in October 1979 at the AmShip Toledo, OH, shipyard. New sloped cargo hold sections were fitted and a single hold conveyor belt installed, leading to a C-Loop elevator system just forward of her after-deckhouse. The elevator fed a 250' deck boom located on a trunk deck over the spar deck. The installation of the self-unloading equipment decreased her cargo capacity to 22,300 tons but to the benefit of a significantly reduced unloading time. She returned to service at the beginning of the 1980 season.

Elton Hoyt 2nd saw more sporadic service throughout the later 1980s and early 1990s as the steel industry went through a rough period. When she was in service, the *Hoyt* handled more stone and even grain cargoes. She rescued eight passengers aboard a sinking pleasure craft on Lake Huron on August 6, 1994. On May 11, 1997, *Elton Hoyt 2nd* became the largest vessel to transit the Cuyahoga River up to that time, making an iron ore shuttle to the "head of navigation". The *Hoyt* sailed for the final time in Interlake colors in early 2001, laying up in Superior, WI, for what would be a two-year rest at the wall. ➡

➡ In early 2003 Canadian firm Lower Lakes Towing LTD. won a contract to deliver taconite to the Algoma Steel mill in Sault Ste. Marie, ON. Lower Lakes purchased *Elton Hoyt 2nd* from Interlake Steamship in April 2003 to serve this contract. She was drydocked at Fraser Shipyards in Superior, WI, for her survey certificates to be renewed and was repainted in Lower Lakes colors following the sale. The tugboat *Roger Stahl* towed her to Sarnia, ON, arriving on May 7, 2003. There she went through final fit out and was officially rechristened *Michipicoten* on May 24, 2003. She sailed on her maiden voyage as a Canadian flag vessel on June 13, bound for Marquette, MI, to load. *Michipicoten* soon fell into a typical taconite trade route from Marquette, MI, to Sault Ste. Marie, ON, with occasional loads of stone.

Over the winter of 2010-2011, *Michipicoten* was repowered while in winter layup at Sarnia, ON. Her original Bethlehem steam turbine was removed and new twin MaK 6M43C diesel engines with 8160 BHP were installed. Her new engines allowed for compliance with updated emissions regulations for Canadian ships. *Michipicoten* continues to be largely dedicated to her Algoma steel run, now primarily loading taconite at Duluth, MN, with more occasional cargoes of stone, grain, and coal. ▢

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Cover Photo: *Joseph L. Block* anchored on the St. Marys River, awaiting the opening of the Soo Locks for the 2023 season, March 24, 2023. Photo: Ethan Severson